

TRANSPORT ASSESSMENT

751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE

PREPARED FOR RIVERVIEW PROPERTIES LIMITED |
June 2021



Revision Schedule

Rev No.	Date	Description	Signature or Typed Name (documentation on file)			
			Prepared by	Checked by	Reviewed by	Approved by
1	13/05/2021	Draft	GvdW	MMT	MMT	MMT
2	02/06/2021	Final	GvdW	MMT	MMT	MMT
3	16/06/2021	Final v1	GvdW	DJM	DJM	DJM



Quality Statement

This document has been prepared for the benefit of RIVERVIEW PROPERTIES LIMITED. No liability is accepted by this company or any employee or sub-consultant of this company with respect to its use by any other person.

This disclaimer shall apply notwithstanding that the report may be made available to other persons for an application for permission or approval to fulfil a legal requirement.

PROJECT MANAGER Mark Moslin - Thomas	PROJECT TECHNICAL LEAD Gerhard van der Westhuizen
--	---

PREPARED BY

Gerhard van der Westhuizen



02/06/2021

CHECKED BY

Mark Moslin-Thomas



02/06/2021

REVIEWED BY

Mark Moslin-Thomas



02/06/2021

APPROVED FOR ISSUE BY

Don McKenzie



16/06/2021

AUCKLAND

Level 3 Stantec House, 111 Carlton Gore Road, Newmarket, Auckland 1023
PO Box 13-052, Armagh, Christchurch 8141
TEL +64 9 580 4500

STATUS Final | **Project No** 310204616



Table of Contents

1.0	INTRODUCTION.....	4
2.0	EXISTING TRANSPORT CONTEXT	5
2.1.1	Site Location.....	5
2.1.2	Existing Road Network	6
2.1.3	Accessibility	12
3.0	TRAVEL PATTERNS	14
3.1	EXISTING TRAFFIC VOLUMES.....	14
3.2	ROAD SAFETY	15
4.0	PROPOSAL	19
4.1	PROPOSED CONNECTIONS TO EXTERNAL ROAS NETWORK.....	20
4.1.1	SH16 Connections (Lot 36)	20
4.1.2	MacLennan Farm Lane Connections	20
4.1.3	JOAL 18 Connection (Awatiro Drive).....	21
4.1.4	JOAL 17 Connections (MacLennan Farm Lane and Awatiro Drive) 21	
4.2	PEDESTRIAN AND CYCLISTS	21
4.3	EFFECT OF OTHER DEVELOPMENTS	21
5.0	ASSESSMENT OF ROAD CONNECTION(S).....	22
5.1	SIGHT DISTANCE REQUIREMENTS	22
6.0	TRAFFIC EFFECTS	24
6.1.1	Development Trips	24
6.2	TRIP GENERATION	24
6.3	TRIP DISTRIBUTION.....	24
6.4	CAPACITY ANALYSIS.....	27
6.4.1	Traffic Impact.....	27
7.0	TRANSPORT PLANNING AND POLICY	29
7.1	AUCKLAND PLAN	29
7.2	GOVERNMENT POLICY STATEMENT ON LAND TRANSPORT FUNDING	30
7.3	AUCKLAND REGIONAL LAND TRANSPORT PLAN	30
7.4	AUCKLAND REGIONAL PUBLIC TRANSPORT PLAN.....	31
7.5	AUCKLAND UNITARY PLAN	31
7.6	TRANSPORT PLANNING AND POLICY ASSESSMENT	32
8.0	CONCLUSION	33

LIST OF TABLES

Table 3-1: Traffic Volumes for SH16 in 2019.....	14
Table 3-2: Traffic Volumes for SH16 in 2021	14
Table 6-1: Trip distribution at the SH16 / MacLennan Farm Lane intersection.....	24
Table 6-2: Trip distribution at the SH16 Vehicle Crossing	25
Table 6-3: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Existing Scenario (2021)	27



Table 6-4: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Future Scenario (2026) 27

Table 6-5: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Future Scenario (2026) with the Development Traffic 28

LIST OF FIGURES

Figure 2-1: Site Location (site outlined in Red and shaded Grey) 5

Figure 2-2: Unitary Plan Zoning (site outlined in Blue) 6

Figure 2-3: Intersection Locations 7

Figure 2-4: Speed Limit and Advisory Areas 8

Figure 2-5: Existing SH16 configuration along site boundary travelling westbound approaching MacLennan Farm Lane (shown on left hand side) 9

Figure 2-6: Existing SH16 configuration along site boundary travelling westbound after MacLennan Farm Lane 9

Figure 2-7: SH16 / MacLennan Farm Lane Intersection Looking East 11

Figure 2-8: SH16 / MacLennan Farm Lane Intersection Looking West 12

Figure 3-1: Existing Traffic Volumes – AM and PM peak hour 15

Figure 3-2: Crash Search Area 16

Figure 3-3: Collision Diagram - Crash Types 17

Figure 4-1: Riverview PPC Indicative Masterplan (Source: C & R Surveyors Limited) 20

Figure 5-1: Available sight distance towards the east 23

Figure 5-2: Available sight distance towards the west 23

Figure 6-1: 2026 AM and Development Traffic Volumes 26

Figure 6-2: 2026 PM and Development Traffic Volumes 26

Figure 8-1: Bus Route 128 Map – Full extent of the route B.7

Figure 8-2: Bus Route 128 Map - Within Helensville B.8

Figure 8-3: Bus Route 128 Bus Stop locations (as indicated by a blue bus icon) B.9

Figure 8-4: Bus Route 128 Schedule B.10

LIST OF APPENDICES

APPENDIX A SIDRA OUTPUTSA.1

APPENDIX B BUS ROUTESB.7

APPENDIX C WAKA KOTAHI ACCESS APPROVAL LETTERSC.11

APPENDIX D CP 41 AND 42.....D.12



1.0 INTRODUCTION

Riverview Properties Ltd are proposing a Private Plan Change (**PPC**) to rezone a 5.7ha area that is currently zoned Rural - Countryside Living. The site is located directly north of Kaipara Coast Highway (SH16) around 450m west of the SH16 / Kahikatea Flat Road intersection.

Riverview Properties Ltd are seeking to rezone the subject land from Rural - Countryside Living Zone to Residential-Rural and Coastal Settlement Zone.

The proposed PPC and related subdivision resource consent will enable a higher density of residential development based on a ratio of 1 lot per 2,500m².

This Transport Assessment (**TA**) has been prepared by Stantec on behalf of Riverview Properties Ltd, to examine the traffic engineering and transport planning related matters associated with the PPC and concurrent subdivision resource consent application to create 16 rural and coastal settlement sites.

The key transportation matters relevant to this proposal include:

- Existing and foreseeable future transport context;
- An assessment on safety and suitability of the proposed site access arrangements from the existing road network;
- An assessment on traffic impacts of the development allowed by the PPC and the related subdivision consent on the surrounding road network, including identification of any proposed mitigation measures; and
- Ability of the PPC to align with key national and regional transport policies;

The above points and other matters are discussed in detail within this report.



2.0 EXISTING TRANSPORT CONTEXT

2.1.1 Site Location

The 5.7ha site is located directly north of Kaipara Coast Highway (SH16) around 450m west of the SH16 / Kahikatea Flat Road intersection and south of Kaukapakapa Town Centre.

Kaukapakapa Town Centre is located around 1.5km north of the site. The proposed site in relation to the surrounding area is shown in **Figure 2-1**.



Figure 2-1: Site Location (site outlined in Red and shaded Grey)

The site is currently zoned as Rural - Countryside Living within the Auckland Unitary Plan Operative in Part updated 09 April 2021 (**Unitary Plan**) and shown in **Figure 2-2**. The neighbouring sites are zoned Residential-Rural and Coastal Settlement Zone. Unitary Plan zoning in the vicinity of the site is also shown in **Figure 2-2**.

**RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**



Figure 2-2: Unitary Plan Zoning (site outlined in Blue)

2.1.2 Existing Road Network

The site has road frontages with SH16 along its southern boundary and MacLennan Farm Lane that divides the PPC land in two. There are five intersections in the vicinity of the site that are summarised as follows:

1. SH16 / Anderson Road / Carol Leon Avenue – Four arm intersection with Stop controls on the side roads around 560m west of the site’s boundary;
2. SH16 / Henley Road – Three arm Give Way intersection on the southern boundary of the site;



**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

3. SH16 / MacLennan Farm Lane – Three arm Give Way intersection;
4. SH16 / Peak Road / South Avenue – Four arm intersection with Stop controls on the side roads around 110m east of the site's boundary; and
5. SH16 / Kahikatea Flat Road / South Avenue – Four arm Give Way / Stop control intersection around 330m east of the site's boundary.

A diagram of the locations of these intersections is shown in **Figure 2-3**.



Figure 2-3: Intersection Locations

2.1.2.1 State Highway 16 (SH16) (Kaipara Coast Highway)

SH16 extends between Wellsford, to the north, into the Auckland City Centre / Port to the south. SH16 runs in an east-west direction along the southern boundary of the PPC area. It is a crucial transport link for the wider Auckland region. The Unitary Plan classifies the State Highway as an arterial route where the function of such routes is to cater for through traffic movements with less emphasis on providing access to abutting properties.

SH16 is identified as a Limited Access Road (LAR) in the vicinity of the PPC.

The PPC will connect to SH16 west via the intersection with MacLennan Farm Lane. Travelling eastbound on SH16 from its intersection with Anderson Road, it has a posted speed limit of 100km/h in both directions. On approaching the first eastbound right turn curve there is a speed advisory sign of 55km/h, whilst towards the second left turn curve around 270m from the SH16 / MacLennan Farm Lane intersection the posted speed limited changes to 80km/h.

There is also a speed advisory sign of 65km/h for the left turn curve. Its only near the Kaukapakapa town centre around 1km north of the SH16 / Kahikatea Flat Road intersection where the posted speed limited changes to 50km/h. In the vicinity of Plan Change area, SH16 typically accommodates one lane in each direction separated by a marked centreline.

A diagram of the existing speed limits as well as speed advisory areas are shown in **Figure 2-4**.

RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE

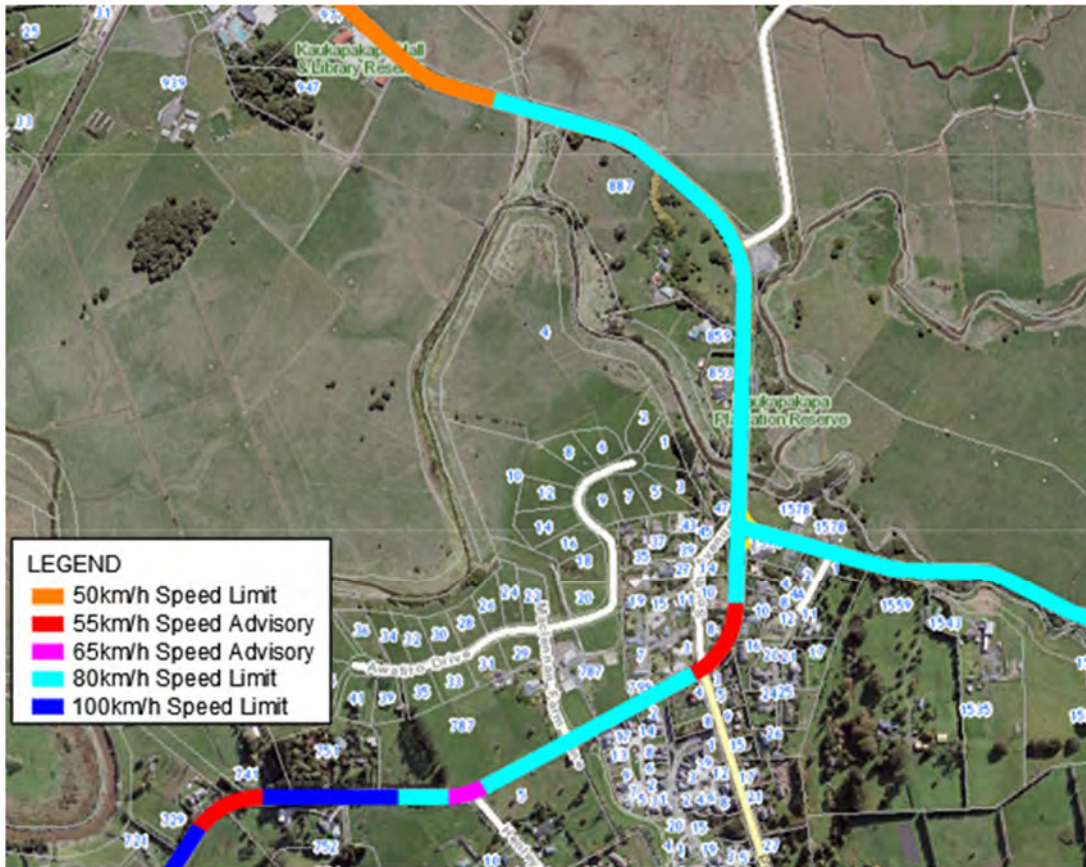


Figure 2-4: Speed Limit and Advisory Areas

There are no existing dedicated walking and cycling facilities along SH16 in the vicinity of the Plan Change area despite the land either side of the State Highway being developed in recent years for residential land use.

The existing SH16 configuration along the site frontage when travelling westbound is shown in **Figure 2-5** and **Figure 2-6**.



Figure 2-5: Existing SH16 configuration along site boundary travelling westbound approaching MacLennan Farm Lane (shown on left hand side)



Figure 2-6: Existing SH16 configuration along site boundary travelling westbound after MacLennan Farm Lane

2.1.2.2 Kahikatea Flat Road

Kahikatea Flat Road is classified as an Arterial Road in the Unitary Plan and extends from Dairy Flat Highway in the east to SH16 in the west. It is an important connection between the upper Northshore area and Kaukapakapa.

In the Kaukapakapa area it has a posted speed limit of 80km/h and comprises a two-way road that typically accommodates one lane in each direction separated by a marked centreline.

There are currently no existing dedicated walking and cycling facilities on Kahikatea Flat Road.

2.1.2.3 Peak Road

Peak Road is currently unclassified in the Unitary Plan; however, it can be classified as a Collector road based on its function within the road network. It connects the Riverhead Forest area with SH16.

**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

Peak Road currently comprises a single lane carriageway in each direction with an 80 km/h posted speed. The carriageway is around 7m wide with unsealed shoulders and currently no dedicated walking or cycling facilities are provided.

2.1.2.4 MacLennan Farm Lane

MacLennan Farm Lane is unclassified in the Unitary Plan, however, can be classified as a Local road based on its function within the road network. MacLennan Farm Lane connects with SH16 between the two lots PPC area and provides access to the existing Riverview residential lots located north of the site. This will also provide the main connection with SH16 for the PPC area.

MacLennan Farm Lane comprises a single lane carriageway in each direction with a speed limit of 50km/h. The carriageway is around 6m wide with unsealed shoulders. A formed footpath is provided on eastern side; however, there are currently no dedicated cycling facilities.

2.1.2.5 Awatiro Drive

Awatiro Drive is unclassified in the Unitary Plan, however, can be classified as a Local road based on its function within the road network. Awatiro Drive connects at the northern end with MacLennan Farm Lane. It extends in an east-west direction with vehicle turning facilities provided at both ends. Awatiro Drive provides direct access to the existing Riverview residential lots to the north of the PPC site. It will also serve as access to the PPC site.

Awatiro Drive comprises a single lane carriageway in each direction with a speed limit of 50km/h. The carriageway is around 6m wide with unsealed shoulders. A formed footpath is provided on its southern side, however currently there are no dedicated cycling facilities.

2.1.2.6 State Highway 16 / MacLennan Farm Lane Intersection

The SH16 / MacLennan Farm Lane intersection currently operates as a Give way-controlled priority T-intersection with SH16 as the major road. A right turn bay is provided on the SH16 eastern approach as well as an exclusive left turn slip lane on its western approach. MacLennan Farm Lane southbound approach comprises a one lane approach with a small 3m long central median at the intersection. The intersection design including capacity analysis were approved by Waka Kotahi when the original subdivision consent was processed¹.

Views from MacLennan Farm Lane to SH16 east and west are shown in **Figure 2-7** and **Figure 2-8**.

¹ Refer to Appendix C for approval documentation.





Figure 2-7: SH16 / MacLennan Farm Lane Intersection Looking East



Figure 2-8: SH16 / MacLennan Farm Lane Intersection Looking West

2.1.3 Accessibility

2.1.3.1 Private Vehicles

Private vehicles primarily access the site from the wider Auckland Region via SH16. Journey times are around 2 minutes to travel from MacLennan Farm Lane to Kaukapakapa Town Centre during all periods.

Auckland City is around 40 minutes (off-peak) to 1 hour (morning / afternoon / evening peak) drive from the site.

2.1.3.2 Public Transport

Bus route 128 provides a direct connection between Helensville and Hibiscus Coast Station via Kaukapakapa and Waitoki. The nearest bus stop is located to the east of the site on SH16 within a 150m walk distance of the MacLennan Farm Lane intersection and serves only the Helensville to Hibiscus Coast Station direction of travel. Arrivals from Hibiscus Coast Station can depart at the bus stop located on Kahikatea Flat Road which is approximately 500m from the site.

Maps indicating the bus route 128 and bus stop locations as well as a summary of the service the route provided is attached as **Appendix B**.

2.1.3.3 Walking and Cycling

Pedestrian / cycle journey times from Kaukapakapa Town Centre to the site via SH16 are around 20 minutes / 5 minutes respectively. Currently, there are no footpaths or dedicated cycling facilities along SH16; therefore, cyclists have to share the carriageway with vehicles.

MacLennan Farm Lane currently provides a formed footpath on its eastern side while Awatiro Drive provides a formed footpath on its southern side; however, none of these roads have dedicated cycling facilities.

**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

There is an existing walkway connection provided from Awatiro Drive through to South Avenue. This route provides connection for pedestrians to walk to the township and the nearby bus stops.

Taking into consideration the rural nature of the site, it's not expected to generate a significant amount of cycle or pedestrian journeys.



3.0 TRAVEL PATTERNS

3.1 EXISTING TRAFFIC VOLUMES

The latest traffic volumes available from Waka Kotahi's Traffic Management System are summarised in **Table 3-1** below.

Table 3-1: Traffic Volumes for SH16 in 2019

Site Reference	Year	Traffic Volumes			
		Period	Direction		
			Westbound	Eastbound	Total
01600055 (SH16 South of Inland Rd)	2019	Weekday ADT [vehicles]			4,027
		AM Peak (7:45-8:45) [Veh/hr]	166	175	341
		PM Peak (16:30-17:30) [Veh/hr]	214	159	373
01600058 (SH16 North of Kahikatea Flat Rd)	2019	Weekday ADT [vehicles]			5,836
		AM Peak (7:30-8:30) [Veh/hr]	373	169	542
		PM Peak (16:45-17:45) [Veh/hr]	142	370	512

The average growth rate per year between 2013 to 2019 has been calculated as 4.9% per year based on ADT. To estimate traffic volumes at the SH16 / MacLennan Farm Lane intersection the average of the two sites in Table 3-1 have been used. Furthermore, 4.9% traffic growth per annum has been applied for two years up to 2021. The calculated average 2021 SH16 traffic volumes are summarised in Table 3-2 below.

Table 3-2: Traffic Volumes for SH16 in 2021

Location	Year	Traffic Volumes			
		Period	Direction		
			Westbound	Eastbound	Total
SH16 at MacLennan Farm Lane	2021	AM Peak [Veh/hr]	296	189	485
		PM Peak [Veh/hr]	196	291	487

The Riverview site currently comprises 32 residential lots that are accessed from the SH16 / MacLennan Farm Lane intersection. Based on the NZ Transport Agency Research Report 453 for "Dwelling (Rural)" the existing Riverview development will have a traffic peak hour trip generation rate of 1.4 trips per dwelling or 45 vehicles per hour (veh/hr) during peak periods.

The inbound and outbound traffic distributions of 20:80 during the AM peak hour, and 65:35 for the evening peak hour have been applied to existing development. These are assumed based on typical residential traffic distributions. The proportion of traffic travelling westbound / eastbound on SH16 is 60:40 in the morning peak period and 40:60 in the afternoon peak period, based on the existing direction flow proportions on SH16.

A summary of the existing 2021 traffic volumes at the SH16 / MacLennan Farm Lane intersection are shown in **Figure 3-1**.



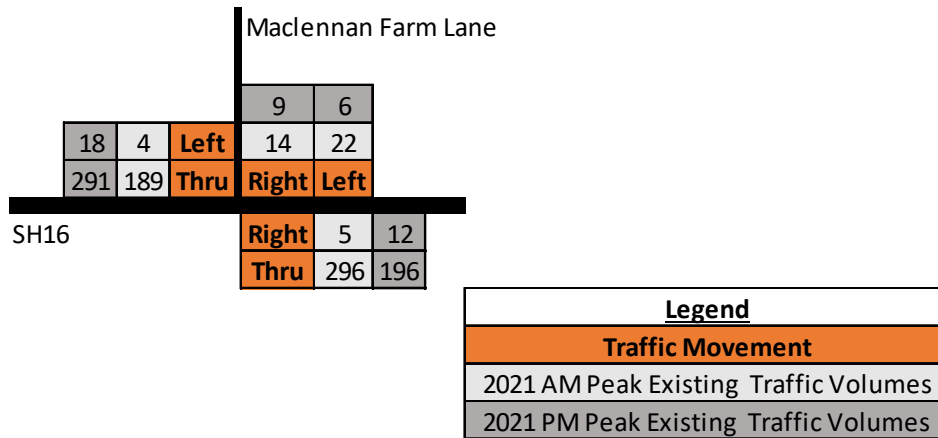


Figure 3-1: Existing Traffic Volumes – AM and PM peak hour

The 2021 traffic volumes represent total vehicle turning movements at the intersection including 8% heavy vehicles.

From a transportation perspective the existing traffic volume in the vicinity of the site are considered typical for the rural environment along SH16.

3.2 ROAD SAFETY

A search of Waka Kotahi’s Crash Analysis System has been completed to identify all reported crashes on:

- SH16 between Carol Leon Avenue – Anderson Road (excluding) and Kahikatea Flat Road;
- A 50m radius around the SH16 / Kahikatea Flat Road intersection; and
- The whole extent of both MacLennan Farm Lane and Awatiro Drive.

The crash search was undertaken for a full five-year period between 2016 to 2020 along with all reported crashes in 2021. The crash search area is indicated in Figure 3-2, that also shows the grouped crash locations in the circled numbers or the letter M (Minor injury crash).



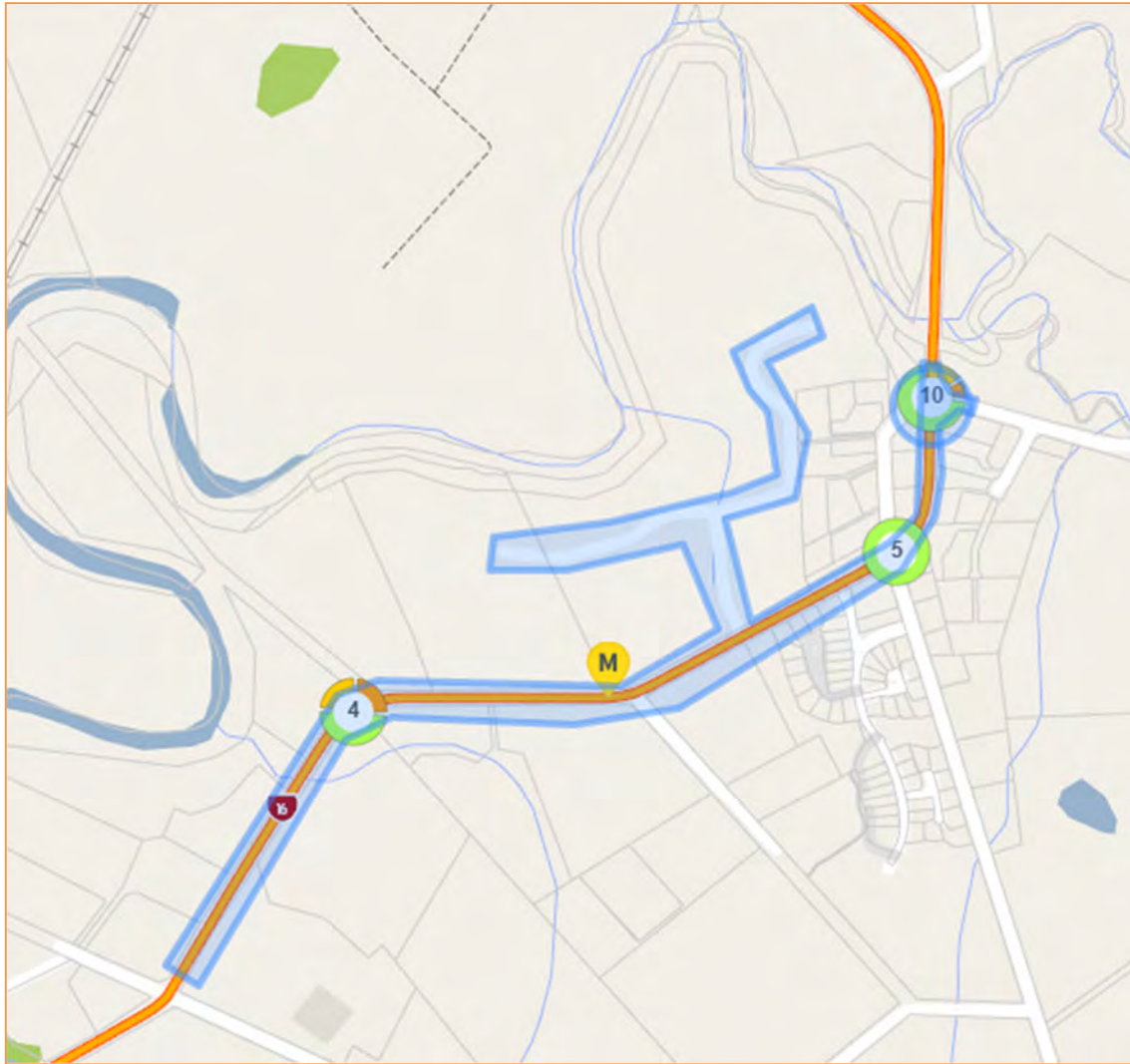


Figure 3-2: Crash Search Area

A total of 20 crashes have been recorded in the defined study area. Ten occurred at the SH16 / Kahikatea Flat Road intersection, whilst five were recorded at the SH16 Peak Road intersection. Of these crashes, two resulted in serious injuries and four in minor injuries. The remaining were classed as non-injury related crashes. No cyclist or pedestrians were involved in any of the crashes recorded.

The majority of crash types were crossing / turning crashes, rear end / obstruction and bend – loss of control / head on crashes. The crash types are shown in the diagram illustrated in **Figure 3-3** below.



**RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

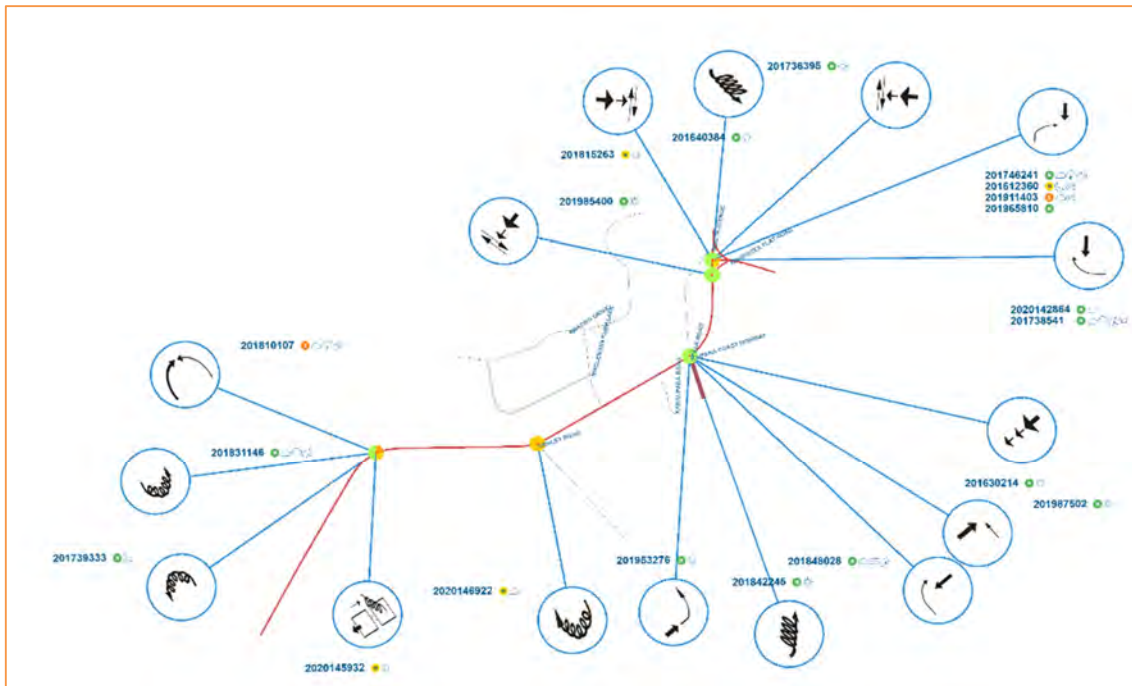


Figure 3-3: Collision Diagram - Crash Types

The two serious and four minor injury crashes are summarised below, per crash ID:

- Crash ID: 201810107 (Serious injury):
 A driver travelling eastbound on SH16 lost control around the corner and collided with an oncoming vehicle. The details of the crash are still to be confirmed once the report from serious crash has been completed.
- Crash ID: 201911403 (Serious injury):
 A vehicle was travelling south on SH16. A motorcyclist was travelling north with the intention of turning right onto Kahikatea Flat Road. As the vehicle travelled straight through the intersection the motorcyclist failed to give way and turned into the path of the vehicle. The motorcyclist front wheel collided with the right front of the vehicle.
- Crash ID: 2020145932 (Minor injury):
 A truck and trailer travelling westbound on SH16 near the intersection with Henley Road. The trailer brakes locked up entering the left-hand downward corner and the trailer slid out into oncoming traffic.
- Crash ID: 2020146922 (Minor injury)
 A vehicle was travelling westbound on SH16 exceeding the posted speed limit. The driver lost control of the vehicle resulting in the vehicle flipping over. The driver was intoxicated.
- Crash ID: 201612360 (Minor injury):
 A motorcyclists intending to turn right into Kahikatea Flat Road from SH16. The motorcyclist failed to give way and collided with an oncoming vehicle.
- Crash ID: 201815263 (Minor injury):



**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

A vehicle traveling westbound on Kahikatea Flat Road towards SH16 failed to stop at the left-turn slip lane and collided with a vehicle waiting to turn left at the intersection.

The existing crash history does not indicate presence of any inherent safety issues with the road network. The proposed development trips are not anticipated to impact on general road safety within and on the local roading network.



4.0 PROPOSAL

The PPC and subdivision to create 16 residential rural and coastal settlement sites propose rezoning of around 5.7ha of currently zoned Rural - Countryside Living land into Residential-Rural and Coastal Settlement Zone to accommodate a new subdivision comprising sixteen dwellings that will be accessed off MacLennan Farm Lane and Awatiro Drive as well as future dwellings accessed directly off SH16 (on the existing lot 36), should the lot 36 be subdivided in the future. This represents an average dwelling size of about 2,500m².

As mentioned above, the PPC will be accessed via the existing MacLennan Farm Lane, Awatiro Drive and SH16. One Jointly Owned Access Lot (JOAL), namely Lot 17, will provide internal access to ten of the new residential lots. The other JOAL, Namely Lot 18, will provide access to three lots.

Lot 6 is an existing dwelling and accesses from McLennan Farm Lane. Lot 3 and 4 are also accessed from McLennan Farm Lane.

The proposed concept plan for the development is shown in **Figure 4-1**.





Figure 4-1: Riverview PPC Indicative Masterplan (Source: C & R Surveyors Limited)

4.1 PROPOSED CONNECTIONS TO EXTERNAL ROAS NETWORK

4.1.1 SH16 Connections (Lot 36)

The lot currently have two existing licensed crossing places² and any required access upgrades to support intensification will be addressed during the time of any future subdivision and subsequent resource consent application.

The proposed vehicle crossing will be in the same position as the existing facility. This is around 360m west of the SH16 / MacLennan Farm Lane intersection. The vehicle crossing will operate as a give-way intersection.

All new roads and vehicle crossings will be designed in accordance with Auckland Transport Code of Practice and / or the Transport Design Manual. Visibility at the vehicle crossing will also comply with the Austroads Safe Intersection Sight Distance requirements.

4.1.2 MacLennan Farm Lane Connections

One-way (serving one vehicle moment at a time) vehicle crossings are proposed to connect Lots 3,4 and 6 of the development with the existing road network onto MacLennan Farm Lane.

The proposed vehicle crossing to Lot 4 will be approximately 45m from the SH16 / MacLennan Farm Lane intersection as measured from the centre of SH16, being the closest vehicle crossing to this intersection.

² CP 41 and 42 attached as Appendix D



4.1.3 JOAL 18 Connection (Awatiro Drive)

A new JOAL is proposed to provide access for Lots 1,2 and 5 to Awatiro Drive.

One-way vehicle crossings are proposed to connect these lots with the existing road network onto Awatiro Drive.

The proposed vehicle crossing will be approximately 70m from the Awatiro Drive / MacLennan Farm Lane intersection.

4.1.4 JOAL 17 Connections (MacLennan Farm Lane and Awatiro Drive)

A new JOAL is proposed to link the development with the existing road network to both MacLennan Farm Lane and Awatiro Drive.

The proposed JOAL will be around 310m in length and connect to MacLennan Farm Lane 70m north of SH16 and to Awatiro Drive around 220m west of MacLennan Farm Lane. The JOAL will provide internal access to 10 of the new residential lots 7 to 16.

The JOAL will be 8.0m wide and accommodate two-way traffic, 5.5m wide paved and designed for a 30 km/h operating speed. A 30 km/h operating speed will provide a safe environment to accommodate all modes of travel including walking and cycling.

The JOAL is proposed to incorporate:

- A two-way carriageway,
- Shared with cyclist and pedestrians,
- Traffic calming measures,
- Stormwater treatment, and
- Sufficient space for services under the berm on one side of the JOAL.

4.2 PEDESTRIAN AND CYCLISTS

As mentioned previously, MacLennan Farm Lane currently provides a formed footpath on its eastern side while Awatiro Drive provides a formed footpath on its southern side; however, none of these roads have dedicated cycling facilities. There is an existing walkway connection provided from Awatiro Drive through to South Avenue. This route provides connection for pedestrians to walk to the township and the nearby bus stops. The PPC will make use of these existing pedestrian facilities.

Taking into consideration the rural nature of the site, it's not expected to generate a significant amount of cycle or pedestrian journeys. As such, the existing provisions will sufficiently cater for these low demands.

4.3 EFFECT OF OTHER DEVELOPMENTS

At this stage there are no existing consented developments in the vicinity of the site, but it is understood that the potential for other developments in the area exists; however, the surrounding land is rural and limited development opportunity exists.

To enable any future developments to be taken into consideration within the analysis a growth factor of 5% (as per calculated annual growth rate, rounded to the nearest percentage) per annum has been applied to existing traffic volumes.



5.0 ASSESSMENT OF ROAD CONNECTION(S)

5.1 SIGHT DISTANCE REQUIREMENTS

Sight distances have been assessed based on the Austroads Guide to Road Design Part 4A: Unsignalised and Signalised Intersections (Austroads Guide).

The Austroads Guide states that it is required to provide:

- Approach Sight Distance (ASD);
- Safe Intersection Sight Distance (SISD); and
- Minimum Gap Sight Distance (MGSD)

ASD is the minimum sight distance that must be available on minor road approaches to all intersections to ensure drivers are aware of the presence of an intersection. SISD is the distance required for drivers on major roads of an intersection, based on the operating speed of the road, and time taken to observe and react to vehicles turning in or out of the side road. MGSD is the distance corresponding to critical acceptance gap that drivers are prepared to accept when turning into or out of an intersection.

SH16 currently have a 100km/h posted speed limit (110km/h design speed) in the vicinity of the existing Lot 36 access. The existing MacLennan Farm Lane and Awatiro Drive have an operating speed of 50km/h and the proposed JOAL an operating speed of 30km/h.

Sight distance requirements for SH16, Awatiro Drive, MacLennan Farm Lane and the JOALs based on the Austroads are summarised below:

- SH16 (Lot 36 access point) (110km/h design speed):
 - ASD – 193m;
 - SISD – 285m; and
 - MGSD – 153m
- SH16 / MacLennan Farm Lane intersection (90km/h design speed):
 - ASD – 139m;
 - SISD – 214m; and
 - MGSD – 125m
- Awatiro Drive / MacLennan Farm Lane intersection (60km/h design speed):
 - ASD – 73m;
 - SISD – 123m; and
 - MGSD – 83m
- JOALs (40km/h design speed):
 - ASD – 30m;
 - SISD – 64m; and
 - MGSD – 55m

The proposed development site access arrangements have been checked and the results summarised as follow:

- The Awatiro Drive / MacLennan Farm Lane intersection's sight distance is sufficient;
- The JOALs sight distance is sufficient;
- The existing SH16 / MacLennan Farm Lane intersection sight distance is sufficient; and



**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

- The SH16 - existing Lot 36 access point sight distance does not meet the sight distance requirement. The available visibility towards the east and west are illustrated in **Figure 5-1** and **Figure 5-2** below.



Figure 5-1: Available sight distance towards the east



Figure 5-2: Available sight distance towards the west

As previously mentioned, this access has an existing licenced crossing point. This report assumed that the current usage on Lot 36 will remain the same and that any required access upgrades will be addressed at the time of any future subdivision.

6.0 TRAFFIC EFFECTS

6.1.1 Development Trips

Development trip generation and distribution assessments have been calculated. The following sections outline the key data and parameters relevant in assessing the development trips and potential impact on the road network.

6.2 TRIP GENERATION

Development traffic peak hour trip rates of 1.4 trips per dwelling (based on the NZ Transport Agency Research Report 453 for “Dwelling (Rural)”) have been used to calculate trip generation. This is more than the NSW Road and Traffic Authority Guide trip rate for dwelling houses with a trip rate of 0.85 per dwelling. Based on the high private transport use in this area where public transport may be limited, it is considered that the higher development trip generation assumption represents a robust and more accurate assessment.

Based on 1.4 trips per dwelling, it is anticipated that the proposed development will generate around 29 (two way) vehicle movements during the afternoon and morning peak hours (vph).

6.3 TRIP DISTRIBUTION

The inbound and outbound traffic distributions are based on typical residential development of 20:80 during the AM peak hour, and 65:35 for the evening peak hour have been applied for the proposed development. Based on the existing direction flow proportions on SH16 the proportion of traffic travelling westbound / eastbound on SH16 is 60:40 in the morning peak period and 40:60 in the afternoon peak period.

Development trip distributions at the SH16 / MacLennan Farm Lane intersection and proposed vehicle crossing off SH16 considered in the assessment have been estimated and are summarised in **Table 6-1** and **Table 6-2** respectively.

Table 6-1: Trip distribution at the SH16 / MacLennan Farm Lane intersection

Peak	Direction	% Peak Hour Trip Generation	Traffic Volume (vph)
AM	Inbound (left-in to MacLennan Farm Lane from SH16 eastbound)	40% of inbound	2
	Inbound (right-in to MacLennan Farm Lane from SH16 westbound)	60% of inbound	3
	Outbound (left-out to SH16 from MacLennan Farm Lane)	60% of outbound	10
	Outbound (right-out to SH16 from MacLennan Farm Lane)	40% of outbound	7
Total			22
PM	Inbound (left-in to MacLennan Farm Lane from SH16 eastbound)	60% of inbound	8
	Inbound (right-in to MacLennan Farm Lane from SH16 westbound)	40% of inbound	6
	Outbound (left-out to SH16 from MacLennan Farm Lane)	40% of outbound	5
	Outbound (right-out to SH16 from MacLennan Farm Lane)	60% of outbound	3
Total			22



**RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

Table 6-2: Trip distribution at the SH16 Vehicle Crossing

Peak	Direction	% Peak Hour Trip Generation	Traffic Volume (vph)
AM	Inbound (left-in to Vehicle Crossing from SH16 eastbound)	40% of inbound	1
	Inbound (right-in to Vehicle Crossing from SH16 westbound)	60% of inbound	1
	Outbound (left-out to SH16 from Vehicle Crossing)	60% of outbound	3
	Outbound (right-out to SH16 from Vehicle Crossing)	40% of outbound	2
Total			7
PM	Inbound (left-in to Vehicle Crossing from SH16 eastbound)	60% of inbound	3
	Inbound (right-in to Vehicle Crossing from SH16 westbound)	40% of inbound	2
	Outbound (left-out to SH16 from Vehicle Crossing)	40% of outbound ⁴	1
	Outbound (right-out to SH16 from Vehicle Crossing)	60% of outbound	1
Total			7

Generally, weekend traffic flows during the peak periods are considered to be lower in the vicinity of the site.

A five-year future horizon (2026) has been used to determine the effect of the development on the road network along with a 5% potential growth in traffic per year on SH16.

The 2026 traffic volumes associated with the SH16 / MacLennan Farm Lane intersection with development traffic added are illustrated in **Figure 6-1** and **Figure 6-2**.



RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE

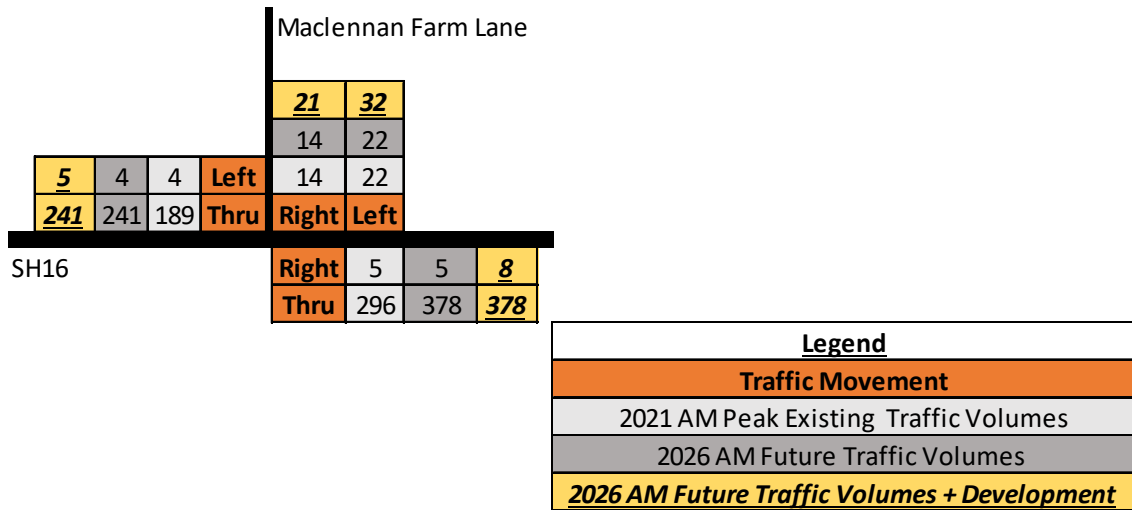


Figure 6-1: 2026 AM and Development Traffic Volumes

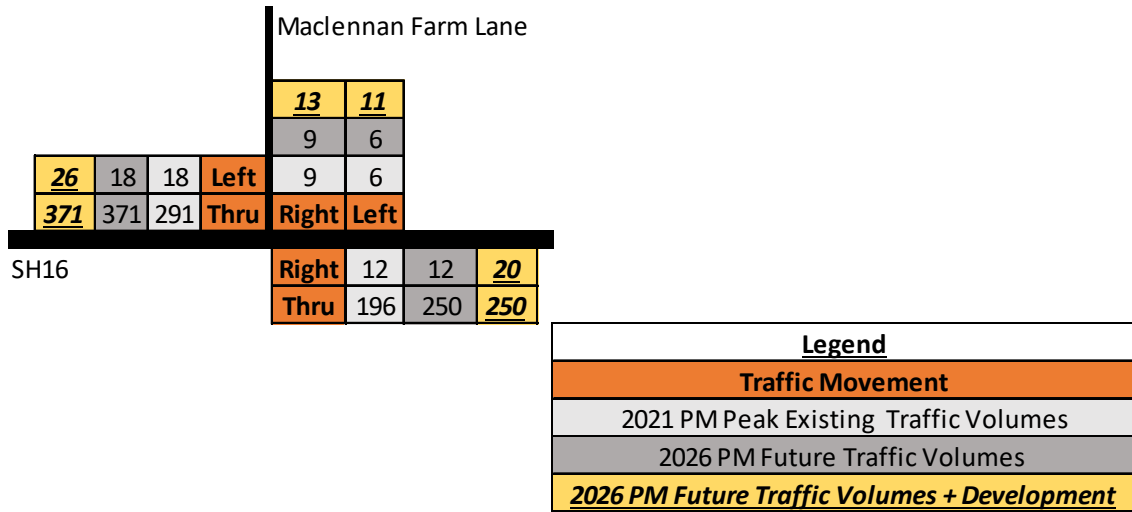


Figure 6-2: 2026 PM and Development Traffic Volumes



6.4 CAPACITY ANALYSIS

6.4.1 Traffic Impact

The results of the analyses undertaken demonstrates that overall additional traffic arising from the development during the peak hours will have minimal impact.

The 7 trips generated in the morning and afternoon peak hour period associated with the vehicle crossing off SH16 is minimal and well within daily fluctuations along SH16.

The total two-way development trips (29 vph) are equivalent to around 5% of the 2026 forecasted SH16 traffic volumes at the intersection with MacLennan Farm Lane. This equates to an average of less than 1 (0.49 calculated) additional vehicles per minute during the peak hour. Therefore, trips arising from the development, are not anticipated to lead to a material impact on the operation of the existing SH16 / MacLennan Farm Lane intersection.

Modelling has been undertaken using SIDRA software to assess the impacts arising from the increase in trips travelling to / from the SH16 / MacLennan Farm Lane intersection. SIDRA provides an industry standard tool for assessing the capacity and delay at Give - way and traffic signal controlled intersections.

The results of this modelling, comparing the existing base operation (2021) with future base operation (2026) and the additional development traffic added (2026) are summarised in **Table 6-3 to Table 6-5** below.

Table 6-3: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Existing Scenario (2021)

Approach	Movement	AM Peak			PM Peak		
		Ave Delay (s)	LOS	Ave Q (m)	Ave Delay (s)	LOS	Ave Q (m)
SH16 (East)	Through	0.0	A	0.0	0.0	A	0.0
	Right	5.3	A	0.0	5.7	A	0.1
MacLennan Farm Lane (North)	Left	5.3	A	0.1	5.7	A	0.2
	Right	8.8	A	0.1	8.8	A	0.2
SH16 (West)	Left	4.6	A	0.0	4.6	A	0.1
	Through	0.0	A	0.0	0.0	A	0.0

Table 6-4: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Future Scenario (2026)

Approach	Movement	AM Peak			PM Peak		
		Ave Delay (s)	LOS	Ave Q (m)	Ave Delay (s)	LOS	Ave Q (m)
SH16 (East)	Through	0.0	A	0.0	0.0	A	0.0
	Right	5.5	A	0.1	6.1	A	0.1
MacLennan Farm Lane (North)	Left	5.5	A	0.6	6.1	A	0.3
	Right	10.8	B	0.6	10.8	B	0.3
SH16 (West)	Left	4.6	A	0.0	4.6	A	0.1
	Through	0.0	A	0.0	0.1	A	0.0



**RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

Table 6-5: SIDRA Modelling Results of the SH16 / MacLennan Farm Lane Intersection – Existing Layout, Future Scenario (2026) with the Development Traffic

Approach	Movement	AM Peak			PM Peak		
		Ave Delay (s)	LOS	Ave Q (m)	Ave Delay (s)	LOS	Ave Q (m)
SH16 (East)	Through	0.0	A	0.0	0.0	A	0.0
	Right	5.5	A	0.1	6.1	A	0.2
MacLennan Farm Lane (North)	Left	5.6	A	0.8	6.2	A	0.5
	Right	11.0	B	0.8	11.1	B	0.5
SH16 (West)	Left	4.6	A	0.0	4.6	A	0.2
	Through	0.0	A	0.0	0.1	A	0.0

As can be seen from the above results, the operation of the intersection will continue to operate at an acceptable LOS with development traffic included in. The morning and afternoon peak hour results indicate that the intersection will continue to operate at acceptable LOS with development traffic included.

The maximum delays of 11.1 seconds are associated with vehicles turning right out of MacLennan Farm Lane during the afternoon peak hour. This represents an increase in delay of around 2 seconds and not considered a material impact when compared to the existing.

The SIDRA outputs are attached at **Appendix A**.

Overall, it is considered that the PPC will have a negligible impact on the capacity of the surrounding road network in the vicinity of the site.



7.0 TRANSPORT PLANNING AND POLICY

The following sections provide a review of established policy and plans in relation to the proposed PPC development. The documents reviewed include:

- Auckland Plan 2050 (updated in 2018);
- Government Policy Statement on Land Transport Funding 2018/19 – 2027/28;
- Auckland Regional Land Transport Plan 2018 – 2028;
- Auckland Regional Public Transport Plan 2018 – 2028;
- Auckland Unitary Plan Operative in part (Updated 20 December 2018); and

7.1 AUCKLAND PLAN

The Auckland Plan 2050 (the Plan) is a long-term spatial plan to ensure Auckland grows in a way that meets future opportunities and challenges. The plan outlines the issues facing Auckland and recommends the way that Aucklanders and others involved in the future of Auckland can best respond to them.

The Plan, adopted in June 2018, is a more streamlined spatial plan with a simple structure and clear links between outcomes, directions and measures. It shows how Auckland is expected to grow and change during the next 30 years.

In the Transport and Access section the document discusses the direction of future transport and seven focus areas.

Three identified directions are:

- Better connected people, places, goods and services;
- Increase genuine travel choices for a healthy, vibrant and equitable Auckland; and
- Maximise safety and environmental protection.

Focus areas for Auckland are as the following:

- **Focus Area 1** - Make better use of existing transport networks;
- **Focus Area 2** - Target new transport investment to the most significant challenges;
- **Focus Area 3** - Maximise the benefits from transport technology;
- **Focus Area 4** - Make walking, cycling and public transport preferred choices for many more Aucklanders;
- **Focus Area 5** - Better integrate land-use and transport;
- **Focus Area 6** - Move to a safe transport network, free from death and serious injury; and
- **Focus Area 7** - Develop a sustainable and resilient transport system.

Initially produced in 2012, the new plan was updated in June 2018. Since the release of the original plan, the AUP has been introduced and several significant infrastructure developments have been completed, including completion of Waterview Tunnel. The new draft Auckland Plan shows how Auckland will prepare for an expected population increase by 39% or up to 2.4 million people by 2034, and key challenges Auckland faces in dealing with this population growth. Other key challenges identified are sharing prosperity with all Aucklanders and reducing environmental degradation.

The Plan discusses how, when and where Auckland will grow, it overviews the development strategy to accommodate that growth and how Auckland's infrastructure has to keep pace with this growth scale.



7.2 GOVERNMENT POLICY STATEMENT ON LAND TRANSPORT FUNDING

The Government Policy Statement on Land Transport Funding 2018/19 – 2027/28 (GPS) outlines the Government's priorities for expenditure from the National Land Transport Fund for the next ten years. It sets out how funding is allocated between land transport infrastructure, activities and maintenance.

The main themes within the GPS are to have a mode-neutral approach to transport planning; incorporate technology and innovation; and integrate land use and transport planning.

The GPS sets out four strategic priorities to align with the GPS themes, as follows:

- **Safety** - A safe system free of death and serious injury;
- **Access** - Provides increased access to economic and social opportunities and enables transport choice and is resilient;
- **Value for Money** - Delivers the right infrastructure and services to the right level at the best cost; and
- **Environment** - Reduces the adverse effects on the climate, local environment and public health.

The GPS sets funding ranges for 12 activity classes. The funds for each class are:

- Public transport;
- Rapid transit;
- Walking and cycling improvements;
- Local road improvements;
- Regional improvements;
- State highway improvements;
- Road policing;
- Promotion of road safety and demand management;
- State highway maintenance;
- Local road maintenance;
- Investment management; and
- Transitional rail.

Rapid transit and Transitional rail are new activity classes compared to the previous document version. In the updated version of the GPS it is also mentioned that funding is divided into activity classes as a means of achieving the results specified. The new strategic direction will increase investment in safety, public transport, walking and cycling, and regional improvements. It will shift investment away from state highway improvements.

7.3 AUCKLAND REGIONAL LAND TRANSPORT PLAN

The Auckland Regional Land Transport Plan 2018 – 2028 (RLTP) sets out the region's land transport objectives, priorities and measures for the next ten years. It is prepared every six years in accordance with the Land Transport Management Act 2003 and includes a 10-year programme of activities to support the achievement of these objectives. It includes the land transport activities of AT, the NZTA, KiwiRail and other agencies.

Since the 2015 RLTP was prepared, Auckland's population growth has increased at a much faster pace than was envisaged. By 2028, the population of Auckland is expected to be around two million people – four years earlier than projected in 2015. Significant investment in transport infrastructure and services will be required to meet the increasing needs of these additional people both to service new housing required to match growth and to service many more customers. The Auckland Transport Alignment Project study provides a framework for this investment.

Similar to other documents RLTP examines the challenges that Auckland will face in the future and as one of the key challenges identifies the estimated population growth. It discusses road safety challenges and the



impact road deaths and injuries have on economy. Other challenges such as Accessibility and Freight are also discussed. The document discusses how these challenges can be tackled and which direction the evolving transport network should take.

7.4 AUCKLAND REGIONAL PUBLIC TRANSPORT PLAN

The objectives outlined in Auckland Regional Public Transport Plan 2018 – 2028 (RPTP) are similar in nature and desired outcome to those discussed in RLTP.

The RPTP discusses the role and importance of Public Transport in Auckland. It describes current public transport, recent development and identifies future challenges.

The RPTP seeks to deliver an improved public transport network in Auckland by increasing public transport frequency along key transport corridors and simplifying ticketing to improve user experience.

The vision of the RPTP is to deliver *“An integrated, efficient and effective public transport network that offers a wider range of trips and valued by Aucklanders”*. To achieve this vision, Auckland’s public transport system needs to deliver:

- Services that align with future land use patterns;
- Services that meet customer needs;
- Increased passenger numbers;
- Increased public transport mode share; and
- Improved value for money.

The RPTP also discusses the key directions and focus areas of the future public transport in Auckland. One of the focus areas is the Integrated Corridor Programme. As part of the RPTP, AT is also looking to apply some of the advantages of the Frequent Transport Network (FTN) through the Integrated Corridor Priority Programme. This Programme will seek to extend bus-priority for the full length of key FTN routes, improving average speed and reliability and reducing operating costs. Auckland has constrained arterial corridors and there will be trade-offs to be made around competing uses including general traffic lanes, cycle lanes, parking and median strips. AT will design and deliver whole-of-route bus priority on the FTN where:

- current and planned services experience inconsistent travel times due to congestion
- where travel-time savings and patronage levels justify the cost of delivery
- where capacity exists, or new services are planned that can leverage priority infrastructure to deliver patronage growth
- if reallocation of road space is required, where expected patronage gains are sufficient to ensure that bus priority implementation will increase overall people throughput along the corridor.

Another focus area is harnessing future technologies and one of these technologies that can impact the way transport operates in the future is Mobility-as-a-Service which is briefly discussed in RPTP.

7.5 AUCKLAND UNITARY PLAN

The AUP is a statutory rule book for planning in Auckland. It is based on the strategic direction set by the 2012 Auckland Plan and:

- outlines what can be built where;
- provides for a compact urban form; and
- describes how to maintain the rural and freshwater and marine environments.

The AUP indicates where Auckland’s population, commercial and industrial growth can be accommodated.



**RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE**

The AUP, which has been operative in part since November 2016, has the following objectives with regard to the region's transport infrastructure:

- Land use and all modes of transport are integrated in a manner that enables:
 - The benefits of an integrated transport network to be realised; and
 - The adverse effects of traffic generation on the transport network to be managed;
- An integrated public transport, walking and cycling network is provided for;
- Parking and loading support urban growth and the quality compact urban form;
- The provision of safe and efficient parking, loading and access is commensurate with the character, scale and intensity of the zone;
- Pedestrian safety and amenity along public footpaths are priorities; and
- Road/rail crossings operate safely with neighbouring land use and development.

7.6 TRANSPORT PLANNING AND POLICY ASSESSMENT

After analysing the key policies and plans for Auckland it can be concluded that the proposed PPC at 751 and 787 Kaipara Coast Highway are in keeping with and not contrary to or in conflict with the direction and vision of how Auckland should be developed. Overall, the plan change will provide opportunity for the PPC area to be better integrated into the wider transport network. It will offer improved connectivity and encourage active travel modes such as walking and cycling.

The inclusion of the land within the Residential-Rural and Coastal Settlement Zone provides for better managed growth in the Kaukapakapa area, as there is currently a shortage of land assigned as residential.

The land in question is located close to the State Highway network for private vehicle accessibility for movement of residents / visitors to the site.

The Residential-Rural and Coastal Settlement Zone enables intensification while retaining a rural built character. The development is anticipated to be single residential dwellings in a variety of types and sizes.

Parking and loading (refuse vehicles / removal trucks) will be provided in accordance with AUP requirements in order to support future activities within the site to a level appropriate for the proposed zoning.

The proposed PPC is considered to support a compact urban form by providing for development adjacent to an existing town centre. According to the AUP, a quality compact urban form should enable all of the following:

- A higher-quality urban environment;
- Greater productivity and economic growth;
- Better use of existing infrastructure and efficient provision of new infrastructure;
- Improved and more effective public transport;
- Greater social and cultural vitality;
- Better maintenance of rural character and rural productivity; and
- Reduced adverse environmental effects.

It is considered that from a transport perspective, the proposed PPC assists in meeting these objectives.

The above assessments show that the PPC is generally in alignment with the overarching themes and strategic priorities of the transport plans and policies discussed above.



8.0 CONCLUSION

Riverview Properties Ltd are seeking through their PPC to rezone 5.7ha rural land that is currently Rural - Countryside Living Zone to Residential-Rural and Coastal Settlement Zone.

The development site is well located in terms of accessibility by private vehicles, due to its close proximity and connections with the State Highway road network, thereby providing connections to Kaukapakapa, Whangarei in the north and wider Auckland region in the south.

The traffic impacts arising from future residential development at this location on the supporting road network will not require upgrades to accommodate any additional traffic demand.

The relevant transport policy, proposed assessment criteria and guidance for the rezoning request have been considered. The assessments show that the PPC is generally in alignment with the overarching themes and strategic priorities of the transport plans and policies.

Accordingly, it is concluded that there is no traffic engineering or transportation planning reason to preclude acceptance of this proposal.

Stantec New Zealand



Appendices



Appendix A SIDRA OUTPUTS

MOVEMENT SUMMARY

Site: 101 [AM 2021 - SH16 / MacLennan Farm Lane (Site Folder: 2021)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
East: SH16														
5	T1	296	8.0	312	8.0	0.168	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
6	R2	5	8.0	5	8.0	0.004	5.3	LOS A	0.0	0.0	0.31	0.51	0.31	39.8
Approach		301	8.0	317	8.0	0.168	0.1	NA	0.0	0.0	0.01	0.01	0.01	49.8
North: MacLennan Farm Lane														
7	L2	22	8.0	23	8.0	0.043	5.3	LOS A	0.1	0.5	0.37	0.58	0.37	39.7
9	R2	14	8.0	15	8.0	0.043	8.8	LOS A	0.1	0.5	0.37	0.58	0.37	43.1
Approach		36	8.0	38	8.0	0.043	6.7	LOS A	0.1	0.5	0.37	0.58	0.37	41.4
West: SH16														
10	L2	4	8.0	4	8.0	0.003	4.6	LOS A	0.0	0.0	0.03	0.48	0.03	45.7
11	T1	189	8.0	199	8.0	0.107	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach		193	8.0	203	8.0	0.107	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		530	8.0	558	8.0	0.168	0.6	NA	0.1	0.5	0.03	0.05	0.03	49.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



MOVEMENT SUMMARY

Site: 101 [PM 2021 - SH16 / MacLennan Farm Lane (Site Folder: 2021)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh.]	[Dist.]				
East: SH16														
5	T1	196	8.0	206	8.0	0.111	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
6	R2	12	8.0	13	8.0	0.010	5.7	LOS A	0.0	0.1	0.39	0.55	0.39	39.4
Approach		208	8.0	219	8.0	0.111	0.3	NA	0.0	0.1	0.02	0.03	0.02	49.5
North: MacLennan Farm Lane														
7	L2	6	8.0	6	8.0	0.022	5.7	LOS A	0.0	0.2	0.48	0.62	0.48	38.7
9	R2	9	8.0	9	8.0	0.022	8.8	LOS A	0.0	0.2	0.48	0.62	0.48	42.4
Approach		15	8.0	16	8.0	0.022	7.6	LOS A	0.0	0.2	0.48	0.62	0.48	41.3
West: SH16														
10	L2	18	8.0	19	8.0	0.012	4.6	LOS A	0.0	0.1	0.06	0.47	0.06	45.7
11	T1	291	8.0	306	8.0	0.165	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		309	8.0	325	8.0	0.165	0.3	LOS A	0.0	0.1	0.00	0.03	0.00	49.7
All Vehicles		532	8.0	560	8.0	0.165	0.5	NA	0.0	0.2	0.02	0.05	0.02	49.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



MOVEMENT SUMMARY

Site: 101 [AM 2026 - SH16 / MacLennan Farm Lane (Site Folder: 2026)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
East: SH16														
5	T1	378	8.0	398	8.0	0.215	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
6	R2	5	8.0	5	8.0	0.004	5.5	LOS A	0.0	0.1	0.35	0.52	0.35	39.6
Approach		383	8.0	403	8.0	0.215	0.1	NA	0.0	0.1	0.00	0.01	0.00	49.8
North: MacLennan Farm Lane														
7	L2	22	8.0	23	8.0	0.051	5.5	LOS A	0.1	0.6	0.44	0.62	0.44	38.7
9	R2	14	8.0	15	8.0	0.051	10.8	LOS B	0.1	0.6	0.44	0.62	0.44	42.4
Approach		36	8.0	38	8.0	0.051	7.6	LOS A	0.1	0.6	0.44	0.62	0.44	40.6
West: SH16														
10	L2	4	8.0	4	8.0	0.003	4.6	LOS A	0.0	0.0	0.03	0.48	0.03	45.7
11	T1	241	8.0	254	8.0	0.137	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		245	8.0	258	8.0	0.137	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		664	8.0	699	8.0	0.215	0.5	NA	0.1	0.6	0.03	0.04	0.03	49.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



MOVEMENT SUMMARY

Site: 101 [PM 2026 - SH16 / MacLennan Farm Lane (Site Folder: 2026)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	[HV %]	[Total veh/h]	[HV %]				[Veh.]	[Dist]				
East: SH16														
5	T1	250	8.0	263	8.0	0.142	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
6	R2	12	8.0	13	8.0	0.011	6.1	LOS A	0.0	0.1	0.45	0.58	0.45	39.2
Approach		262	8.0	276	8.0	0.142	0.3	NA	0.0	0.1	0.02	0.03	0.02	49.6
North: MacLennan Farm Lane														
7	L2	6	8.0	6	8.0	0.027	6.1	LOS A	0.0	0.3	0.55	0.68	0.55	37.4
9	R2	9	8.0	9	8.0	0.027	10.8	LOS B	0.0	0.3	0.55	0.68	0.55	41.5
Approach		15	8.0	16	8.0	0.027	8.9	LOS A	0.0	0.3	0.55	0.68	0.55	40.2
West: SH16														
10	L2	18	8.0	19	8.0	0.012	4.6	LOS A	0.0	0.1	0.06	0.47	0.06	45.7
11	T1	371	8.0	391	8.0	0.211	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		389	8.0	409	8.0	0.211	0.3	LOS A	0.0	0.1	0.00	0.02	0.00	49.7
All Vehicles		666	8.0	701	8.0	0.211	0.5	NA	0.0	0.3	0.02	0.04	0.02	49.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



MOVEMENT SUMMARY

▽ Site: 101 [AM 2026+Dev - SH16 / MacLennan Farm Lane (Site Folder: 2026 plus Development)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h]	HV %	[Total veh/h]	HV %				[Veh.]	[Dist] m				
East: SH16														
5	T1	378	8.0	398	8.0	0.215	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
6	R2	8	8.0	8	8.0	0.006	5.5	LOS A	0.0	0.1	0.35	0.53	0.35	39.6
Approach		386	8.0	406	8.0	0.215	0.1	NA	0.0	0.1	0.01	0.01	0.01	49.8
North: MacLennan Farm Lane														
7	L2	32	8.0	34	8.0	0.075	5.6	LOS A	0.1	0.8	0.45	0.64	0.45	38.6
9	R2	21	8.0	22	8.0	0.075	11.0	LOS B	0.1	0.8	0.45	0.64	0.45	42.3
Approach		53	8.0	56	8.0	0.075	7.7	LOS A	0.1	0.8	0.45	0.64	0.45	40.5
West: SH16														
10	L2	5	8.0	5	8.0	0.003	4.6	LOS A	0.0	0.0	0.04	0.47	0.04	45.7
11	T1	241	8.0	254	8.0	0.137	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		246	8.0	259	8.0	0.137	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	49.9
All Vehicles		685	8.0	721	8.0	0.215	0.7	NA	0.1	0.8	0.04	0.06	0.04	49.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



MOVEMENT SUMMARY

▽ Site: 101 [PM 2026+Dev - SH16 / MacLennan Farm Lane (Site Folder: 2026 plus Development)]

New Site
 Site Category: (None)
 Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
East: SH16														
5	T1	250	8.0	263	8.0	0.143	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
6	R2	20	8.0	21	8.0	0.018	6.1	LOS A	0.0	0.2	0.45	0.59	0.45	39.2
Approach		270	8.0	284	8.0	0.143	0.5	NA	0.0	0.2	0.03	0.04	0.03	49.4
North: MacLennan Farm Lane														
7	L2	11	8.0	12	8.0	0.042	6.2	LOS A	0.1	0.5	0.54	0.69	0.54	37.5
9	R2	13	8.0	14	8.0	0.042	11.1	LOS B	0.1	0.5	0.54	0.69	0.54	41.5
Approach		24	8.0	25	8.0	0.042	8.8	LOS A	0.1	0.5	0.54	0.69	0.54	40.1
West: SH16														
10	L2	26	8.0	27	8.0	0.018	4.6	LOS A	0.0	0.2	0.08	0.47	0.08	45.6
11	T1	371	8.0	391	8.0	0.211	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	49.9
Approach		397	8.0	418	8.0	0.211	0.4	LOS A	0.0	0.2	0.01	0.03	0.01	49.6
All Vehicles		691	8.0	727	8.0	0.211	0.7	NA	0.1	0.5	0.03	0.06	0.03	49.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Vehicle movement LOS values are based on average delay per movement.
 Minor Road Approach LOS values are based on average delay for all vehicle movements.
 NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
 Delay Model: SIDRA Standard (Geometric Delay is included).
 Queue Model: SIDRA Standard.
 Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
 HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.



Appendix B BUS ROUTES



Figure 8-1: Bus Route 128 Map – Full extent of the route³

³ Source – Moovit Website (<https://moovitapp.com/auckland-784/lines/128/33367852/4892724/en-gb?customerId=4908&ref=2&poiType=line>)

Helensville

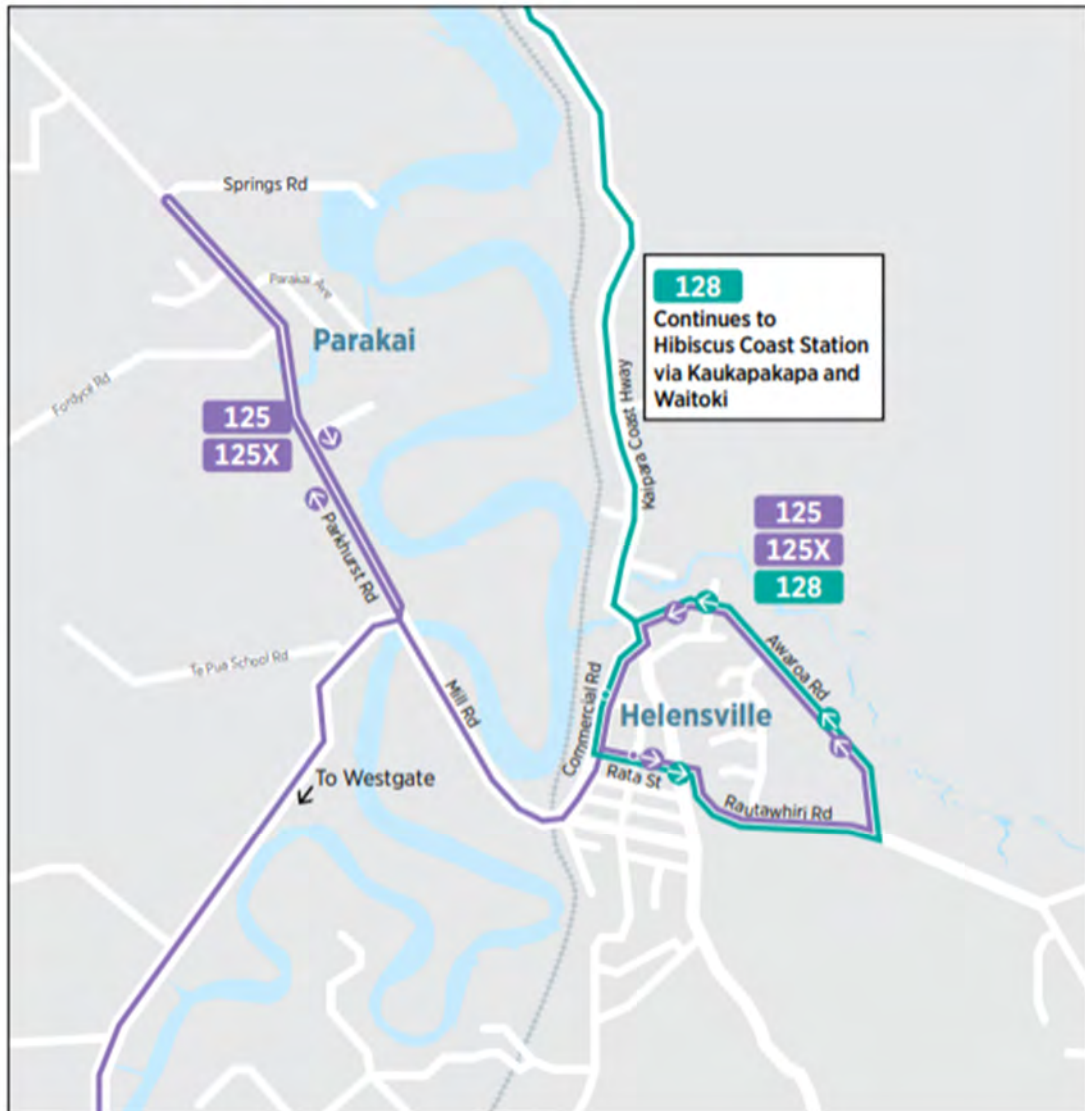


Figure 8-2: Bus Route 128 Map - Within Helensville⁴

⁴ Source – AT Website (https://at.govt.nz/media/1985557/wn01_westgate_april-2021-v2-web.pdf)



RIVERVIEW PROPERTIES LIMITED
TRANSPORT ASSESSMENT
751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE



Figure 8-3: Bus Route 128 Bus Stop locations (as indicated by a blue bus icon)⁵

⁵ Source – Google Maps



RIVERVIEW PROPERTIES LIMITED
 TRANSPORT ASSESSMENT
 751 AND 787 KAIPARA COAST HIGHWAY PRIVATE PLAN CHANGE

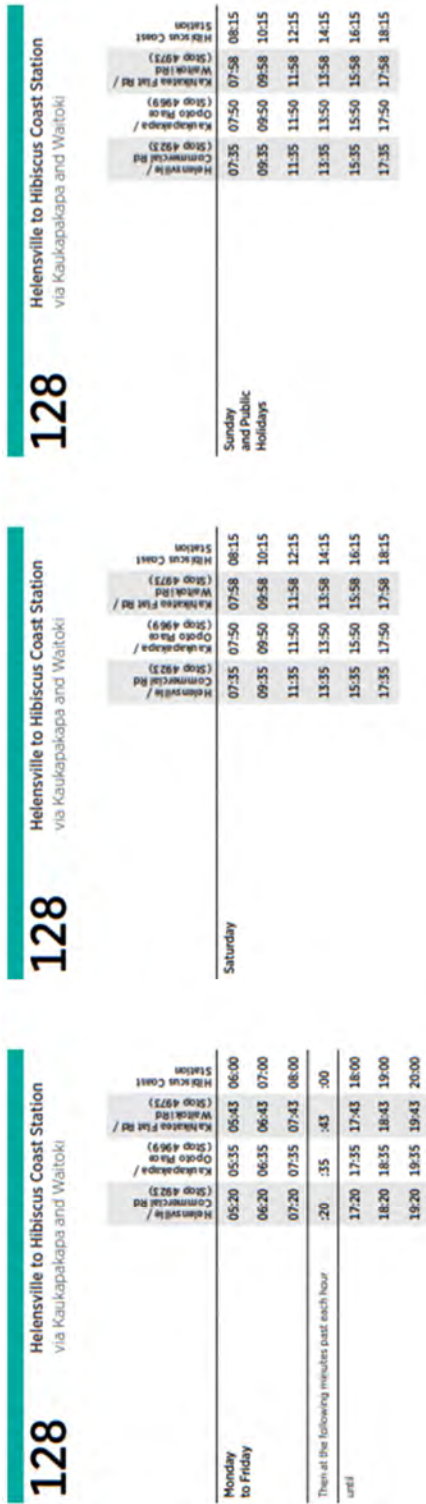
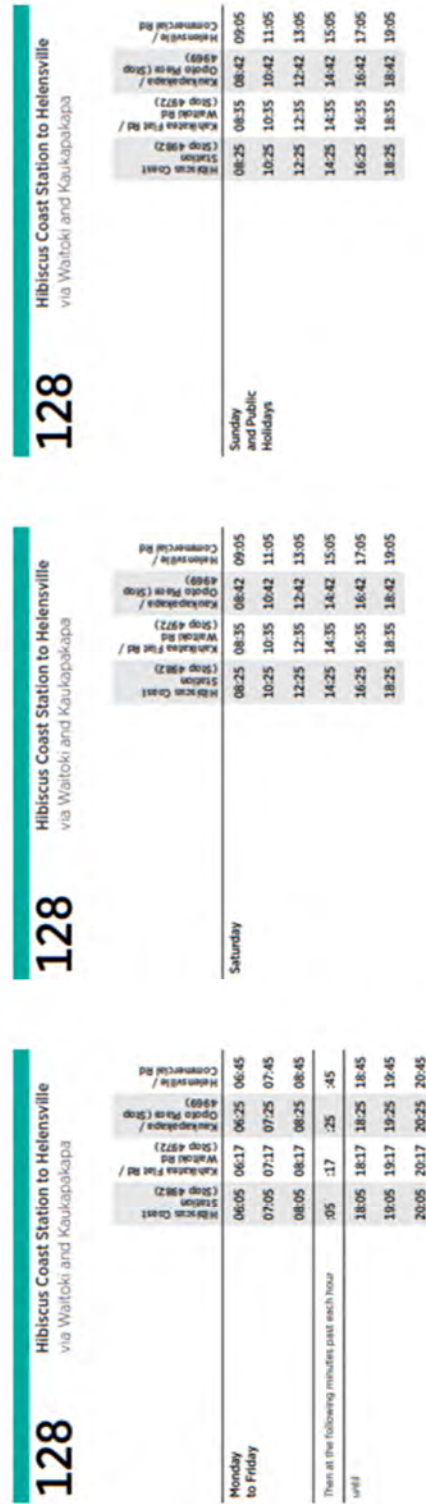


Figure 8-4: Bus Route 128 Schedule



Appendix C WAKA KOTAHI ACCESS APPROVAL LETTERS



RIVERVIEW PROPERTIES LIMITED

AS BUILT PLANS - NZTA INTERSECTION

751 & 787 KAIPARA COAST HIGHWAY

KAUKAPAKAPA



PRELIMINARY & GENERAL

- PG101 COVER SHEET
- PG102 EXISTING CONTOUR PLAN

EARTHWORKS

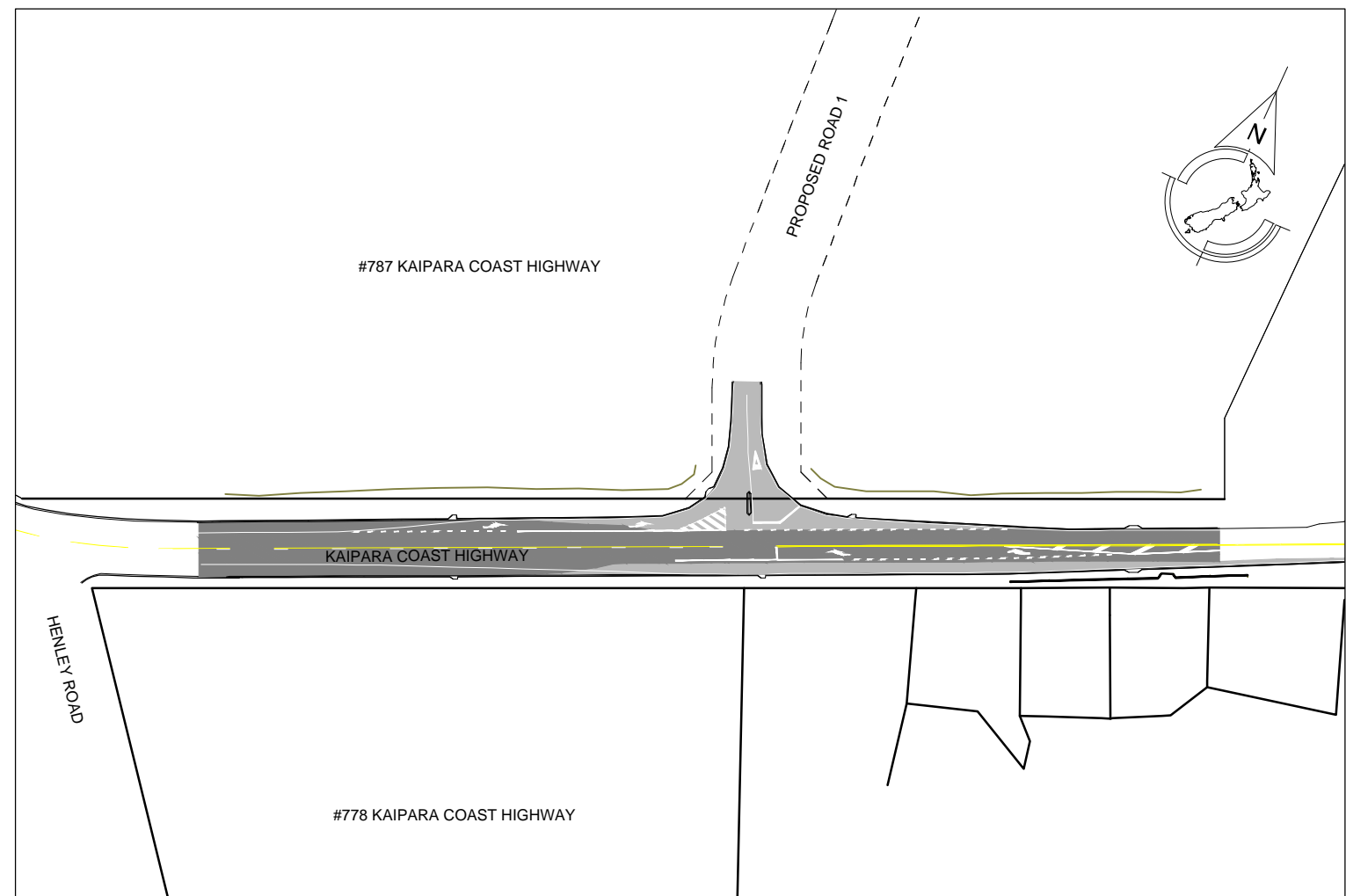
- EW201 ASBUILT CONTOUR PLAN

ROADING

- RD301 ASBUILT ROADING OVERVIEW
- RD302 ASBUILT ROADING PLAN 1
- RD303 ASBUILT ROADING PLAN 2
- RD304 ASBUILT ROAD CROSS SECTION
DETAIL

STORMWATER

- SW401 ASBUILT STORMWATER OVERVIEW
PLAN
- SW402 ASBUILT STORMWATER PLAN 1
- SW403 ASBUILT STORMWATER PLAN 2

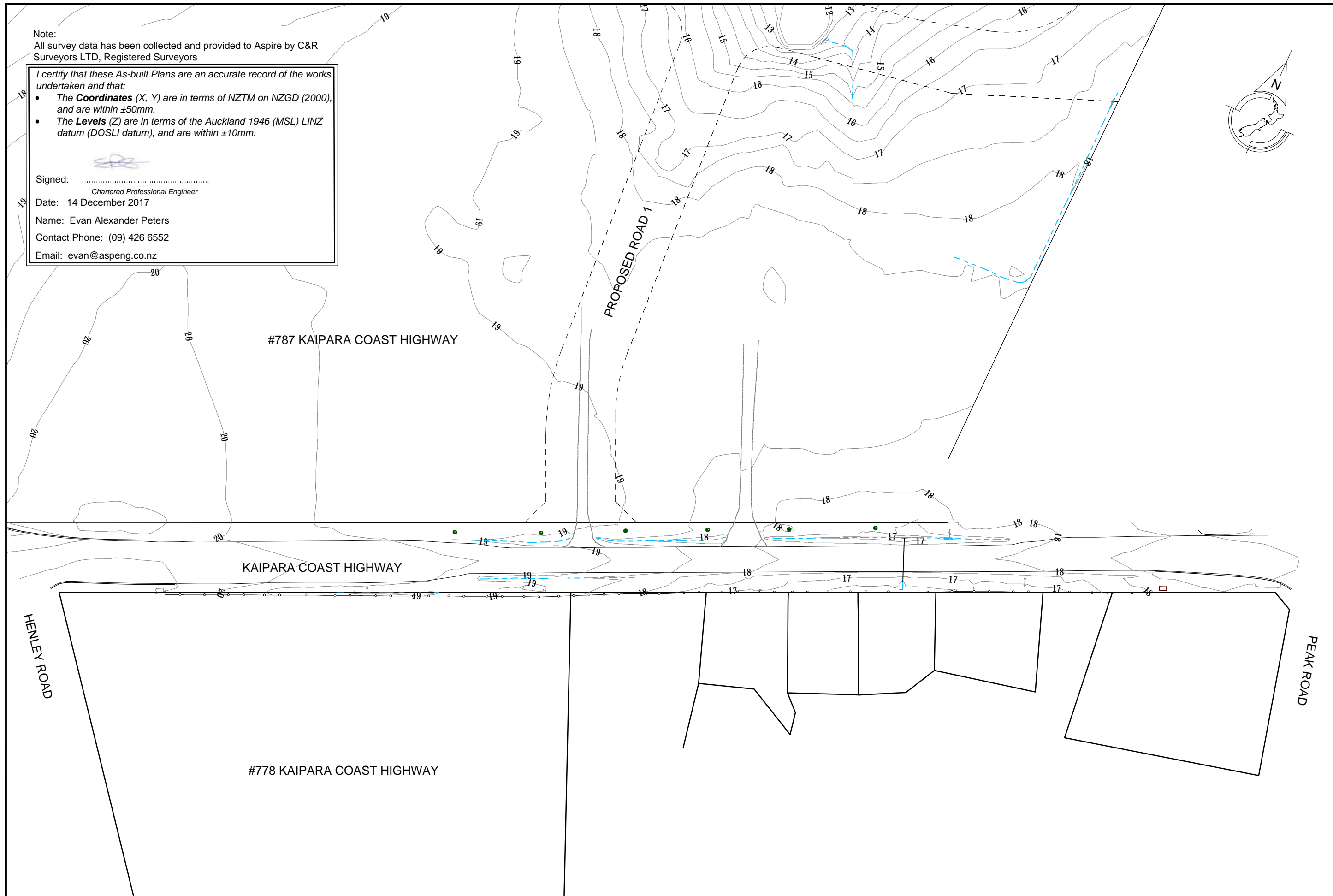
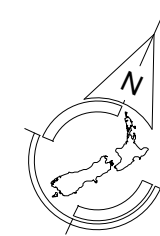


Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:1000 AT A3
					NAME	DATE
					DESIGN	RW DEC 17
					DRAWN	KC DEC 17
					DRAWING CHECK	RW DEC 17
					DESIGN CHECK	RW DEC 17
					APPROVED	EP DEC 17

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

DRAWING TITLE
EXISTING SITE PLAN

DRAWING NUMBER
1273I-AB-PG102

DATE
DEC 2017

REVISION
-



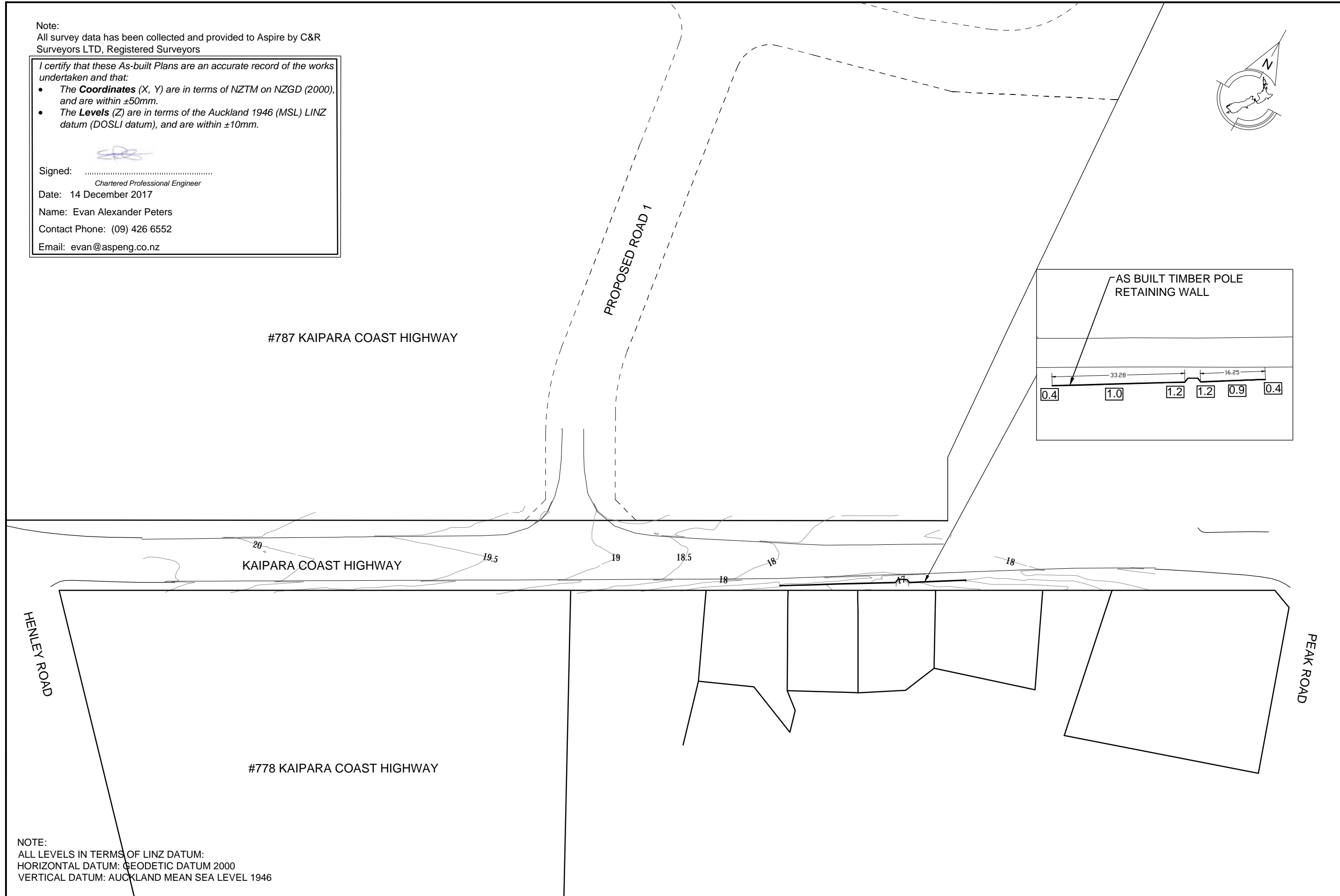
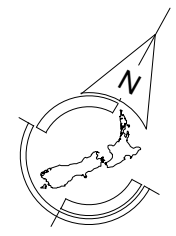
Ph: 09 426 6552
Web: www.aspeng.co.nz

Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:1000 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER	
							RIVERVIEW PROPERTIES LIMITED	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273I-AB-EW201	
					DESIGN	RW				DEC 17
					DRAWN	KC				DEC 17
					DRAWING CHECK	RW				DEC 17
					DESIGN CHECK	RW				DEC 17
					APPROVED	EP	DEC 17			
<p>Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</p>							DRAWING TITLE		DATE	REVISION
							AS BUILT CONTOUR PLAN		DEC 2017	-



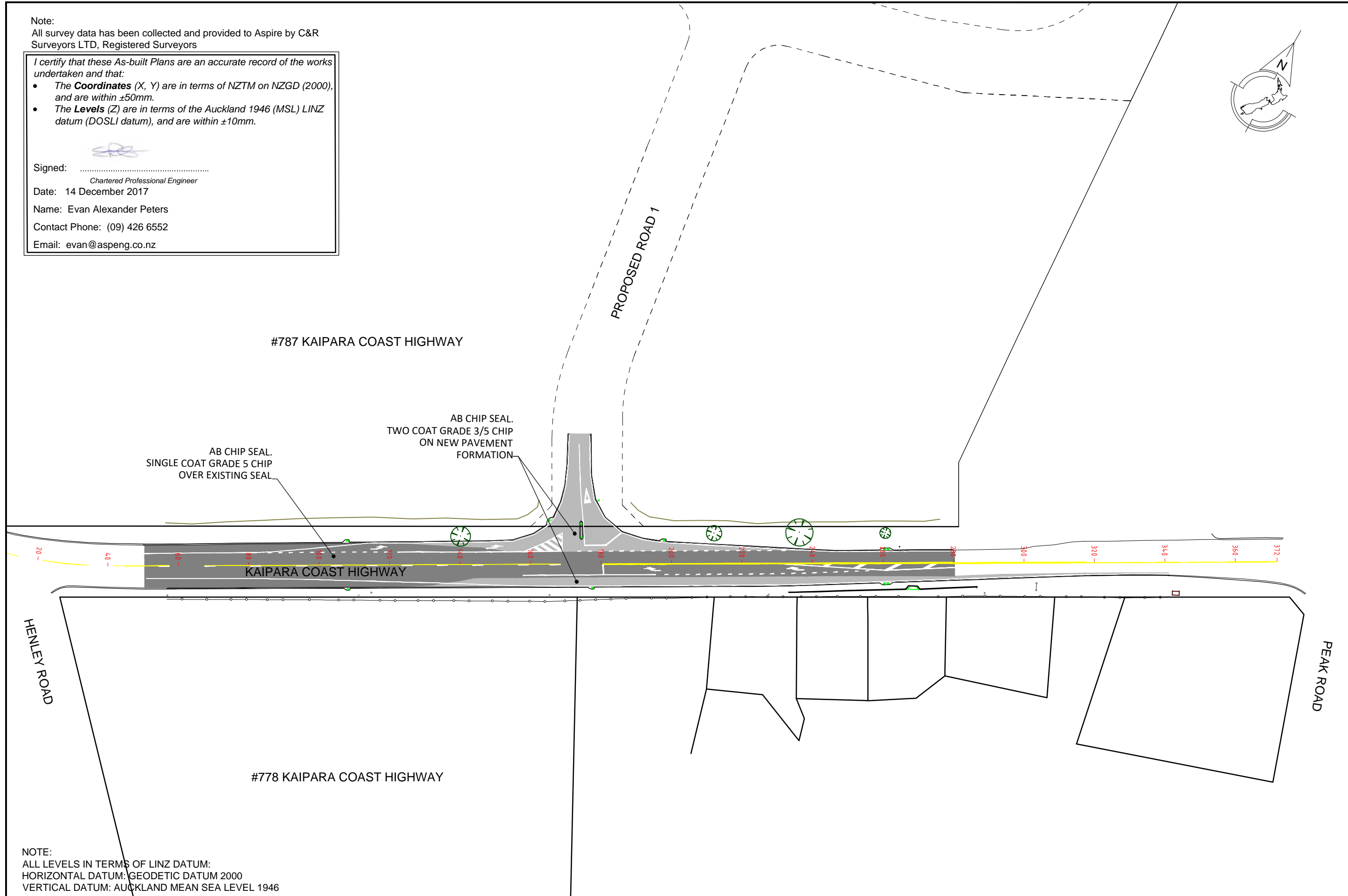
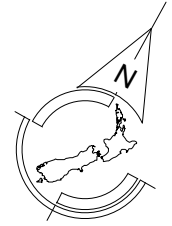
Ph: 09 426 6552
Web: www.aspeng.co.nz

Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:1000 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER	
							RIVERVIEW PROPERTIES LIMITED	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273I-AB-RD301	
					DESIGN	RW				DEC 17
					DRAWN	KC				DEC 17
					DRAWING CHECK	RW				DEC 17
					DESIGN CHECK	RW				DEC 17
					APPROVED	EP	DEC 17			
							Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE	DATE	REVISION
								AS BUILT ROADING OVERVIEW	DEC 2017	-



Ph: 09 426 6552
Web: www.aspeng.co.nz

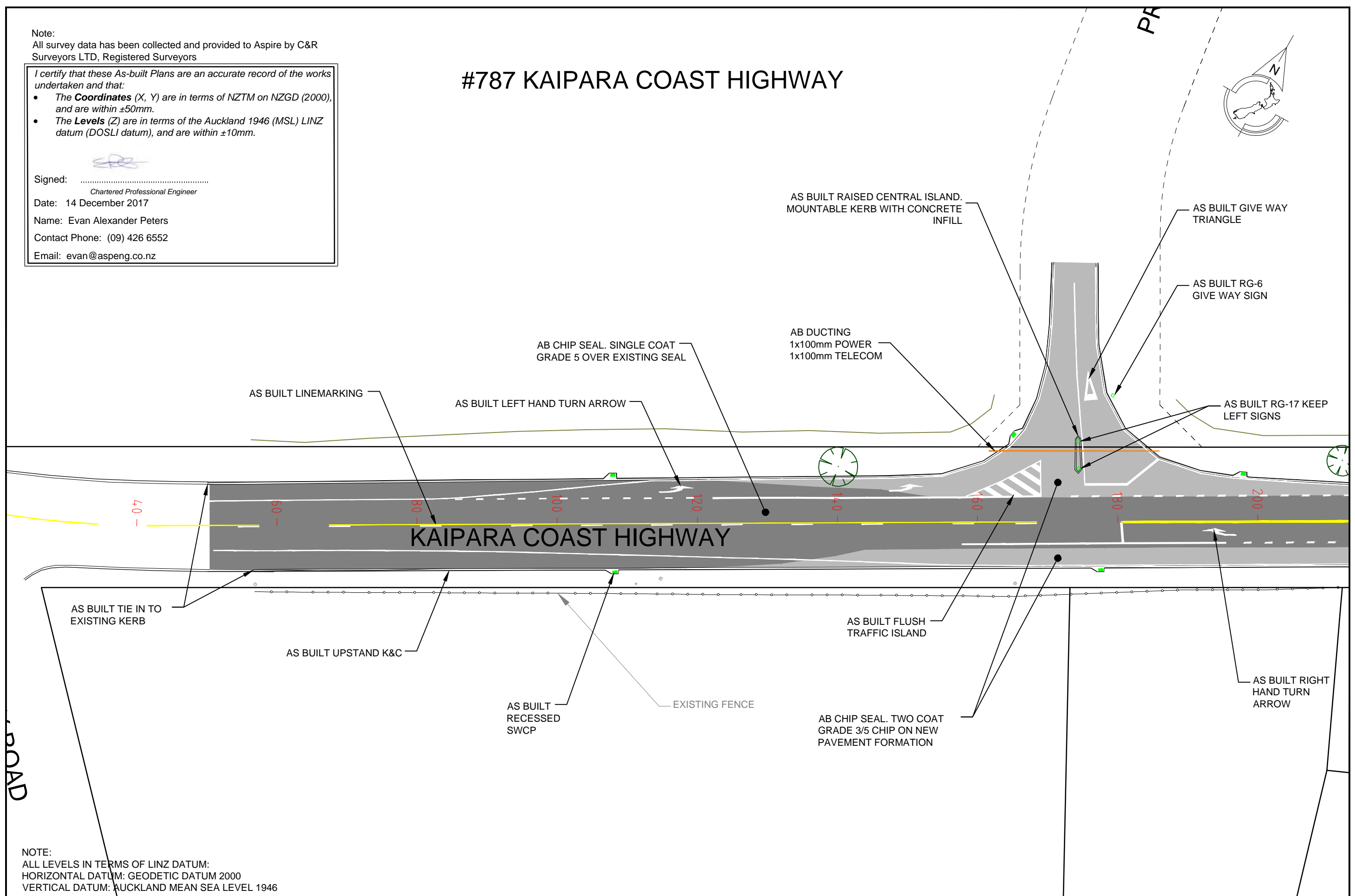
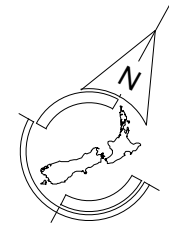
Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz

#787 KAIPARA COAST HIGHWAY



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:500 AT A3

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

DRAWING TITLE
AS BUILT ROADING PLAN 1

DRAWING NUMBER
1273I-AB-RD302

DATE
DEC 2017

REVISION
-



Ph: 09 426 6552
Web: www.aspeng.co.nz

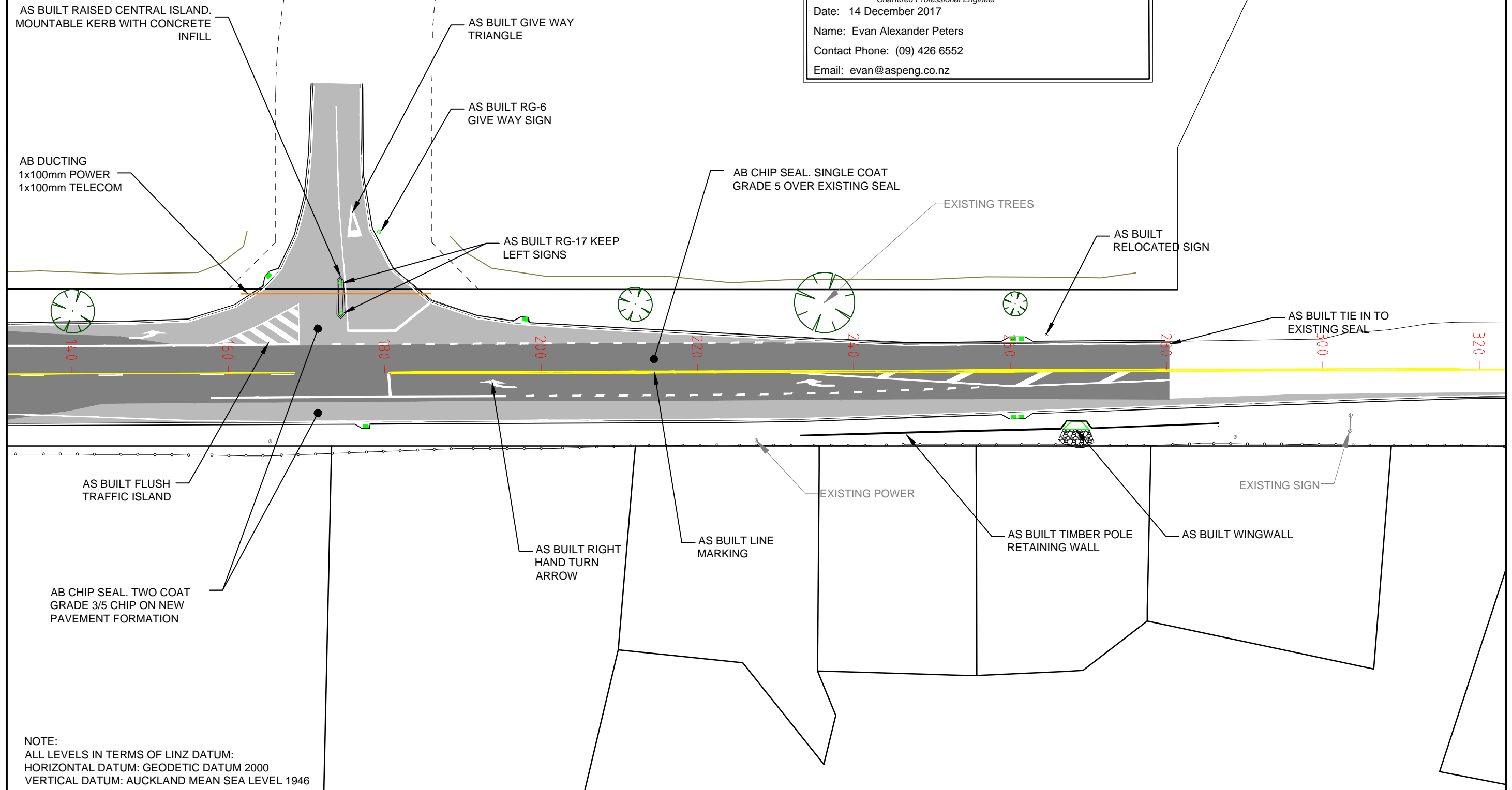
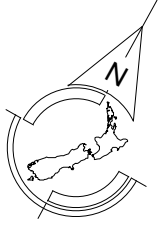
HWAY

Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: _____
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:500 AT A3		
						NAME	DATE	
	DESIGN					RW	DEC 17	
	DRAWN					KC	DEC 17	
	DRAWING CHECK					RW	DEC 17	
	DESIGN CHECK					RW	DEC 17	
	APPROVED					EP	DEC 17	

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

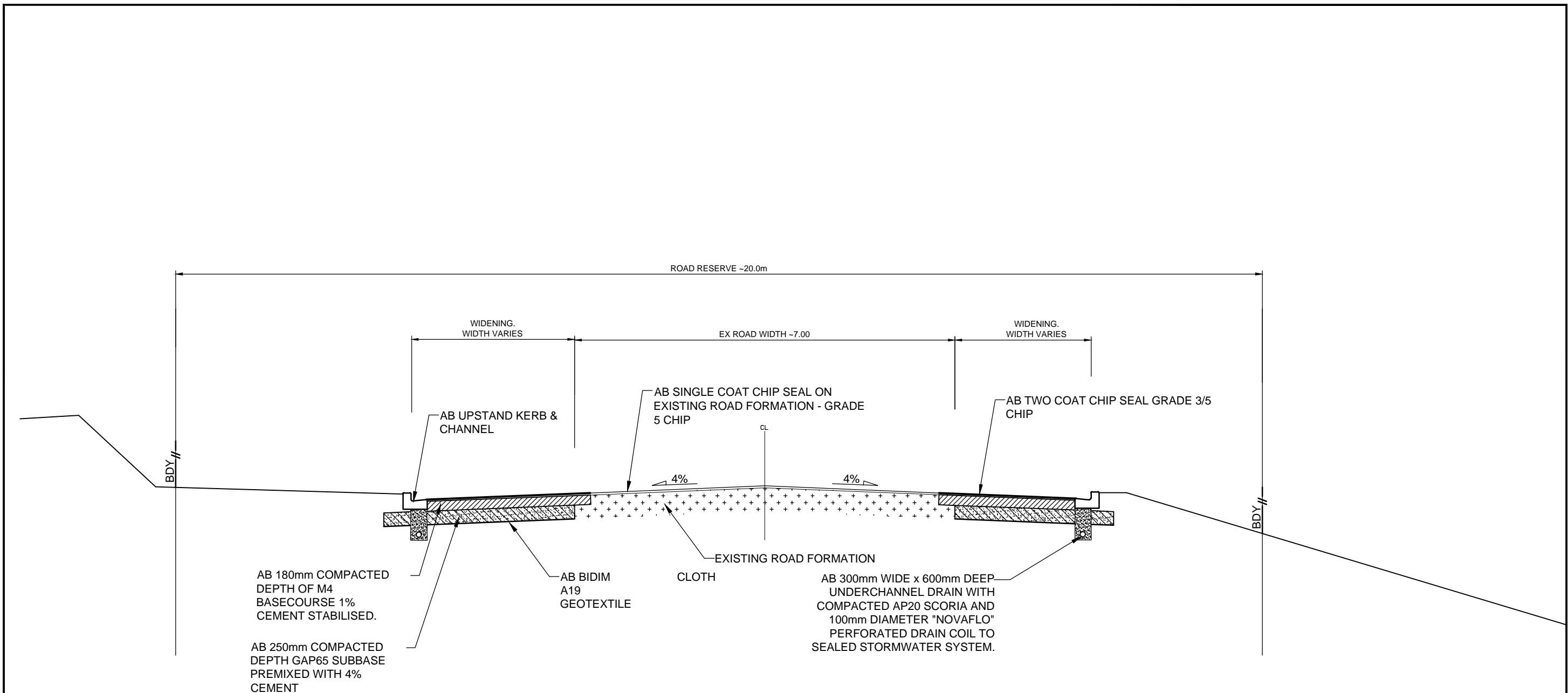
DRAWING TITLE
AS BUILT ROADING PLAN 2

DRAWING NUMBER
1273I-AB-RD303

DATE
DEC 2017

REVISION
-

Ph: 09 426 6552
Web: www.aspeng.co.nz



AB 180mm COMPACTED DEPTH OF M4 BASECOURSE 1% CEMENT STABILISED.

AB 250mm COMPACTED DEPTH GAP65 SUBBASE PREMIXED WITH 4% CEMENT

AS BUILT KAIPARA COAST HIGHWAY WIDENING

Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:75 AT A3
					DESIGN	RW DEC 17
					DRAWN	KC DEC 17
					DRAWING CHECK	RW DEC 17
					DESIGN CHECK	RW DEC 17
					APPROVED	EP DEC 17

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

DRAWING TITLE
AS BUILT ROAD CROSS SECTION DETAIL

DRAWING NUMBER
1273I-AB-RD302

DATE
DEC 2017

REVISION
-



Ph: 09 426 6552
Web: www.aspeng.co.nz

ASBUILT CO-ORDINATE TABLES

STORMWATER MANHOLE

STORMWATER CESSPIT

COORDINATES		
POINTS	EASTING	NORTHING
AB-SWMH-D01	1734144.090	5945460.704
AB-SWMH-D02	1734091.883	5945433.314
AB-SWMH-D03	1734055.677	5945411.811
AB-SWMH-D04	1734006.559	5945384.748

COORDINATES		
POINTS	EASTING	NORTHING
AB-SWCP01	1734137.426	5945454.906
AB-SWCP02	1734142.180	5945446.101
AB-SWCP03	1734081.166	5945427.685
AB-SWCP04	1734049.630	5945417.158
AB-SWCP05	1734069.676	5945406.001
AB-SWCP06	1734008.686	5945373.037
AB-SWCP07	1734001.866	5945385.149

Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

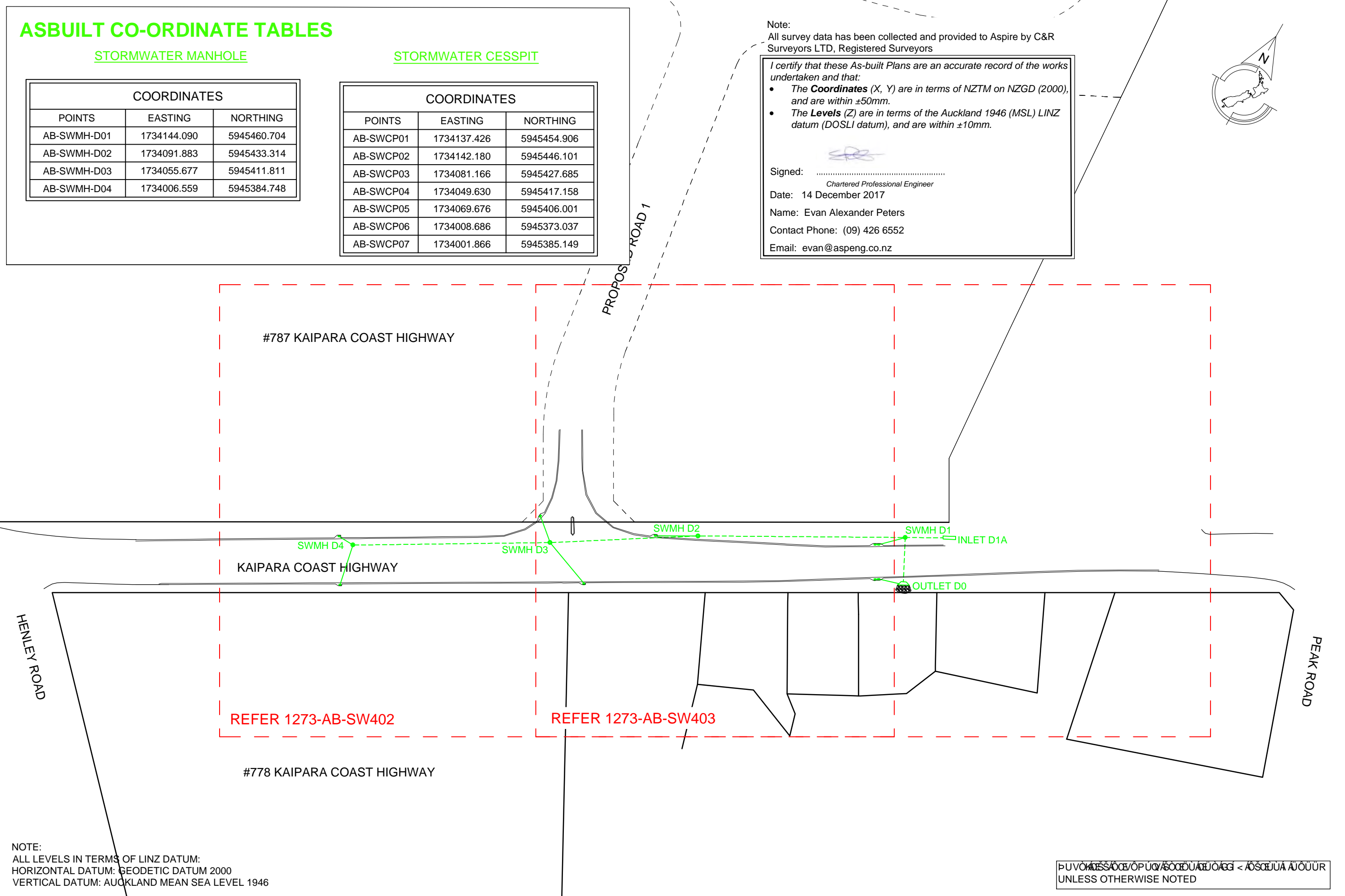
Signed: _____
Chartered Professional Engineer

Date: 14 December 2017

Name: Evan Alexander Peters

Contact Phone: (09) 426 6552

Email: evan@aspeng.co.nz



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

PUVOKI AUA TUO TUO KUA TUO TUO KUA TUO TUO KUA TUO TUO KUA TUO TUO KUA TUO TUO
UNLESS OTHERWISE NOTED

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:1000 AT A3	NAME	DATE
	DESIGN	RW		DEC 17				
	DRAWN	KC		DEC 17				
	DRAWING CHECK	RW		DEC 17				
	DESIGN CHECK	RW		DEC 17				
	APPROVED	EP		DEC 17				

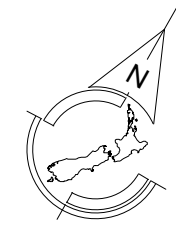
CLIENT
RIVERVIEW PROPERTIES LIMITED
Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**
DRAWING TITLE
AS BUILT STORMWATER OVERVIEW PLAN

DRAWING NUMBER
1273I-AB-SW401
DATE
DEC 2017
REVISION
-




#787 KAIPARA COAST HIGHWAY

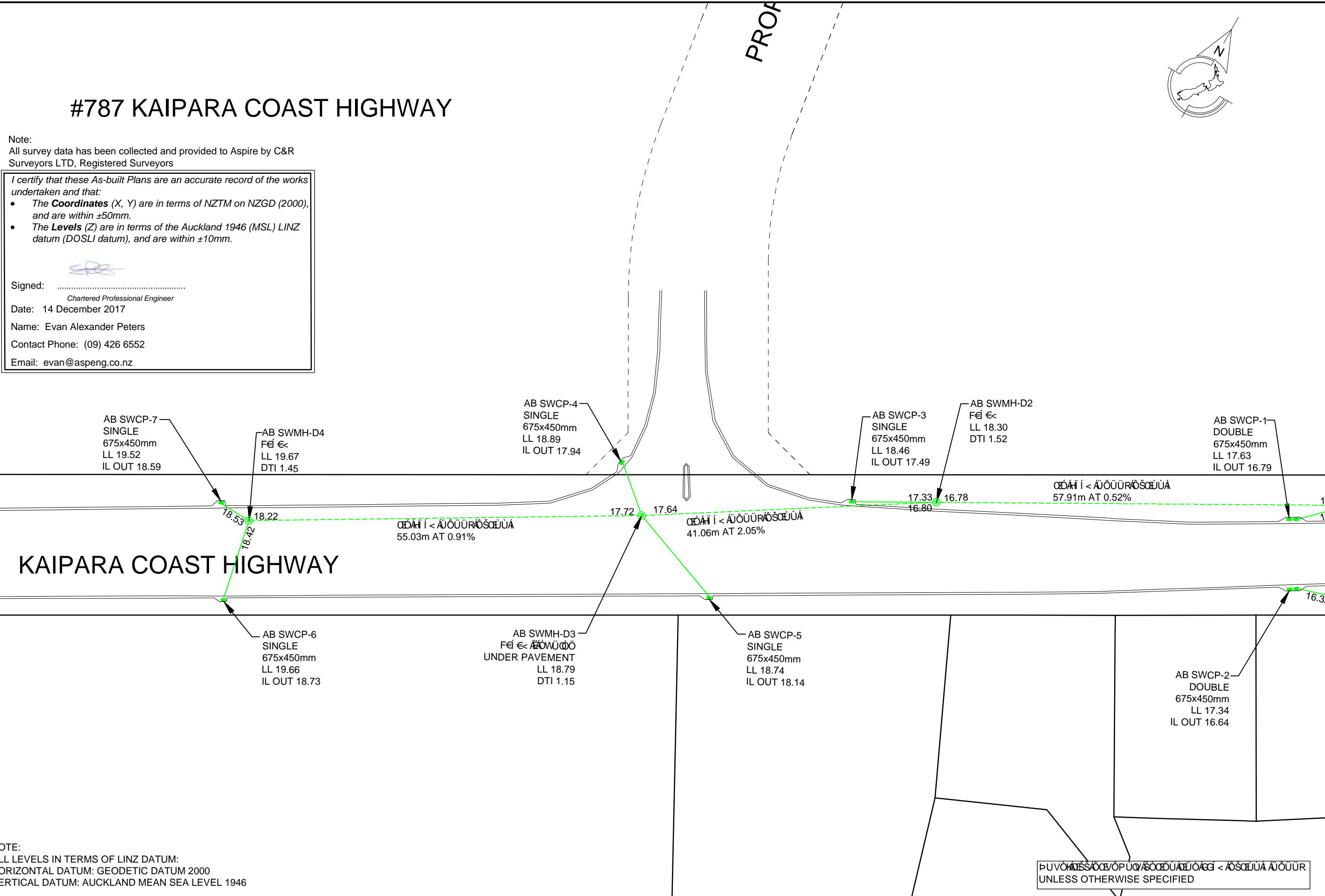


Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors

I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:500 AT A3

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

DRAWING TITLE
AS BUILT STORMWATER PLAN 1

DRAWING NUMBER
1273I-AB-SW402

DATE
DEC 2017

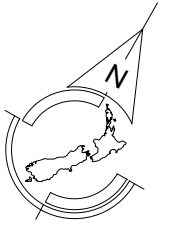
REVISION
-



Ph: 09 426 6552
Web: www.aspeng.co.nz

PROF

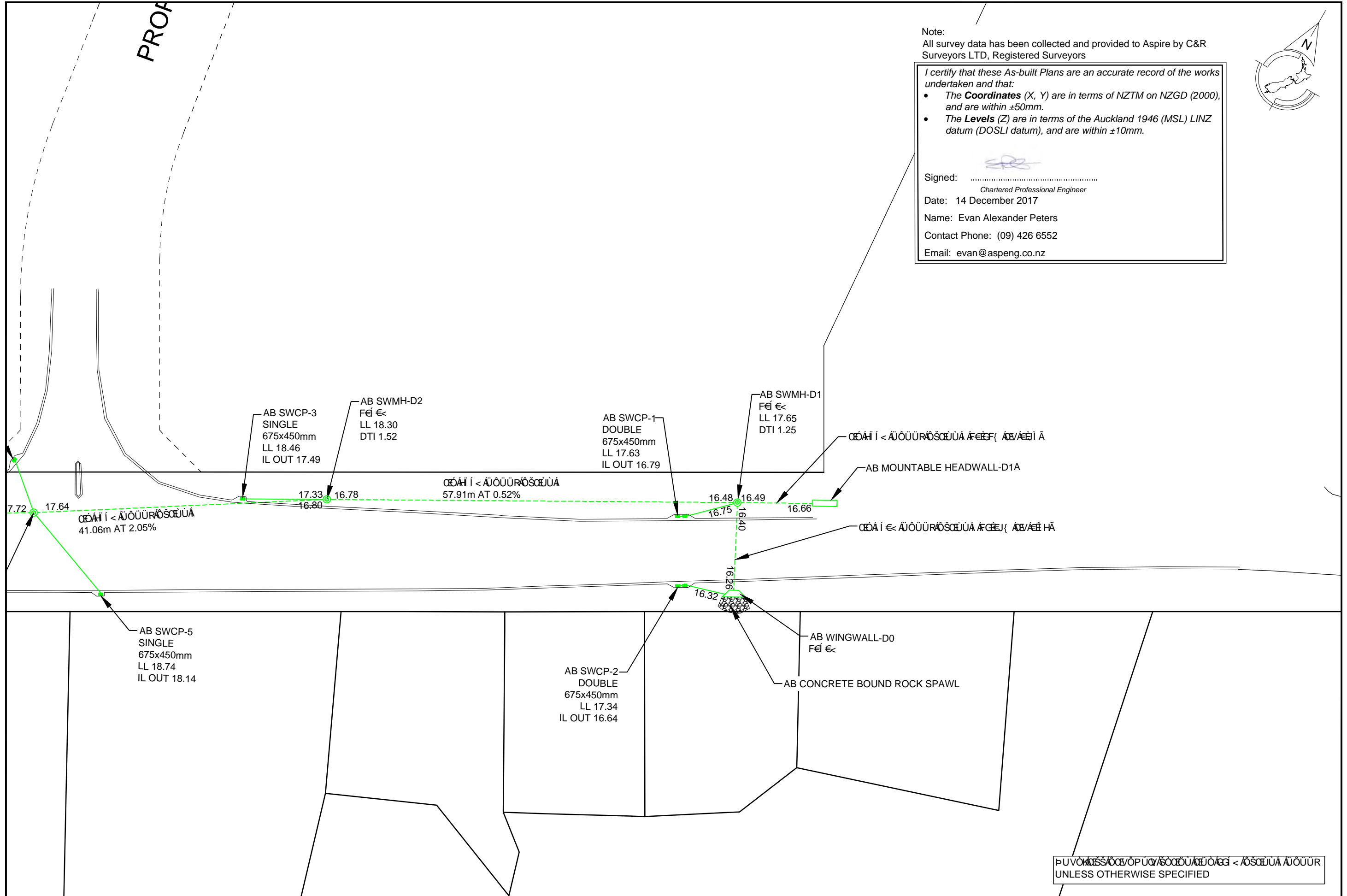
Note:
All survey data has been collected and provided to Aspire by C&R Surveyors LTD, Registered Surveyors



I certify that these As-built Plans are an accurate record of the works undertaken and that:

- The **Coordinates** (X, Y) are in terms of NZTM on NZGD (2000), and are within ±50mm.
- The **Levels** (Z) are in terms of the Auckland 1946 (MSL) LINZ datum (DOSLI datum), and are within ±10mm.

Signed: 
Chartered Professional Engineer
Date: 14 December 2017
Name: Evan Alexander Peters
Contact Phone: (09) 426 6552
Email: evan@aspeng.co.nz



REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:500 AT A3	
						NAME	DATE
						RW	DEC 17
						KC	DEC 17
						RW	DEC 17
						RW	DEC 17
						EP	DEC 17

CLIENT
RIVERVIEW PROPERTIES LIMITED

Conditions of Use:
These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**

DRAWING TITLE
AS BUILT STORMWATER PLAN 2

DRAWING NUMBER
1273I-AB-SW403

DATE
DEC 2017

REVISION
-

ASPIRE
CONSULTING ENGINEERS

Ph: 09 426 6552
Web: www.aspeng.co.nz

07 September 2016

Paul Boocock

Via email – paulboo@vibemail.co.nz

Level 11, HSBC House
1 Queen Street
Private Bag 106602
Auckland 1143
New Zealand
T 64 9 969 9800
F 64 9 969 9813
www.nzta.govt.nz

Dear Paul

**PROPOSAL FOR 36 LOT SUBDIVISION AT 751 & 787 KAIPARA COAST HIGHWAY (SH16) -
KAUKAPAKAPA**

In addition to our letters dated 15 July 2016 and 2 August 2016, the New Zealand Transport Agency is able to provide written confirmation that we are satisfied with your proposed development at 751 and 787 Kaipara Coast Highway provided the following conditions are adhered to.

Proposal

The proposal is for a 36 lot subdivision of Lot 1 DP 144373 and Lot 2 DP 173483 which includes the formation of a new road (Lots 37 and 38). The new road will intersect with SH16 at the location of existing CP44. Lot 36 will continue to have access from SH16 via an existing crossing place (CP41) and all other existing crossing places will be closed. Lots 39-40 are for Local Purpose Reserve to be vested with Auckland Council. The subdivision is shown to be in 3 stages, illustrated on the C&R Surveyors Ltd plan titled *Lots 1 to 40 being proposed subdivision of Lot 144373 & Lot 2 DP173483* dated 23 August 2016.

Decision

The NZ Transport Agency hereby provides its approval for the proposed development subject to the following conditions forming part of the resource consent lodged with Council;

1. Close and permanently remove the formation of the existing farm accesses CP42 and CP43 which currently serve Lot 2 DP173483.
2. Close and permanently remove the formation of existing crossing places CP44 and CP45 which currently serves Lot 1 DP 144373.
3. Construct the proposed intersection to accommodate a left turn lane as per MOTSAM Part 2: Markings, Figure 3.20 and to a 100km design speed.
4. Construct the proposed intersection to accommodate a right turn bay as per MOTSAM Part 2: Markings, Figure 3.25 and to a 100km design speed.
5. A construction drawing, showing the full details of the proposed intersection, any associated works, methodology and Traffic Management Plan are to be forwarded to the NZ Transport Agency's State Highway Network Manager, for approval at least 15 working days prior to commencing any works on the State highway.
6. The applicant is to advise the State Highway Network Manager, the name(s) of the firm/persons who will be doing the works on the intersection and associated works, and the time when it will be done, at least 10 working days prior to commencing works.

7. The Applicant must inform the NZ Transport Agency once the intersection has been completed so that a final compliance check can be undertaken to confirm that the conditions have been met to the NZ Transport Agency's satisfaction prior to the approval of the subdivision and a certificate being issued pursuant to Section 224 of the Resource Management Act 1991.
8. An interest is to be registered on the Certificates of Titles for Proposed Lots 1,2, 3 and 36 as follows:

" Gazette Notice (NZ Gazette 5/12/2002 p 4424) declaring State Highway No.16 adjoining to be a limited access road pursuant to Section 88(1) Transit New Zealand Act 1989".
9. A draft copy of the Certificate of Title for Proposed Lot 36 is to be sent to the NZ Transport Agency in order for the Agency to register a Crossing Place Notice against the new titles under Section 91 of the Government Roding Powers Act 1989.

In addition to the above, the following Transport Agency requirements in respect of the upgrade works are to be included in any condition granted as advice notes;

10. All works on the State Highway is to be carried out under an approved Traffic Management Plan (TMP) in accordance with the latest version of the NZ Transport Agency's Code of Practice for Temporary for Traffic Management (CoPTTM).
11. The applicant is to obtain approval of and agreement from the NZ Transport Agency to undertake the construction works in relation to the intersection upgrade on the State highway in terms of section 51 of the Government Roding Powers Act 1989. An application to that effect can be made to the Senior Asset Manager of the NZ Transport Agency. The NZ Transport Agency will process the application within a reasonable time frame. It is absolutely necessary that this approval and agreement from the NZ Transport Agency is obtained as a matter of priority before commencing any upgrade works on the State highway.

Provided the applicant accepts the proposed conditions and Council imposes them as conditions of consent this letter may serve as written approval pursuant to S95E of the Resource Management Act 1991.

To comply with the above conditions and any application for works approval within the State Highway, in the first instance please contact Hennie Lombard, Network Manager on 09 928 8725 or email hennie.lombard@nzta.govt.nz.

I trust this letter clearly outlines the NZ Transport Agency's position with respect to your client's proposal. If you have any queries, please do not hesitate to contact Sarah Ho on 09 969 9912 (or email sarah.ho@nzta.govt.nz).

This response is the NZ Transport Agency's current view of the situation. Please note that if this application is put on hold for any length of time and resubmitted at a later date, the NZ Transport Agency's may need to review its comments in the light of any traffic, safety, planning, or policy change.

Yours faithfully

A handwritten signature in blue ink that reads "Sarah Ho". The signature is written in a cursive style with a small dot at the end.

Sarah Ho
Senior Planning Advisor
Planning and Investment

11 August 2017

Paul Boocock
C/o Ryan Wyllie
Via email – Ryan@aspeng.co.nz; paulboo@vibemail.co.nz;

Level 11, HSBC House
1 Queen Street
Private Bag 106602
Auckland 1143
New Zealand
T 64 9 969 9800
F 64 9 969 9813
www.nzta.govt.nz

Dear Ryan

**RETENTION OF CP42 IN RELATION TO PROPOSED 36 LOT SUBDIVISION AT 751 & 787 KAIPARA
COAST HIGHWAY (SH16) - KAUKAPAKAPA**

As part of the NZ Transport Agency decision dated 7 September 2016 for the proposed 36 lot subdivision at 751 and 787 Kaipara Coast Highway the NZ Transport Agency sought to close two of the three existing accesses which currently serves Lot 2 DP173483 (CP42 and 43).

Your client has now requested retaining CP42 to enable continued use by the owner to access the existing minor dwelling on the site.

Following our meeting on 3 August 2017 with you, Mike Nelson (Applicant), Mark Newsome (NZTA), Cody Nixon (Fulton Hogan) the NZ Transport Agency confirms that this is possible subject to sealing the access to NZ Transport Agency standards as stated below.

Decision

In relation to Condition 1 of the letter dated 7 September 2017, the NZ Transport Agency agrees to amend this condition as follows:

1. Close and permanently remove the formation of the existing farm access CP43 which currently serve Lot 2 DP173483.
2. That crossing place CP42 is upgraded in accordance with the NZ Transport Agency's Diagram C standard as outlined in the Planning Policy Manual (2007) and to the satisfaction of the NZ Transport Agency's Network Manager. This will involve:
 - a) providing 9m bellmouth radii each side of the crossing place, and;
 - b) sealing the crossing place to the boundary

In addition to the above, the following NZTA requirements in respect of the upgrade works are also to be met:

- a) The applicant is to obtain an Agreement as to Works from the NZ Transport Agency in order to undertake construction works on the State highway in terms of section 51 of the Government Roadway Powers Act 1989. An application to that effect can be made to the NZ Transport Agency's Network Manager.
- b) Construction drawings showing full details of the access upgrading works, any associated works, methodology and TMP are forwarded to the NZ Transport Agency's Network Manager for approval at least 15 working days before the commencement of works. The construction drawings will need to show full details of NZ Transport Agency requirements as set out above.

- c) A Traffic Management Plan (TMP) in accordance with the latest version of the 'Code of Practice for Temporary Traffic Management' is submitted to the NZ Transport Agency's Traffic Management Coordinator for approval at least 5 working days prior to the commencement of work. The TMP (along with a copy of this letter) shall detail the proposed dates/times of construction and the name of the contractor who will be carrying out the construction of the crossing and associated works. The TMP is required to ensure that the construction or construction traffic would not affect the normal operation of the State highway.

All other conditions in relation to the decision dated 7 September 2017 still apply.

I trust this letter clearly outlines the NZ Transport Agency's position with respect to your client's proposal. If you have any queries, please do not hesitate to contact Sarah Ho on 09 969 9912 (or email sarah.ho@nzta.govt.nz).

This response is the NZ Transport Agency's current view of the situation. Please note that if this application is put on hold for any length of time and resubmitted at a later date, the NZ Transport Agency's may need to review its comments in the light of any traffic, safety, planning, or policy change.

Yours faithfully



Sarah Ho
Senior Planning Advisor
System Design and Delivery

6805

Paul Boocock
C/- Ryan Wyllie
Via Email – ryan@aspeng.co.nz

14th May 2018

Dear Sir/Madam

SUBDIVISION ON LIMITED ACCESS ROAD – YOUR REF: BUN20459764, BOOCOCK SUBDIVISION, 751 AND 787 KAIPARA COAST HIGHWAY

The section of State Highway 16 from Stewart Street to Davies Road was declared a limited access road by the New Zealand Gazette No. 176, page 4424 dated 5th December 2002. By virtue of section 93 of the Government Roding Powers Act 1989, that section of State highway is, for certain purposes deemed not to be a road except for such purpose, to such extent, and on such conditions as I may notify to you. I hereby give notice, on behalf of the New Zealand Transport Agency and in terms of section 93 of the Government Roding Powers Act 1989, that this section of state highway is a road for the purpose of the deposit of a plan Lot 1 DP 144373 (NA85C/817) and Lot 2 DP 173483 (NA106B/725) as approved by the Auckland Council and subject to the following restrictions:

1. Titles to all lots having frontage to the State highway or relying on the State highway for access to be endorsed with the Limited Access Road restriction.
2. All conditions and restrictions as required by the Territorial Authority or by virtue of any enactment in force at this time.

Details of Titles Created:	Lot	CFR	Area (Ha)
	Lot 1 DP 523159	CFR 831696	1.3417 Ha
	Lot 2 DP 523159	CFR 831696	3.0287 Ha
	Lot 4 DP 523159	CFR 831697	0.2515 Ha
	Lot 5 DP 523159	CFR 831698	0.2500 Ha
	Lot 6 DP 523159	CFR 831699	0.2501 Ha
	Lot 7 DP 523159	CFR 831700	0.2508 Ha
	Lot 8 DP 523159	CFR 831701	0.2500 Ha
	Lot 9 DP 523159	CFR 831702	0.2500 Ha
	Lot 10 DP 523159	CFR 831703	0.2923 Ha
	Lot 11 DP 523159	CFR 831704	0.2525 Ha
	Lot 12 DP 523159	CFR 831705	0.2913 Ha
	Lot 13 DP 523159	CFR 831706	0.2829 Ha
	Lot 14 DP 523159	CFR 831707	0.3726 Ha
	Lot 15 DP 523159	CFR 831708	0.3133 Ha
	Lot 16 DP 523159	CFR 831709	1.5238 Ha
	Lot 17 DP 523159	CFR 831710	5.2638 Ha
	Lot 18 DP 523159	CFR 831711	0.2564 Ha
	Lot 19 DP 523159	CFR 831712	0.2591 Ha
	Lot 20 DP 523159	CFR 831713	0.2626 Ha
	Lot 21 DP 523159	CFR 831714	0.2635 Ha

Lot 22 DP 523159	CFR 831715	0.2508 Ha
Lot 23 DP 523159	CFR 831716	0.2800 Ha
Lot 24 DP 523159	CFR 831717	0.2515 Ha
Lot 25 DP 523159	CFR 831718	0.2502 Ha
Lot 26 DP 523159	CFR 831719	0.2518 Ha
Lot 27 DP 523159	CFR 831720	0.2505 Ha
Lot 28 DP 523159	CFR 831721	0.2519 Ha
Lot 29 DP 523159	CFR 831722	0.2568 Ha
Lot 30 DP 523159	CFR 831723	0.2507 Ha
Lot 31 DP 523159	CFR 831724	0.3125 Ha
Lot 32 DP 523159	CFR 831725	0.2669 Ha
Lot 33 DP 523159	CFR 831726	1.6523 Ha
Lot 34 DP 523159	CFR 831727	0.9024 Ha
Lot 35 DP 523159	CFR 831728	0.2704 Ha
Lot 36 DP 523159	CFR 831729	1.2768 Ha
Lot 37 DP 523159		1.6063 Ha
Lot 39 DP 523159	CFR 831730	0.4476 Ha
Lot 40 DP 523159	CFR 831731	0.0400 Ha
Lot 42 DP 523159	CFR 831732	0.0549 Ha
Lot 43 DP 523159	CFR 831733	0.0647 Ha
Area B Deposited Plan 523159		335.1112 Ha

Yours faithfully,



Sarah Ho
Senior Planning Advisor NZ Transport Agency

14/ 05 / 2018

**Notice by the NZ Transport Agency:
Authorising a crossing place to and from a limited access road
under Section 91 of the Government Roothing Powers Act 1989**

Region	Auckland
State Highway Number	16
Declaration of Limited Access Road	Stewart St to Davies Road
Description of the parcel(s) of land to which this notice refers	Lot 36 DP 523159
Crossing Place Location	Approximately 54 metres from the Western boundary of the property (GPS position: 2644200.625 E 6507083.610 N).
NZTA File Reference	5207

Authorisation of crossing place

- 1 Pursuant to Section 91 of the Government Roothing Powers Act 1989 and subject to such conditions (if any) that it may impose, the NZ Transport Agency (hereinafter the NZTA) authorises the crossing place numbered 41 on Plan Number LA 16/47/1060 at which vehicles are permitted to proceed to and from (1) the limited access road and (2) the parcel of land described above.
- 2 A copy of the plan is available for inspection at the NZTA Auckland regional office.
- 3 This notice to the owner of the parcel of land described above specifies the location of the crossing place on the state highway road frontage.
- 4 At the time of issue of this notice this crossing place is used for residential access.

Conditions

- 5 The crossing place 41 is located at GPS co-ordinates listed above and is constructed to a Diagram C standard in accordance with NZTA Planning Policy Manual 2007.
- 6 The crossing place 41 is authorised for the residential use of one dwelling.
- 7 The crossing place 41 shall at all times be kept properly repaired and maintained by the landowner at the owner's expense.
- 8 No works are to be undertaken on the State highway without the prior approval of the State Highway Manager pursuant to Section 51 of the Government Roothing Powers Act 1989.
- 9 The owner of the parcel of land described above shall advise the NZTA State Highway Manager without delay if any of the following occur:
 - 9.1 a change in the nature or scale of use of the crossing place;
 - 9.2 a change in legal description;
 - 9.3 the owner has any concerns regarding the safety to users of the crossing place and/or of the state highway including an accident or incident that is attributed in full or in part to the use of the crossing place.
- 10 If, as a result of the change in the nature or scale of use of the crossing place, NZTA determines that works to the crossing place are necessary to address efficiency or safety concerns, then the NZTA will notify the owner of the works required. The owner shall carry out the works required at her/his cost to the satisfaction of NZTA within the time specified in the notice of the required works.

Advice notes

- 11 If the crossing place was in existence at the time of the declaration of the state highway as a limited access road, this notice does not confirm that its location, design or construction complies with NZTA standards for its current or future use. An owner with concerns in this regard should contact the NZTA regional office indicated above for further advice.
- 12 NZTA has standards for the design and construction of crossing places to state highways and will require compliance with those standards if an owner requires consent from the TLA to subdivide the land or to change its use.
- 13 A separate written permission from the NZTA in accordance with Section 51 of the Government Roading Powers Act 1989 is required before any work (other than routine maintenance) may be done on the state highway by the owner. This notice does not constitute that written permission.
- 14 NZTA wishes to emphasise that Section 91 of the Government Roading Powers Act 1989 gives NZTA the power to:
 - 14.1 cancel or vary conditions or to impose further conditions on a crossing place at any time; or
 - 14.2 cancel the right to use a crossing place. This will be exercised only after the owner has been given the opportunity to discuss the matter with NZTA
- 15 NZTA's cancellation powers will apply in the following situations
 - 15.1 when the parcel of land described above entitled to use the crossing place has ceased to exist e.g. changed legal description; or
 - 15.2 when there is a change in the location of the crossing place; or
 - 15.3 when another crossing place is authorised to the parcel of land described above; or
 - 15.4 where reasonable practicable legal access is available from another road

Special Conditions: (none if blank)

Dated this 14 day of May 2018

SIGNED for and on behalf of the
NZ TRANSPORT AGENCY



Sarah Ho
Senior Planning Advisor

(acting pursuant to delegated authority)

**Notice by the NZ Transport Agency:
Authorising a crossing place to and from a limited access road
under Section 91 of the Government Roothing Powers Act 1989**

Region	Auckland
State Highway Number	16
Declaration of Limited Access Road	Stewart St to Davies Rd
Description of the parcel(s) of land to which this notice refers	Lot 36 DP 523159
Crossing Place Location	Approximately 113 metres from the Western boundary of the property (GPS position: 2644285.486 E 6507085.145N).
NZTA File Reference	5207

Authorisation of crossing place

- 1 Pursuant to Section 91 of the Government Roothing Powers Act 1989 and subject to such conditions (if any) that it may impose, the NZ Transport Agency (hereinafter the NZTA) authorises the crossing place numbered 42 on Plan Number LA 16/47/1060 at which vehicles are permitted to proceed to and from (1) the limited access road and (2) the parcel of land described above.
- 2 A copy of the plan is available for inspection at the NZTA Auckland regional office.
- 3 This notice to the owner of the parcel of land described above specifies the location of the crossing place on the state highway road frontage.
- 4 At the time of issue of this notice this crossing place is used for residential access.

Conditions

- 5 The crossing place 42 is located at GPS co-ordinates listed above and is constructed to a Diagram C standard in accordance with NZTA Planning Policy Manual 2007.
- 6 The crossing place 42 is authorised for the residential use of one dwelling.
- 7 The crossing place 42 shall at all times be kept properly repaired and maintained by the landowner at the owner's expense.
- 8 No works are to be undertaken on the State highway without the prior approval of the State Highway Manager pursuant to Section 51 of the Government Roothing Powers Act 1989.
- 9 The owner of the parcel of land described above shall advise the NZTA State Highway Manager without delay if any of the following occur:
 - 9.1 a change in the nature or scale of use of the crossing place;
 - 9.2 a change in legal description;
 - 9.3 the owner has any concerns regarding the safety to users of the crossing place and/or of the state highway including an accident or incident that is attributed in full or in part to the use of the crossing place.
- 10 If, as a result of the change in the nature or scale of use of the crossing place, NZTA determines that works to the crossing place are necessary to address efficiency or safety concerns, then the NZTA will notify the owner of the works required. The owner shall carry out the works required at her/his cost to the satisfaction of NZTA within the time specified in the notice of the required works.

Advice notes

- 11 If the crossing place was in existence at the time of the declaration of the state highway as a limited access road, this notice does not confirm that its location, design or construction complies with NZTA standards for its current or future use. An owner with concerns in this regard should contact the NZTA regional office indicated above for further advice.
- 12 NZTA has standards for the design and construction of crossing places to state highways and will require compliance with those standards if an owner requires consent from the TLA to subdivide the land or to change its use.
- 13 A separate written permission from the NZTA in accordance with Section 51 of the Government Roading Powers Act 1989 is required before any work (other than routine maintenance) may be done on the state highway by the owner. This notice does not constitute that written permission.
- 14 NZTA wishes to emphasise that Section 91 of the Government Roading Powers Act 1989 gives NZTA the power to:
 - 14.1 cancel or vary conditions or to impose further conditions on a crossing place at any time; or
 - 14.2 cancel the right to use a crossing place. This will be exercised only after the owner has been given the opportunity to discuss the matter with NZTA
- 15 NZTA's cancellation powers will apply in the following situations
 - 15.1 when the parcel of land described above entitled to use the crossing place has ceased to exist e.g. changed legal description; or
 - 15.2 when there is a change in the location of the crossing place; or
 - 15.3 when another crossing place is authorised to the parcel of land described above; or
 - 15.4 where reasonable practicable legal access is available from another road

Special Conditions: (none if blank)

Dated this 14 day of May 2018

SIGNED for and on behalf of the
NZ TRANSPORT AGENCY



Sarah Ho
Senior Planning Advisor

(acting pursuant to delegated authority)

ADVICE OF COMPLETION OF WORK

(to be completed by the Applicant)



To: Fulton Hogan Limited
Attention: ~~Jan Page~~ Dale Roberts
From: Aspire Consulting Engineers
Name: Ryan Wyllie
Address: Unit 2, 1 Sberdale St
Auckland 0946
Phone No.: 0277010101
Fax No.:

The following works have been completed in accordance with the Agreement as to Work on State Highway issued by NZ Transport Agency.

Brief Description of Works: Construction of intersection upgrade to new subdivision at 787 Kaipara Coast Highway
Agreement Reference: MN3927 A048

Date of Completion: 18/12/2017

Inspection by Consultant: 18/12/2017 Official Use Only

Comments: Works comply/Work still required as detailed below:
The work complies with the conditions set by Agreement 048

Signed: <u>D Roberts</u> (When Complete) Name: <u>Dale Roberts</u> (for Opus)	Copies to: <u>Fulton Hogan Limited: Ian Page</u> <u>NZ Transport Agency: Hennie Lombard</u> <u>Applicant:</u>
--	---

AGREEMENT AS TO WORK ON STATE HIGHWAY

PARTIES:

1. The New Zealand Transport Agency, a Crown entity for the purposes of section 7 of the Crown Entities Act 2004 established under s93 of the Land Transport Management Act 2003 ("NZTA").
2. Riverview Properties Limited ("Applicant").

BACKGROUND:

- A. NZTA has the sole powers of control for all purposes including construction and maintenance of all State highways pursuant to the provisions of the Government Roading Powers Act 1989 (GRPA);
- B. The Applicant wishes to carry out certain works specified in Schedule One hereto which involves or affects a State highway ("the Work").

TERMS OF AGREEMENT:

NZTA hereby gives consent for the Applicant to undertake the works specified in Schedule One hereto subject to the following Terms, the General Conditions at Schedule Two and the Special Conditions at Schedule Three.

1. All of the civil engineering work within the State highway road reserve must meet with the approval of the NZTA's Senior Network Manager. The works must be constructed as shown on the plans attached at Schedule Four hereto. The exact location and level of all installations are to be made known to the NZTA's authorised representative specified in Schedule One and must be agreed to before work commences.
2. In consideration of NZTA agreeing to the works specified in Schedule One, the Applicant hereby agrees to indemnify NZTA against all costs, actions, demands, suits, damages and proceedings of any kind for or in respect of any loss or damage that may directly result to or be suffered by any third party or that may directly result to or be incurred by NZTA by reason of the exercise of the rights conferred under this agreement in relation to the work.
3. No vested right will be hereby created and this consent will not be transferable.
4. The Applicant shall pay the reasonable costs of NZTA in connection with the processing of this agreement and for monitoring and auditing the works by the NZTA Representative. The estimated processing fee for this agreement is \$4,937.00 excluding GST.
5. Prior to commencing work, the Applicant shall provide a bond of at least \$197,000.00 in favour of NZTA as a performance guarantee for the works affecting the state highway and in the form determined by NZTA, with sureties acceptable to NZTA; that will become null and void on fulfilment of all obligations under this agreement, satisfactory completion of the Works and remediation of any remaining defects due to the Applicant's works that may arise during the twelve month maintenance period following practical completion. The bond shall also cover the cost of any surface shape correction works or removal of remaining contaminated soil resulting from the Applicant's activities on road reserve.
6. The NZTA does not accept any responsibility for ensuring that the Applicant or the Applicant's agents/contractors have adequate insurance cover however it is incumbent on any party undertaking works that expose the public to any risk to have adequate Public Liability insurance cover in place or to make equivalent other provision for meeting valid claims. The Applicant is expected to ensure that their agents/contractors maintain a policy of public risk insurance, the scope of which should include the State highway Corridor and the activities carried out by the Applicant within the State highway road reserve.

7. The Applicant at own cost shall obtain all necessary approvals, consents and permits from all statutory, public or other authorities prior to commencing any work on the State highway and must comply with all Regional and District Plans and applicable statutes, bylaws, regulations, approvals, permits and consents. In particular the Applicant and/or their contractor must ensure that their works comply with the Resource Management Act (1991), Health and Safety legislation and any applicable industry codes of practice.
8. The Applicant and/or their contractor shall liaise with the owners of third party assets that may be affected by the Works (Affected Asset Owner) to arrange for protection/relocation of those assets and shall arrange for any associated on-site activities by an Affected Asset Owner.
9. The NZTA has an agreed Accidental Discovery Protocol (ADP) with Heritage New Zealand Pouhere Taonga and Iwi covering all works performed within the Motorway road reserve. The steps indicated in the protocol shall be observed in any situation where there is an "accidental discovery" of archaeological matter, including human remains. Where contact or consultation is required due to the level of risk of an accidental discovery, this is to be undertaken by the Applicant, in association with the ADP signatory organisations at no cost to the NZTA, (<https://www.nzta.govt.nz/about-us/consultations/draft-revised-accidental-archaeological-discovery-specification/>)
10. The Applicant agrees to abide by all the conditions and specifications forming part of this agreement and understands that any contravention of the agreement, which includes the conditions specified in Schedules Two and Three, may result in NZTA refusing further access to the State highway.
11. Where NZTA considers that the Applicant has breached any condition of this agreement, it will provide written notice to the Applicant specifying the breach and requiring it to be remedied where capable of being remedied. Where the Applicant fails to remedy a material breach within ten (10) working days of receipt of such notice or where such material breach is incapable of being remedied, NZTA may withdraw this consent by giving notice to the Applicant who shall remove the utility service and leave the State highway reserve in good order and condition to the reasonable satisfaction of the Safety & Network Performance Manager.
12. The Applicant agrees to compensate NZTA for any costs incurred resulting from the work for any damage to NZTA assets on the State highway, or for works involving the removal of any abandoned components or equipment that belong to the Applicant.
13. The Applicant will not be entitled to any compensation in the event of withdrawal or termination of this agreement. Action by NZTA to terminate or withdraw the agreement will not be taken if the conditions are adhered to by the Applicant.
14. Nothing in this agreement shall be construed to derogate from the rights of NZTA to enter upon the areas occupied by the constructed works for the purpose of installing, maintaining, repairing or removing any new or existing NZTA assets or for any other lawful purpose. NZTA will not otherwise interfere with the rights hereby conferred on the Applicant.
15. On completion of the works, the Applicant and/or their contractors shall submit a fully completed "Advice of Completion of Work" form, proposing the date of practical completion. The twelve-month maintenance period will commence as from the date that NZTA have agreed and confirmed the date of practical completion by signing the form.
16. The NZTA reserves the right to require repairs to any road asset defects resulting from the works during the defects liability period. Defect remediation identified by the NZTA Representative must be undertaken within five working days of notification or as directed by the Senior Network Manager.
17. An additional period of defects liability equivalent in period to the original period of defects liability shall apply to all works required to be remedied as a defect or required as a consequence of the remedy of a defect, unless the NZTA Representative agrees otherwise in writing.
18. Where the Applicant fails to comply with any requirement in this agreement NZTA may arrange for the necessary work to be done and may recover any costs incurred, including the reasonable costs of NZTA in connection with additional monitoring and auditing of the works.
19. After satisfactory completion of the works, the Applicant must give prior notification to the NZTA Representative on each separate occasion before undertaking any maintenance work within the State highway corridor. The NZTA will

Agreement No. 048

assess the implications and impose any new or altered conditions deemed necessary to protect the integrity of the State highway assets.

20. In the absence of written acceptance from NZTA for an extension, this agreement will become invalid if the physical works do not commence within six months of the date signed to hereunder or as agreed in writing with the Senior Network Manager prior to expiry of the six month period.

Date: 21/08/2017

Signed for and on behalf of

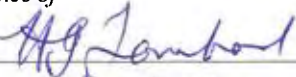
NZ TRANSPORT AGENCY



Royhith Lal
Acting Senior Network Manager, Northland &
Auckland North
Acting pursuant to delegated authority

in the presence of

Signature:



Occupation:

Network Manager (Utilities)

Name:

Hennie Lombard

Signed by

Riverview Properties Limited



Name:

Paul Coxon

Name:

in the presence of

Signature:



Occupation:

Civil Engineer

Name:

Ryan Wyllie

SCHEDULE ONE

THE WORK:

- Construct a new intersection at 751 & 787 Kaipara Coast Highway to accommodate a left turn lane and right turn bay, to 100km/hr design speed;
- Upgrade CP42 to Diagram C standard with mountable grates at the culvert ends;
- Close and permanently remove the formation of the existing crossing place CP43, CP44 and P45.

LOCATION:

STATE HIGHWAY: 16
ROUTE POSITIONS: RS 47/RP 10.36

PLANS:

Included at Schedule Four

APPLICANT'S REPRESENTATIVE:

Aspire Consulting Engineers Limited

CONSTRUCTION CONTRACTOR:

TBA

NZTA REPRESENTATIVE:

Fulton Hogan Limited

SCHEDULE TWO

GENERAL CONDITIONS

1. Temporary traffic control on the State highway must comply with the latest version of the **Code of Practice for Temporary Traffic Management (CoPTTM)** published by NZTA. For all activities falling within and outside the State highway road reserve where such activities affect the normal operating conditions of the State highway the Applicant must submit a proposed programme of work and Traffic Management Plan (TMP) for prior acceptance and approval of the NZTA's Traffic management Coordinator.
2. The Applicant will be responsible for maintaining the work site, as described in Schedule One, in a safe condition during the works. The Applicant must ensure that any work affecting State highway traffic is carried out under the control of a warranted Site Traffic Management Supervisor (STMS) - Practising, and there must be sufficient other people on duty specifically to control the flow of traffic through the site in accordance with the TMP while having resources within the State highway road reserve.
3. The works must be carried out in a way that minimises disruption to the flow of vehicles, pedestrian movements and access to adjacent private properties. The Applicant and/or their contractor must ensure that safe pedestrian/cyclist access through the work site is maintained at all times and the worksite must be well delineated and screened off for public safety in accordance with the CoPTTM.
4. In complying with the CoPTTM, the designer of the traffic management plan must determine appropriate hours of work so as to avoid peak traffic flow periods and ensure that excessive traffic delays do not occur.
5. During the hours of darkness or when no work is being carried out on site the State highway traffic lanes in both carriageway directions shall be available to the travelling public. No trafficable road surfaces are to be left unsealed at the completion of each working day and pipe crossings are to be reinstated with temporary tarmac, the condition of which shall be monitored at least daily until permanent surfacing has taken place.
6. No work shall be undertaken on or adjacent to an operational State highway during public holiday moratorium periods set by NZTA's Safety & Network Performance Manager. This information is available upon request from the NZTA Representative.
7. All works must be completed in one continuous operation where possible. Works shall not be suspended for any period of time greater than 24 hours without the NZTA Representatives' permission.
8. Lane closures on the State highway will not be permitted without the express approval of NZTA's Traffic Management Coordinator. Traffic delay in either direction shall not exceed 5 minutes or as defined in the approved TMP.
9. The Applicant and/or their contractor must comply with NZTA's Personal Protective Equipment requirements <https://www.nzta.govt.nz/assets/resources/health-and-safety-ppe/docs/health-and-safety-ppe.pdf> as a minimum standard while undertaking work in the State highway corridor..
10. The Transport Agency recommends that all workers entering worksites on State highways have as a minimum, undertaken a ConstructSafe Health and Safety Tier 1 Competency Test. Details are available at <http://www.constructionsafety.council.co.nz>. This is a collaborative safety initiative that is being introduced throughout New Zealand as a minimum requirement across the entire construction industry. From 1 July 2017 all State highway projects/work sites will have a minimum entry requirement of ConstructSafe Tier 1 (Foundation Health and Safety Competence) for all workers entering an NZTA work site - see <https://www.nzta.govt.nz/resources/16-11-state-highway-contractor-health-and-safety/> containing Technical Advice Note #16-11.
11. The Applicant and/or their contractor is responsible for locating and protecting existing utility and other services, the location and depth of which may not be known, and notwithstanding any such uncertainty it is the Applicant's responsibility at own cost to repair any damage caused to any services. All road projects on State highways must comply with the minimum standards described in NZTA's Minimum Standard for Utility Identification and Protection on Road Projects, which can be downloaded from NZTA's website: <https://www.nzta.govt.nz/roads-and-rail/highways-information-portal/technical-disciplines/zero-harm-minimum-standards/utility-identification/>
12. Where there is any likelihood that construction noise or ground vibration due to the works will affect local residents or adjacent businesses, the Applicant shall comply with the State highway construction and maintenance noise and

vibration guide: (<https://www.nzta.govt.nz/assets/resources/sh-construction-maintenance-noise-docs/construction-maintenance-noise-vibration-guide.pdf>) or subsequent amendments, setting out the best practicable option that will meet the criteria relevant to the worksite.

13. The Applicant and/or their contractor will be responsible for protecting and maintaining all NZTA signs and road furniture including edge delineator posts during the period of work. Where traffic safety facilities (signs, marker posts etc.) are removed in the course of the work these must be re-erected to the proper standard prior to the removal of the temporary traffic controls required by these conditions.
14. Surfaces disturbed during the works must be restored with materials identical to that immediately adjacent and to the same depth and level and the materials, method and finish of the work must comply with the requirements set out in the relevant NZTA Specifications and as specified in the Special Conditions at Schedule Three hereto..
15. Excavation in areas other than those in metalled and sealed areas shall be backfilled with good quality fill material suitable for the purpose and this material shall be compacted such that in any part its density is equal to the density of the adjacent ground.
16. Works undertaken in the surface water channels must be carried out in such a manner as to cause minimal interference to existing drainage pattern and the water channel must be fully restored at the completion of the works to permit the free draining of the area.
17. All surplus excavated material must be removed from the site and all surfaces disturbed by any of the work must be restored to their original condition or better.
18. The Applicant and/or their contractor must ensure that all grass verges are reinstated and re-grassed in such a way that affected areas are easily accessible for mowing and other maintenance purposes.
19. Any boundary fencing removed to enable the works to proceed must be replaced to a condition as good as or better than previously existing at the time of removal.
20. The Applicant is responsible for the contractual supervision of the Work to ensure all conditions and requirements are fully met. This includes (but is not limited to) maintaining the worksite in a safe and sound condition during the Work and any pavement repairs and vegetation control as required or as directed by the NZTA Representative.
21. It is the responsibility of the Applicant to inform all other parties associated with the Work of the requirements and conditions of this consent.
22. Access to the worksite shall be made available at all times for inspection by any person authorised the Senior Network Manager subject to the reasonable workplace health and safety directions and requirements of the Applicant or the Construction Contractor. Compliance with the conditions specified herein will be monitored during construction and audited upon completion by the NZTA Representative.
23. A full copy of this Agreement must be kept on site at all times during construction.

SCHEDULE THREE

SPECIAL CONDITIONS

1. The Applicant must submit the proposed programme of works and a TMP to Level One standard to the Traffic Management Co-ordinator (Fulton Hogan Limited - E-mail paul.morgan@fultonhogan.com) at least five Working Days prior to each of the proposed work start dates along with Proof of training and registration of the nominated Site Traffic Management Supervisors (STMS's).
2. Contact with the NZTA Representative (Dale Roberts at Fulton Hogan Limited, Whangarei - Telephone (09) 470 2077) must be made at least two working days before site establishment so that a set-up site inspection can be carried out.
3. The operational hours of construction plant entry/exit movements and direction of ingress/egress and the following shall also be discussed and agreed with the NZTA Representative:
 - a) the Applicant must provide a 24 hour contact during the road works for purposes of site management, safety and traffic control;
 - b) subject to the requirements of the CoPTTM, the hours of work shall be 8:00am – 6:00pm unless otherwise agreed to by the Traffic Management Coordinator;
 - c) all construction vehicles and plant shall use the establishment area, parking spaces, stock pile locations and entry/exit point to access the work area as agreed with the NZTA Representative.
4. Intersection Construction and Crossing Place Upgrading:
 - a) The works are to be carried out by a reputable and experienced roading contractor, familiar with works on State highways.
 - b) The intersection is to be constructed or upgraded as per the approved plans included at Schedule Four.
 - c) Crossing Place 42 is to be upgraded to NZ Transport Agency's Diagram C standard as outlined in the Planning Policy Manual (2007), which involves providing 9m radii on each side, sealing to the property boundary and reinstatement of the mountable grates at the culvert ends.
 - d) Crossing Places 43, 44 and 45 are to be closed and the formation removed.
 - e) The pavement design must be submitted for approval of NZTA's Representative before work commences. These designs must conform to accepted State highway standards, e.g. AustRoads.
 - f) To verify design assumptions, Scalar Penetrometers shall be used at 10m centres of all under-cut areas.
 - g) All construction affecting the State highway carriageway (entire surfaced width) shall be carried out using materials and methods that comply with State highway standards and specifications. Carriageway pavement excavation shall be backfilled with 500mm depth basecourse complying with specification TNZ M/4 Table 2 where the pavement design has not been specifically approved.
 - h) Notice is to be provided at least 48 hours before pavement excavation stage so that a site inspection can be held to confirm pavement depth.
 - i) A pavement and sealing design must be provided at dig-out stage, works cannot proceed until this design is accepted by the Senior Network Engineer or the NZTA's nominated representative.
 - j) Advice is to be provided of construction progress and notice shall be given to the NZTA Representative at least 48 hours before sealing so that a pre-surfacing inspection can be carried out.
 - k) Prior to pre-seal inspection, Clegg Testing is required on the new Crossing Place - minimum result of 40 for a crossing, to an average of 55 and a minimum of 45 for opposite widening /shoulder widening.
 - l) The sealing work up to the boundary shall conform to NZTA's standards including NZTA Bitumen Sealing Manual and Specification No. TNZ P3 (first coat sealing). *The seal for this site shall be a Grade 3/5 Two Coat.*
 - m) Pavement marking, raised pavement markers and marker posts are to be installed in accordance with the relevant NZTA specifications.
 - n) A second coat seal must be undertaken one year after construction.

Agreement No. 048

5. Sawcutting requirements:
 - a) Where an excavation is required to be made through any concrete, asphalt or chip seal surface, the edges of the excavation or trench shall be cut with a power saw prior to the excavation of the trench. The cut is to extend through the full thickness of the surface layer in a clean straight parallel line.
 - b) Areas adjacent to the excavation shall not be undercut. If slumping of material from the sides of the excavation causes depressed areas adjacent to the excavation, or if the edges of the pavement are lifted during excavation, additional saw cutting outside of the original line of the excavation and outside the area of damage will be required. This will need to be carried out before the final surface reinstatement.
 - c) Joints must form a neat simple pattern to include trimming allowances. Generally this will mean parallel saw cuts on the sides of any area. All joints are to be sawcut to a depth sufficient to avoid disturbance of adjoining pavement. For effective saw cutting the depth of cutting shall be no less than 30mm.
6. All culverts shall be minimum 375mm diameter and include mountable headwalls at both ends. If unsatisfactory drainage impacts result from the Works, the applicant/contractor shall be held liable for the cost of any remedial work. Where the Applicant fails to remedy defects, NZTA may arrange for the necessary work to be done and recover any costs incurred.
7. Suitable measures shall be implemented for dust control and to prevent the tracking of any mud or loose gravel onto the live lanes of the State highway.
8. Supporting structures and manhole covers must be manufactured or designed and constructed for loadings on a public road.
9. Verge renewal and reinstatement shall comply with the following:
 - a) the condition of the verge, including signs shall be recorded before and after execution of the works;
 - b) surfaces disturbed during the works must be restored with materials identical to that immediately adjacent and to the same depth and level. The design of the backfill shall be consistent with in-situ materials to obviate differential settlement. Any differences in comparability of surfacing layers shall be resolved on site with the NZTA Representative;
 - c) all contaminated soil shall be taken to an approved landfill site and the site shall be restored to a condition free of any contaminants or hazardous materials;
 - d) unforeseen backfill incompatibilities discovered during the works shall be resolved on site with the NZTA representative.
10. Upon project completion, the applicant must forward the following to the Network Maintenance Contractor, Fulton Hogan Limited, Whangarei, for attention of Ian Page:
 - a) a completed copy of the supplied Advice of Completion of Works form, so that a works inspection can be arranged, and
 - b) a full set of "As-built" drawings, and
 - c) updated RAMM details for any affected asset data (prepared and supplied by a RAMM qualified practitioner). RAMM data to be prepared in accordance with the NZTA State Highway Database Operations Manual, revision May 2009. Information supplied must suit the requirements of Lisa Veresis, NOC Asset Information Manager, 027 444 9744.

SCHEDULE FOUR

PLANS

Aspire Consulting Engineers

1273 – ENG - Cover Sheet PG1101

Intersection Engineering Drawings – NZTA, 1273 – ENG, Drawing No.:

PG102
PG103
PG104
EW208
EW209, Rev A
EW210, Rev A
RD302
RD303
RD304
RD305
RD306
RD310, Rev A
RD312
RD313
RD314
RD315
RD316
RD317
RD327
SW405
SW410
SW411
SW412, Rev A

Roadway lighting plans, IbeX Lighting Project 6178:

Drawing 1, Rev A
Drawing 2, Rev A

NZ Transport Agency Planning Policy Manual Diagram C Standard

- Diagram C
- Perspective C

Mountable Grates for Precast Headwalls

**RIVERVIEW PROPERTIES LTD
PROPOSED 35 LOT RESIDENTIAL SUBDIVISION
787 KAIPARA COAST HIGHWAY
KAUKAPAKAPA**



ENGINEERING DRAWINGS - NZTA

PRELIMINARY & GENERAL

- PG101 COVER SHEET
- PG102 CONTENTS PAGE
- PG103 EXISTING SITE PLAN
- PG104 PROPOSED DEVELOPMENT PLAN

EARTHWORKS

- EW208 PROPOSED INTERSECTION CLEARANCE PLAN
- EW209 PROPOSED RETAINING WALL OVERVIEW
- EW210 TYPICAL RETAINING WALL DETAILS

ROADING

- RD302 PROPOSED HIGHWAY INTERSECTION OVERVIEW
- RD303-304 PROPOSED HIGHWAY INTERSECTION DETAILS
- RD305 PROPOSED HIGHWAY PAVEMENT CONSTRUCTION
- RD306 PROPOSED ROADING LONGSECTIONS
- RD310 TYPICAL ROADING CROSS-SECTIONS
- RD312-313 TYPICAL ROAD DETAILS
- RD314-317 PROPOSED ROAD X-SECTIONS
- RD327 PROPOSED HIGHWAY INTERSECTION TRACKING

STORMWATER

- SW405 PROPOSED STORMWATER ALIGNMENT
- SW410-411 PROPOSED STORMWATER LONGSECTIONS
- SW412 PROPOSED CULVERT CROSS-SECTION

NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	NTS AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	DATE	REVISION
							DESIGN	RW	03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - PG102	-
						DRAWN	RW	03.17					
						DRAWING CHECK	PF	03.17					
						DESIGN CHECK	PF	03.17					
						APPROVED	PF	03.17					
<small>Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</small>										DRAWING TITLE	MARCH 2017		
										CONTENTS PAGE			



Ph: 09 426 6552
 Web: www.aspeng.co.nz



NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1949

REV.	DESCRIPTION	CHECK	APPD.	DATE	SCALE 1:2500 AT A3	
					NAME	DATE
					DESIGN	RW 03.17
					DRAWN	RW 03.17
					DRAWING CHECK	RW 03.17
					DESIGN CHECK	PF 03.17
					APPROVED	PF 03.17

CLIENT
RIVERVIEW PROPERTIES LTD

These drawings shall only be used for the purpose for which they were
 issued. Do not measure off this drawing. If doubt please contact Engineer

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
 KAUKAPAKAPA**

DRAWING TITLE
EXISTING SITE PLAN

DRAWING NUMBER
1273 - ENG - PG103

DATE
MARCH 2017

REVISION
 -

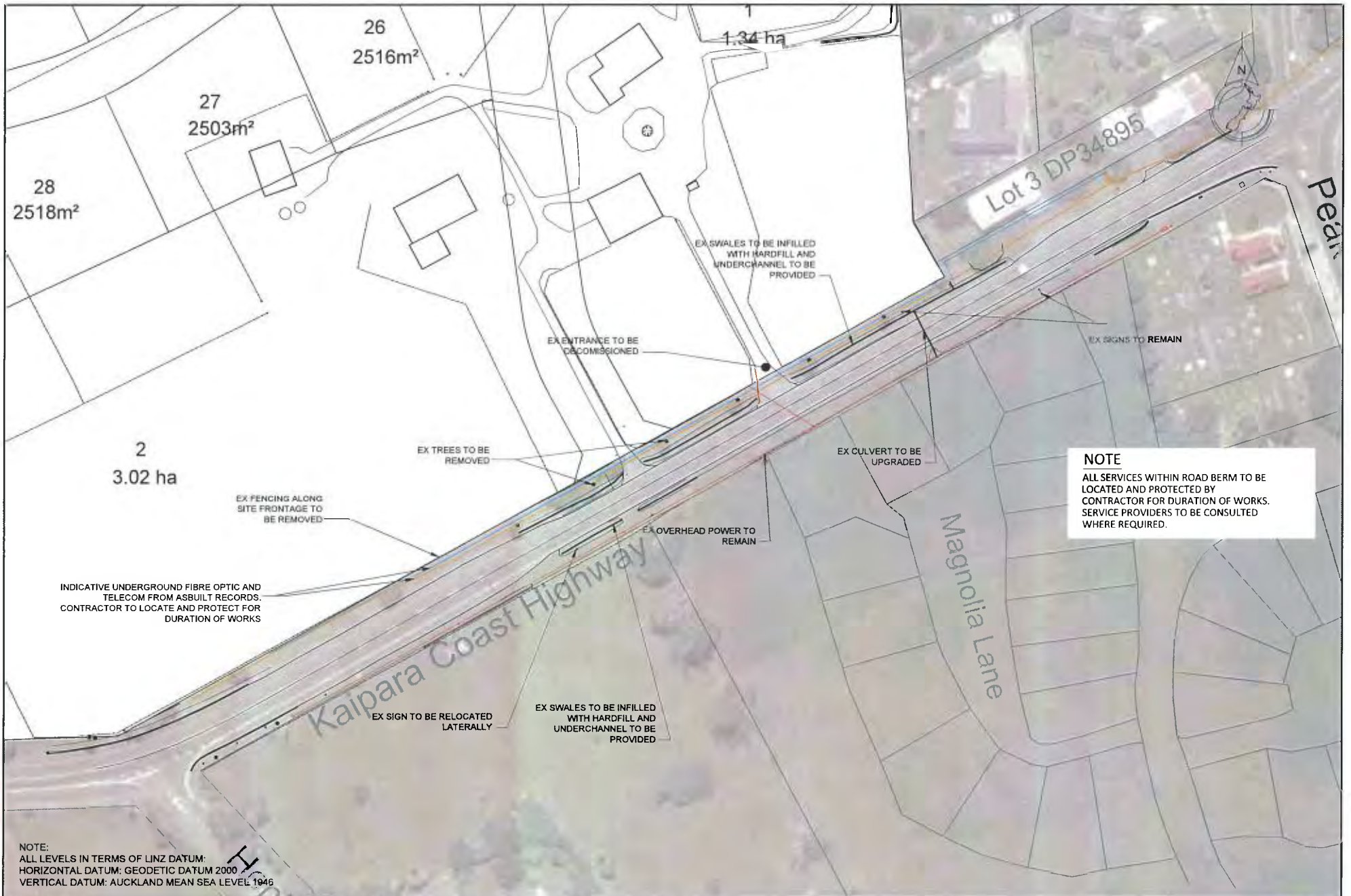
ASPIRE
 CONSULTING ENGINEERS

Ph: 09 426 6552
 Web: www.aspeng.co.nz



NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1945

REV.	DESCRIPTION	CHECKED	APPROVED	DATE	SCALE	1:2500 A1/A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER			
							DESIGNED	RW	03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA			
						DRAWN	RW	03.17	DRAWING TITLE PROPOSED DEVELOPMENT PLAN			DATE MARCH 2017		
						DRAWING CHECKED	RW	03.17					REVISION	
						DESIGN CHECKED	PF	03.17						-
						APPROVED	PF	03.17						
<small>Notes of Use: This drawing shall only be used for the purpose for which they were applied. Do not measure off this drawing. If doubt please contact Engineer.</small>										ASPIRE <small>CONSULTING ENGINEERS</small> Ph: 09 426 6552 Web: www.aspeng.co.nz				



NOTE
 ALL SERVICES WITHIN ROAD BERM TO BE LOCATED AND PROTECTED BY CONTRACTOR FOR DURATION OF WORKS. SERVICE PROVIDERS TO BE CONSULTED WHERE REQUIRED.

INDICATIVE UNDERGROUND FIBRE OPTIC AND TELECOM FROM ASBUILT RECORDS. CONTRACTOR TO LOCATE AND PROTECT FOR DURATION OF WORKS

NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:1000 AT A3
					NAME	DATE
					DESIGN	RW 03.17
					DRAWING	RW 03.17
					DRAWING CHECK	RW 03.17
					DESIGN CHECK	PF 03.17
					APPROVED	PF 03.17

CLIENT
RIVERVIEW PROPERTIES LTD

Conditions of Use:
 These drawings shall only be used for the purpose for which they were issued. Do not measure off this drawing. If doubt please contact Engineers

SITE ADDRESS
**751 & 787 KAIPARA COAST HIGHWAY
 KAUKAPAKAPA**

DRAWING TITLE
PROPOSED INTERSECTION CLEARANCE

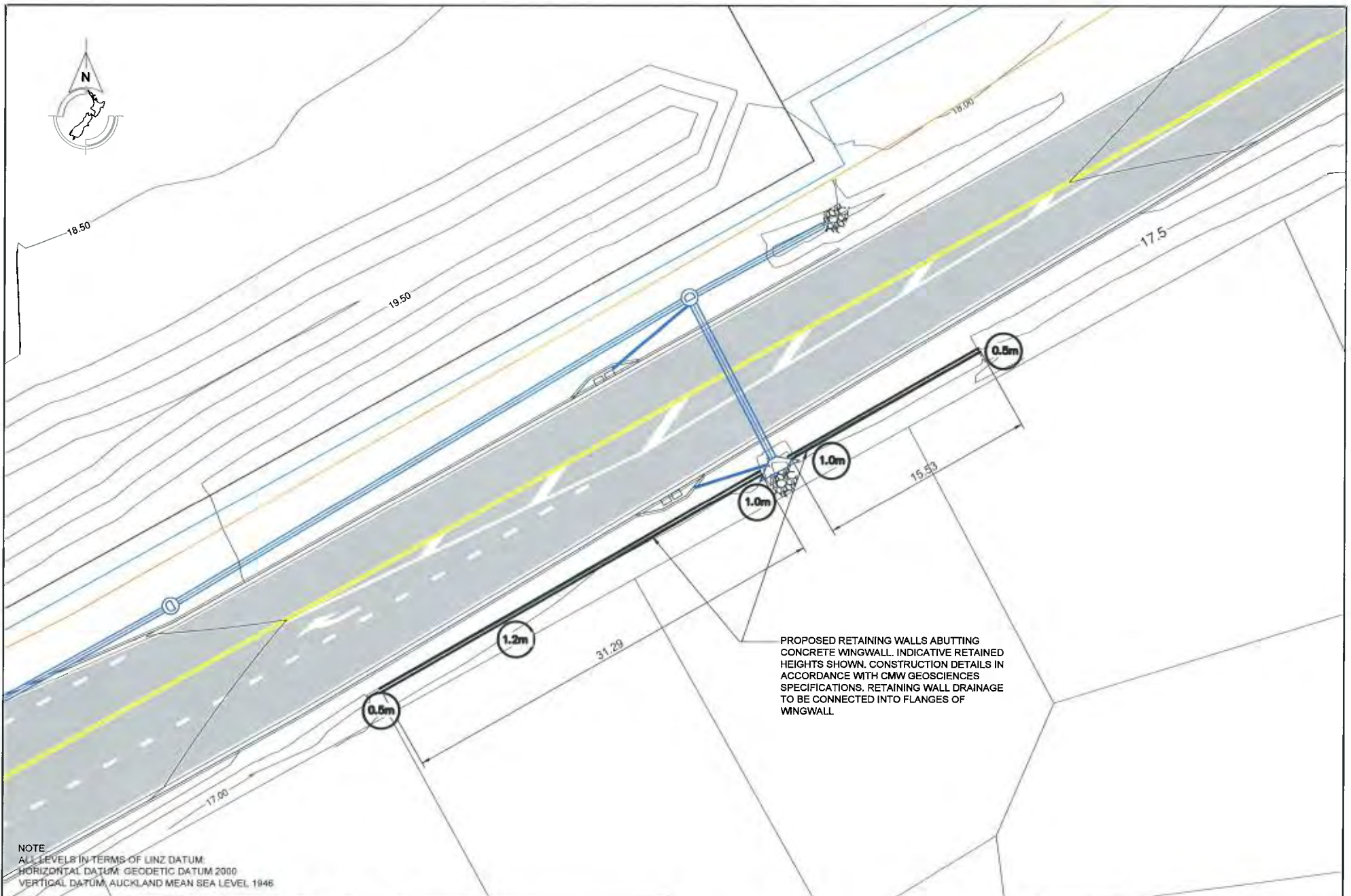
DRAWING NUMBER
1273 - ENG - EW208

DATE
MARCH 2017

REVISION
 -

ASPIRE
 CONSULTING ENGINEERS

Ph: 09 426 6552
 Web: www.aspeng.co.nz

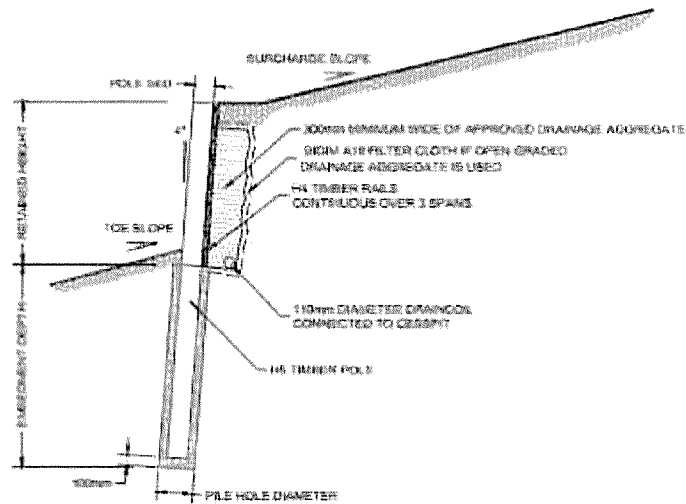


PROPOSED RETAINING WALLS ABUTTING CONCRETE WINGWALL. INDICATIVE RETAINED HEIGHTS SHOWN. CONSTRUCTION DETAILS IN ACCORDANCE WITH CMW GEOSCIENCES SPECIFICATIONS. RETAINING WALL DRAINAGE TO BE CONNECTED INTO FLANGES OF WINGWALL

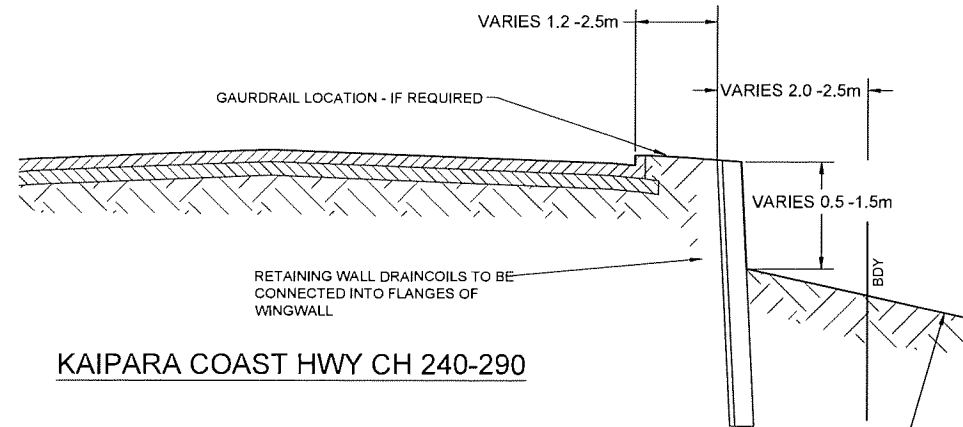
NOTE
 ALL LEVELS IN TERMS OF LINZ DATUM.
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV	DESCRIPTION	CHECK	AP'D	DATE	SCALE	1:200 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
A	RET WALL DRAINAGE NOTE	RW	PF	06.17			RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - EW209
					DESIGN	RW			DATE
					DRAWN	RW			REVISION
					DRAWING CHECK	RW			MARCH 2017
					DESIGN CHECK	PF			A
					APPROVED	PF			

ASPIRE
 CONSULTING ENGINEERS
 Ph: 09 426 6552
 Web: www.aspeng.co.nz



TYPICAL RETAINING WALL DETAIL



KAIPARA COAST HWY CH 240-290

NOTE: REFER TO FULL CMW DESIGN REPORT AKL2016_0462AE REV0 FOR FULL CONSTRUCTION DETAILS

IF EXCAVATIONS OR RETAINING STRUCTURES PRESENT IN LOWER SITES, ENGINEER TO BE ENGAGED TO SPECIFY RETAINED HEIGHT CASE

CASE 1 - TIMBER POLE RETAINING WALL						
Max surcharge slope	5°					
Max toe slope	12°					
Surcharge loading	12 kPa					
Retained friction angle	36°					
Foundation soil undrained shear strength	80 kPa					
Maximum retained height (m)	Pile spacing C/C (m)	Minimum embedment depth (m)	Pile hole diameter (mm)	Pole SED (mm)	Rail thickness (mm)	
0.5	1.20	1.30	350	150	50	
0.7	1.20	1.50	350	175	50	
0.9	1.20	1.70	350	200	75	
1.1	1.20	1.90	350	225	75	
1.3	1.20	2.30	400	250	75	
1.5	1.20	2.60	400	275	75	
1.7	1.20	3.00	450	300	75	
1.9	1.20	3.40	500	350	75	

NOTE: LOWER BOUND RAIL THICKNESS MAY BE USED FROM TOP OF WALL

NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:75 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
A	RET WALL DRAINAGE NOTE	RW	PF	04.17			RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - EW210
					DESIGN	NAME			
					DRAWN	RW			
					DRAWING CHECK	PF			
					DESIGN CHECK	PF			
					APPROVED	PF			
							CONDITIONS OF USE These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE	DATE
								PROPOSED RETAINING WALL SECTION	APRIL 2017
									REVISION
									A

ASPIRE
CONSULTING ENGINEERS
Ph: 09 426 6552
Web: www.aspeng.co.nz

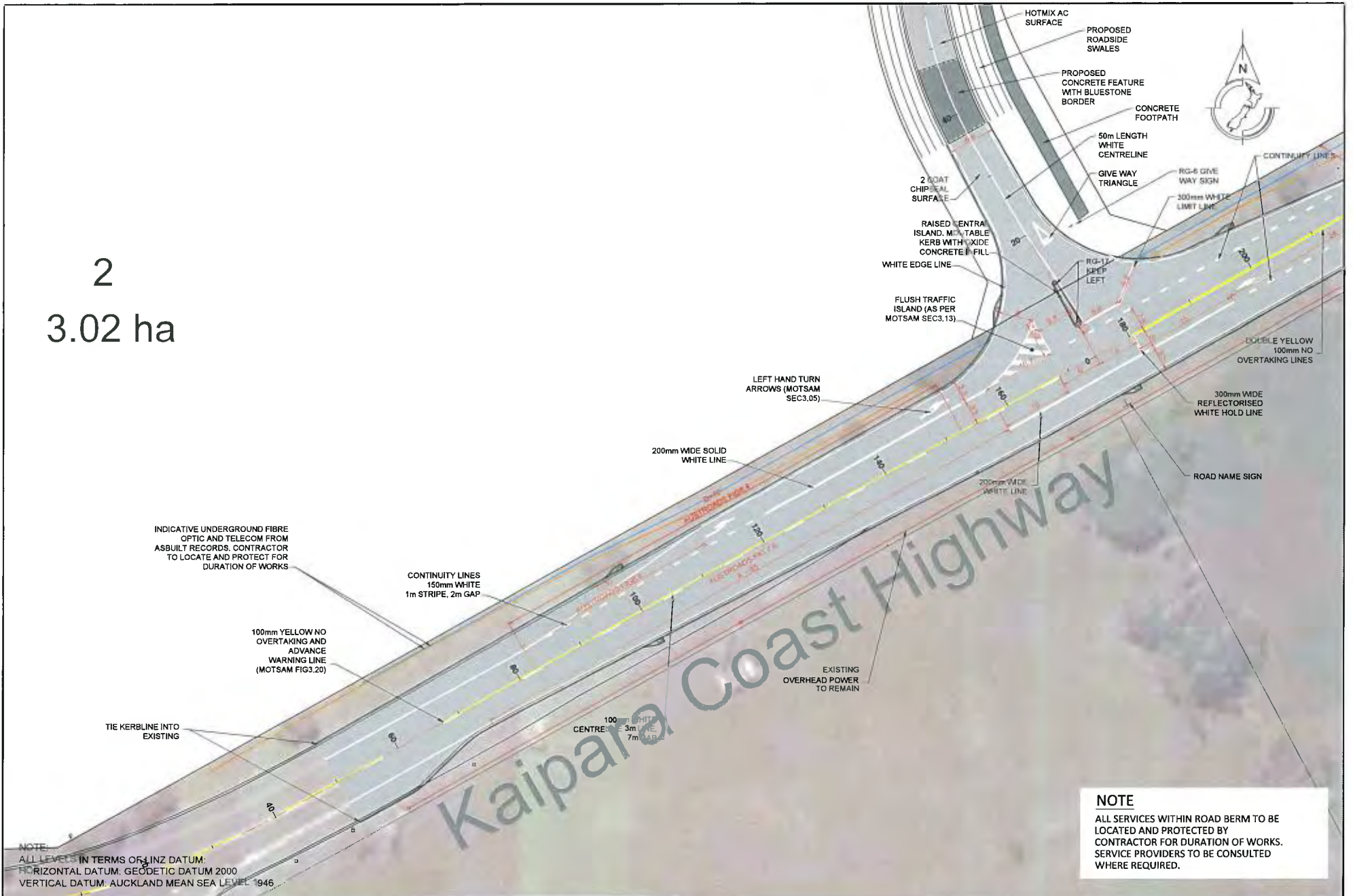


NOTE
 ALL LEVELS IN TERMS OF LINZ DATUM
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCLAND MEAN SEA LEVEL 1946

RE#	DESCRIPTION	CHECK	APPD	DATE	SCALE 1:750 AT A3		CLIENT	SITE ADDRESS	DRAWING NUMBER		
					NAME	DATE			DATE	REVISION	
							RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD302		
						DESIGN	RW	03.17			
						DRAWN	RW	03.17			
						DRAWING CHECK	RW	03.17			
						DESIGN CHECK	PF	03.17			
						APPROVED	PF	03.17			
<small>Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</small>								DRAWING TITLE			
								PROPOSED HWY INTERSECTION OVERVIEW		DATE	REVISION
										MARCH 2017	-

ASPIRE
 CONSULTING ENGINEERS
 Ph: 09 426 6552
 Web: www.aspeng.co.nz

2
3.02 ha

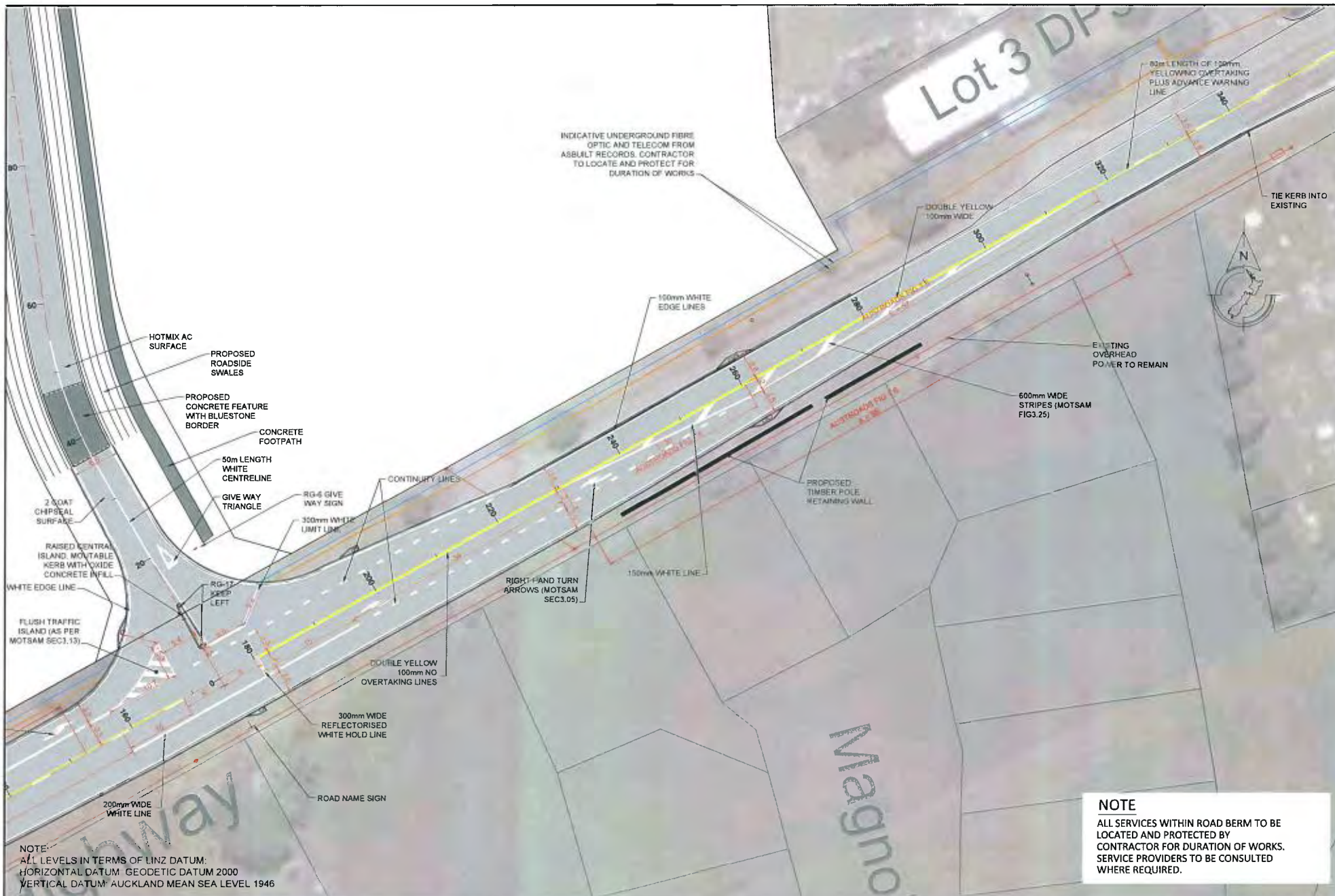


NOTE
ALL SERVICES WITHIN ROAD BERM TO BE LOCATED AND PROTECTED BY CONTRACTOR FOR DURATION OF WORKS. SERVICE PROVIDERS TO BE CONSULTED WHERE REQUIRED.

NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:500 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	
									RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD303	
							DESIGN	RW 03.17				
							DRAWN	RW 03.17				
							DRAWING CHECK	RW 03.17				
							DESIGN CHECK	PF 03.17				
							APPROVED	PF 03.17				
<p>Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</p>										DRAWING TITLE	DATE	REVISION
										PROPOSED HWY INTERSECTION DETAILS	MARCH 2017	-

ASPIRE
CONSULTING ENGINEERS
Ph: 09 426 6552
Web: www.aspeng.co.nz

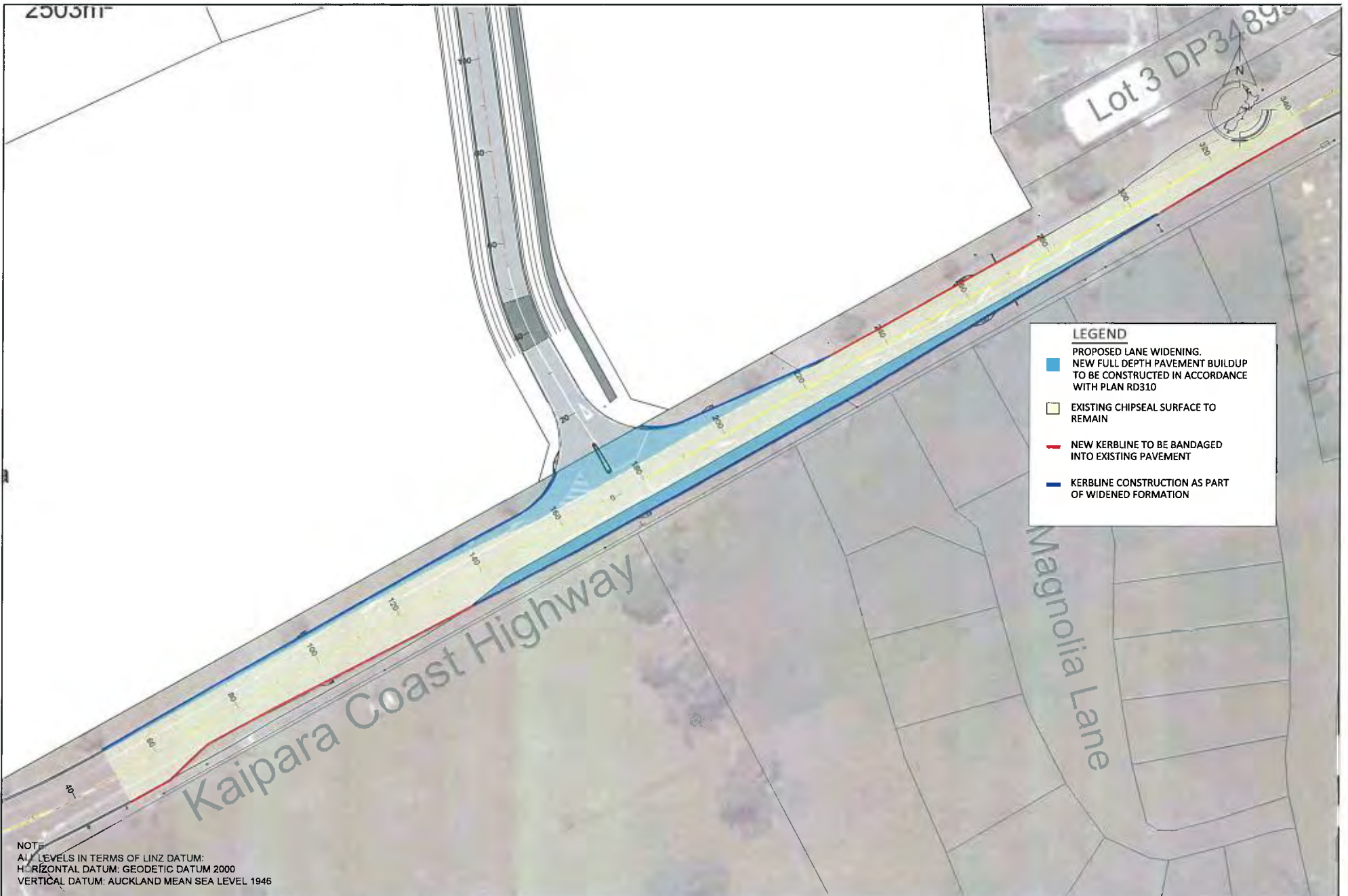


NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

NOTE
 ALL SERVICES WITHIN ROAD BERM TO BE LOCATED AND PROTECTED BY CONTRACTOR FOR DURATION OF WORKS. SERVICE PROVIDERS TO BE CONSULTED WHERE REQUIRED.

REV	DESCRIPTION	CHKD	APPD	DATE	SCALE	1 500 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER	
							RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD304	
					DESIGN	NAME				
					DRAWING	RW	03.17			
					DRAWING CHECK	RW	03.17			
					DESIGN CHECK	PP	03.17			
					APPROVED	PP	03.17			
							Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE PROPOSED HWY INTERSECTION DETAILS	DATE MARCH 2017	REVISION -

ASPIRE
 CONSULTING ENGINEERS
 Ph: 09 426 6552
 Web: www.aspeng.co.nz



LEGEND

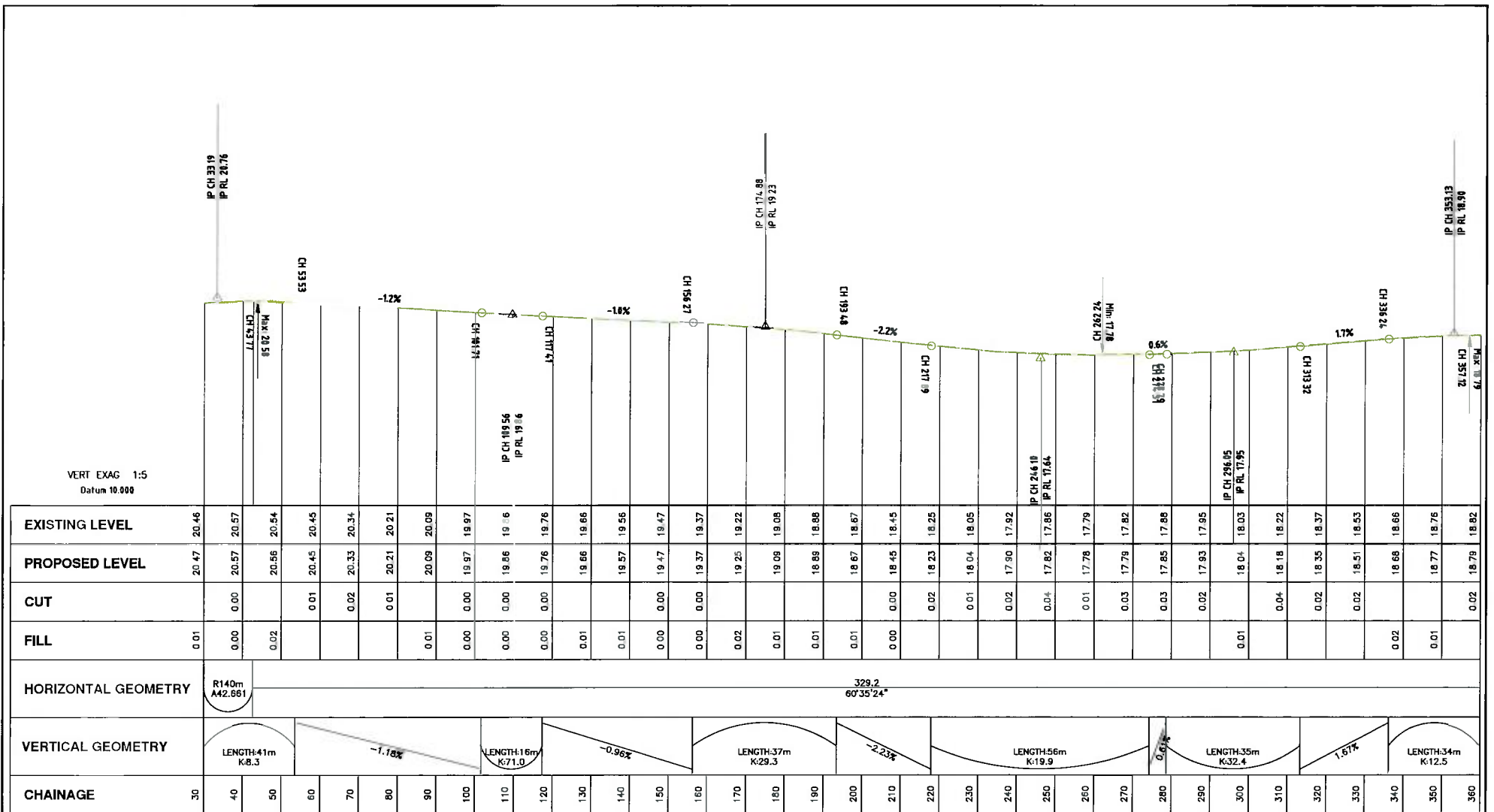
- PROPOSED LANE WIDENING. NEW FULL DEPTH PAVEMENT BUILDUP TO BE CONSTRUCTED IN ACCORDANCE WITH PLAN RD310
- EXISTING CHIPSEAL SURFACE TO REMAIN
- NEW KERBLINE TO BE BANDAGED INTO EXISTING PAVEMENT
- KERBLINE CONSTRUCTION AS PART OF WIDENED FORMATION

NOTES:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV	DESCRIPTION	CHECK	APP'D	DATE	SCALE	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	
					1:750 AT A3			RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD305	
						DESIGN	RW	03.17			
						DRAWN	RW	03.17			
						DRAWN IN CHARGE	RW	03.17			
						DESIGN CHECK	FF	03.17			
						APPROVED	FF	03.17			
Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.									DRAWING TITLE	DATE	REVISION
									PROPOSED HWY PAVEMENT CONSTRUCTION PLAN	MARCH 2017	-

ASPIRE
 CONSULTING ENGINEERS

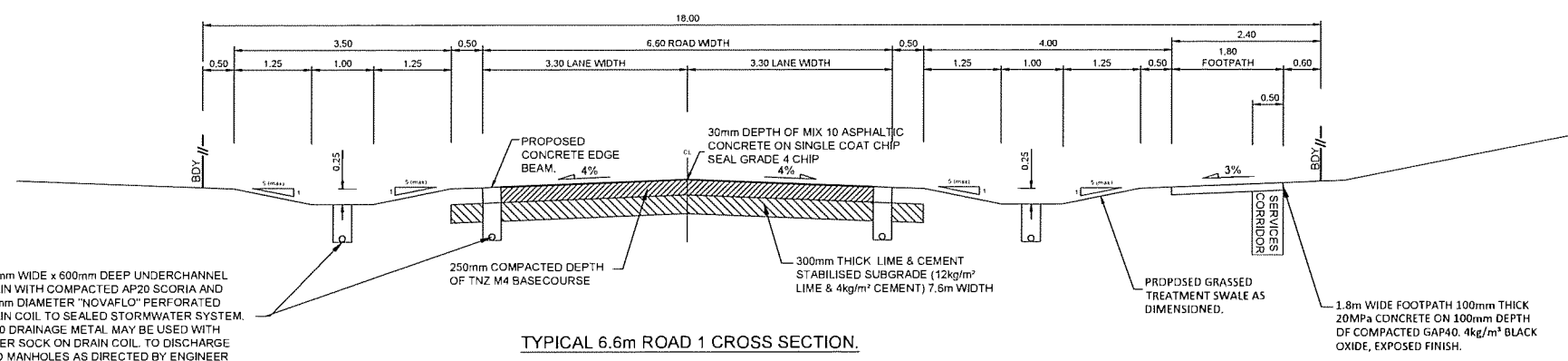
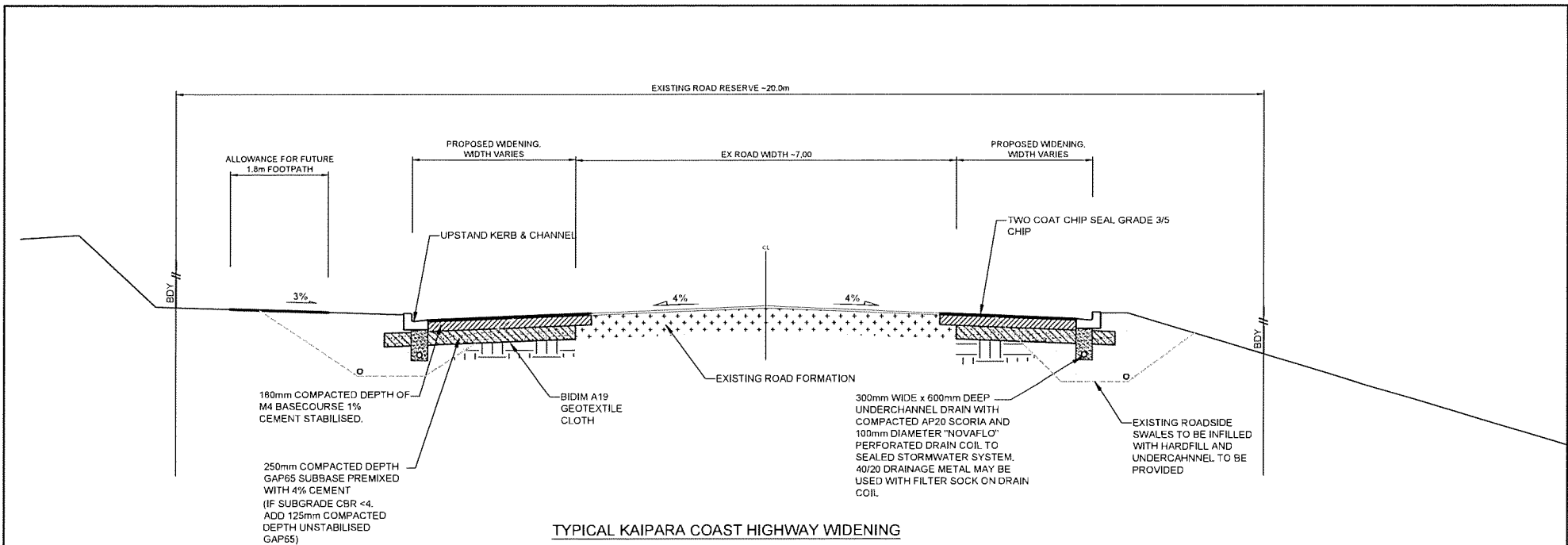
Ph: 09 426 6552
 Web: www.aspeng.co.nz



KAIPARA COAST HWY LONG SECTION

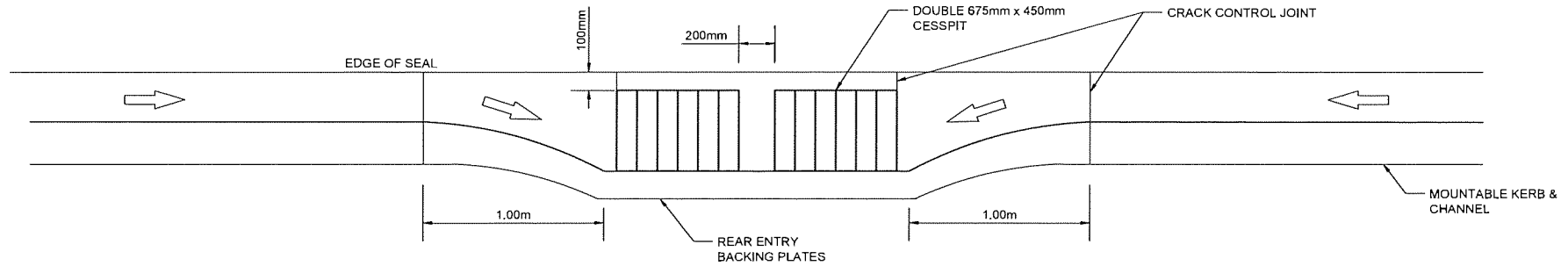
NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE 1:1000H 1:200V AT A3	CLIENT		SITE ADDRESS	DRAWING NUMBER	
						NAME	DATE		1273 - ENG - RD306	REVISION
	DESIGN					RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	MARCH 2017		-
	DRAWN									
	DRAWING CHECK									
	DESIGN CHECK									
	APPROVED									
						<small>Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</small>		DRAWING TITLE PROPOSED ROADING LONGSECTIONS		DATE MARCH 2017
								ASPIRE <small>CONSULTING ENGINEERS</small>		Ph: 09 426 6552 Web: www.aspeng.co.nz

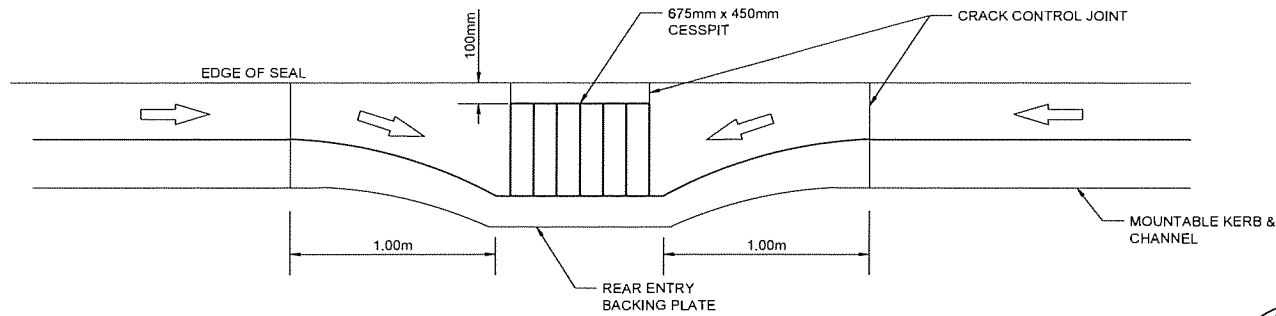


NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

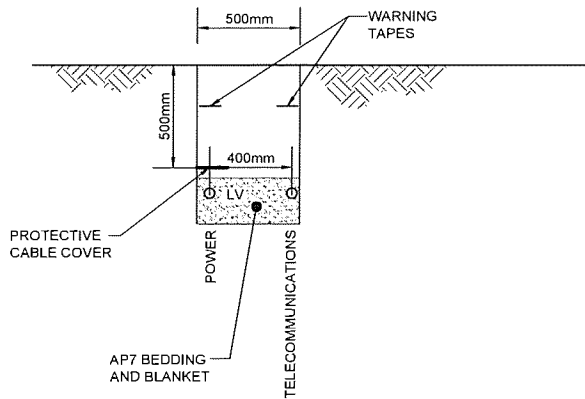
REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:75 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
A	DRAIN COIL AND HARDFILL SHOWN	RW	PF	06.17			RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD310
					DESIGN	RW			
					DRAWN	RW			
					DRAWING CHECK	RW			
					DESIGN CHECK	PF			
					APPROVED	PF			
							CONDITIONS OF USE These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE	DATE
								TYPICAL ROAD X-SECTIONS	MARCH 2017
									REVISION
									A
							ASPIRE CONSULTING ENGINEERS Ph: 09 426 6552 Web: www.aspeng.co.nz		



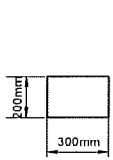
DOUBLE SEMI RECESSED STORMWATER CESSPIT DETAIL



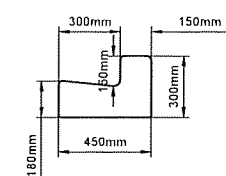
SINGLE SEMI RECESSED STORMWATER CESSPIT DETAIL



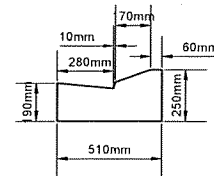
COMBINED SERVICES TRENCH DETAIL



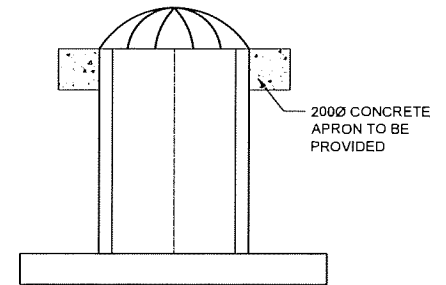
CONCRETE EDGE BEAM




UPSTAND KERB & CHANNEL DETAIL

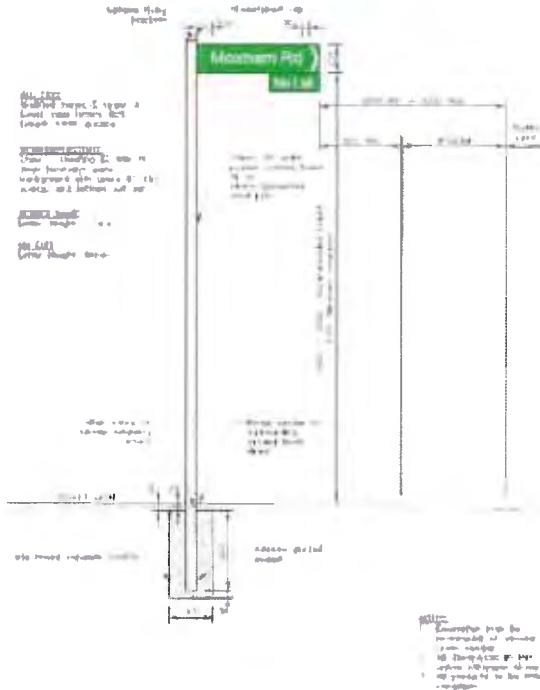
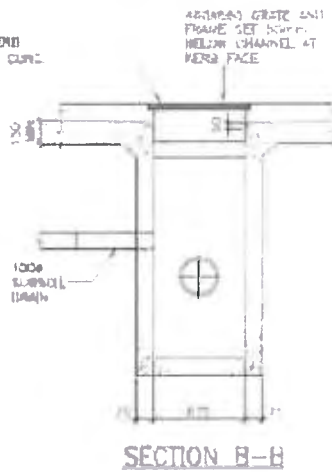
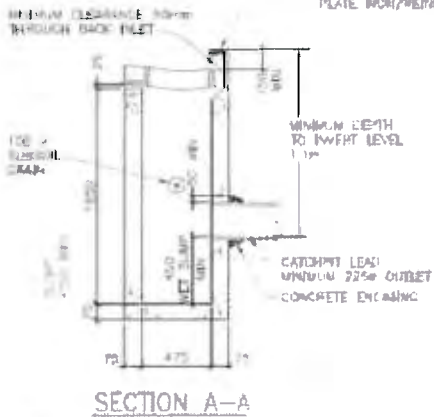
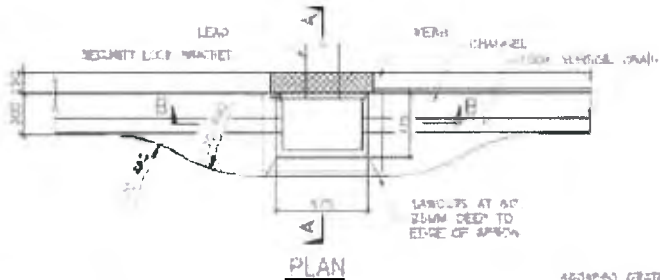


MOUNTABLE KERB & CHANNEL DETAIL



SWMH 600mmØ WITH SCRUFFY DOME

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE		CLIENT	SITE ADDRESS	DRAWING NUMBER	DATE	REVISION
					NTS	AT A3					
							RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD312		
							<small>Conditions of Use These drawings shall only be used for the purpose for which they were issued. Do not measure off this drawing. If doubt please contact Engineer.</small>	TYPICAL ROAD DETAILS	MARCH 2017	-	 Ph: 09 426 6552 Web: www.aspeng.co.nz
	DESIGN				RW	03.17					
	DRAWN				RW	03.17					
	DRAWING CHECK				RW	03.17					
	DESIGN CHECK				PF	03.17					
	APPROVED				PF	03.17					



TYPICAL STREET NAME SIGN DETAIL

NOTES

1. Dimensions to be 25mm for round work.
2. Lead and kerb channel to be supplied on approved quantity.
3. All work to be done in accordance with the latest NZS 4511:1996 for kerb channel.
4. The kerb channel and kerb channel to be set in concrete.
5. Kerb channel to be set in concrete.
6. Kerb channel to be set in concrete.

Channel Capacity	% of water retained
1%	63.3
2%	78.2
3%	78.5
4%	71.7
5%	64.8
12%	53.8

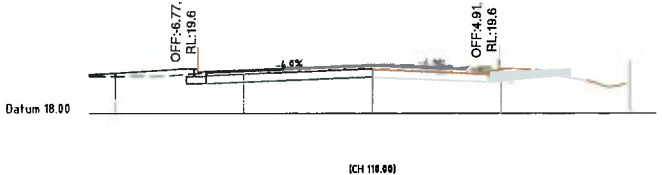
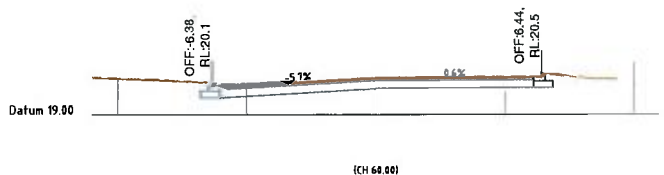
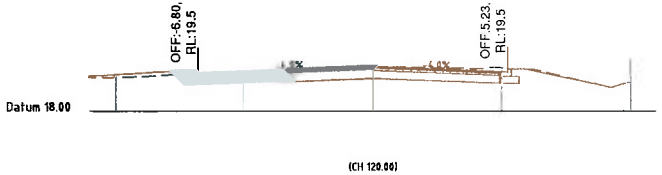
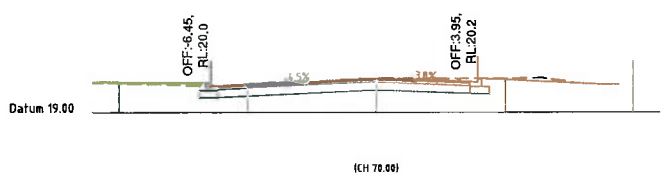
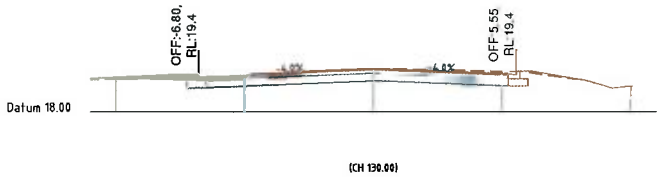
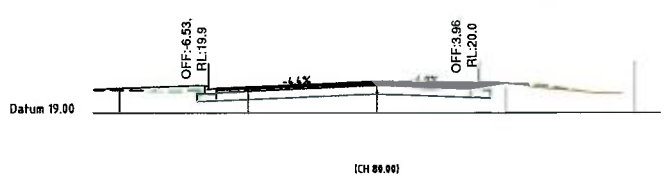
TYPICAL SINGLE CESS PIT DETAIL

NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

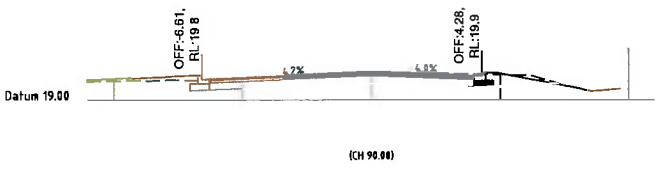
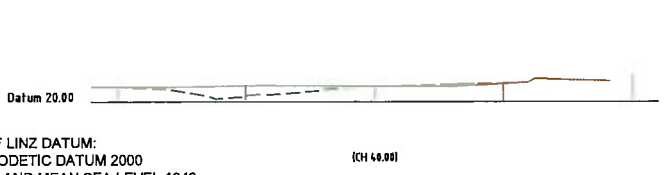
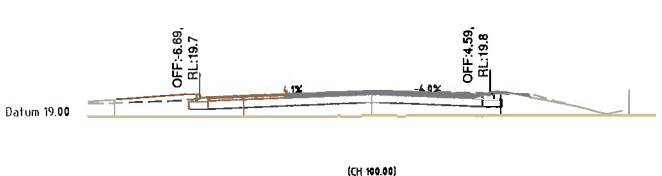
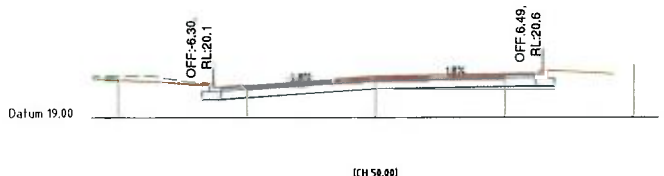
REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	NTS AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER	
							RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD313	
					DESIGN	RW 03.17				
					DRAWN	RW 03.17				
					DRAWING CHECK	RW 03.17				
					DESIGN CHECK	PF 03.17				
					APPROVED	PF 03.17				
							Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE TYPICAL ROAD DETAILS	DATE MARCH 2017	REVISION

ASPIRE
CONSULTING ENGINEERS

Ph: 09 426 6552
Web: www.aspeng.co.nz

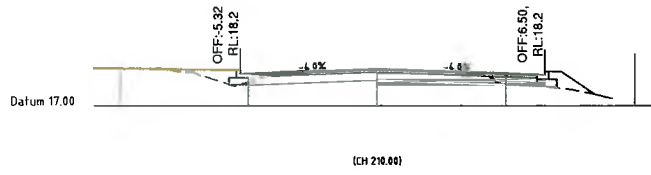
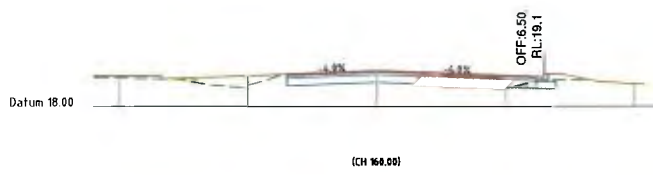
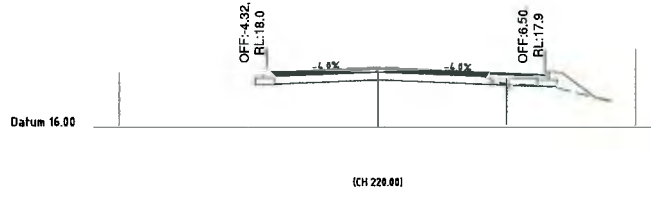
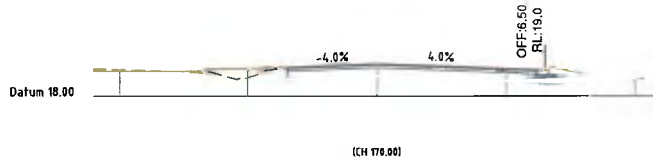
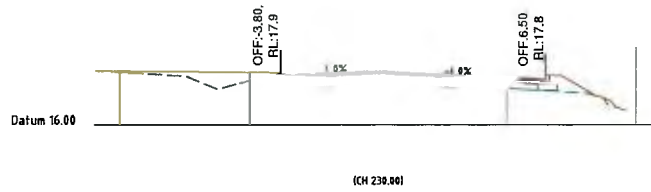
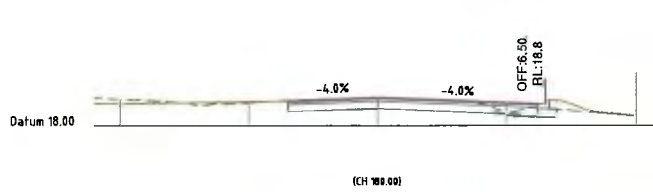


KAIPARA COAST HIGHWAY

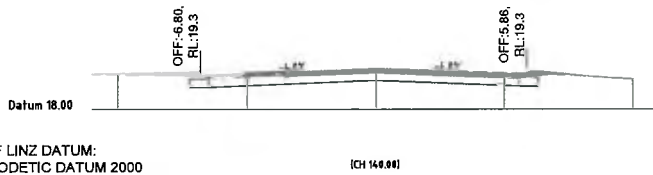
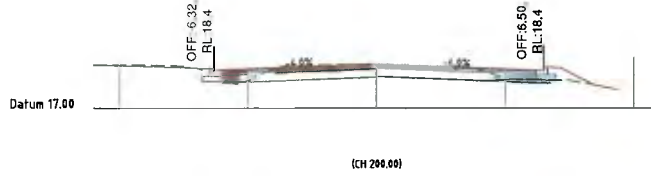
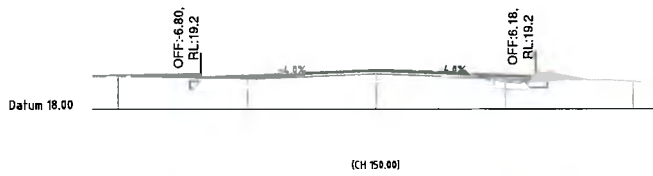


NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:200 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER
							RW	03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD314
							RW	03.17			
							RW	03.17			
							PF	03.17			
							PF	03.17			
							PF	03.17			
Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.									DRAWING TITLE	DRAWING NUMBER	DATE
									PROPOSED ROADING X-SECTIONS	1273 - ENG - RD314	MARCH 2017
											REVISION
											-
ASPIRE CONSULTING ENGINEERS Ph: 09 426 6552 Web: www.aspeng.co.nz											



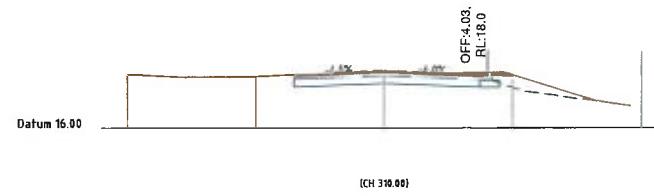
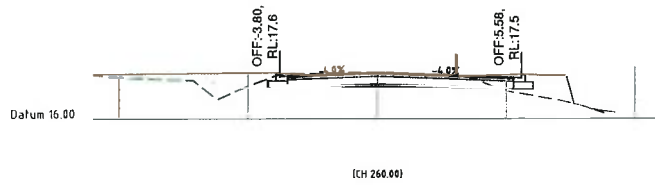
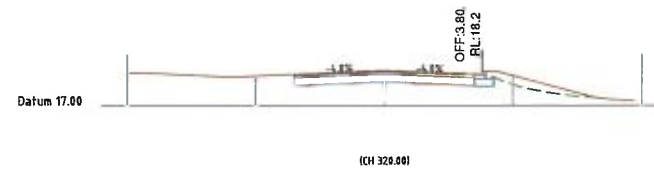
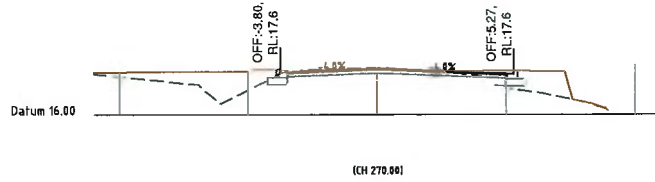
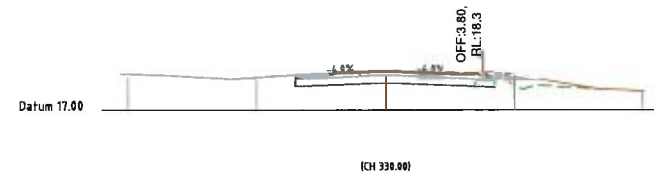
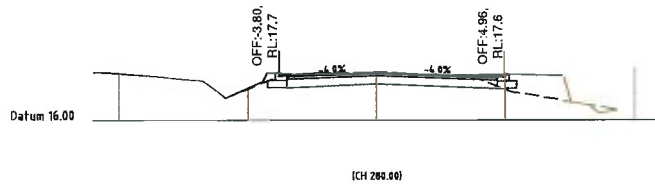
KAIPARA COAST HIGHWAY



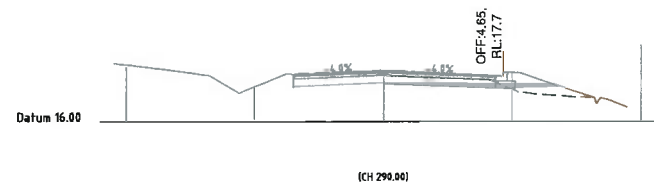
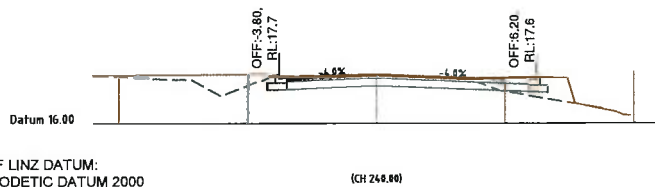
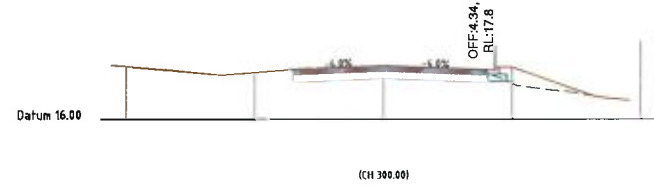
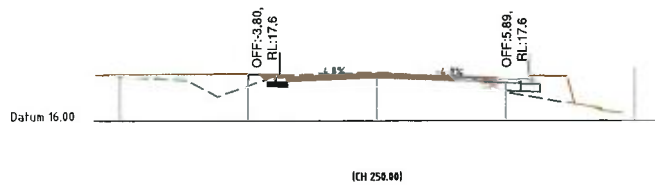
NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE 1:200 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	
						DESIGN	RW 03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD315	
						DRAWN	RW 03.17				
						DRAWING CHECK	RW 03.17				
						DESIGN CHECK	PF 03.17				
						APPROVED	PF 03.17				
								Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.	DRAWING TITLE	DATE	REVISION
								PROPOSED ROADING X-SECTIONS	MARCH 2017	-	





KAIPARA COAST HIGHWAY

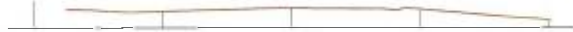


NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE 1:200 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
					NAME DATE	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD316
					RW 03.17			
					RW 03.17			
					RW 03.17			
					RW 03.17			
					PF 03.17	PROPOSED ROADING X-SECTIONS	MARCH 2017	REVISION
					PF 03.17			-
					PF 03.17			

Ph: 09 426 6552
 Web: www.aspeng.co.nz

Datum 18.00



(CH 358.00)

KAIPARA COAST HIGHWAY

Datum 18.00



(CH 340.00)

NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

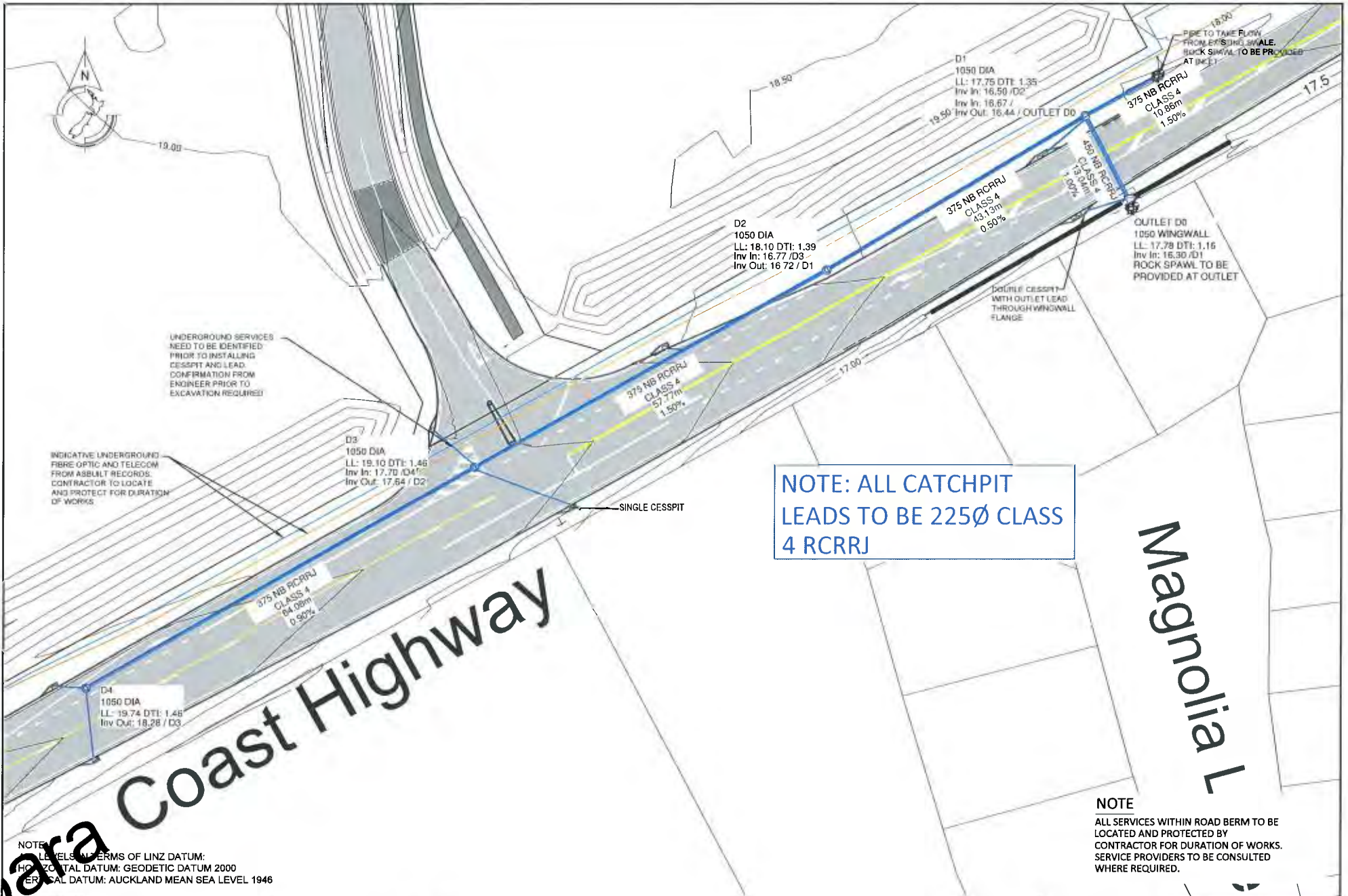
REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:200 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	ASPIRE CONSULTING ENGINEERS	
							DESIGN	RW	03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD317	Ph: 09 426 6552 Web: www.aspeng.co.nz
							DRAWN	RW	03.17				
							DRAWING CHECK	RW	03.17				
							DESIGN CHECK	PF	03.17				
							APPROVED	PF	03.17				
Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.										DRAWING TITLE	DATE	REVISION	
										PROPOSED ROADING X-SECTIONS	MARCH 2017	-	



NOTE:
 ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:250 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER	
							DESIGN	RW 03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - RD327	
						DRAWN	RW 03.17					
						DRAWING CHECK	RW 03.17					
						DESIGN CHECK	PF 03.17					
						APPROVED	PF 03.17					
<small>Conditions of Use These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</small>										DRAWING TITLE	DATE	REVISION
										PROPOSED HWY INTERSECTION TRACKING	MARCH 2017	-

ASPIRE
 CONSULTING ENGINEERS
 Ph: 09 426 6552
 Web: www.aspeng.co.nz



NOTE: ALL LEVELS IN TERMS OF LINZ DATUM:
 HORIZONTAL DATUM: GEODETIC DATUM 2000
 VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:500 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
					PRIME	D/TI	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - SW405
					DESIGN	R/W			DATE
					DRAWING	R/W			REVISION
					DRAWING CHECK	R/W			
					DESIGN CHECK	PF			
					APPROVED	PF			

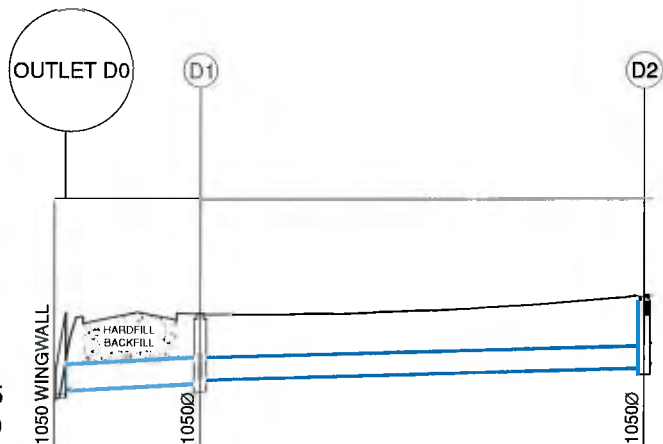
Conditions of Use
 These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.

DRAWING TITLE
 PROPOSED STORMWATER PLAN - HIGHWAY SW

DATE
 MARCH 2017

ASPIRE
 CONSULTING ENGINEERS

Ph: 09 426 6552
 Web: www.aspeng.co.nz



VERT EXAG 1:5
Datum 15.000

LID LEVEL	17.70	17.75	18.10
INVERT LEVEL	16.30	16.44 16.50	16.72
DEPTH TO INVERT	1.16	1.35	1.39
GRADE %	1.00%	0.50%	1.50%
PIPE DETAILS (CL to CL LENGTHS)	450 NB RCRRJ CLASS 4 13.04	375 NB RCRRJ CLASS 4 43.13	375 NB RCRRJ CLASS 4 57.17
FLOW RATE/CAPACITY	280 (100YR) 176 (10YR) 286	102/ 215	
CHAINAGE	1.12	14.16	57.30
PIPE BEDDING	H2 AP7	H2 AP7	

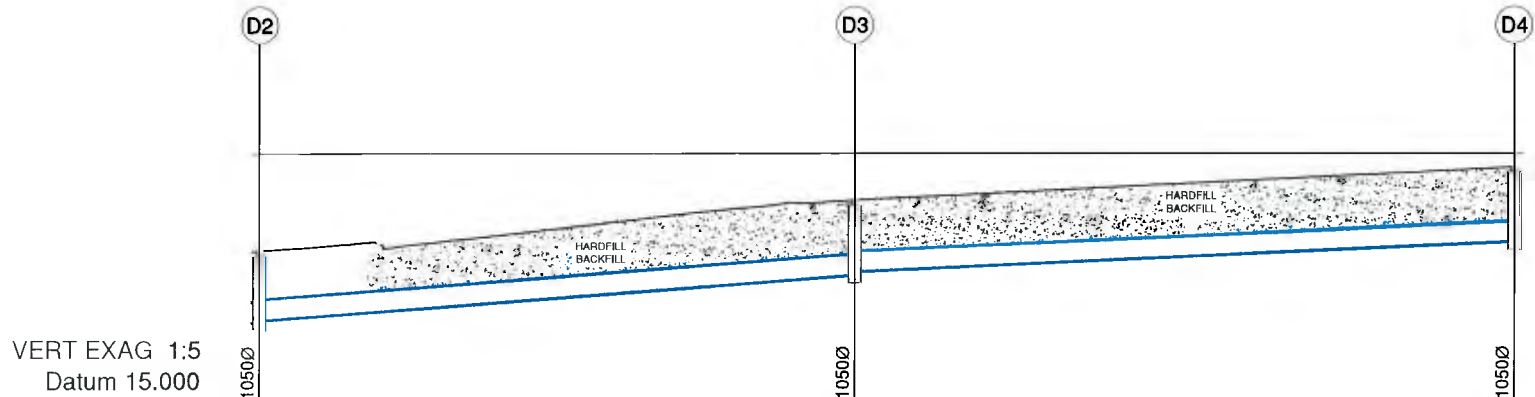
HIGHWAY SW LONG SECTION

NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APP'D	DATE	SCALE	1:500 AT A3	NAME	DATE	CUSTOMER	SITE ADDRESS	DRAWING NUMBER	DATE	REVISION
									RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - SW410	MARCH 2017	-
							DESIGN	RW	03.17	<small>Conditions of Use: These drawings shall only be used for the purpose for which they were stippled. Do not measure off this drawing. If doubt please contact Engineer.</small>			
							DRAWN	RW	03.17				
							DRAWING CHECK	RW	03.17				
							DESIGN CHECK	PF	03.17				
							APPROVED	PF	03.17				



Ph: 09 426 6552
Web: www.aspeng.co.nz



LID LEVEL	18.16	19.10	19.74
INVERT LEVEL	16.77	17.70	18.28
DEPTH TO INVERT	1.39	1.46	1.46
GRADE %	1.50%		0.90%
PIPE DETAILS (CL to CL LENGTHS)	375 NB RCRRJ CLASS 4 57.77		375 NB RCRRJ CLASS 4 64.08
FLOW RATE/CAPACITY	102/ 217		38/ 168
CHAINAGE		115.07	179.15
PIPE BEDDING	H2 AP7		H2 AP7

HIGHWAY SW LONG SECTION

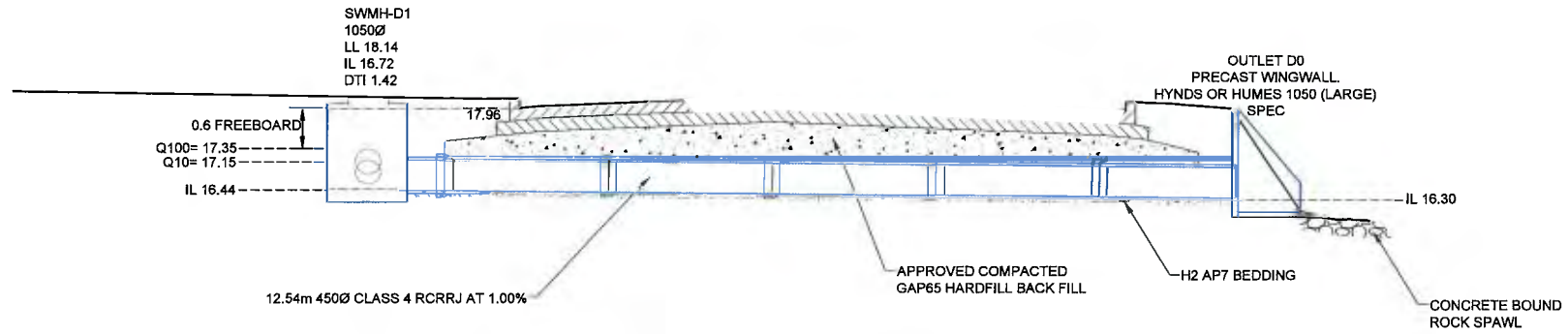
NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE: 1:500 AT A3	NAME	DATE	CLIENT	SITE ADDRESS	DRAWING NUMBER
						DESIGN	RW 03.17	RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - SW411
					DRAWN	RW 03.17				
					DRAWING CHECK	RW 03.17				
					DESIGN CHECK	PF 03.17				
					APPROVED	PF 03.17				
<small>Conditions of Use: These drawings shall only be used for the purpose for which they were supplied. Do not measure off this drawing. If doubt please contact Engineer.</small>								DRAWING TITLE	DATE	REVISION
								PROPOSED STORMWATER LONGSECTION - HWY	MARCH 2017	-

ASPIRE
CONSULTING ENGINEERS

Ph: 09 426 6552
Web: www.aspeng.co.nz

PROPOSED KAIPARA COAST HIGHWAY CULVERT CROSSING UPGRADE



NOTE: UPGRADED CULVERT TO BE
CONSTRUCTED TO INVERT LEVELS OF
EXISTING PIPE TO PRESERVE OUTLET
FUNCTIONALITY

NOTE:
ALL LEVELS IN TERMS OF LINZ DATUM:
HORIZONTAL DATUM: GEODETIC DATUM 2000
VERTICAL DATUM: AUCKLAND MEAN SEA LEVEL 1946

REV.	DESCRIPTION	CHECK	APPD	DATE	SCALE	1:75 AT A3	CLIENT	SITE ADDRESS	DRAWING NUMBER
A	WINGWALL SPEC	RW	PF	06.17			RIVERVIEW PROPERTIES LTD	751 & 787 KAIPARA COAST HIGHWAY KAUKAPAKAPA	1273 - ENG - SW412
					DESIGN	RW	04.17		
					DRAWN	RW	04.17		
					DRAWING CHECK	PF	04.17		
					DESIGN CHECK	PF	04.17		
					APPROVED	PF	04.17		
								DRAWING TITLE	APRIL 2017
								PROPOSED CULVERT CROSSING	REVISION A

Ph: 09 426 6552
Web: www.aspeng.co.nz



Luminaire Schedule				
Symbol	Qty	Label	Arm	MH
—	3	Luma 1 R5	2	8
□	20	Mini Stork 2980	1	6
—	1	Luma on existing pole	1.5	7



Luma 1

Vizulo Mini Stork

Luminaire Details	
Manufacturer and Product Name	Philips Luma 1 R5 20-80 DS-NW 1700-16750
Lamp type and Rating	LED 56W (80 LED array)
Luminous flux	8000 Lumens
Origin of Photometric Data	Manufacturer
Upward Waste Light Ratio	0.0% at 0 degree tilt
Maintenance factor used	0.80
Calculation of Maintenance Factor:	
* Lamp Lumen Maintenance Factor (LLMF) *	0.95
* Luminaire Electronic Failure (LEF) *	0.99
* Luminaire Optical Depreciation for Visor (LODV) *	1.00
* Luminaire Optical Depreciation for Reflector (LODR) *	0.99
* Luminaire Optical Depreciation for Lens (LODL) *	0.99
* Luminaire Maintenance Factor (LMP) *	0.92
MF = LLMF x LEF x LODV x LODR x LODL x LMF = 0.848	
Maintenance Factor for calculations is capped at 0.80	

Luminaire Details	
Manufacturer and Product Name	Vizulo Mini Stork (LL19045 test data)
Lamp type and Rating	LED 28.4W
Luminous flux	2980 Lumens
Origin of Photometric Data	LightLab Australia
Upward Waste Light Ratio	0.0% at 0 degree tilt
Maintenance factor used	0.80
Calculation of Maintenance Factor:	
* Lamp Lumen Maintenance Factor (LLMF) *	0.991
* Luminaire Electronic Failure (LEF) *	0.99
* Luminaire Optical Depreciation for Visor (LODV) *	1.00
* Luminaire Optical Depreciation for Reflector (LODR) *	0.99
* Luminaire Optical Depreciation for Lens (LODL) *	0.99
* Luminaire Maintenance Factor (LMP) *	0.92
MF = LLMF x LEF x LODV x LODR x LODL x LMF = 0.884	
Maintenance Factor for calculations is capped at 0.80	
Maximum Candela between 60 and 80 degrees *	1375.18 Cd
Maximum Candela at 80 degrees *	337.69 Cd

Calculation Summary				
Project: P4 Calculation results - 1m spacing grid				
Label	Units	Avg	Min	Max
Roadway	Lux	2.75	0.14	18.01
Required Standard		Average to be greater than or equal to 1.75 lux Minimum to be greater than or equal to 0.30 lux Max/Avg ratio (Uniformity) to be less than or equal to 10		

Computer Design Assumptions	
Name and Source of Computer Program	AGI32 and Perfectlite
Road surface reflectance used	NZR2 and NZN4

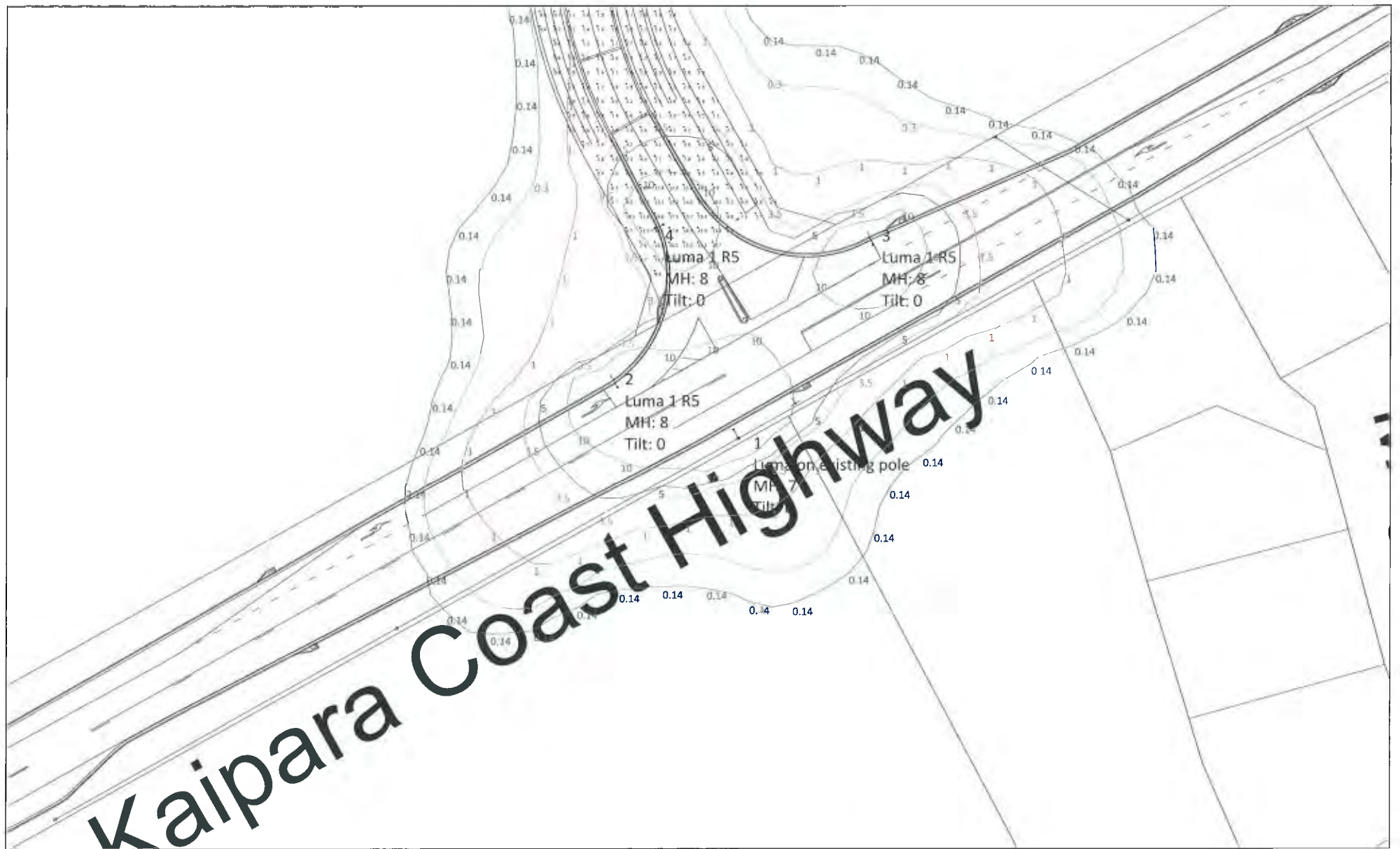
- GENERAL NOTES**
- Liaise with Vector with regard to extending the existing street lighting circuit to supply the new installation.
 - All work shall conform to the requirements of Vector or Counties Power (as appropriate), Auckland Transport and the requirements of Electrical (Safety) Regulations 2010, AS/NZS 3008 and AS/NZS 1158.
 - Liaise with Vector / Counties Power (as appropriate) to ensure all poles are well clear of underground services. If necessary, positions may be altered up to 1m while retaining general pole arrangement to avoid clashes with underground services. Confirm with engineer first.
 - The contractor shall be a Auckland Transport accredited contractor and approved by Auckland Transport to install assets on the appropriate network.
 - Ensure the RAMM and SLIM database is accurately updated for every new or modified streetlight location, and liaise with Auckland Transport to ensure records are appropriately completed.
 - These works shall include the removal and disposal of old luminaires/mounting brackets and lamps. Remove all existing concrete columns and luminaires.
 - All luminaires shall be tilted at an angle of 0 degrees to the horizontal unless otherwise stated.
 - All columns and luminaires specified in this design are listed on the Auckland Transport Approved product lists.

- INSTALLATION NOTES**
- The contractor shall be responsible for the fixing of outreaches taking into account work on or near existing services. The contractor shall liaise with the appropriate service provider in relation to working on or near services, giving appropriate notice period.
 - The internal wiring between the terminal blocks and the luminaire shall be circular 2C 2.5sq.mm Neutral Screen cable
 - Wiring shall be in accordance with AS/NZS3000 and AS/NZS3008:1.2
 - Minimum street lighting supply cable shall be 1C 10sq.mm Neutral Screen cable.
 - Cable protection shall be implemented as per Vector / Counties Power requirements.
 - All metal columns, outreaches, and luminaires are to be effectively Earthed. Earthing is to be designed to conform to the requirements of the NZ Electricity (Safety) Regulations and AS/NZS3000:2007.
 - The contractor is responsible for all cable design, liaison with Vector / Counties Power, and updating of Vector / Counties Power and Auckland Transport records.
 - Final pole locations are to be confirmed on site prior to installation.
 - Mounting heights are to be measured with respect to the luminaires above the carriageway. Final location to be coordinated on site.
 - Where a pole is within five metres of a tree, assess whether the tree requires trimming to minimise shadowing, and notify the engineer for further action if required.
 - A minimum ten (10) year warranty from date of on site installation shall be provided for the luminaire and electronic control gear.
 - The contractor shall be responsible for the final location of the lighting poles taking into account
 - Location of existing services. The contractor shall be responsible for locating all underground services and Land Information NZ markers before work commences. Any damage caused to underground services shall be repaired at the contractor's expense.
 - Work on or near existing services. The contractor shall liaise with the appropriate service provider in relation to working on or near services, giving appropriate notice period.
 - Permitted location tolerance
 - 0.5m parallel to the carriageway
 - 0.2m perpendicular to the carriageway
 - 0.2m vertically
 If the final pole location exceeds the permitted tolerance further lighting design may be required.
 - Pole details shall be as per Auckland Transport Engineering Standards. Departing from the standard installation due to ground conditions shall be confirmed by a written approval prior to installation.
 - Each luminaire shall be specified with a 7-pin NEMA socket compliant with ANSI C136.41:2013 and a Zodiak SS6 photocell (variant).
 - New LED luminaires shall be provided with electronic DALI dimmable control gear.
 - In general, columns are to be installed 1.0m behind kerb (between kerb face and the face of the column). Variations to this may be required to meet the requirements of AT-TDM Volume 4 Chapter12 section 12.4.2 and/or AS/NZS 1158.
 - As per AT requirements, columns are to be supplied with a 6 Amp Type C HRC Fuse link for connection of the luminaire to the incoming supply.

Design Revision Summary		
Rcv	Date	Comment
A	08/06/17	Intersection redesigned (with K.C. Highway)
-	29/05/17	Original design

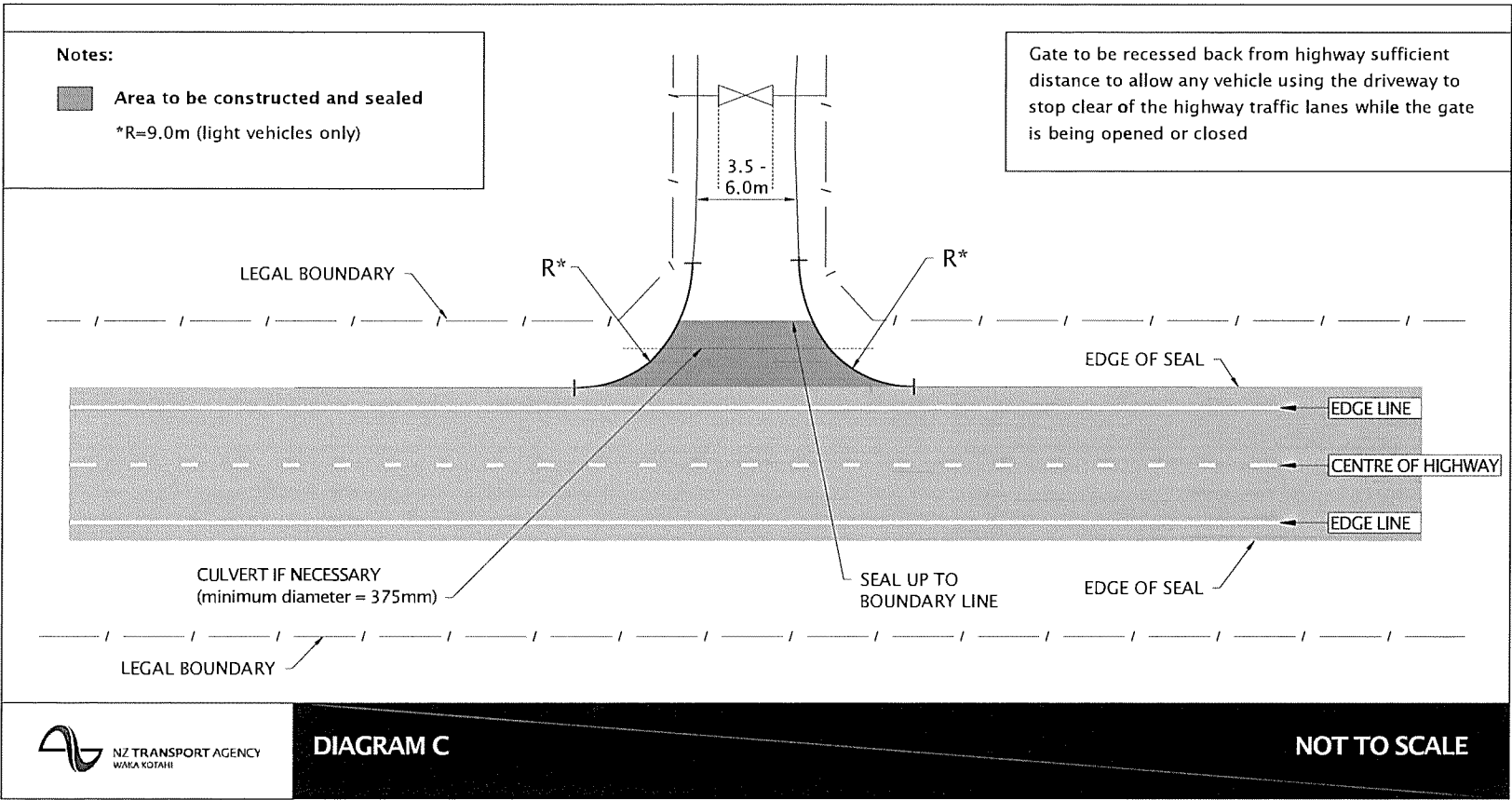
PROJECT NUMBER 6178	PROJECT Subdivision 751 & 787 Kaipara Coast Highway Kaukapakapa	DRAWING INFORMATION ROADWAY LIGHTING PLAN	COMPANY IBEX LIGHTING 38-40 BURLEIGH ST. 76 MALEME ST. GRAFTON GREENTON AUCKLAND 1023 TAURANGA 3112 NZ FREEPHONE 0800 63 65 67 www.ibexlighting.com	AS PREPARED FOR ASPIRE
DRAWING NO.: 1	REVISION: A	Scale: 1:3000 @ A3 Date: 08-Jun-17	DRAWN BY: GU CHECKED BY: MCS	





PROJECT NUMBER 6178		PROJECT Subdivision 751 & 787 Kaipara Coast Highway Kaukapakapa		DRAWING INFORMATION ROADWAY LIGHTING PLAN		COMPANY IBEX LIGHTING 38-40 BURLEIGH ST. 78 MALEMÉ ST. GRAFTON GREERTON AUCKLAND 1023 TAURANGA 3112 NZ FREEPHONE 0800 63 65 67 www.ibexlighting.com		AS PREPARED FOR ASPIRE	
DRAWING NO.:	REVISION:	Scale: 1:500 @ A3	DRAWN BY: GU						
2	A	Date: 08-Jun-17	CHECKED BY: MCS						



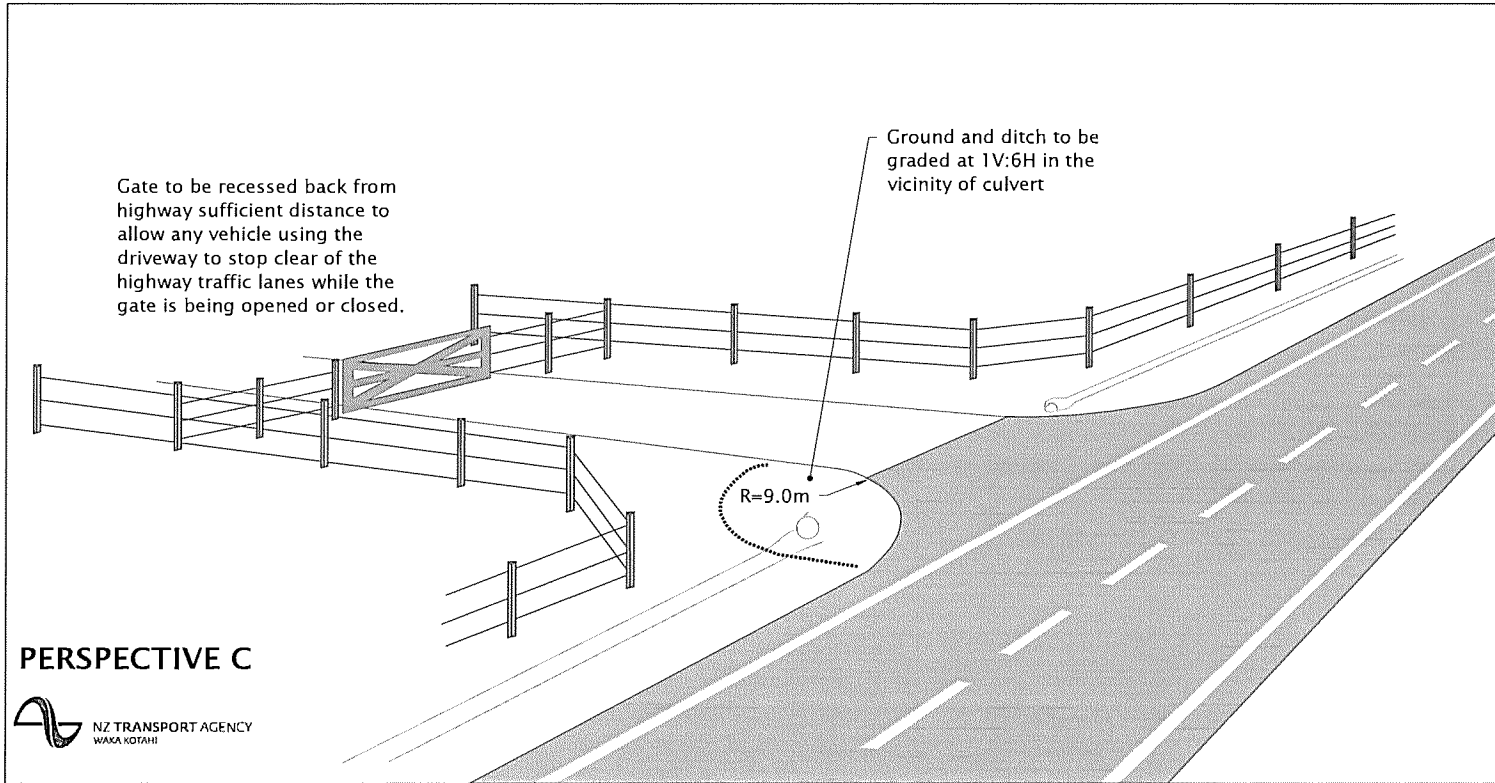


Gate to be recessed back from highway sufficient distance to allow any vehicle using the driveway to stop clear of the highway traffic lanes while the gate is being opened or closed.

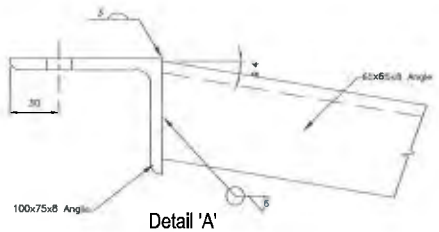
Ground and ditch to be graded at 1V:6H in the vicinity of culvert

R=9.0m

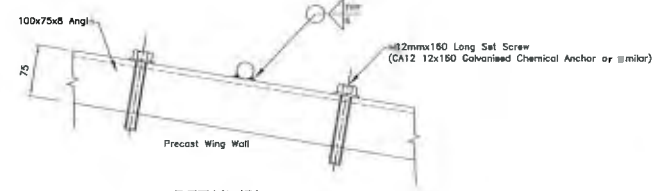
PERSPECTIVE C



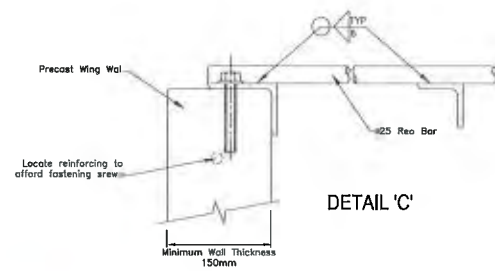
NOTES:
 1. The dimensions for the grate on this drawing are indicative only
 2. It is recommended that grates are sourced from the manufacturer of the precast culvert headwall to ensure the grate and headwall are compatible. Otherwise guidance should be sought from the manufacturer of the precast culvert headwall on the required dimensions for any grates not supplied by them.
 3. The clear width between side walls of precast culvert headwalls shall not exceed 500mm when using this grate.
 4. Material Specifications for the following items:
 Steel Angles AS/NZS 3679:1-1996 Hot Rolled Bars and Sections
 Reinforcing Bars AS/NZS 4671:2001 Steel Reinforcing Materials
 Galvanising AS/NZS 4580:2006 Hot Dip Galvanising (Zinc) Coatings on Fabricated Ferrous Articles



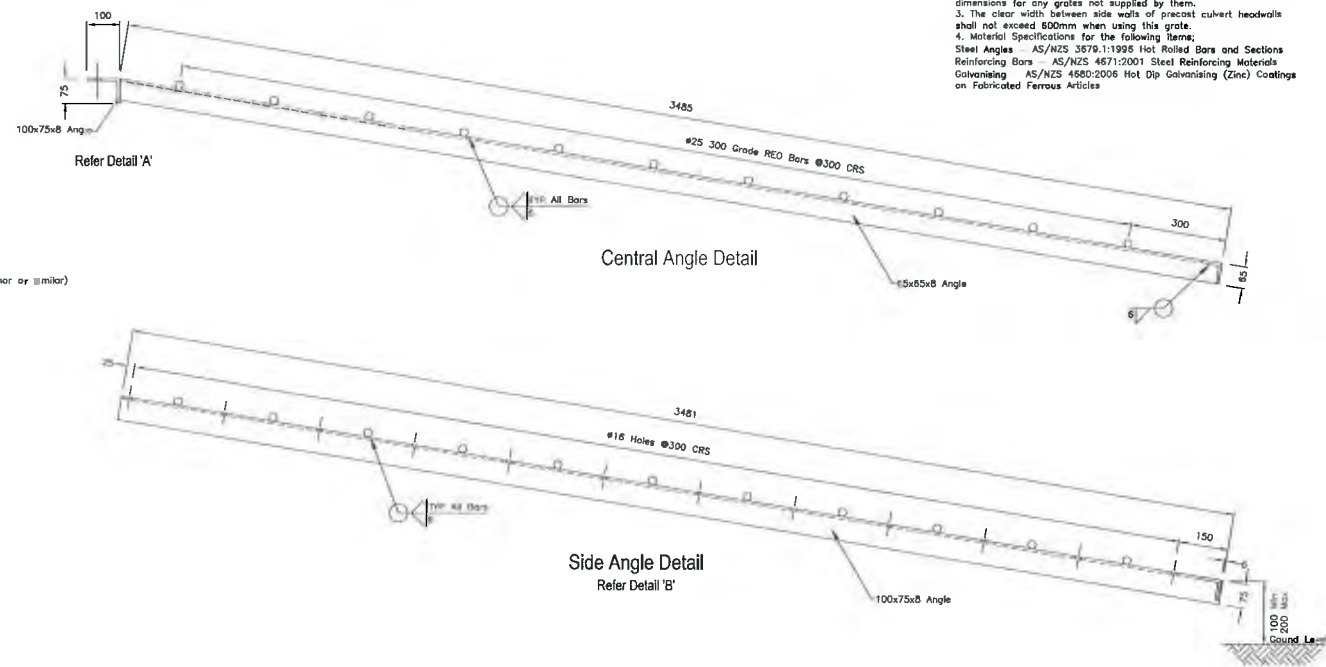
Detail 'A'



DETAIL 'B'



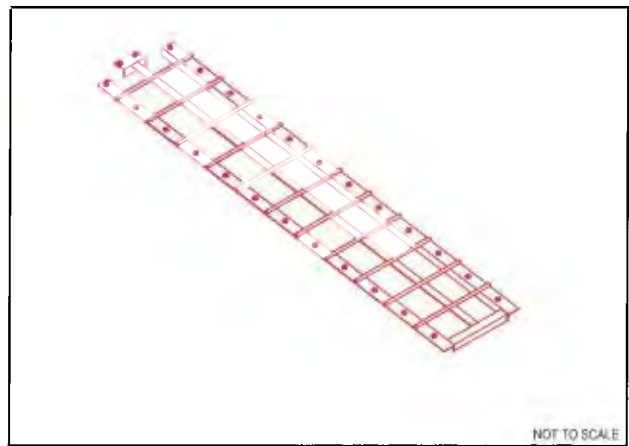
DETAIL 'C'



Refer Detail 'A'

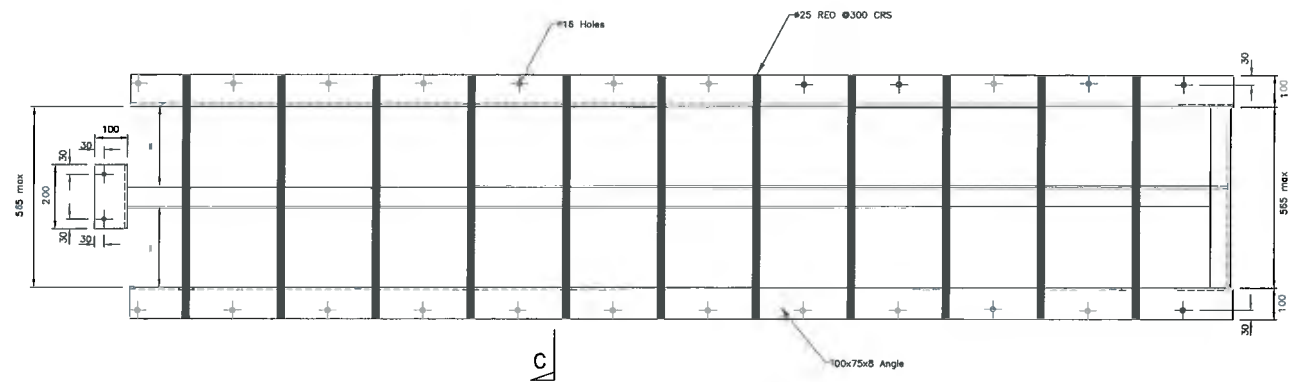
Central Angle Detail

Side Angle Detail
Refer Detail 'B'



Isometric View

NOT TO SCALE



Plan Detail

DRAWN:	DATE:	REV.	DRAWING STATUS - DRAFT	BOUNDARY ACCURACY - NA
M.W.	17/09/08			
CHECKED:				
S.G.	17/09/08			
APPROVED:				



TITLE: Mountable Grates for Precast Headwalls 255mm - 450mm Culvert Sizes NZ Transport Agency		JOB: 1353	
TYPICAL DETAILS		CAD: Headwall grates	CLIENT REF: NA
SCALE: NOT TO SCALE	ORIGINAL PAPER SIZE A3	SHEET NO: 1 of 1	

Appendix D CP 41 AND 42



**Notice by the NZ Transport Agency:
Authorising a crossing place to and from a limited access road
under Section 91 of the Government Roothing Powers Act 1989**

Region	Auckland
State Highway Number	16
Declaration of Limited Access Road	Stewart St to Davies Road
Description of the parcel(s) of land to which this notice refers	Lot 36 DP 523159
Crossing Place Location	Approximately 54 metres from the Western boundary of the property (GPS position: 2644200.625 E 6507083.610 N).
NZTA File Reference	5207

Authorisation of crossing place

- 1 Pursuant to Section 91 of the Government Roothing Powers Act 1989 and subject to such conditions (if any) that it may impose, the NZ Transport Agency (hereinafter the NZTA) authorises the crossing place numbered 41 on Plan Number LA 16/47/1060 at which vehicles are permitted to proceed to and from (1) the limited access road and (2) the parcel of land described above.
- 2 A copy of the plan is available for inspection at the NZTA Auckland regional office.
- 3 This notice to the owner of the parcel of land described above specifies the location of the crossing place on the state highway road frontage.
- 4 At the time of issue of this notice this crossing place is used for residential access.

Conditions

- 5 The crossing place 41 is located at GPS co-ordinates listed above and is constructed to a Diagram C standard in accordance with NZTA Planning Policy Manual 2007.
- 6 The crossing place 41 is authorised for the residential use of one dwelling.
- 7 The crossing place 41 shall at all times be kept properly repaired and maintained by the landowner at the owner's expense.
- 8 No works are to be undertaken on the State highway without the prior approval of the State Highway Manager pursuant to Section 51 of the Government Roothing Powers Act 1989.
- 9 The owner of the parcel of land described above shall advise the NZTA State Highway Manager without delay if any of the following occur:
 - 9.1 a change in the nature or scale of use of the crossing place;
 - 9.2 a change in legal description;
 - 9.3 the owner has any concerns regarding the safety to users of the crossing place and/or of the state highway including an accident or incident that is attributed in full or in part to the use of the crossing place.
- 10 If, as a result of the change in the nature or scale of use of the crossing place, NZTA determines that works to the crossing place are necessary to address efficiency or safety concerns, then the NZTA will notify the owner of the works required. The owner shall carry out the works required at her/his cost to the satisfaction of NZTA within the time specified in the notice of the required works.

Advice notes

- 11 If the crossing place was in existence at the time of the declaration of the state highway as a limited access road, this notice does not confirm that its location, design or construction complies with NZTA standards for its current or future use. An owner with concerns in this regard should contact the NZTA regional office indicated above for further advice.
- 12 NZTA has standards for the design and construction of crossing places to state highways and will require compliance with those standards if an owner requires consent from the TLA to subdivide the land or to change its use.
- 13 A separate written permission from the NZTA in accordance with Section 51 of the Government Roading Powers Act 1989 is required before any work (other than routine maintenance) may be done on the state highway by the owner. This notice does not constitute that written permission.
- 14 NZTA wishes to emphasise that Section 91 of the Government Roading Powers Act 1989 gives NZTA the power to:
 - 14.1 cancel or vary conditions or to impose further conditions on a crossing place at any time; or
 - 14.2 cancel the right to use a crossing place. This will be exercised only after the owner has been given the opportunity to discuss the matter with NZTA
- 15 NZTA's cancellation powers will apply in the following situations
 - 15.1 when the parcel of land described above entitled to use the crossing place has ceased to exist e.g. changed legal description; or
 - 15.2 when there is a change in the location of the crossing place; or
 - 15.3 when another crossing place is authorised to the parcel of land described above; or
 - 15.4 where reasonable practicable legal access is available from another road

Special Conditions: (none if blank)

Dated this 14 day of May 2018

SIGNED for and on behalf of the
NZ TRANSPORT AGENCY



Sarah Ho
Senior Planning Advisor

(acting pursuant to delegated authority)

**Notice by the NZ Transport Agency:
Authorising a crossing place to and from a limited access road
under Section 91 of the Government Roothing Powers Act 1989**

Region	Auckland
State Highway Number	16
Declaration of Limited Access Road	Stewart St to Davies Rd
Description of the parcel(s) of land to which this notice refers	Lot 36 DP 523159
Crossing Place Location	Approximately 113 metres from the Western boundary of the property (GPS position: 2644285.486 E 6507085.145N).
NZTA File Reference	5207

Authorisation of crossing place

- 1 Pursuant to Section 91 of the Government Roothing Powers Act 1989 and subject to such conditions (if any) that it may impose, the NZ Transport Agency (hereinafter the NZTA) authorises the crossing place numbered 42 on Plan Number LA 16/47/1060 at which vehicles are permitted to proceed to and from (1) the limited access road and (2) the parcel of land described above.
- 2 A copy of the plan is available for inspection at the NZTA Auckland regional office.
- 3 This notice to the owner of the parcel of land described above specifies the location of the crossing place on the state highway road frontage.
- 4 At the time of issue of this notice this crossing place is used for residential access.

Conditions

- 5 The crossing place 42 is located at GPS co-ordinates listed above and is constructed to a Diagram C standard in accordance with NZTA Planning Policy Manual 2007.
- 6 The crossing place 42 is authorised for the residential use of one dwelling.
- 7 The crossing place 42 shall at all times be kept properly repaired and maintained by the landowner at the owner's expense.
- 8 No works are to be undertaken on the State highway without the prior approval of the State Highway Manager pursuant to Section 51 of the Government Roothing Powers Act 1989.
- 9 The owner of the parcel of land described above shall advise the NZTA State Highway Manager without delay if any of the following occur:
 - 9.1 a change in the nature or scale of use of the crossing place;
 - 9.2 a change in legal description;
 - 9.3 the owner has any concerns regarding the safety to users of the crossing place and/or of the state highway including an accident or incident that is attributed in full or in part to the use of the crossing place.
- 10 If, as a result of the change in the nature or scale of use of the crossing place, NZTA determines that works to the crossing place are necessary to address efficiency or safety concerns, then the NZTA will notify the owner of the works required. The owner shall carry out the works required at her/his cost to the satisfaction of NZTA within the time specified in the notice of the required works.

Advice notes

- 11 If the crossing place was in existence at the time of the declaration of the state highway as a limited access road, this notice does not confirm that its location, design or construction complies with NZTA standards for its current or future use. An owner with concerns in this regard should contact the NZTA regional office indicated above for further advice.
- 12 NZTA has standards for the design and construction of crossing places to state highways and will require compliance with those standards if an owner requires consent from the TLA to subdivide the land or to change its use.
- 13 A separate written permission from the NZTA in accordance with Section 51 of the Government Roading Powers Act 1989 is required before any work (other than routine maintenance) may be done on the state highway by the owner. This notice does not constitute that written permission.
- 14 NZTA wishes to emphasise that Section 91 of the Government Roading Powers Act 1989 gives NZTA the power to:
 - 14.1 cancel or vary conditions or to impose further conditions on a crossing place at any time; or
 - 14.2 cancel the right to use a crossing place. This will be exercised only after the owner has been given the opportunity to discuss the matter with NZTA
- 15 NZTA's cancellation powers will apply in the following situations
 - 15.1 when the parcel of land described above entitled to use the crossing place has ceased to exist e.g. changed legal description; or
 - 15.2 when there is a change in the location of the crossing place; or
 - 15.3 when another crossing place is authorised to the parcel of land described above; or
 - 15.4 where reasonable practicable legal access is available from another road

Special Conditions: (none if blank)

Dated this 14 day of May 2018

SIGNED for and on behalf of the
NZ TRANSPORT AGENCY



Sarah Ho
Senior Planning Advisor

(acting pursuant to delegated authority)

CREATING COMMUNITIES

Communities are fundamental. Whether around the corner or across the globe, they provide a foundation, a sense of belonging. That's why at Stantec, we always **design with community in mind**.

We care about the communities we serve—because they're our communities too. We're designers, engineers, scientists, and project managers, innovating together at the intersection of community, creativity, and client relationships. Balancing these priorities results in projects that advance the quality of life in communities across the globe.

New Zealand offices:

Alexandra, Auckland, Balclutha, Christchurch, Dunedin,
Gisborne, Greymouth, Hamilton, Hastings, Napier,
Nelson, Palmerston North, Queenstown, Tauranga,
Wellington, Whangārei

Stantec

Level 3, Stantec House, 111 Carlton Gore Road,
Newmarket, Auckland 1023

PO Box 13-052, Armagh, Christchurch, 8141

New Zealand: +64 9 580 4500 | www.stantec.com

