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8 July 2022

Consents Team Leader
Waipa District Council
Private Bag 2402
Te Awamutu 3840

Attn: Aidan Kirkby-McLeod

Dear Aidan,

RE: REQUEST FOR FURTHER INFORMATION UNDER SECTION 92(1) OF THE RMA, 4 MARCH 2022

IN RESPECT OF LAND USE CONSENT APPLICATION TO CONSTRUCT AND OPERATE PLANT TO GENERATE POWER THROUGH COMBUSION OF REFUSE-DERIVED FUEL, AT 401 RACECOURSE ROAD, TE AWAMUTU

WDC REFERENCE: LU/0323/21

Thank you for your letter dated 4 March 2022. I respond below to the points as they are set out in your letter and the further information requested relating to noise received on the 11th April 2022.

Firstly I need to note that the property to the north of the existing accessway, 417 Racecourse Road, and property to the south, No. 381 Racecourse Road, have been purchased by the applicant. That has allowed a comprehensive re-examination of the proposed access to the site, resulting in the revised configuration shown below.

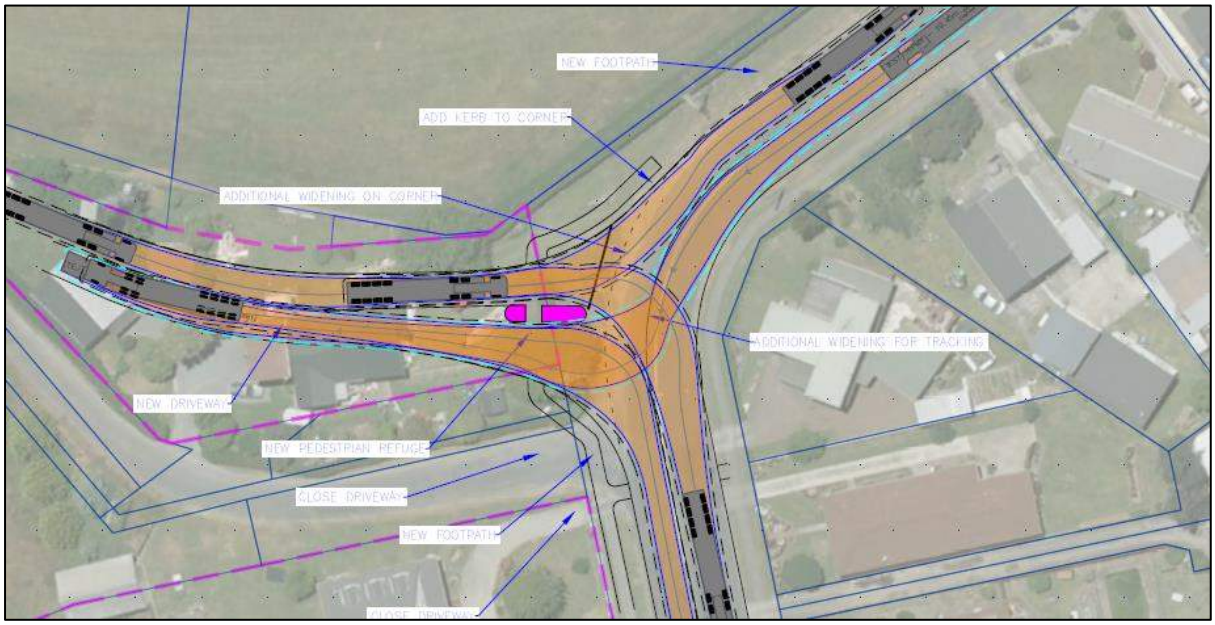

Figure 1: Revised access

This is considered to result in an improved access, sightlines and safety, as confirmed in the response by Commute Transportation Consultants, discussed further below, and will it is hoped satisfy all of the queries Council had on this aspect of the development. Accordingly application plans have been amended (Attachment 1).

In anticipation of the residential development of the racecourse site Council have indicated that a roundabout may be ultimately constructed on Racecourse Road at the elbow where it turns to the south, from which entrances will be installed to the racecourse and the subject site. The Transportation engineer Mr Leo Hills confirms that the proposed revised access will operate successfully with the installation of such a roundabout.

1. General Matters

1.1 Visual montages

A series of visual montages have been produced by Michael Graham, of Mansergh Graham:

https://mgla.maps.arcgis.com/apps/360vr/index.html?id=0e69889f70a54b98b23530275f52403d

These are powerful renderings of the visual impact of the proposal, which can be viewed in four different ways: Existing, No Planting, Planting in 5 years and Mature Planting, from 9 different vantage points, including those requested by Council. The planting phases refer to the extensive and significant plantings proposed through the Landscaping Plan, discussed below. It is our view the Planting phases demonstrate convincingly the successful accommodation of the large building into the landscape through the visual screening afforded by the proposed landscaping, and the minimal overall visual impact of the proposal.

It is noted that a building compliant with the maximum building height for this industrial-zoned site would be under no obligation to provide the visual mitigation proposed. While the proposed building exceeds maximum permitted height it is considered any impact of this is more than offset by the mitigation achieved, particularly when compared against a compliant 20m high building, with a much greater, compliant site coverage (as noted in the AEE there is no maximum site coverage applicable in the Industrial zone, with only around 45% proposed under the subject development).

The reasons for requesting this further information on this matter makes reference to an infringement of up to 18m above the maximum 20m permitted. As noted in the application it is the chimneys that extend to maximum 38m above ground level, with the ridge of the main hall achieving a maximum height of 35m. It is not considered the chimneys will have any significant visual impact when set against the rest of the building and the Fonterra complex close by, and therefore assessment should focus on the lower building hall.

1.2 Fencing heights

The inconsistency has been resolved. Acoustic fencing has been adjusted along the northern boundary with the acquisition of the property at No. 417 Racecourse Road, allowing a consistent height along the length of the boundary, see sheet A01-01, Attachment 1.

1.3 Signage on Racecourse Road

Sheet A90-10, Attachment 1, shows a larger view of the sign proposed at the site entrance, and sheet A01-01 shows the dimensions of the proposed sign - 2.5h x 2mw. While this is larger than the 0.25m^2 permitted in the Residential Zone it is considered there will be minimal adverse visual effects on local amenity. The sign has been designed consistent with the rest of the design of the entranceway and is highly integrated and will also be setback from the road boundary – 16.5m further minimizing any impact.

2. Waste strategies

2.1 Ministry for the Environment 'A Waste to energy guide for New Zealand'

An assessment of the proposal against the Guide is attached as Attachment 2.

2.2 Waipa District Council Waste Management and Minimisation Plan 2017-2023

An assessment of the proposal against the Plan is attached as Attachment 3.

Against both documents the proposal compares favourably. Essentially the proposal will allow for the extraction of a significant quantity of recyclables that would otherwise be sent to landfill, and will combust non-recyclable material that would otherwise be sent to landfill.

3. Cultural effects

3.1 Evidence on feedback from consultation with Ngā Iwi Tōpū O Waipā (NITOW) and Waikato Tainui is attached (Attachment 3). As part of its engagement with the NITOW and Waikato-Tainui the applicant carried out assessments of the proposal against Tai Tumu Tai Pari Tai Ao – Waikato – Tainui Environmental Plan, and Te Ture Whaimana o Te Awa o Waikato – Vision and Strategy for the Waikato River which are included in Attachment 4.

4. Parks and Reserves

4.1 Mangapiko Stream et al Setback Plan

The 23m setback from the Mangapiko Stream has been marked on attached Plan Sheet A01-01 (Attachment 1). No earthworks are proposed within the 23m setback, as indicated in the Overall Earthworks Plan submitted with the application (Figure 52 of the AEE, and sheet RC-010 of the Civil drawings submitted for the s.92 response (Attachment 5), where the 23m stream setback is also shown). Excavation for flood displacement mitigation will occur between the stream setback and the displacement line.

4.2 Landscaping Plan

As above a comprehensive landscaping plan has been prepared by Mansergh Graham, as requested (Attachment 6). I believe the plan compellingly illustrates the environmental uplift this proposal will spark. The majority of the site will be landscaped and planted in native

plantings suited to the various habitats present and will result in major improvement to the ecological and landscaping qualities along this part of the Mangapiko Stream. In the Design Intent annotated to the Landscape Plan Michael Graham states: "Utilising a range of riparian and wetland indigenous species the proposal creates layers of low, intermediate and high swathes of vegetation which respond to the site topography, restoring the site and providing habitat for the stream and stream terrace". Improvement extends to including as stated in the original application the cessation of grazing down to the stream edge, the near stopping of entry of agricultural runoff into the stream from this part of the site, and in time near total recovery back to the original landcover. Further follow-on positive impacts will be the revival of historical cultural practices such as harvesting of mahinga kai. The restoration and planting will involve local hapu including NITOW reinforcing mana whenua and intergenerational learning.

The plan incorporates the cycleway route as agreed with the District Council under a separate process, and proposes an extension to enable the restoration to be fully appreciated. The visual montages discussed above showcase the extent of the promise of the planting, where even at a period of 5 years from planting change is remarkable.

The design intent annotated to the Landscaping Plan describes the principles behind the Plan's preparation. This works off the Scope agreed with Council officers 28 March 2022 addressing matters listed (Attachment 7). Essentially the Landscaping Plan seeks outcomes that are responsive to the topography and hydrology of the site, and will provide appropriate screening to the facility buildings. Wetland planting is focused adjacent the Stream and in the lower lying western part of the site, with planting grading up to larger plantings moving away from the Stream and around the northern perimeter of the site. The wetlands also incorporate the two stormwater outfalls. Closer in to the buildings for maintenance and operational reasons plantings become more amenity focused. A viewing platform will be sculpted to the south of the vehicle access for views over the plantings down to the Stream, and a new bridge installed to allow the cycleway to cross the Stream and continue to follow the Stream round to the south.

Viewshafts will develop naturally depending on vegetation and underlying ground conditions. For example there will be views into the site from across the Mangapiko Stream at the playing fields up the eastern stormwater outfall which is characterised by wetland plantings. Deeper views into the site will be possible at the south western corner of the site where wetland plantings will dominate. Views into the site have been balanced with the need to provide adequate screening.

No engineering works are planned along the stream bank, nor are any instream habitat enhancements planned as these would extend outside the property boundaries. Access to the site will be managed by security fencing that will be positioned closer to the facility, and temporary fencing that will protect plantings while they establish.

The preceding suggests strong alignment with that sought by Council, and indeed goes significantly beyond the 20m requested. As noted the proposed landscaping will also align well with other council strategies such as the Taiea te Taiao (Pirongia to Maungatautari Ecological Corridor Project) . As a concept at this point it is anticipated that work on the detailed design scope for the landscaping would be carried out post consent, triggered by the proposed condition attached to the Concept scope dated as above 28.3.22.

The email from Council on 28.3.22 notes the 500m wide biodiversity corridor affecting the site under the district Plan. In terms of the identified issue and associated objective the proposal is considered strongly aligned. The proposed landscaping is wide and will significantly contribute to the restoration of the Mangapiko Stream as a viable corridor for indigenous biodiversity, ecological processes and connectivity.

4.3 An esplanade reserve is not considered an appropriate mechanism to protect the plantings given that no subdivision is planned at this point but moreover because the extent of the landscaping far exceeds 20m. A possible option to ensure maintenance of plantings may be a covenant , and this could be worked through at time of drafting of conditions.

4.4 The elevated exterior walkway attached to the side of the main halls is one of the main ways in which visual connectivity between the building and planted areas and the Mangapiko Stream is achieved. The insertion of the cycleway and extension, and elevated viewing platform are other opportunities for visual connectivity, but which must be balanced with the screening sought through other District Plan provisions.

4.5 Acoustic screening has been adjusted to a consistent 1.8m height along the length of the northern boundary, taking into account the purchase of No. 417 Racecourse Road. As is discussed below under 'No. 8 Acoustic', assessment has been carried out at two locations within the Racecourse site – at the boundary and 50m deeper into the site. For the way in which the area of the racecourse adjacent the subject site is very likely to be developed, there will be at least a 50m setback of residential development from the subject boundary, for which a 1.8m high fence has been assessed as appropriate (discussed in more detail below).

4.6 The Landscaping Plan incorporates landscaping along the boundary with the Racecourse, where possible. At points the accessway abuts the boundary and there will not be sufficient space for the establishment of planting along with the incorporation of the acoustic fence as above. It is likely also the site planning for the racecourse site will insert additional landscaping on the racecourse side of the boundary achieving an overall appropriate buffer.

4.7 It is understood a confirmed route has been agreed with the District Council for the cycleway, and a Sale and Purchase agreement made on this basis. The Landscaping Plan shows the agreed route.

<u>5. Development Engineering</u>

5.1 – 5.9 Responses in Attachment 8, with reference to drawings in Attachment 5. The following should be noted in addition:

5.2 Water demand is estimated at approximately 170m^3 per day. The profile of this demand throughout the day is described in the attached spreadsheet and email (Attachment 9), which was provided to Melissa Allfrey on the 25th May 2022.

5.10 The proposal is considered to fit into L3: *"Buildings for power generating facilities, water treatment for potable water, wastewater treatment facilities, and other public utilities facilities not included in importance level 4"*. However if the facility supplies power in a post disaster recovery or use as an emergency back-up, then it would fit into L4: *"power generating stations and other utilities required as emergency backup facilities for importance level 3 structures".*

<u>6. Transportation</u>

6.1 – 6.16 All Transportation-related matters are addressed in the attached Transportation s.92 response (Attachment 10). The following should be noted in addition:

6.13 Refer sheet 10-05 (Attachment 1) and also Transportation response.

6.14 (c) Sheet A10-11 (Attachment 1) of the revised Site Plans shows a revised layout for the carpark for the exhibition centre, and includes a covered cycle rack and charging ports as annotated.

6.16 Any potential damage to pavement will be addressed through appropriate conditions to any consent. Further this potential is reduced under the revised vehicle generation as set out in the Transportation response.

7. Environmental Health

7.1 No waste will be handled outside the building. Our understanding the concern of the council relates to the impact odour and dust producing waste being stored outside. Odour and dust is most likely to come from MSW and unsorted or unprocessed commercial and industrial waste (C&I). All deliveries of MSW & unprocessed C&I will be to the delivery hall.

There will be occasions where deliveries from consolidation sites where flock, baled waste, tyres, processed C&I and other inorganic waste stocks may be stored outside for short periods of time. This may occur during breakdown, service periods, re-commissioning periods.

7.2 Yes we confirm door and entrance design will be finalised at the detailed design stage for building consent to ensure prevention of odour escape.

7.3 We feel the preparation of a pest management plan would be premature at this point, and can be imposed through a condition of consent. Further as confirmed in the Procedures Plan most waste that might attract pests, particularly putrescible waste, will be excluded from the waste stream before delivery to the facility.

8. Acoustic (RFI received 11 April 2022)

8.1 – 8.12 Acoustic-related queries are addressed in the attached Acoustic Response (Attachment 11). The following should be noted in addition.

As above the entranceway has been significantly changed as a result of the purchase of the two adjoining residential properties. The former exceedances at those properties under the original application and the attached mitigation are therefore no longer relevant, and as the Acoustic response concludes noise received at other properties surrounding the entranceway will comply, and other relevant queries such as 8.12(a) – (c) are now superseded.

As a consequence the only noise effect of the proposal falls onto the Racecourse site, as identified in the Acoustic response in the discussion under Council Request - 8.6 where exceedances are noted during daytime, at the boundary, incorporating a 1.8m high acoustic fence. There is a slight exceedance of 2 decibels at night at first floor level but this is within the margin of error and will not be noticeable to the receiver.

Assessment has also been carried out at a point 50m inside the Racecourse site. This is the most likely closest location of any affected residential development, as it is extremely unlikely residential development would be carried out up to the subject site's boundary. This recognises the need to avoid friction between the industrial and residential uses, and Regional Policy Statement guidance on the matter, as adduced in the original application – principle (o): *"[Land use planning shall]…not result in incompatible adjacent land uses (including those that may result in reverse sensitivity effects), such as industry, rural activities and existing or*

planned infrastructure;". That is an approach that would equitably share the burden of noise mitigation. To be imposed solely on the applicant penalises the use of their industrial zoned land to an unfair degree and ignores the relatively easy opportunity for partial mitigation to be accommodated within the Racecourse site, ahead of its development.

If you have any questions regarding the above, please do not hesitate to contact me on 022 509 9562 or email chris.dillon@terragroup.co.nz.

Kind Regards,

Yours faithfully,

CHRIS DILLON
PRINCIPAL PLANNER
BRP(Hons), MNZPI

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022 509 9562

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PO BOX 24201, Eastgate,
Christchurch, 8642

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SITEWISE GREEN 2021/22

ATTACHMENTS

Attachment 1:	Revised Application Plans
Attachment 2:	MfE Waste to Energy Guide NZ Assessment
Attachment 3:	Waipa District Council WMMP Assessment
Attachment 4:	Consultation Response from Waikato-Tainui, Record of engagement with NITOW, Assessments against Tai Tumu Tai Pari Tai Ao – Waikato Te Ture Whaimana o Te Awa o Waikato
Attachment 5:	Civil Drawings
Attachment 6:	Landscaping Plan
Attachment 7:	Concept Landscaping Plan scope agreed 28.3.22
Attachment 8:	Development Engineering responses
Attachment 9:	Water modelling spreadsheet & email 25.5.22
Attachment 10:	Transportation Response
Attachment 11:	Acoustic Response

ATTACHMENT 1

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A0 GENERAL NOTES

SHEET	SHEET NAME	REV
A00-00	COVER SHEET	
A01-00	EXISTING SITE PLAN	A
A01-01	PROPOSED SITE PLAN	A
A01-05	CIRCULATION PLAN	A

A1 PLANS

SHEET	SHEET NAME	REV
A10-01	UPPER LEVEL PLAN	A
A10-02	LOWER LEVEL PLAN	A
A10-11	CAFE/MUSEUM/OFFICE BUILDING LAYOUT	A
A10-12	POWER GENERATOR PLAN	

A2 ELEVATIONS

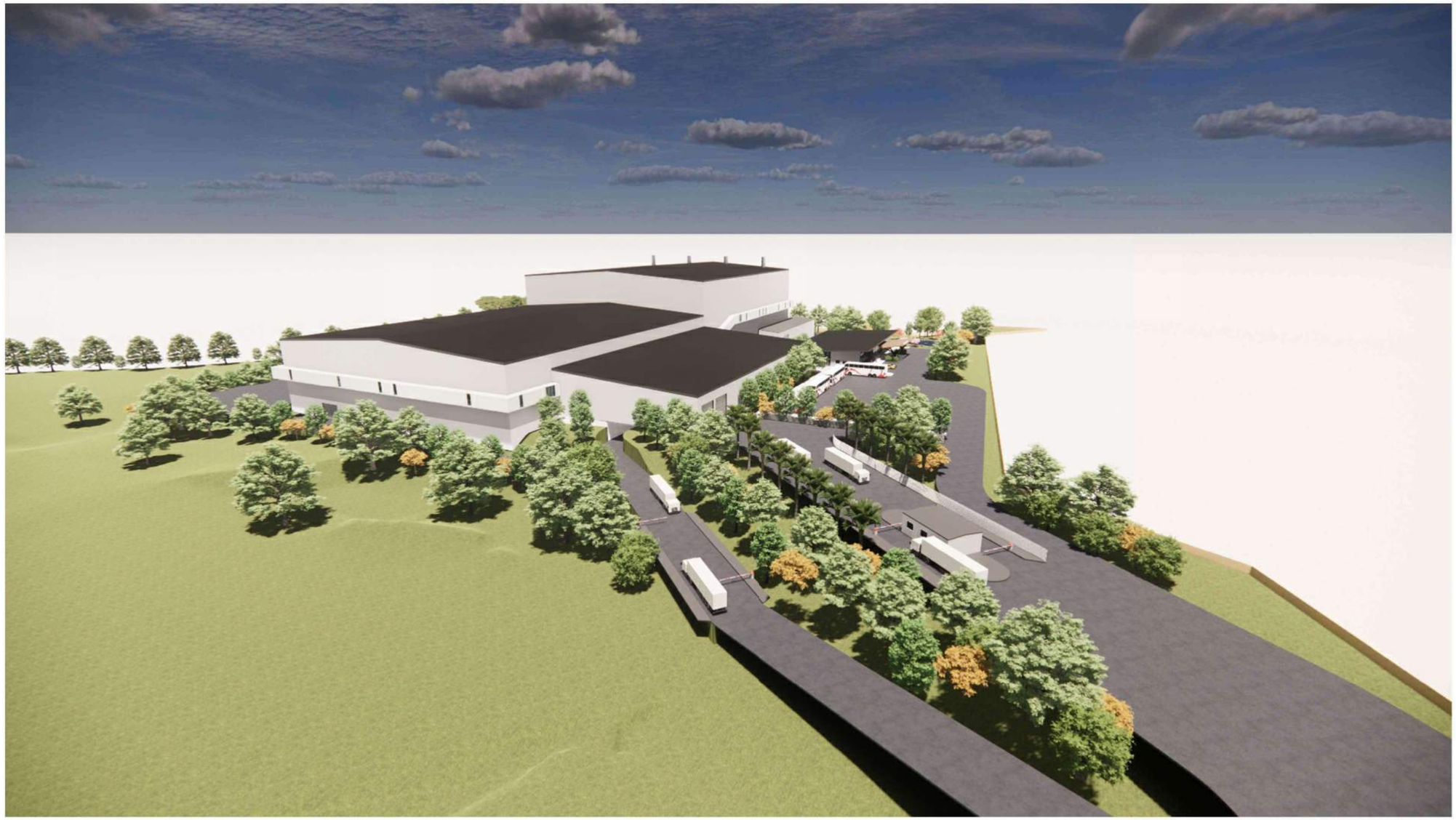
SHEET	SHEET NAME	REV
A20-01	ELEVATIONS	A
A20-02	ELEVATION	

A3 SECTIONS

SHEET	SHEET NAME	REV
A30-01	SECTIONS	

A9 3D VIEWS

SHEET	SHEET NAME	REV
A90-10	3D VIEWS	A
A90-11	3D VIEWS	
A90-12	3D VIEWS	
A90-13	3D VIEWS	
A90-20	AERIAL SITE PLAN	



RESOURCE CONSENT ISSUE

PAEWIRA WASTE TO ENERGY PLANT

PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

PROJECT NO. 200065

JULY 2022

C:\Users\gi.lee\Documents\200065_PAEWIRA RECYCLING PLANT_BUILDING_REVIT 2021_deshan.jay.rvt

TE AWAMUTU RACECOURSE

LOCATION PLAN

SITE INFORMATION

ADDRESS:	401 RACECOURSE ROAD, TE AWAMUTU 3800
LEGAL DESCRIPTON:	PT LOT 7 DP 20887
RECORD OF TITLE:	SA44C/676
AREA:	9.815700 HA
PLAN ZONE:	INDUSTRIAL ZONE
WIND ZONE:	HIGH
EARTHQUAKE ZONE:	ZONE 1
EXPOSURE ZONE:	ZONE B

RACECOURSE ROAD

MANGAPIKO STREAM

RACECOURSE ROAD

1 **EXISTING SITE PLAN**
1 : 1000

NOTES

ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE FABRICATION OF ANY COMPONENTS.

DO NOT SCALE. FIGURED DIMENSIONS MUST BE TAKEN IN PREFERENCE TO SCALE.

ALL ARCHITECTURAL PLANS TO BE READ IN CONJUNCTION WITH ENGINEERS DETAILS. PLEASE NOTIFY THE ARCHITECT OF ANY ANOMALIES BETWEEN ARCHITECT'S AND CONSULTANTS'

FOR RESOURCE CONSENT

DATE STAMP 8/07/2022 4:53:36 pm

REV	DESCRIPTION	DATE
-		
A	S92	08.06.2022

terra consultants

79 GRAFTON ROAD,
GRAFTON, AUCKLAND 1010
09 357 3557
WWW.TERRAGROUP.CO.NZ

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PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
EXISTING SITE PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES
As indicated at A1

DESIGNER	DRAWN BY	CHECKER
Designer	Author	Checker

PROJECT NO.	SHEET NO.	REV NO.
200065	A01-00	A

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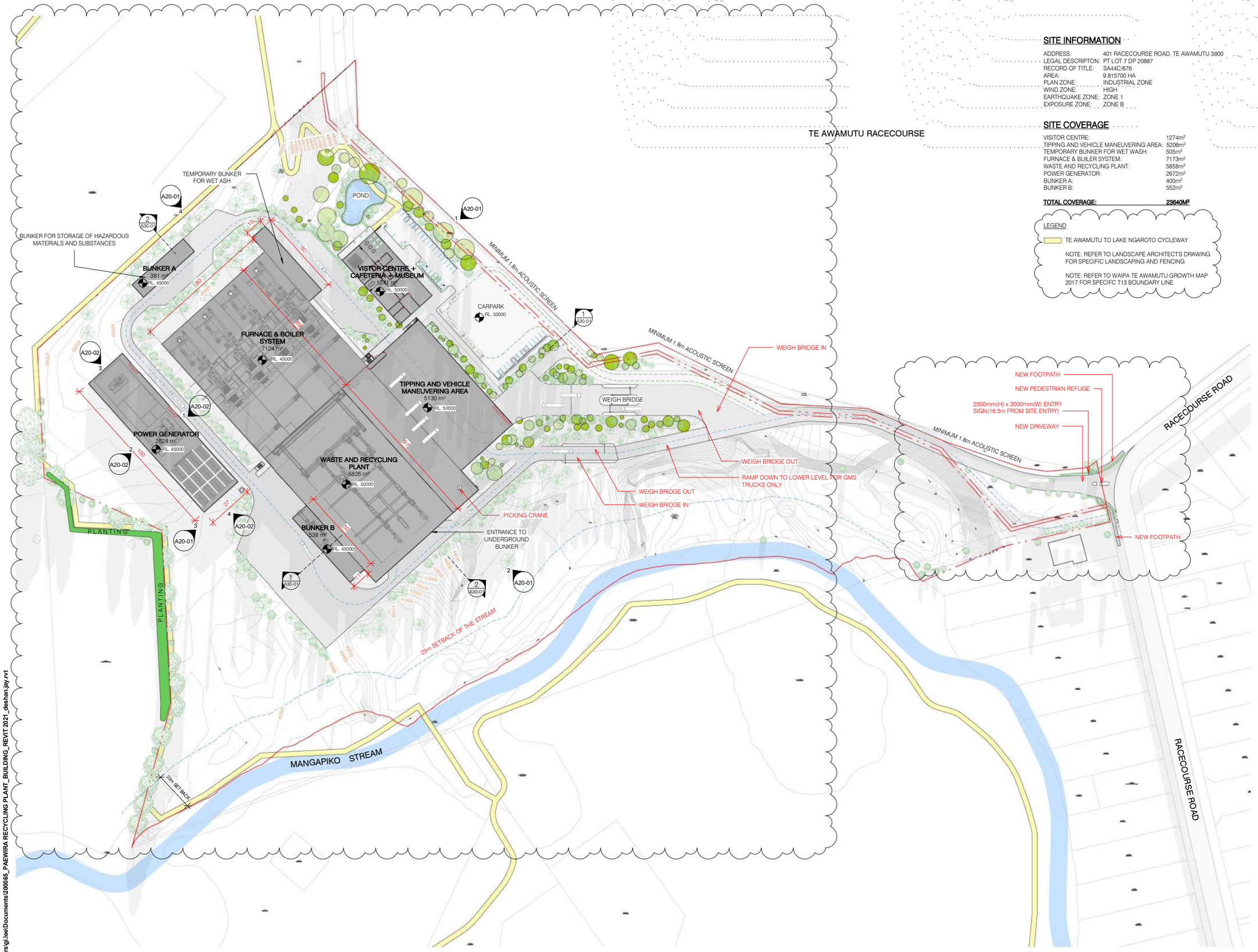

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LEGAL DESCRIPTON:	PT LOT 7 DP 20887
RECORD OF TITLE:	SA44C/676
AREA:	9.815700 HA
PLAN ZONE:	INDUSTRIAL ZONE
WIND ZONE:	HIGH
EARTHQUAKE ZONE:	ZONE 1
EXPOSURE ZONE:	ZONE B

SITE COVERAGE

VISITOR CENTRE:	1274m²
TIPPING AND VEHICLE MANEUVERING AREA:	5206m²
TEMPORARY BUNKER FOR WET WASH:	505m²
FURNACE & BUILER SYSTEM:	7173m²
WASTE AND RECYCLING PLANT:	5858m²
POWER GENERATOR:	2672m²
BUNKER A:	400m²
BUNKER B:	552m²
TOTAL COVERAGE:	**23640M²**

LEGEND

TE AWAMUTU TO LAKE NGAROTO CYCLEWAY

NOTE: REFER TO LANDSCAPE ARCHITECT'S DRAWING FOR SPECIFIC LANDSCAPING AND FENCING

NOTE: REFER TO WAIPA TE AWAMUTU GROWTH MAP 2017 FOR SPECIFC T13 BOUNDARY LINE

NOTES

ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE FABRICATION OF ANY COMPONENTS.

DO NOT SCALE. FIGURED DIMENSIONS MUST BE TAKEN IN PREFERENCE TO SCALE.

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NOTE: ALL FFLS ARE INDICATIVE.

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09 357 3557
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PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
PROPOSED SITE PLAN

PROJECT ISSUE
JULY 2022

SCALES
As indicated at A1

DESIGNER	DRAWN BY	CHECKER
Designer	Author	Checker

PROJECT NO.	SHEET NO.	REV NO.
200065	A01-01	A

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NORTH BOUNDARY
46° 38 42" 182.30 m

WEST BOUNDARY
47° 47 35" 134.31 m

CHARGING PORTS

VISITOR CARPARK

COVERED BIKE STAND WITH CHARGING PORT

BUS PARK

STAFF CARPARK

WEIGH BRIDGE OUT

WEIGH BRIDGE IN

RAMP DOWN

WEIGH BRIDGE OUT

WEIGH BRIDGE IN

VISTOR CENTRE + CAFETERIA + MUSEUM
1241 m²

PASSING BAY

WASTE RECEPTION AT UPPER LEVEL

TUNNEL BELOW

WET ASH REMOVAL

TEMPORARY BUNKER FOR WET ASH
487 m²

COMMERCIAL RECEPTION AREA

DOMESTIC RECEPTION AREA

MOVABLE BARRIER

TIPPING AND VEHICLE MANEUVERING AREA
5130 m²

DRY ASH REMOVAL

FURNACE & BOILER SYSTEM
7124 m²

BUNKER A
381 m²

PASSING BAY

ENTRANCE TO GMS BUNKERS AT LOWER LEVEL BELOW

WASTE RECEPTION AT LOWER LEVEL (BELOW WASTE AND RECYCLING PLANT)

WASTE AND RECYCLING PLANT
5826 m²

EXIT FROM GMS BUNKERS AT LOWER LEVEL BELOW

EXIT FROM GMS BUNKERS AT LOWER LEVEL BELOW

EMERGENCY EXIT FOR VIEWING PLATFORM

BUNKER B
538 m²

POWER GENERATOR
2624 m²

MANGAPIKOSTREAM

A20-01 1
A20-01 2
A20-01 4
A30-01 2
A20-02 1
A20-02 3
A20-02 4
A20-02 2
A20-01 3
A30-01 1

PLANT AREA

- BUNKER A
- BUNKER B
- FURNACE & BOILER SYSTEM
- POWER GENERATOR
- TEMPORARY BUNKER FOR WET ASH
- TIPPING AND VEHICLE MANEUVERING AREA
- VISTOR CENTRE + CAFETERIA + MUSEUM
- WASTE AND RECYCLING PLANT

TRAFFIC CIRCULATION LEGEND

- PUBLIC / COMMERCIAL VEHICLE ROUTE
- INCOMING WASTE TRUCK ROUTE (UPPER LEVEL)
- OUTGOING WASTE TRUCK ROUTE (UPPER LEVEL)
- INCOMING WASTE TRUCK ROUTE (LOWER LEVEL)
- OUTGOING WASTE TRUCK ROUTE (LOWER LEVEL)
- DOMESTIC DROP OFF ROUTE
- DOMESTIC OUTGOING ROUTE
- DESIGNATED BIKE ROUTES

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DATE STAMP 8/07/2022 4:54:03 pm

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A	S92	08.06.2022

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WWW.TERRAGROUP.CO.NZ

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PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
CIRCULATION PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES
1 : 600 at A1

DESIGNER	DRAWN BY	CHECKER
Designer	Author	Checker

PROJECT NO.	SHEET NO.	REV NO.
200065	A01-05	A

TE AWAMUTU RACECOURSE

NORTH BOUNDARY
46° 38' 42" 182.30 m

WEST BOUNDARY
47° 47' 55" 134.57 m

POND

VISITOR CARPARK
RL. 50000

VISITOR CENTRE + CAFETERIA + MUSEUM
1241 m²
RL. 50000

BUS PARK
RL. 50000

TIPPING AND VEHICLE MANEUVERING AREA
5130 m²
RL. 50000

TUNNEL BELOW

PASSING BAY

ACCESS TO VIEWING PLATFORMS

TEMPORARY BUNKER FOR WET ASH
487 m²
RL. 45000

STAFF STAIR TO PLANT

VIEWING PLATFORM OVERHEAD

FURNACE & BOILER SYSTEM
7124 m²
RL. 45000

WASTE AND RECYCLING PLANT
5826 m²
RL. 50000

MOVEABLE TRAFFIC CONTROL BOLLARDS

PICKING CRANE

ENTRANCE TO UNDERGROUND BUNKER BELOW

VIEWING PLATFORM OVERHEAD

BUNKER A
381 m²
RL. 45000

BUNKER B
538 m²
RL. 45000

EMERGENCY EXIT FOR VIEWING PLATFORM

POWER GENERATOR
2624 m²
RL. 45000

WEIGH BRIDGE OUT

WEIGH BRIDGE IN

RAMP DOWN

WEIGH BRIDGE OUT

WEIGH BRIDGE IN

BUILDING SETBACK

CARPARK SETBACK

DRIVEWAY SETBACK

MANGAPIKO STREAM

LEGEND

TE AWAMUTU TO LAKE NGAROTO CYCLEWAY

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PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
UPPER LEVEL PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES
As indicated at A1

DESIGNER	DRAWN BY	CHECKER
Designer	Author	Checker

PROJECT NO.	SHEET NO.	REV NO.
200065	A10-01	A

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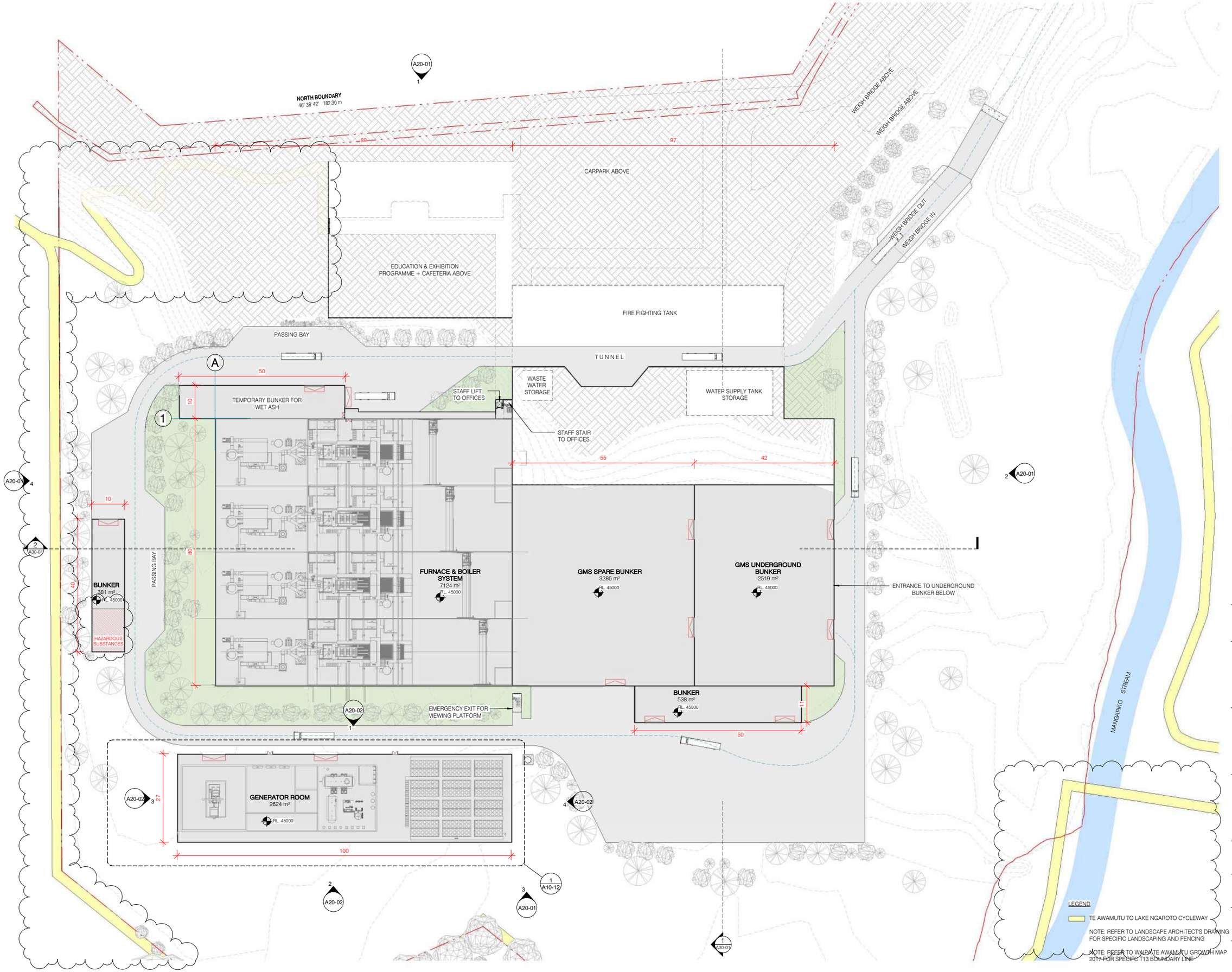

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PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
LOWER LEVEL PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES
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1 **VISITOR CENTRE BUILDING & POND**
1 : 200

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PROJECT TITLE:
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PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
CAFE/MUSEUM/OFFICE BUILDING LAYOUT

PROJECT ISSUE DATE
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SCALES
1 : 200 at A1

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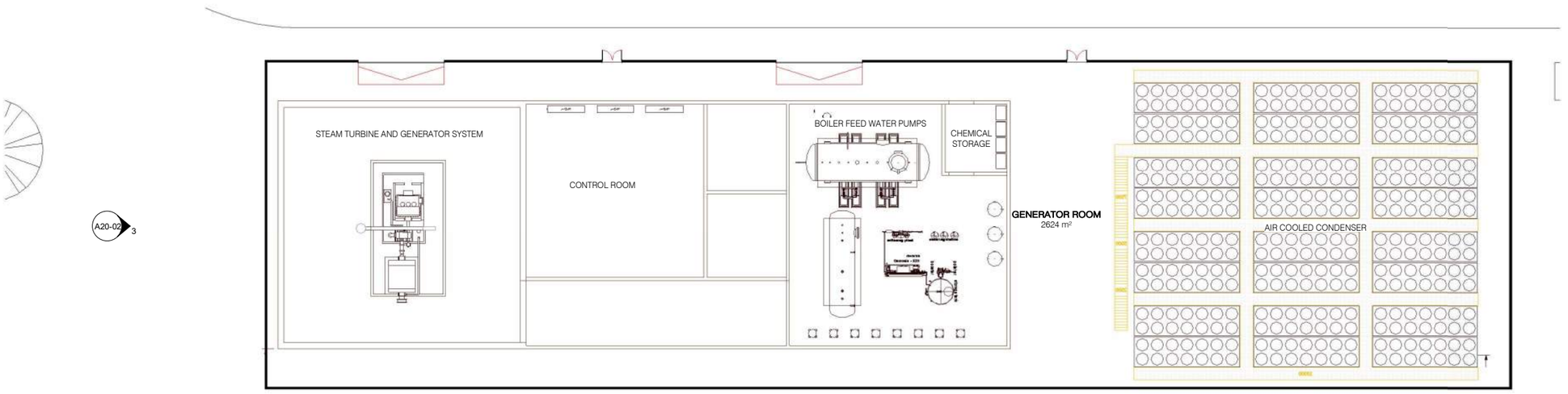

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PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
POWER GENERATOR PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES:
1 : 200 at A1

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200065	A10-12	

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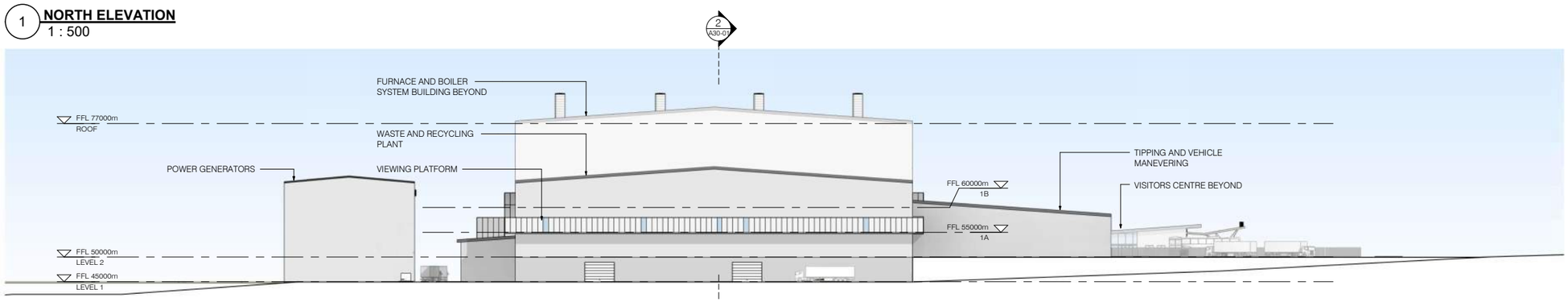

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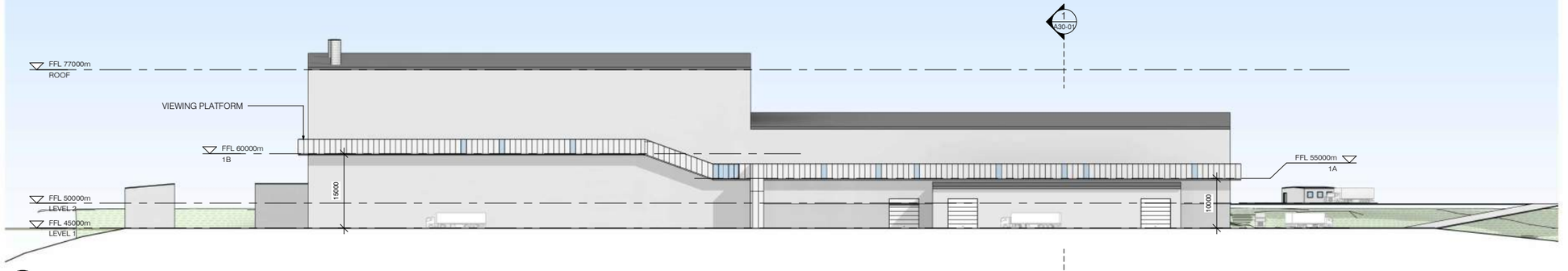

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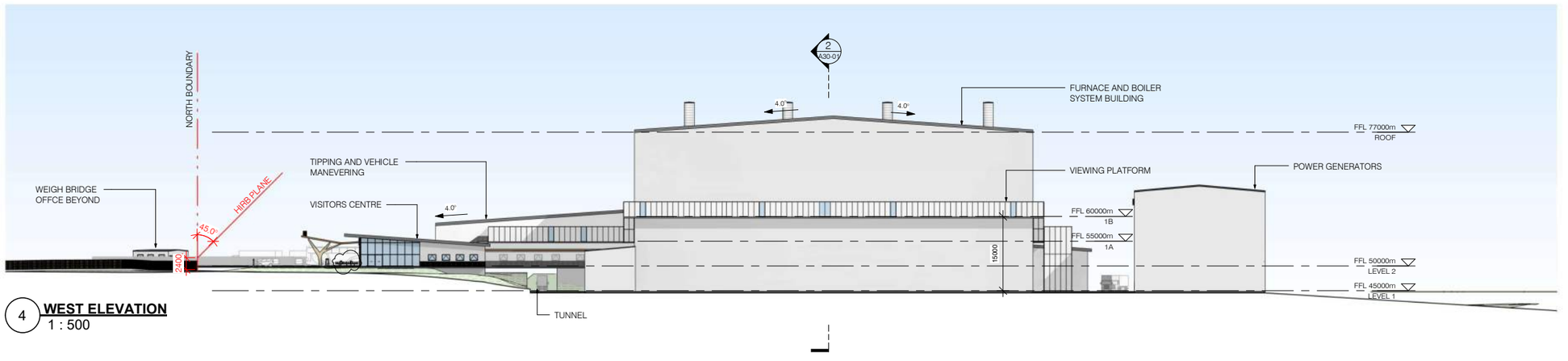

4 **WEST ELEVATION**
1 : 500

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PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
ELEVATIONS

PROJECT ISSUE DATE:
JULY 2022

SCALES:
1 : 500 at A1

DESIGNER	DRAWN BY	CHECKER
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PROJECT NO.	SHEET NO.	REV NO.
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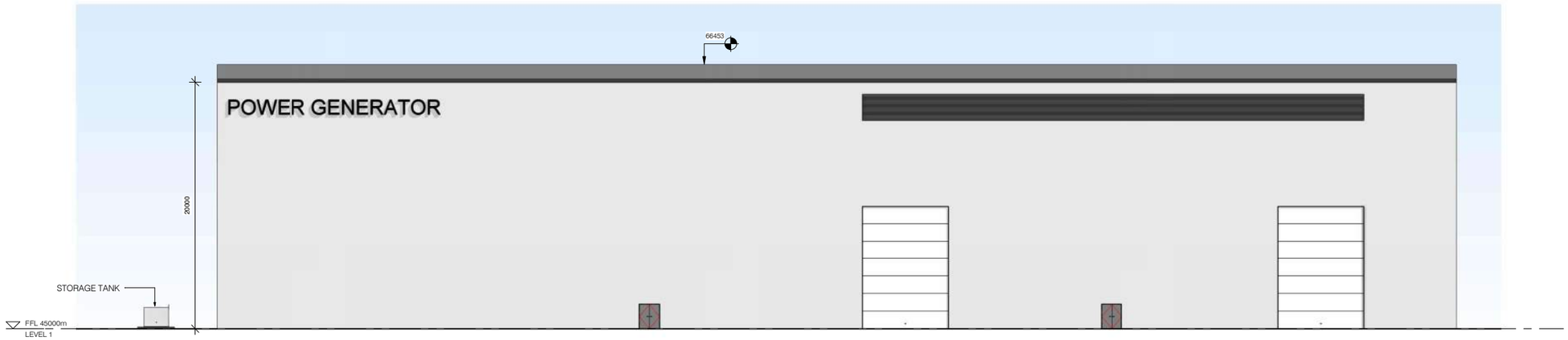

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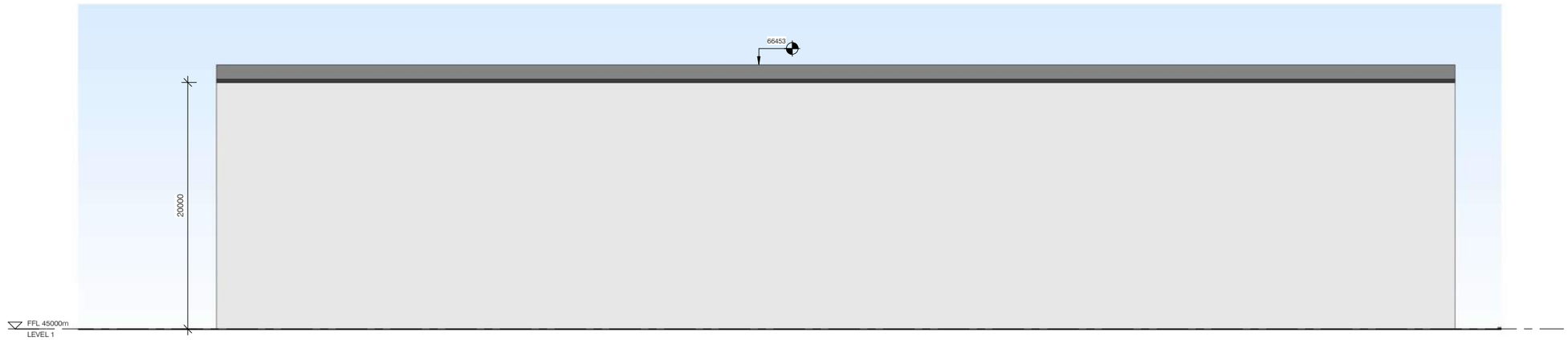

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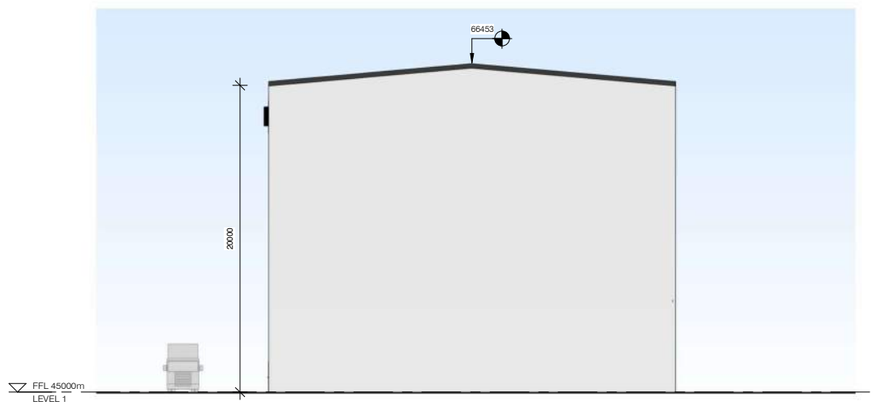

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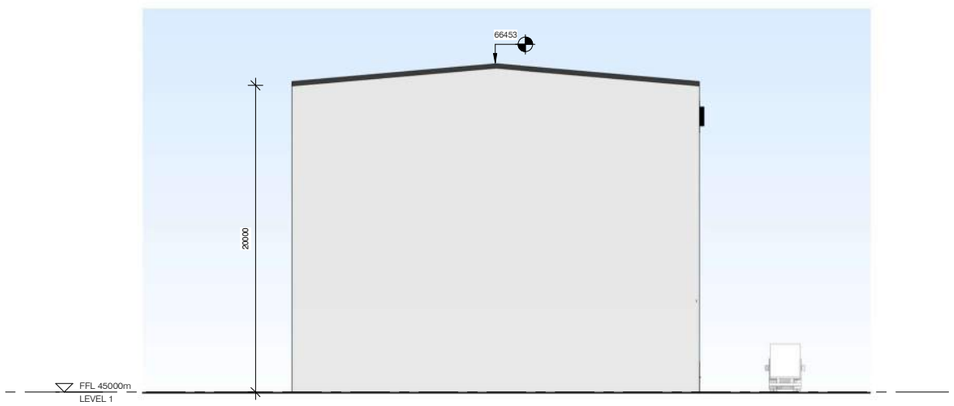

4 **POWER GENERATOR PEN_EAST ELEVATION**
1 : 200

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PROJECT
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
ELEVATION

PROJECT ISSUE DATE:
JULY 2022

SCALES
1 : 200 at A1

DESIGNER	DRAWN BY	CHECKER
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PROJECT NO.	SHEET NO.	REV NO.
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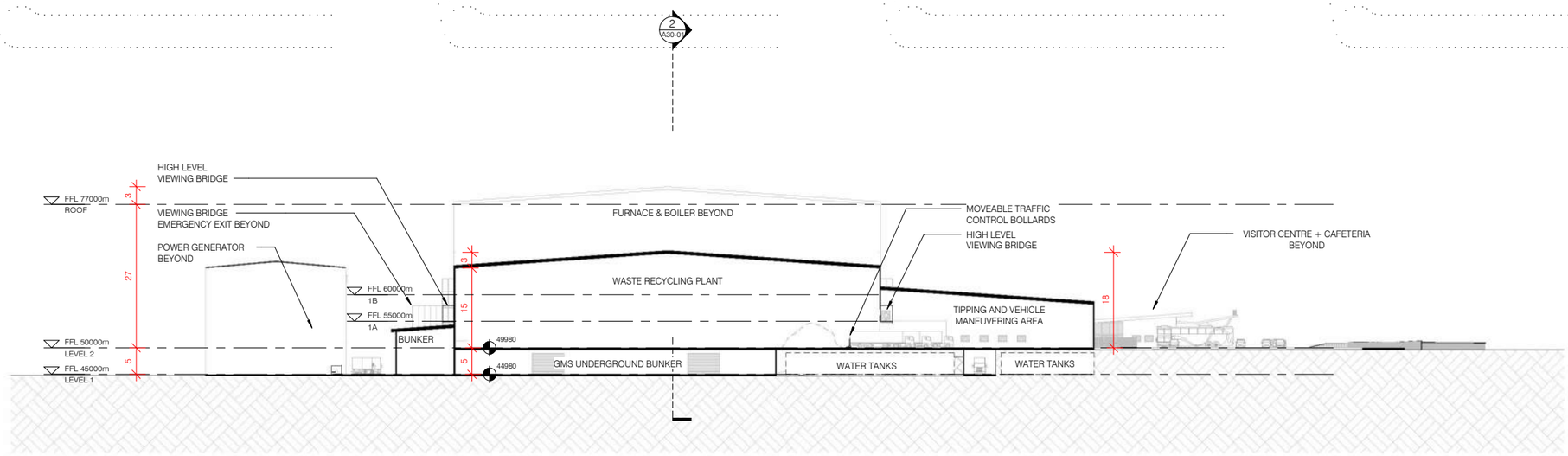

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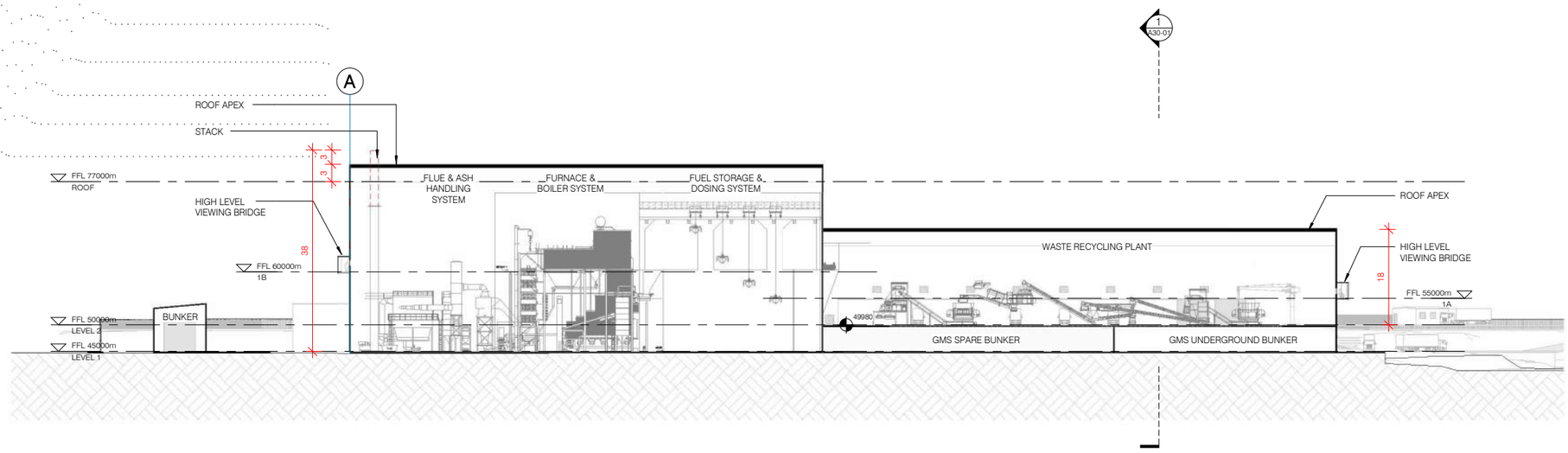

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PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
SECTIONS

PROJECT ISSUE DATE
JULY 2022

SCALES
1 : 500 at A1

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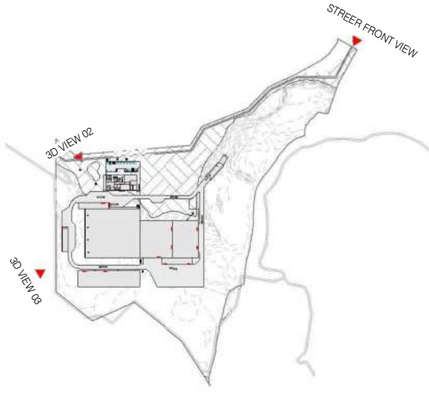
PROJECT NO.	SHEET NO.	REV NO.
200065	A30-01	

STREET FRONT VIEW

3D VIEW 02

3D VIEW 03



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PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
3D VIEWS

PROJECT ISSUE DATE
JULY 2022

SCALES
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PROJECT NO.	SHEET NO.	REV NO.
200065	A90-10	A

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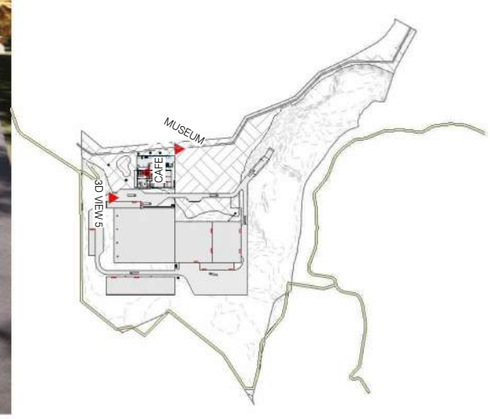
MUSEUM



3D VIEW 5

CAFE

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PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
3D VIEWS

PROJECT ISSUE DATE:
JULY 2022

SCALES
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BIRD VIEW_VISITOR CENTRE

BIRD VIEW_SOUTH

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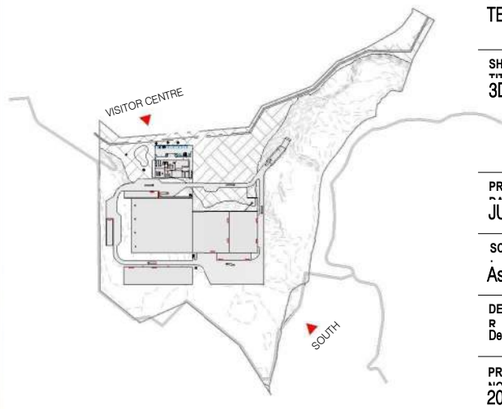
PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU



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3D VIEWS

PROJECT ISSUE DATE:
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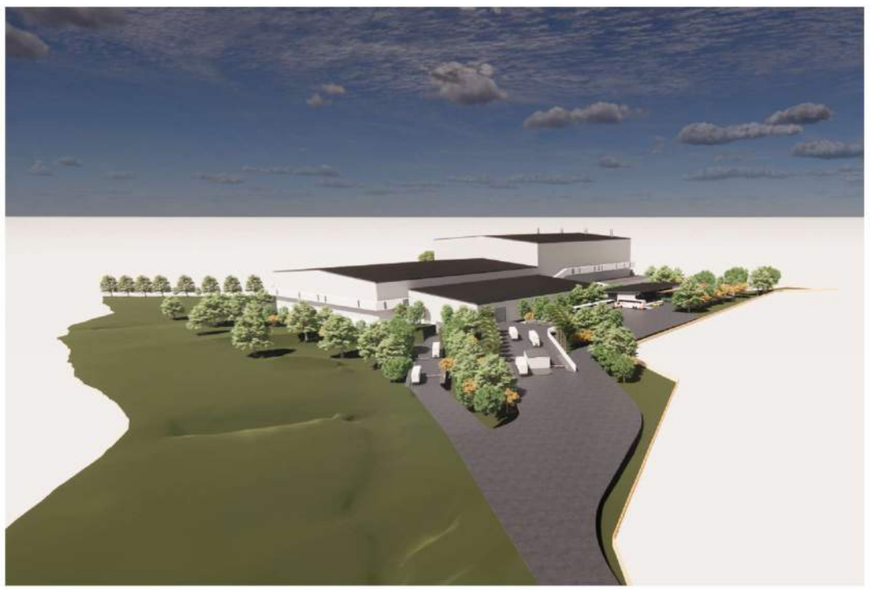
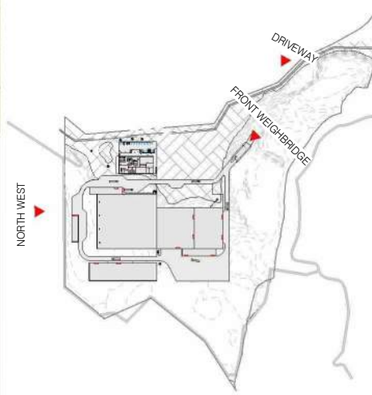
200065	A90-12	

BIRD VIEW_NORTH WEST

BIRD VIEW_EAST



VIEW_FRONT WEIGHBRIDGE



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PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
3D VIEWS

PROJECT ISSUE DATE:
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200065	A90-13	

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KEY LEGEND

1. SITE ENTRY
2. WEIGHBRIDGE
3. CARPARK
4. POND
5. VISITOR CENTRE
6. TIPPING AND VEHICLE MANEUVERING AREA
7. TEMPORARY BUNKER FOR WET WASH
8. FURNACE & BUILER SYSTEM
9. WASTE AND RECYCLING PLANT
10. POWER GENERATOR
11. BUNKER
12. BUNKER

1 **AERIAL SITE PLAN**
1 : 2500

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PROJECT
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PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
AERIAL SITE PLAN

PROJECT ISSUE DATE:
JULY 2022

SCALES
1 : 2500 at A1

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200065	A90-20	

ATTACHMENT 2

2.1. The Ministry for the Environment's factsheet "A waste to energy guide for New Zealand", provides a series of questions that the Ministry recommends proposals to establish a waste to energy plant should address, available here: https://environment.govt.nz/assets/Publications/Files/waste-to-energy-guide-for-new-zealand.pdf. Please provide an assessment of the proposal against each of the questions listed in the Ministry's fact sheet.

We feel many of the questions posed in the document have been responded to through the AEE however for completeness provide answers to the specific questions as below.

Appendix A: A summary of questions that a waste to energy proposal should address

Supporting New Zealand's move up the waste hierarchy

1. The proposal will complement other options for reuse and recycling. Approximately 80 tonnes of recyclable material will be recovered per day that would otherwise be sent to landfill. The balance of material sent for combustion is unlikely to be fit for recycling, and if not used at the facility would be sent to landfill. The installation of the recycling line is a costly component but which recognises the value from extraction that is currently unrealised. See also response to District Council query 2.2. As noted, "those countries that use waste-to-energy plants increase their success rates at recycling & composting and engaging the community on the waste cycle".

2. The alternative to use of waste in this manner is landfill.

3. The recycling line is a backstop to avoiding the loss of potentially recyclable materials and will ensure recyclable materials are captured. The proposal will mainly operate on material that is otherwise not recyclable and would be lost to landfill with a loss of potential energy.

4. As with any commercial endeavour there is potential future risk that regulatory changes may force changes to operation. That is risk carried by the operator, but at this point is considered acceptable because the only other alternative for the material that forms much of the feedstock is landfill disposal.

5. How the plant will be decommissioned is a matter beyond the scope of the land use consent application. However, a proportion of the plant can be recycled (steel) or repurposed (sold). The building itself then becomes a reusable facility.

Managing the environmental impacts

6. There is no applicable requirement that the emissions of this plant is assessed as a contribution to electrical emissions.

7. As demonstrated in the application the provision of electricity generation in this part of the transmission network will help resolve anticipated transmission shortfalls in the local area.

8. The management of by-products, emissions and residues is discussed extensively in the application.

9. As above

10. There is no applicable requirement that the emissions of this plant is assessed as a contribution to greenhouse gas emissions.

11. Discussed extensively in the Air Quality report that supports the air discharge application to the Waikato Regional Council.

12. The Air Quality report supporting the air discharge consent application confirms the technology applied to the proposal will meet the standards of the Regional Council and the NES Air Quality.

13. Detailed contingency plans will be developed post consent and will likely be imposed through a condition of consent.

Commercial viability

It is the strong view of the applicant that an assessment of commercial viability is outside the scope of the consent process and is not a matter that is applied to any other form of development. Therefore responses below avoid extending to commercial viability and constrain themselves to the operational aspects of the queries.

14. It is very likely that the supply of main feedstock, municipal solid waste will be sufficient, as there is not anticipated to be any other viable alternative for its use other than landfill disposal. Further increasing population in the upper North Island will also create strong support for supply.

15. Transportation to the plant of feedstock will be from across the North Island. The costs of that transport have been factored into the operation.

16. Sorting of material will be detailed in the Procedures Plan.

17. Management of health and safety risks will be dealt with through the operational Plan that will be required as a condition of consent.

18. There is a strong market for the electricity generated, as confirmed in the letters of support from Waipa Networks and Transpower which accompanied the application. There is currently a shortfall of generation in the local area placing pressure on transmission networks. The installation of additional generation locally allows costly transmission upgrades to be deferred.

19. The plant will use modern technology sourced from Germany. It is in the operators interests to use technology that is efficient and compliant as this enhances viability. The supplier, Lambion Industries has built numerous such facilities across Europe and around the world.

20. Yes.

Community Support

21. Extensively assessed in the application. The Air Quality report confirms any impact on local residents will be no more than minor. Nevertheless the site was selected because of its relative isolation from potentially sensitive receptors.

22. Consultation with Waikato-Tainui and NITOW has been very favourable, with favourable feedback from Waikato-Tainui attached as Attachment 4 to s.92 Response. Other initial consultation has been carried out with Fonterra, and all their concerns have been addressed, as will be demonstrated shortly.

23. Set out in the above attachments.

24. The proposal will help re-establish mana whenua, will employ local Māori, will contribute to the economic development of the Waipa District through employment over construction and ongoing operation, and contribute to electricity generation in the region, as demonstrated in the Economic report accompanying the application. Significant remediation of the site is proposed through the landscaping along the Mangapiko Stream and removal from grazing of all the subject site reducing the entry of elements such as Nitrogen and Phosphorus into, ultimately the Waikato River. The proposal incorporates an Exhibition Centre which will celebrate the connection of Māori with the facility and showcase the way the facility operates, and be open to the local community.

Additionally agreement has been reached and provision made in site planning for the Ngaroto-Te Awamutu cycleway, which will significantly encourage this form of transport and access in the vicinity.

Together the positive effects of the proposal are significant and the facility will make a major contribution to the local community.

ATTACHMENT 3

2.2. Please provide an assessment of the proposal in terms of its alignment with achieving Council's Waste Management and Minimisation Plan 2017-2023 prepared under the Waste Minimisation Act 2008, available here: https://www.waipadc.govt.nz/our-council/strategy-and-planning/wastemanagement

National & District Strategy

1. With reference to the Council website, most of the actions described are focused on the top half of the Waste Hierarchy referenced in the WMMP. Indeed, all the literature, actions and Government policy is focused this way. That is, the attention and actions are focused on the "Reduce, Reuse, Recycle" elements.
2. Explain here that the reduction in waste is achieved by turning items that would otherwise be waste into fuel for energy production

While we applaud this approach, there are no actions focused on the lower stages of the hierarchy. There are few if any focused on **maximising** the "extraction of materials or energy".

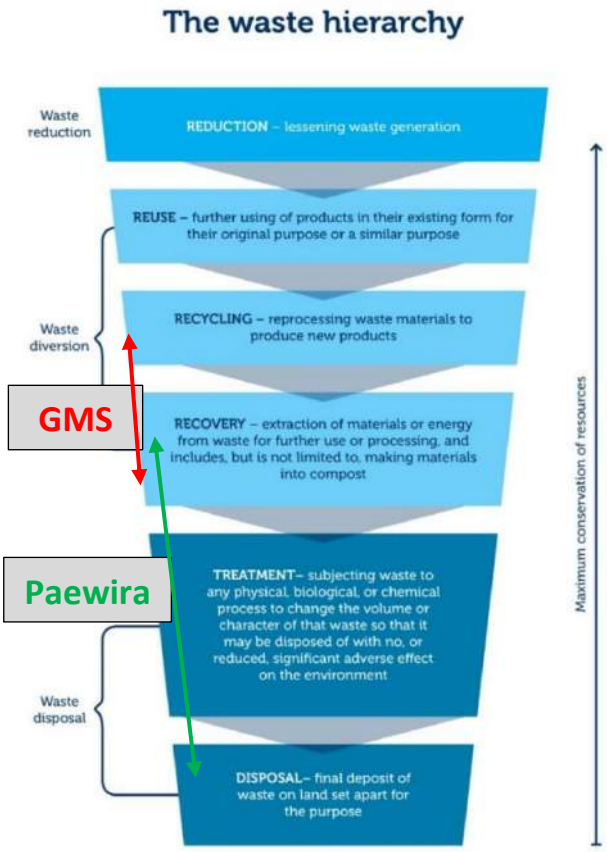

Figure 1: The Waste Hierarchy

The waste section of The Emissions Reduction Plan recently released by the NZ Government is 95% focused on reduction of organic methane from landfills. This aids further in the opportunity to maximise material extraction. Unfortunately, the Plan also has very little discussion on the balance of waste, the inorganic material, and how it proposes to handle this. There is a clear objective on the separation at source being a key initiative in achieving a focus on organic material, and we are encouraged that Council is considering this. There is an expectation in the Reduction Plan that Council's will then need to invest in "materials recovery facilities" (MRF), either at transfer stations or otherwise, to assist with this. The Emissions Plan then acknowledges that private investment will likely be required (as does the WMMP).

International Experience

Our research, supported by our European technology partners, shows that those countries that use waste-to-energy plants increase their success rates at recycling & composting and engaging the community on the waste cycle. Whilst New Zealand has faced a general lack of any substantial investment into WtE projects, the sector in other parts of the world, such as Europe, Japan and the United States, has proven to be highly successful both from a commercial and waste management perspective. Research from Europe shows that when a country has adopted WtE technology its

recycling and composting rates have also improved, provided the correct regulatory environment and incentives are put in place. [1]

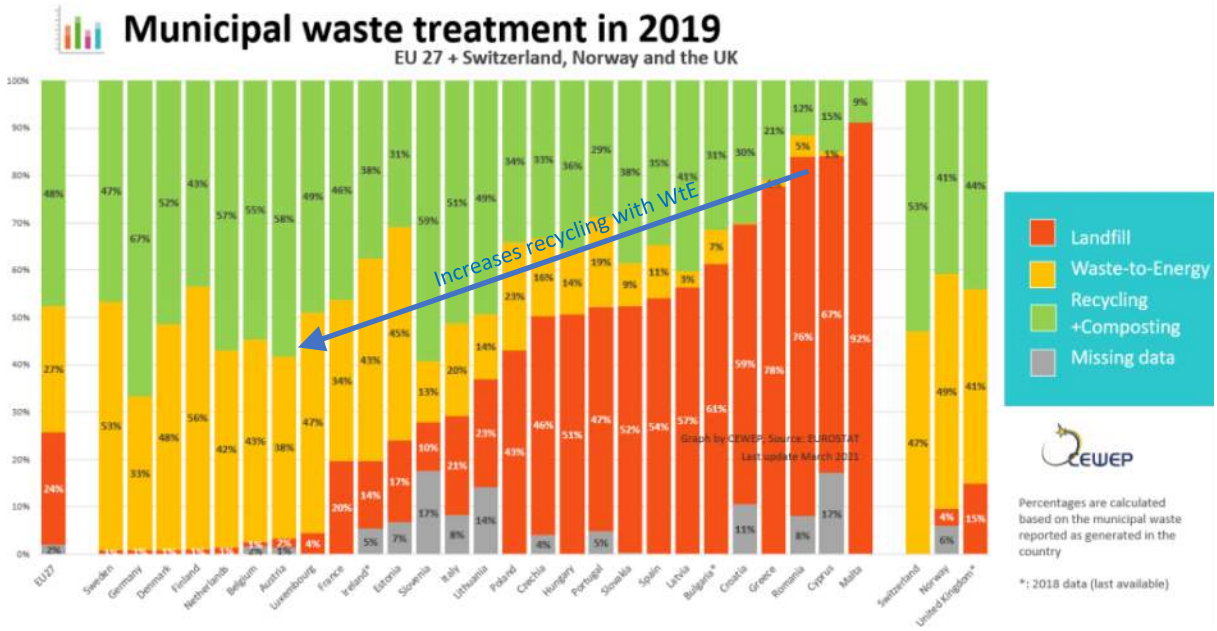

Figure 2: Municipal Waste Treatment 2019

It is our belief that there are misconceptions about the state of WtE technology and the part they play in the waste cycle. Site visits, engagement with technology providers and sound research has shown us the benefits achieved in other countries. It is new technology to NZ and is an easy target on the basis of "incineration" being bad. But viewed as a complete process, the profile is better understood and stands up well to the appropriate level of technical scrutiny.

Waste Environment

Paewira then is in effect an "MRF" which affords the opportunity to maximimise the extraction of material and energy from the full waste stream. Building a plant of this nature needs to serve an economic outcome. We are aware that, for example, Hamilton City produces in the order of 700-1,000 tonnes of waste per day currently, and this is growing and does not include the surrounding district. The design of Paewira has therefore been scaled to economically "fit into" the waste environment without disrupting efforts at developing the higher echelons on the hierarchy – too big and it would dominate, too small and it would not be economic.

Paewira has been designed with the ability to be scaled, either up or down. It can have four separate thermal units but will initially be constructed with three. Should the demand for recycled processing be sufficient a fourth unit could be considered (following proper consent processes). When NZ's waste reduction strategy becomes successful, the reverse can also apply – units can be closed and themselves be recycled.

GCS sister company, Global Metal Solutions, business is based on the waste hierarchy. They are specialist MRF owners. They currently process approximately 400-450 (+-10%) tonnes per day of material through their three sites. From this they recover 300-325 tonnes of material for recycling including metals, paper, plastics, etc.

1 Confederation of European Waste-to-Energy Plants, *Latest Eurostat Figures: Municipal Waste Treatment 2019 - Municipal waste treatment in 2019.*

However, what they are left with is 100 tonnes per day of material that has no other purpose. The only current option is to send it to landfill where it will contribute to decay, creating methane and leachate, for decades. With the business owners being of Ngati Apakura descent, this is not a palatable or acceptable situation to continue poisoning the land in this manner. An alternative is required.

So, at a broad level, Paewira will process 500 tonnes of waste per day and recover 80 tonnes of recyclable material which is currently unrecovered. The balance, which would normally be sent to landfill immediately, is then treated as fuel to extract energy.

What is then left at the end of the process is 23 tonnes of fly ash. Recent conversations with companies in the building and construction industry have indicated that there is a demand for fly ash. It is used as an input to concrete tilt slab panels - to achieve Green Star-ratings requires 15% fly ash content as a substitute for cement. We are aware that the Ministry of Education will stipulate that all newly constructed schools, of which 150 are planned, are required to achieve Green Star 6 ratings. This cannot be achieved without fly-ash content tilt slabs. The industry is already struggling to achieve supply due to a lack of fly ash.

We acknowledge that the generation process creates carbon emissions, however they are offset by and significantly less harmful than the quantity of methane issued over the life of the waste once in the ground. Although not part of this application, further investments can be made to take advantage of both the hot water produced and carbon dioxide that can be captured.

Supporting WMMP Goals

The WMMP has set out a series of goals. Nobody anticipated the advent of Covid and many of Waipa DC activities will have been severely hampered. We note that there has been no apparent reduction in the per capita volume of waste to landfill in the ten years since its first inception. We also note that there are challenges with collating reliable data to underpin the application of the waste strategy.

Below is a table that demonstrates how we believe Paewira supports delivery of the WMMP goals. While looking out further than 2030 is aspirational, we have concentrated on the first period where the greatest initial impact and influence (and therefore change) will occur.

Table 1: Appendix 2 – Summary of 2017-2023 WMMP - goals, objectives and targets

	Goal	Target	Paewira Response
Goal 1	Reduced waste and increased resource recovery	T1 & T2 – A reduction in the total quantity sent to landfill and a 25% increase in the total quantity of recyclable and reusable material.	• Once operational, Paewira will contribute significantly to reduction in the quantity of waste sent to landfill. Add predicted annual mass of waste that is removed from landfill waste stream. • A substantial portion of the refuse stream arriving at the plant will be separated out for re-use or recycling, thereby assisting the achievement of the targeted 25% increase.
Goal 2	Collect waste information for informed decision making, in line with National Waste Data Framework	T3 – Council collects regionally consistent waste information from waste collectors and facilities operating within the Waipa district	• All material processed through Paewira will be monitored and logged • The Applicant will engage with its suppliers to ensure similar consistency of data collection is applied • This information will feed into WDC Framework
Goal 3	Connect with our community by developing collaborative and enduring partnerships with key stakeholders	T5 (also T6, 7, &8) – WDC to participate in at least two partnerships, joint-working or shared service projects that deliver local and regional	The meaning of Paewira is "…a platform, or axle". • The Paewira development includes an education facility. It is intended to provide an opportunity for the community to engage with the operation of the

		benefit, by 2023 e.g. regionally consistent education programmes, infrastructure development or advocacy projects.	plant but also the direct education on the waste hierarchy, and the part the public plays in that cycle. • It will additionally provide a background for education on Ngati Apakura engagement with the surrounding land. • By directing waste to this facility the Council can form an enduring partnership with the District's key waste minimization stakeholders.. • Further, with Waipa DC engagement and support of this infrastructure, we can make a serious change to the waste landscape of the District.
Goal 4	Progressive and effective waste minimisation and management services and facilities, without unreasonably burdening future ratepayers	T10 – Resource recovery facilities are investigated and developed (pending feasibility study)	• GCS has completed extensive feasibility studies, with our willingness to invest demonstrated by the lodging of this Consent application. • This will deliver a modern, efficient MRF maximising resource and energy recovery, minimising material destined for landfill at no financial burden to the ratepayer.

Summary

We support and applaud all the national and local effort being directed to reducing the quantity of waste NZ produces and its environmental impact. The proposed facility can reduce the quantity of waste by enabling its re-use and recycling where possible and converting most of it to energy.

It is hard to see a time soon when there is no landfill waste disposal happening. However at present the ideal destination of potential waste is to an activity that enables as much as possible to be re-used or recycled and converts the rest to a valued resource.

That is what Paewira is designed to do – efficiently, cleanly, economically.

ATTACHMENT 4

From: Alana Mako <Alana.Mako@tainui.co.nz>
Sent: Tuesday, 28 June 2022 4:42 PM
To: Amanda <amandas@metalsolutions.co.nz>; Adam <Adam@contractingsolutions.co.nz>
Subject: Waikato-Tainui response to Global Metal Solutions Limited - Paewira resource consent application

[EXTERNAL] :

Kia ora Amanda raua ko Adam,

Please see below, response to the application and assessment of Te Ture Whaimana, Tai Tumu, Tai Pari, Tai Ao.

Alignment with Te Ture Whaimana and Tai Tumu, Tai Pari, Tai Ao:

- Agree with assessment of Te Ture Whaimana o Te Awa o Waikato. Additional factors that are considered relevant:
    - Objective b and c also relate to access and ensuring iwi can practice customary activities. These objectives also relate to issues of odour and air quality as these have an affect on the relationship of Waikato-Tainui and River Iwi to the Waikato River.
- Agree with assessment of Tai Tumu, Tai Pari, Tai Ao.
- Agree that retirement of the land from farming will eliminates agricultural runoff and nutrients entering the waterway. There are still effects associated with this proposal, however if those effects can be mitigated appropriately, the retirement of land from farming moves towards betterment of the Waikato River contributing to the achievement of Te Ture Whaimana.

Enhancement/restoration along the Mangapiko Stream:

- Waikato-Tainui are supportive of the approach towards restoration and enhancement of the Mangapiko Stream. Waikato-Tainui are also supportive of the approach to involve iwi/tribal members in streambank restoration, as well as sourcing seedlings and plants.

Stormwater/wastewater:

- Waikato-Tainui supportive of the wastewater approach. The approach being - no wastewater will be discharged into the river and all wastewater from the recycling process within the recycling building and washdown areas will be pumped from the building and stored onsite in waste storage tanks. The wastewater will then be removed from site in sealed trucks and disposed of at a managed waste facility. I understand it has not been decided on which managed waste facility this will be disposed at, and Waikato-Tainui would like to be kept updated on where the wastewater will be disposed.
- Waikato-Tainui are supportive of the stormwater runoff management approach. The approach being – stormwater will be treated before it is discharged through an appropriate outfall structure, which is consistent with the outfall structure used at the Te Awamutu wastewater treatment plant. WT also support the use of rainfall runoff collection, swales and raingardens.
- There is the potential for cultural impacts as maintaining an appropriate level of water quality in the environment is fundamental to Māori spiritual values and iwi are concerned that the discharge of stormwater and wastewater into local rivers and streams may have potential impacts on local marine and aquatic life. It has the potential to contribute to degradation regardless of whether it occurs at the site or not.
- Agree and support the enhancement/restoration efforts along the Mangapiko Stream and the setback distance.

Floodplain mitigation

- Waikato-Tainui would be interested to understand and updated on the effect the proposal could have on the two nearby bridges as the detailed survey information was not available due to Covid.
- Agree with the comments made in relation to the deposition of cleanfill in the floodplain of the Mangapiko Stream. Waikato-Tainui also expect that appropriate protocols and procedures will be adhered to in the case that taonga are discovered during earthworks. Accidental discovery protocols are outlined in Chapter 16 of Tai Tumu, Tai Pari, Tai Ao – Waikato-Tainui Environmental Plan and the appropriate protocols and procedures will be adhered to in the case that taonga are discovered as outlined in our plan.

Air quality

- Concerns around air quality relating to the racecourse land as it is in the process of being returned to iwi. It notes in the application that there are aspirations for this to be redeveloped for housing. However, if air emissions comply with all relevant standards, then this shouldn't be an issue.
- One of the main concerns we hold with this application is the emissions of harmful contaminants, which ultimately affects air quality. Several Marae are situated close to the site, tribal members may live near the area, and we are concerned about the impact it will have on our people and the generations to come. Waikato-Tainui would like to be kept updated on any further research or testing GCS will do in relation to this matter. If the air quality remains unchanged over a certain period of time, Waikato-Tainui have no issues, however concerns increase when the impact on air quality becomes more than minor and has an effect on the health and wellbeing of our people.

Comments:

- Waikato-Tainui support mana whenua and recommendations they have in relation to the application and the activity. WT would also support a Cultural Impact Assessment for the application.
- Waikato-Tainui reserve the right to make a submission if the application is to be publicly notified.

Ngaa mihi
Alana

Alana Mako | **Project Advisor / Taiao**
Mobile: | **Tel:** 0800TAINUI
Email: Alana.Mako@tainui.co.nz | **Web:** www.waikatotainui.com
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Global Contracting Solutions Limited
07 846 2543 | 203 Ellis Street, Frankton, Hamilton 3243

30 June 2022

Ngā Iwi Tōpū O Waipā (NITOW)
C/- Secretary: Hazel Wander
E-MAIL: hazel_wander@yahoo.com.au

ATTENTION: Members of Ngā Iwi Tōpū O Waipā

NGĀ IWI TŌPŪ O WAIPĀ (NITOW) AND GLOBAL CONTACTING SOLUTIONS LIMITED – WDC S92 REQUEST

1. As advised to you previously, we received a s92 request from the Waipā District Council ("WDC'). Part of the s92 relates to NITOW and is set out below:

> ***3. Cultural effects***
>
> *The application has been referred to Waipā District Council's iwi representative forum, Ngā Iwi Tōpū.O Waipā (NITOW). Further to the meeting on-site with NITOW representatives, the following information is requested:*
>
> > *3.1 Could the applicant provide a presentation on its wastewater discharge plans to NITOW*
>
> *Reasons for request: To understand potential cultural effects associate with the discharge of wastewater.*

2. Unfortunately, we were unable to meet with you on 23 May 2022, due to NITOW being unable to include us on the agenda due to having five other Kaupapa to consider. However, two of your members Hazel Wander and Gaylene Roberts were able to attend a meeting hosted by Pūrekireki Marae that was held by Zoom on 11 May 2022. That meeting provided an opportunity for Gaylene and Hazel to ask questions about the project, which they did.

3. In order to answer the query highlighted in the s92 request from WDC, we enclose a copy of the report prepared by our planners. The report explains how our project proposal relates to the following initiatives from Waikato Tainui:

(a) Te Ture Whaimana o Te Awa o Waikato - Vision and Strategy for the Waikato River, and

(b) Tai Tumu Tai Pari Tai Ao – Waikato-Tainui Environmental Plan**.**

It also provides a thorough explanation of the wastewater discharge plans concerning our project. We understand from the 11 May 2022 meeting, that Gaylene Roberts is extremely familiar with the environmental plan having been involved in the consultation process.

Wastewater discharge

4. We have highlighted in yellow in the attached report, the portions that explain how wastewater will be managed in relation to the project.

Mangapiko Stream

5. We have also been asked on multiple occasions by members of NITOW how our project relates to the Mangapiko stream. We have highlighted in blue, the portions of the report that explain how our project relates to the stream.

6. We expect that the attached report will satisfy your queries.

Ngā mihi,

Craig Tuhoro
Managing Director

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consultants
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9 May 2022

RE: PAEWIRA - WAIKATO – TAINUI CONSULTATION

Please find attached a review of the proposal against the Te Ture Whaimana o Te Awa o Waikato - Vision and Strategy for the Waikato River, and Tai Tumu Tai Pari Tai Ao – Waikato-Tainui Environmental Plan**.**

It is considered the reviews result in a strong alignment between the project and the outcomes sought by both documents. Currently, dairy support grazing is carried out across the site, at points down to the Mangapiko Stream edge. The proposal will retire the development site from farming, stopping any further degradation at the stream edge and eliminating agricultural nutrient run-off. Extensive streamside planting will be carried out along the edge of the Mangapiko Stream, complementing the restorative planting already carried out on the south side of the stream and resulting in a significant environmental uplift for this stretch of the Stream.

The applicant's background and motivation also promote alignment. The design of the facility will incorporate cultural motifs with the motivation expressed explicitly through the Exhibition Centre which will not only inform about the facility but celebrate the reconnection of iwi to the site and their role in the activity.

There is particular alignment of the proposal with Tainui – Waikato at Part 27 of the Tai Tumu Tai Pari Tai Ao, where it specifically supports the exploration of waste-to-energy initiatives. The proposal will broaden electricity generation in the Waikato away from sole reliance on hydro and fossil fuels and forms a stronger platform on which other forms of renewable generation can be pursued.

The main potential impact of waste-to-energy generation is air emissions. The proposal and supporting documentation comprehensively demonstrate resultant air emissions will be benign and within accepted thresholds. In fact, the impact from the proposed facility then goes further through the significant reduction of diverted waste to landfill and resultant lowering of methane emissions from the extended decay life.

If you have any questions regarding the above please do not hesitate to contact me on 022 509 9562 or email chris.dillon@terragroup.co.nz.

Yours faithfully,

CHRIS DILLON
PRINCIPAL PLANNER
BRP(Hons), MNZPI

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SITEWISE GREEN 2021/22

Tai Tumu Tai Pari Tai Ao – Waikato-Tainui Environmental Plan

Section C: General Waikato-Tainui Environmental Matters	
15. Natural Heritage & Biosecurity	
Objective 15.3.1 Indigenous biodiversity The full range of Waikato ecosystem types found throughout the Waikato-Tainui rohe are robust and support representative native flora and fauna.	
Policy 15.3.1.1 – Indigenous biodiversity To ensure that the full range of Waikato ecosystem types found throughout the Waikato-Tainui rohe are robust and support representative native flora and fauna. **Methods:** (c) All permanent waterways within the rohe shall be fenced from livestock and planted, where appropriate, with indigenous vegetation to minimise the effects of land use practices, and enhance biodiversity. (d) Locally sourced (eco-sourced) indigenous plant material shall be used for all plantings into or adjacent to areas of high ecological and conservation value in the region, and shall be encouraged for all landscape plantings in the tribal area. 'Eco-sourced' indigenous plant material may need to be sourced at some distance from the actual area to be planted to increase genetic resilience and diversity. (f) The establishment and enhancement of ecological corridors linking areas of known high value indigenous habitat to be treated as a high priority within the relevant regional and local plans and strategies. These corridors should include, but are not limited to appropriate riparian margins, gully systems, esplanade reserves, and vegetation planted alongside road corridors.	The proposal will result in the considerable restoration/enhancement of a significant length of the Mangapiko Stream, and the development site will be retired from farming. It should be noted the balance of the site to the north will be kept in farming. Currently grazing is carried out down to the stream edge and contrasts starkly with the streambank restoration that has been carried out on the opposite side of the stream. The combination of the retirement of the site from farming and significant streamside restoration will result in an almost total cessation of nutrient runoff from current farming practices entering the Mangapiko water from the site with any residual runoff intercepted by proposed planting. Given the iwi-development motivation behind the proposal, involvement of local iwi in streambank restoration will be a strong focus, as will local sourcing of seedlings and plantings, and will be demonstrated through the landscaping plan in preparation. The proposed streamside restoration will make a significant contribution towards the reestablishment of an ecological corridor along this part of the Mangapiko Stream, and will also complement and complete the restoration already carried out on the south side of the stream. For that part of the site that will be developed for the proposed waste-to-energy facility, all effects will be contained including rigorous management of runoff and wastes. All activity will be carried out within a sealed building, with solid and liquid wastes captured and removed from the site to another facility for treatment and disposal.

Objective 15.3.2 Landscape planning and natural heritage Cultural, spiritual and ecological features of the Waikato landscape that are significant to Waikato-Tainui are protected and enhanced to improve the mauri of the land.	
Policy 15.3.2.1 – landscape planning and natural heritage To ensure that there is greater protection and enhancement of cultural, spiritual and ecological features of significance to Waikato-Tainui. **Methods:** (a) Landscapes and view shafts that are regionally, culturally and/or spiritually significant shall be identified, protected from the adverse effects of development, and where possible, enhanced. (d) Establishment and enhancement of ecological corridors linking areas of known high value indigenous habitat shall be treated as high priority for the allocation of resources by the authorities responsible. These corridors will include riparian margins, gully systems, esplanade reserves, and vegetation alongside road corridors.	The Mangapiko Stream is understood to be a feature of high significance to local iwi and Tainui, to which the proposal will make a significant contribution towards enhancement through the proposed streamside restoration plantings, and retirement of the development site from farming.
Section D: Specific Environmental Areas	
19: Freshwater	
Objective 19.4.2: Water Quality Water quality is such that fresh waters within the rohe of Waikato-Tainui are drinkable, swimmable and fishable in all places (with water quality to the level that Kiingi Taawhiao could have expected in his time).	
Policy 19.4.2.1 – water quality Regulators to set clearer and higher water quality targets, and to develop and incentivise methods to achieve these targets. (c) Provide a suite of methods and tools to effectively manage water quality that includes, but is not necessarily limited to: i. Best practice water quality management; ii. Audited self-management schemes; iii. Catchment-scale mitigation and attenuation; iv. Non-regulatory and regulatory measures to improve water quality; v. Setting water quality targets for fresh water bodies; and vi. The use of economic instruments available to effectively manage water quality.	The proposal will make an important contribution to the improvement of the water quality of the Mangapiko Stream through the retirement of the development site from farming and the streamside restoration, almost completely avoiding any possibility for agricultural pollutants from the development site to enter the stream. All liquid and solid wastes from the site will be transported and treated off site. The design and operation of the plant described in the AEE of the consent application specifically excludes any water take from or discharge to the Managapiko.

Part 21: Land	
Objective 21.3.1 – effectively manage soil erosion Activities that accelerate soil erosion are managed effectively, including through the reforestation and retirement of marginal lands from existing intensive and environmentally unsustainable land uses	
Policy 21.3.1.1 – retirement and restoration of marginal land To encourage local authorities and landowners to retire highly erodible land from farming and to restore and protect highly erodible lands. **21.3.1.2 – land development** All major excavation works that have the potential to impact on waterways shall have sufficient erosion and sediment control measures in place to ensure that adverse effects on water bodies are managed. **21.3.1.3 - riverbank erosion** To ensure that riverbank erosion, including the erosion of river islands is effectively managed. **Methods:** (a) Riparian planting of appropriate, preferably indigenous species shall be promoted and increased to stabilise riverbanks and reduce erosion in the region.	There is evidence of streambank erosion along parts of the stream side where stock can graze down to the water's edge. The development site will be retired from farming, with streambank restoration planting extending relatively deep into the development site ensuring potential for any further erosion is largely avoided. As detailed in the application, sufficient erosion and sediment control measures will be put in place to ensure any impacts of the proposed development on the Mangapiko Stream will be avoided. The proposed streambank restoration is consistent with Method (a) under this policy.
Objective 21.3.4 – achieve integrated catchment management, including floodplain and drainage management Integrated catchment management occurs across the entire rohe of Waikato-Tainui, including in catchments that impact on, or flow into the Waikato-Tainui rohe. Integrated catchment management includes the effective and sustainable management of floodplains and drainage areas to promote natural habitat enhancement.	
21.3.4.2 – collaboration with landowners and managers To ensure that landowners and land managers that impact on the rohe manage land sustainably and effectively. This includes land that is upstream of the Waikato-Tainui rohe. **Methods** Landowners and land managers that impact on the rohe manage land in a manner that: (a) Protects the mauri of the land.	Retirement of the development site from farming, restriction of development to slightly less than half the site, and the extensive streamside planting will help restore the mauri of the land. The applicant has a strong local iwi affiliation, and this will be represented in the design of the Exhibition building and iwi involvement in the planting and maintenance of the streamside restoration. Measures will be employed during construction to ensure sediment run off from development will not impact on Mangapiko Stream. The proposal finds particular alignment with method (d).

(b) Reduces sediment loads resulting from erosion to the extent required to improve the ecological and cultural condition of rivers, lakes, estuaries and coastal areas. (c) Ensures farming practices on highly erodible land manage the effects of erosion on this land. (d) Encourages retirement of land from inappropriate land use activities or the restoration of land to appropriate land use. (e) Ensures there is minimal erosion resulting from vegetation clearance or land disturbance.	
Part 23: Air	
Objective – Discharge quality and amenity 23.3.1 The quality and amenity of discharge to air is such that the life supporting capacity and quality of air within the rohe is retained at a level that does not compromise human health, amenity values, or property	
Policy 23.3.1.1 – discharge quality To ensure that the quality of any discharge to air is retained at a level such that it does not compromise human health, amenity values, or property **Methods:** (a) At minimum discharges to air meet the national ambient air quality standards or similar. (b) Discharges to air shall manage any adverse effect beyond the property boundary that is objectionable or offensive as a result of odour, dust, smoke, water vapour, agrichemical, gas, or other airborne contaminants. (c) Encourage practices that reduce fine particle emissions (e.g. reducing back yard burning by encouraging recycling and composting, efficient home insulation and clean heating programmes, encouraging the burning of dry wood in solid fuel heaters, and the correct operation of solid fuel heaters). (d) Encourage industry to implement industry best practice or best practicable option for improving air quality.	The proposal will result in a discharge to air. As demonstrated through the planning application to WRC and the supporting Air Quality report, through the use of high quality emission technology the proposal will result in minimal impact on air quality. The following conclusion of the Air Quality Report is a helpful summary of the air impacts of the proposal: *The proposed Paerewa facility will take a variety of raw materials that include municipal solid waste, tyres and flock and convert it into a refined fuel for use in three boilers to raise steam to produce electricity in steam turbine driven generators.* *The discharges to air from the RDF fired boilers have been assessed using traditional computer based dispersion models. The model chosen for this assessment is CALPUFF that uses local or derived local meteorological data together with the maximum expected rates of discharge of a number of species to determine the potential off site levels. In this assessment a meteorological data set was prepared for Te Awamutu using nearby meteorological stations.*

(f) Not permit discharges that will have adverse effects on areas identified by Waikato-Tainui as sensitive to air pollution. (h) Manage the effects on amenity values of an area due to contaminants, dust, odour, light, or noise. Particular areas of amenity value include, but are not limited to: ii. The Waikato River and its tributaries, banks, and immediate environs;	*The species of most interest in this application were particulate matter PM_{10} and $PM_{2.5}$, sulphur dioxide, nitrogen dioxide, carbon monoxide, mercury, and dioxins, and each of these has been assessed against a number of ambient standards* ***with the predicted effects ranging from less than minor (trivial) to no more than minor*** **[**emphasis added]. *Other effects such as odour and dust or fugitive particulate emissions will be controlled using a 4 tier approach that includes, pre-processing of a large portion of the material off-site, excluding putrescible and odourous material, the use of a double door air lock system and maintaining a slight negative pressure within the building. The first of these means that there will be no significant odour that requires control, but the remaining three controls ensure that both any slight residual odour and particulate discharges are well controlled.* Therefore, against the relevant methods, the discharge quality of air emissions will meet or exceed all assessed standards, including national standards (a); will ensure there are no odour impacts beyond the boundary of the site – chiefly because no putrescible materials will be accepted at the site, and also because of negative pressure within the receiving and recycling hall and other containment systems to avoid the escape of odours from the building (b). Fine particle emissions (PM_{10} and $PM_{2.5}$,) will be controlled to a point where any impact is no more than minor (c), and the technology use for emissions control is best practice (d). The discharges will not have any significant adverse impact on the Waikato Tainui rohe (f), and any effects will be managed to ensure there is no impact on the Waikato River and its tributaries, banks, and immediate environs (h. ii).

Part 25: Land use planning	
Objective – approach to land use and development 25.3.1 Development principles are applied to land use and development (urban and rural) and, in particular, development in new growth cells, that enhance the environment.	
Policy 25.3.1.1 – approach to land use and development To encourage development principles to be applied to land use and developments (urban and rural) and, in particular, development in new growth cells, that enhance the environment (a) Proposed developments shall demonstrate how they have considered and applied development principles that enhance the environment including, but not limited to how the development: i. Restores the capacity of ecosystems; ii. Creates or maintains ecosystems that function without human intervention; iii. Understands and acknowledges the diversity and uniqueness of the development location (socially, culturally, spiritually, economically, and environmentally); iv. Considers how the development design incorporates the diversity and uniqueness of the development location (such as culturally appropriate design, interpretive panels, commemorative pou [poles], etc); v. Minimises pollution and waste; vi. Promotes efficient and effective energy conservation and use; vii. Preserves and preferably enhances the natural hydrologic functions of the site; viii. Identifies and preserves sensitive areas that affect the hydrology, including streams and their buffers, floodplains, wetlands, steep slopes, high-permeability soils and areas of indigenous vegetation; ix. Effectively manages natural hazards; x. Considers beneficial re-use on-site of stormwater and wastewater; xi. Considers water conservation; and xii. Provides for visual amenity consistent with the surrounding environment	The development has been designed highly aligned with current best practice for land development. The proposal will retire the development site from farming, almost eliminating any agricultural nutrient runoff and result in particular restoration of the development site's boundary with the Mangapiko Stream through the proposed extensive restorative planting. This will help the restore the capacity of the stream ecosystems that have been severely degraded ((a)(i) and (ii)). A strong relationship will be forged between this activity and local iwi through their employment and representation in the exhibition hall, and proposed plantings, motivated by the applicant's background (a)(iii). Culturally considerate material will be represented at the exhibition hall with it adorned externally with culturally representative motifs (a)(iv). As above pollution is minimised through retirement from farming and proposed emissions control technology (a)(v). The proposal is closely aligned with (a)(vi) as it retrieves energy from waste material that would otherwise be lost to landfill, and will enable a significant additional recycling of materials that would otherwise end up in landfill. The proposal will enhance the natural hydraulic functions of the site chiefly through restoration of the stream bank, and restriction of the development to overall less than half of the site, leaving the balance undisturbed (a)(vii) & (viii). Natural hazards are effectively managed through restriction of the activity to parts of the site outside of identified flood risk areas, with flooding modelling confirming the impact of development will have a negligible impact on flooding downstream (a)(ix).

	Stormwater will be reused within the site, and conveyed to internal ponding areas and ultimately to the Mangapiko Stream after suitable treatment. Wastewater will be either removed from the site through the reticulated network (domestic waste including office toilets, sinks etc) and process wastewater from the main facility will be tanked and trucked to a location off site for suitable treatment (a)(x) & (xi). The impact of the proposal on the area's visual amenity is considered within the application. The impact is considered consistent with the site's industrial zoning and moreover through the restriction of development to less than half the site is considerably less than what could be carried out under a different and permitted proposal (a)(xii).
Objective – urban and rural development 25.3.2 Urban and rural development is well planned and the environmental, cultural, spiritual, and social outcomes are positive	
Policy 25.3.2.1 - urban development To ensure that urban development is well planned and the environmental, cultural, spiritual, and social outcomes are positive. **Methods:** (h) Manage the adverse effects of urban and rural residential subdivision and development through the use of Low Impact Development ('LID') principles in all new subdivisions and developments including, but not limited to: i. Minimising stormwater impacts to the greatest extent practicable by reducing imperviousness, conserving natural resources and ecosystems, maintaining natural drainage courses, reducing use of pipes, and minimising clearing and grading; ii. Providing runoff storage measures dispersed through the site's landscape with a variety of detention, retention, and runoff practices; iii. Where they will be of benefit, encouraging the use of mechanisms such as rainwater harvesting, rain gardens, roof gardens, and onsite storage and retention; iv. Where they will be of benefit, encouraging the use of stormwater treatment devices including on-site	As above stormwater impacts will be minimised through the use of features such as internal detention pond and rain garden, reuse of stormwater within the facility, and suitable treatment before discharge to the Mangapiko Stream. The proposed restoration of the stream bank area will also assist in attenuating any stormwater impacts. Finally, retirement of the development site from farming removing almost all agriculatural nutrient loss to the Mangapiko Stream will in combination with the above measures ensure an overall positive impact in terms of stormwater (h)(i) – (v). Proposed stormwater management is fully described in Appendix M of the application to the Waipa District Council.

treatment systems, allowing for emergency storage and retention structures; and v. Such areas that have unavoidable impervious areas, attempt to break up these impervious areas by installing infiltration devices, drainage swales, and providing retention areas.	
Objective – Positive environmental and cultural effects 25.3.3 Land use and development has positive environmental and cultural effects.	
Policy 25.3.3.1– positive environmental and cultural effects To ensure that land use and development, particularly new land use and development, has positive environmental and cultural effects. (a) Through the use of LID (Low Impact Design) principles in all new subdivisions and developments; i. Protect surface and ground water quality; ii. Maintain the integrity of aquatic and terrestrial ecosystems; iii. Preserve the physical integrity of receiving streams; v. Make maximum use of natural ground levels. (b) Require reserves next to oceans, lakes and rivers to be set-aside during the subdivision and land development process to protect the water body, allow access, increase biodiversity, and enhance ecosystems. (c) Decisions on use of reserves or similar provision in subdivision applications shall give priority to protecting the water body health regardless of the water body or subdivision size. (e) Require resource consent conditions to be imposed that allow Waikato-Tainui access to culturally and/or spiritually significant sites and sites of customary activities through the imposition of caveats on titles or providing for the registration of right-of-way servitudes. (f) Ensure in all development proposals that access is retained and improved to water bodies and cultural and/ or spiritual sites.	Surface and groundwater quality will be improved through the retirement of the site from farming, almost eliminating nutrient loss to the Mangapiko Stream, and the restorative planting. The extensive restorative planting will improve aquatic and terrestrial ecosystems in the area and help preserve the integrity of the Stream (a)(I – iii). Land disturbance is confined to less than half the site, and generally restricted to the terrace of land closest to the racecourse – furthest from the Mangapiko Stream (a)(v). The land proposed for restorative planting will be set aside from development and protected through measures to be decided with WDC (b) & (c). The applicant is working with WDC on incorporating a cycleway through the site. The applicant will also be working with local iwi in the restorative planting and continued maintenance of the stream side area (e) & (f). The design of the facility incorporates a viewing and education gallery for visitors to engage internally with understanding the waste hierarchy and plant process, and externally with features significant to local iwi, Ngati Apakura.

Part 26: Infrastructure	
Objective – Waikato- Tainui engagement 26.3.1 Infrastructure development, upgrade, and maintenance within the Waikato-Tainui rohe occurs in partnership with Waikato-Tainui	
Policy 26.3.1.1 - Waikato- Tainui engagement To ensure that infrastructure development, upgrade and maintenance within the Waikato-Tainui rohe occurs in partnership with Waikato-Tainui. **Methods:** (a) New infrastructure shall be developed in consultation with Waikato-Tainui to ensure infrastructural development is in alignment with this Plan and any relevant Joint Management Agreements (JMA's) in order to manage adverse environmental, cultural, spiritual, and social effects. As a minimum, the consultation and engagement process outlined in Chapter 6, 'Te koorero tahi me Waikato-Tainui – consultation and engagement with Waikato-Tainui', shall apply.	The current consultation underway with Ngati Apakura and Waikato-Tainui is considered to satisfy this method.
Objective – liquid, solid and hazardous waste 26.3.3 Liquid, solid, and hazardous waste management is best practice and manages social, cultural, spiritual, economic and environmental effects	
Policy 26.3.3.1 – liquid, solid and hazardous waste To ensure that liquid, solid and hazardous waste management is best practice and manages social, cultural, spiritual, economic, and environmental effects. **Method:** (a) The full life cycle of waste from generation to assimilation/disposal is considered in developing waste management strategies. (b) Manage waste including solid, liquid, gas, and sludge waste, according to the following hierarchy: i. Reducing the amount of waste produced (including composting and mulching of green waste); ii. Reusing waste; iii. Recycling waste; iv. Recovering resources from waste; v. Treating residual waste; and vi. Appropriately disposing of residual wastes.	The facility is considered to be aligned with the waste hierarchy. An improvement in the quantity of recycled waste recovered will be carried out at the facility, which would otherwise be lost to land fill. The proposal will reduce the quantity of waste going to landfill. After recyclable materials have been recovered, left over waste becomes fuel that is cleanly combusted to produce renewable electricity. It is not within this application but has been identified as a possible future option to adapt the facility to remediate existing landfills. Wastewater from the facility will either be sent to the reticulated network or tanked and trucked for treatment off site. Best practice permeates this proposal. Use of hazardous materials to assist the process is limited. The main potential hazardous impact is air emissions which as above is considered to have no more than minor impacts.

(c) Encourage and expect that the waste management hierarchy is given high priority by national and local authorities, industry, and the wider community. This includes, but is not limited to: i. Old municipal landfills being monitored and rehabilitated to ensure any adverse effects are managed; ii. Ensuring wastewater and stormwater systems are designed, constructed, and upgraded to ensure wastewater does not enter stormwater systems; iii. Local authorities identifying any areas where stormwater enters the wastewater system and making financial allowances in the Long-Term Plan for the upgrading of infrastructure; (d) Resource consent applications for discharges shall include waste management hierarchy options for any waste generated. (e) Best practice standards and industry protocols shall be applied to the storage and use of hazardous substances. (f) Design areas of potential contamination (e.g. Petrol station forecourts, stock truck effluent areas, and industrial hardstand areas) to prevent untreated runoff. (g) All waste management facilities shall be sited, designed, constructed, operated, and managed to best avoid adverse environmental impacts. Facilities shall be designed and constructed according to best environmental practice and shall be sited away from water bodies, estuaries, or the coast. (i) Stormwater, wastewater, and trade-waste by-laws ensure high levels of on-site treatment are obtained prior to discharge e.g. improve design methods to maximise the removal of heavy metals from the tradewaste.	Areas of potential contamination will be carefully contained. The floor area will be concreted and the regular washdown will be captured and conveyed to storage tank for off-site treatment. The facility has been purposefully sited in an Industrial zone that anticipates such a use. The facility is located on a river terrace furthest from the Mangapiko Stream and will enjoy immediate connections to the state highway network. Appropriate applications in respect of stormwater, wastewater, and trade-waste by-laws are in preparation.

Part 27: Electricity Generation	
Issue: Alternative electricity generation sources 27.2.3 Waikato-Tainui is supportive of, and would like an increased focus on renewable electricity generation providing the social, cultural, spiritual, environmental, and economic effects of the activity are managed in partnership with Waikato-Tainui. Waikato-Tainui is supportive of micro-renewable electricity generation schemes that provide localised community benefit. Similarly Waikato-Tainui is supportive of alternative electricity generation, such as waste to energy initiatives, again, providing adverse effects are managed.	
Objective – electricity generation and transmission 27.3.1 In partnership with Waikato-Tainui, existing and new electricity generation activities, and the structures and operations to transmit electricity to end users, effectively manages adverse social, cultural, spiritual, environmental, and economic effects.	
Policy 27.3.1.1 – electricity generation and transmission In partnership with Waikato-Tainui, to ensure that existing and new electricity generation activities, and the structures and operations to transmit electricity to end users effectively manages adverse social, cultural, spiritual, environmental, and economic effects. **Methods:** (a) Electricity generation and transmission activities are developed or operated in a manner consistent with the parts of this Plan that are relevant to the proposed or existing electricity generation or transmission activity. (b) Electricity is sourced and distributed locally wherever practicable. (f) In designing new transmission lines, upgrading, or replacing transmission lines, alternatives to overhead lines, such as undergrounding, will be the preferred option provided there are no adverse effects on cultural or spiritual sites	The proposal broadens the suite of electricity generation in the Waikato. It creates an additional option outside the conventional generation by fossil fuels or hydro. While hydro is, at a certain level renewable, the environmental and cultural impacts are significant. The specific support at 27.2.3 for waste to energy generation is acknowledged. The facility has been developed consistent with the Waipa District Plan (WDP) and Waikato Regional Plan (WRC). The main consenting issues triggered under the WDP relate to infrastructure and connection to the road network. The accessway configuration proposed through the application will not change with the imminent acquisition of No. 281 Racecourse Road allowing Council concerns around this aspect of the proposal to fall away. The main consenting trigger under the WRP relates naturally to air discharges, which the application has comprehensively demonstrated as no more than minor. This proposal will result in electricity generation that will have minimal adverse impact on the environment. Electricity generated will be reticulated to the local network and available to the local area. Generation in this part of the Waikato will enhance resilience through additional generating options and generation close to consumption, helping reduce reliance on generation from the South Island which can be prone to interruption from drought and transmission line defects. The reticulation of the electricity generated to the local network will be underground down the

	accessway and south along Racecourse Road to the substation at 80 Racecourse Road.
Objective - alternative electricity generation sources 27.3.2 Alternative sustainable forms of electricity generation are developed, provided any adverse effects on the environment, particularly on the Waikato River or culturally and/or spiritually sensitive sites, are managed. Note: Due to the adverse environmental, social, spiritual, and cultural effects of such structures, Waikato-Tainui does not consider containment hydro dams, such as Karaapiro and Arapuni Dams, an alternative sustainable form of electricity generation.	
Policy 27.3.2.1 – alternative electricity generation sources Ensure that preference is given to the development of sustainable forms of electricity generation, provided any adverse effects on the environment, particularly on the Waikato River or culturally and/or spiritually sensitive sites, are managed. **Methods** The following methods are subject to any adverse effects on the environment being managed to a level suitable to Waikato-Tainui. (a) Generally encourage the development and use of sustainable alternative forms of energy generation. (b) Encourage the development and use of small domestic-scale renewable energy production for domestic, community facilities, papakaainga, and marae use. (c) Encourage the beneficial re-use of waste and other by-products for electricity generation	The proposal is fully consistent with this objective and supporting policy. It helps move generation from almost sole reliance on hydro and fossil fuels, and creates a platform for the further uptake of other renewables such as solar and wind generation by creating additional and reliable baseload. This will be done in a way compliant with Tainui cultural preferences and incorporation of local iwi employment and celebration at the facility's exhibition centre. Compared to other established forms of electrical production the proposal is relatively small scale, but is sized to the amount of waste anticipated and also to fit within its receiving environment. Further in this location the facility will enhance this part of the Waikato transmission network helping buffer against interruptions to generation and transmission further afield, and will provide additional generation for the local area. The proposal is entirely consistent with (c) as waste will be reused to produce electricity.

Objective - local cost, local benefit 27.3.3 Electricity generation and transmission activities demonstrate a direct community benefit for the communities near their activities	
Policy 27.3.3.1 – local cost, local benefit To ensure that electricity generation and transmission activities demonstrate a direct community benefit for the communities near their activities. **Method:** (a) Existing or impending electricity generation and transmission operators work with Waikato-Tainui to determine what initiatives could demonstrate a direct community benefit. (b) Electricity generation and transmission activities are able to demonstrate a direct community economic, social, spiritual, and/or cultural benefit. (c) This direct community benefit extends beyond providing direct employment for the community including partnering with the community to develop other economic opportunities in the event of a decline in electricity and transmission activities.	Electricity generated will be used locally for the benefit of the local community. Deficiencies in the local transmission network have been identified to meet demand created by local growth, requiring costly upgrade over the coming decades. Generation close to that growth will contribute to the reduction of upgrade of transmission networks from further afield. The electricity generation will result in a variety of benefits to the local community, through greater resilience of the transmission network, additional baseload and contribution to the building of a platform from which further advances can be made towards greater uptake of other renewables such as wind and solar; cultural and employment opportunities, and restoration of the Mangapiko Stream.

Te Ture Whaimana o Te Awa o Waikato - Vision and Strategy for the Waikato River

Our Vision is for a future where a healthy Waikato River sustains abundant life and prosperous communities who, in turn, are all responsible for restoring and protecting the health and wellbeing of the Waikato River, and all it embraces, for generations to come.	
Objective a: The restoration and protection of the health and wellbeing of the Waikato River.	The proposal will contribute to the restoration of the Waikato River through the restoration of its tributary, this stretch of the Mangapiko Stream and retirement of farming from the entire development site. The effects of the activity will be carefully controlled ensuring minimal impacts on the Stream, including measures such as treatment of stormwater and tanking and trucking of wastewater from the facility to an off site location for treatment and disposal.
Objective b: The restoration and protection of the relationship of Waikato-Tainui with the Waikato River, including their economic, social, cultural, and spiritual relationships.	The applicant's background, motivation and proposals including streamside restoration will help restore the relationship of Waikato Tainui with the Waikato River and its tributaries. Further, cultural references will be made across the design of the exterior of the building, will be incorporated into the exhibition centre and employment of local iwi will be a priority.
Objective c: The restoration and protection of the relationship of Waikato River iwi according to their tikanga and kawa, with the Waikato River, including their economic, social, cultural and spiritual relationships.	The applicant is preparing a landscaping plan for the site that will incorporate tikanga and help reflect the relationship of local iwi with the Mangapiko Stream, and is being developed in collaboration with the local council.
Objective d: The restoration and protection of the relationship of the Waikato region's communities with the Waikato River including their economic, social, cultural and spiritual relationships.	The applicant's background will help restore iwi hononga/connection with the site, as will the proposed employment and streamside restoration.
Objective e: The integrated, holistic and coordinated approach to management of the natural, physical, cultural and historic resources of the Waikato River.	Development of the site is approached in a holistic way to maximise positive outcomes with any adverse impacts avoided or fully mitigated. The proposal will retire the development site from farming, and the balance of the site not used for the facility will be undeveloped and, in the future, possibly protected by further landscaping. The retirement will stop further streamside degradation and nutrient runoff, and then through plantings stabilise and protect in perpetuity the area adjoining the Mangapiko Stream.

	The applicant's background will ensure the connection of local iwi to the site and stream will be strengthened, and further enhanced by the various cultural references, exhibition centre and prioritised employment of local Māori.
Objective f: The adoption of a precautionary approach towards decisions that may result in significant adverse effects on the Waikato River, and in particular those effects that threaten serious or irreversible damage to the Waikato River.	Through retiring from farming and streamside restoration the proposal will make an important contribution on this part of a tributary of the Waikato River towards the betterment of the Waikato River, and therefore is fully aligned with this objective.
Objective g: The recognition and avoidance of adverse cumulative effects, and potential cumulative effects, of activities undertaken both on the Waikato River and within its catchments on the health and wellbeing of the Waikato River.	Through its reduction in impact on the Mangapiko Stream and overall net positive environmental impact, the proposal will contribute to the overall reduction of impact of activity on the Waikato River and is therefore consistent with this objective.
Objective h: The recognition that the Waikato River is degraded and should not be required to absorb further degradation as a result of human activities.	The proposal will achieve a reduction in impact and contribute towards the betterment of the Waikato River.
Objective i: The protection and enhancement of significant sites, fisheries, flora and fauna.	The proposal will enhance this stretch of the Mangapiko Stream, which together with the existing restoration on the south side of the stream will result in a significantly improved habitat for flora and fauna.
Objective j: The recognition that the strategic importance of the Waikato River to New Zealand's social, cultural, environmental and economic wellbeing requires the restoration and protection of the health and wellbeing of the Waikato River.	This proposal recognises the importance of the Waikato River and its tributaries through the net positive environmental impact that is achieved and the proposal will contribute towards the betterment of the Waikato River.
Objective k: The restoration of water quality within the Waikato River so that it is safe for people to swim in and take food from over its entire length.	The proposal achieves a betterment of the Waikato River through the retirement of the site from farming, capture and management of any effects that may impact on the water quality of the Stream, and extensive streamside restorative planting.
Strategies	
1. Ensure that the highest level of recognition is given to the restoration and protection of the Waikato River.	The proposal is consistent with the Strategies, as it is with the Objectives. The proposal will achieve a net positive impact on the Mangapiko Stream, and will incorporate maatauranga Maaori in the operation of the facility, incorporation at the exhibition centre and across the proposed landscaping and streamside restoration.
2. Establish what the current health status of the Waikato River is by utilising maatauranga Maaori and latest available scientific methods.	
3. Develop targets for improving the health and wellbeing of the Waikato River by utilising maatauranga Maaori and latest available scientific methods	

4. Develop and implement a programme of action to achieve the targets for improving the health and wellbeing of the Waikato River	The proposal will help restore local iwi's connection with the site and this stretch of the Stream, and will involve local iwi through employment and ongoing planting and maintenance of the streamside restoration. The proposal will actively foster awareness of the importance of the Stream and wider Waikato River for the local community through the enhanced access to the site and the celebration of the iwi's involvement and intensions at the exhibition centre. The proposal is a major milestone for local iwi through the employment and economic opportunities it will provide, the enhanced connection made to the land and overall positive impact on the health of the Mangapiko Stream and contribution towards the restoration of the Waikato River. The proposal will contribute to the betterment of the Waikato River in various ways and provide another incremental stepping stone to a river that sustains abundant life and prosperous communities.
5. Develop and share local, national and international expertise, including indigenous expertise, on rivers and activities within their catchments that may be applied to the restoration and protection of the health and wellbeing of the Waikato River.	
6. Recognise and protect waahi tapu and sites of significance to Waikato-Tainui and other Waikato River Iwi (where they so decide) to promote their cultural, spiritual and historic relationship with the Waikato River.	
7. Recognise and protect appropriate sites associated with the Waikato River that are of significance to the Waikato regional community.	
8. Actively promote and foster public knowledge and understanding of the health and wellbeing of the Waikato River among all sectors of the Waikato regional community.	
9. Encourage and foster a 'whole of river' approach to the restoration and protection of the Waikato River, including the development, recognition and promotion of best practice methods for restoring and protecting the health and wellbeing of the Waikato River.	
10. Establish new, and enhance existing, relationships between Waikato-Tainui, other Waikato River Iwi (where they so decide), and stakeholders with an interest in advancing, restoring and protecting the health and wellbeing of the Waikato River	
11. Ensure that cumulative adverse effects on the Waikato River of activities are appropriately managed in statutory planning documents at the time of their review.	
12. Ensure appropriate public access to the Waikato River while protecting and enhancing the health and wellbeing of the Waikato River.	

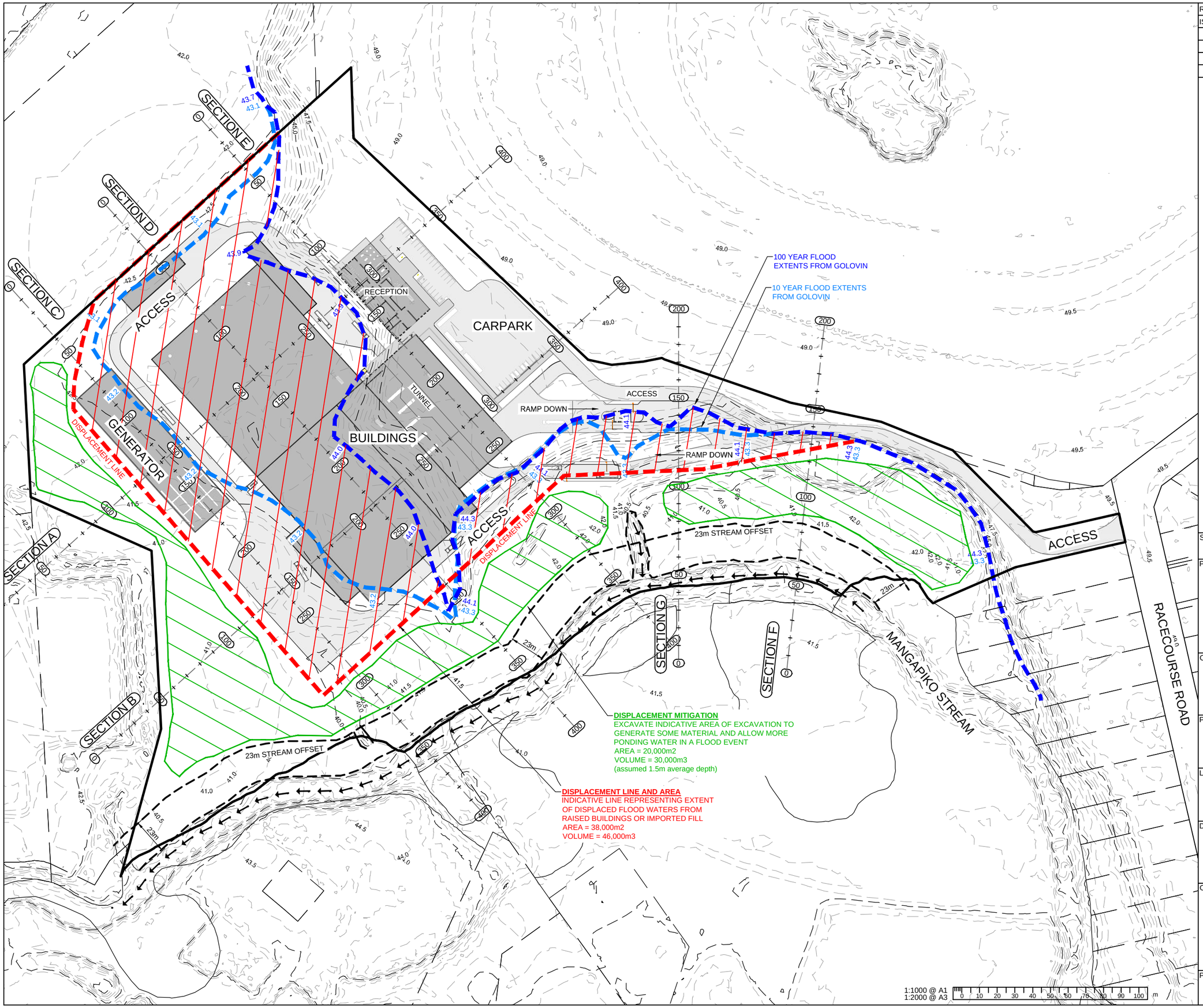
ATTACHMENT 5

401 RACECOURSE ROAD,
TE AWAMUTU

CLIENT: GLOBAL METAL SOLUTIONS
PROJECT No. 200065

TABLE OF CONTENTS - RESOURCE CONSENT

DRAWING NUMBER		REVISION DATE 01 12 21	11 04 22	19 04 22
SITE INFORMATION				
16896.03	TOPOGRAPHICAL SURVEY	A		
SITE MODIFICATIONS				
200065-RC-001	OVERALL SITE PLAN	A		
200065-RC-010	LOCATION OF TYPICAL CROSS SECTIONS	A	A	A
200065-RC-011	TYPICAL SECTION A & B	A	B	C
200065-RC-012	TYPICAL SECTION C & D	A	B	C
200065-RC-013	TYPICAL SECTION E & F	A	B	C
200065-RC-014	TYPICAL SECTION G	A	**B**	**B**
200065-RC-020	EARTHWORKS PLAN	A		
200065-RC-027	EROSION AND SEDIMENT CONTROL PLAN	A	B	B
200065-RC-028	EROSION AND SEDIMENT CONTROL STANDARD DETAILS	A		
ROADING				
200065-RC-030	ROADING LAYOUT PLAN	A		
200065-RC-031	ACCESSWAY 1 LONG SECTIONS - SHEET 1 OF 2	A		
200065-RC-032	ACCESSWAY 1 LONG SECTIONS - SHEET 2 OF 2	A		
200065-RC-033	ACCESSWAY 2 & 3 LONG SECTIONS	A		
200065-RC-035	ROADING TYPICAL CROSS SECTIONS - SHEET 1 OF 3	A	B	C
200065-RC-036	ROADING TYPICAL CROSS SECTIONS - SHEET 2 OF 3	A		
200065-RC-037	ROADING TYPICAL CROSS SECTIONS - SHEET 3 OF 3	A	B	C
200065-RC-038	ENTRANCE LAYOUT PLAN	A		
DRAINAGE & WATER SUPPLY				
200065-RC-040	STORMWATER CATCHEMENT AREA	A		
200065-RC-041	STORMWATER PROPOSED SYSTEM	A		
200065-RC-045	GROUNDWATER CONTOUR PLAN		A	B
200065-RC-050	WASTEWATER AND WATER SUPPLY LAYOUT PLAN	A		



REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	AC

STAGE

RESOURCE CONSENT

PROJECT CONSULTANTS

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CLIENT

GLOBAL METAL SOLUTIONS

PROJECT

PAEWIRA RECYCLE PLANT

LOCATION

401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE

LOCATION OF TYPICAL CROSS SECTIONS

ORIENTATION

N

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		A.COOK
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-010	A

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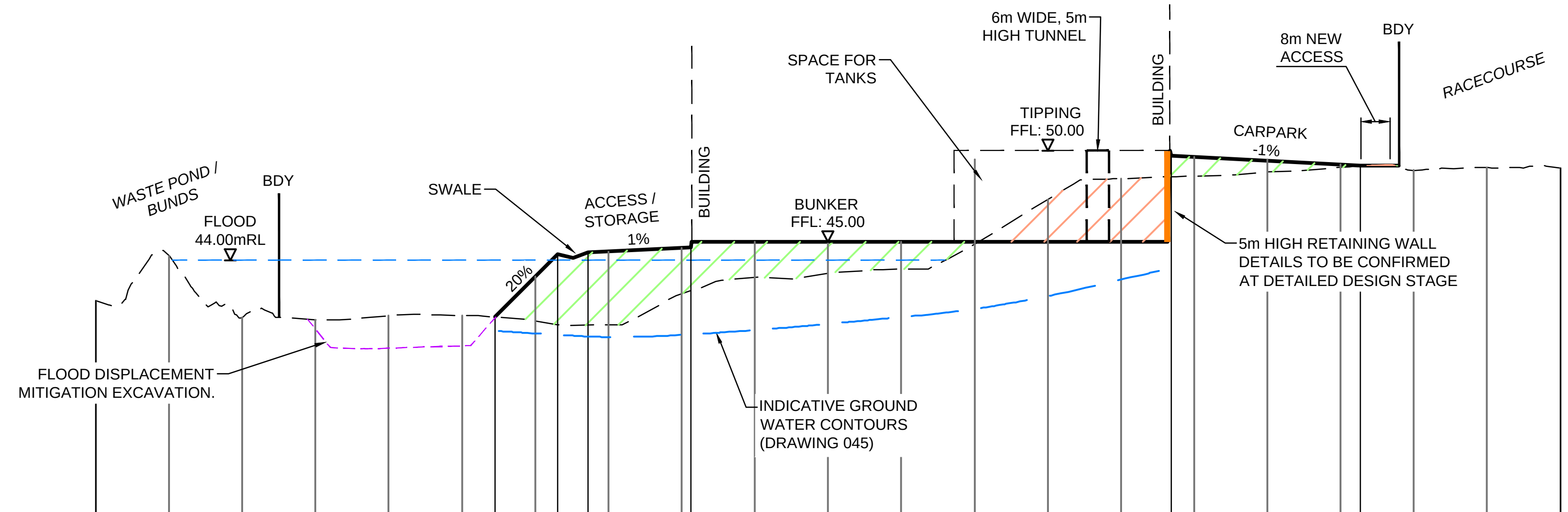
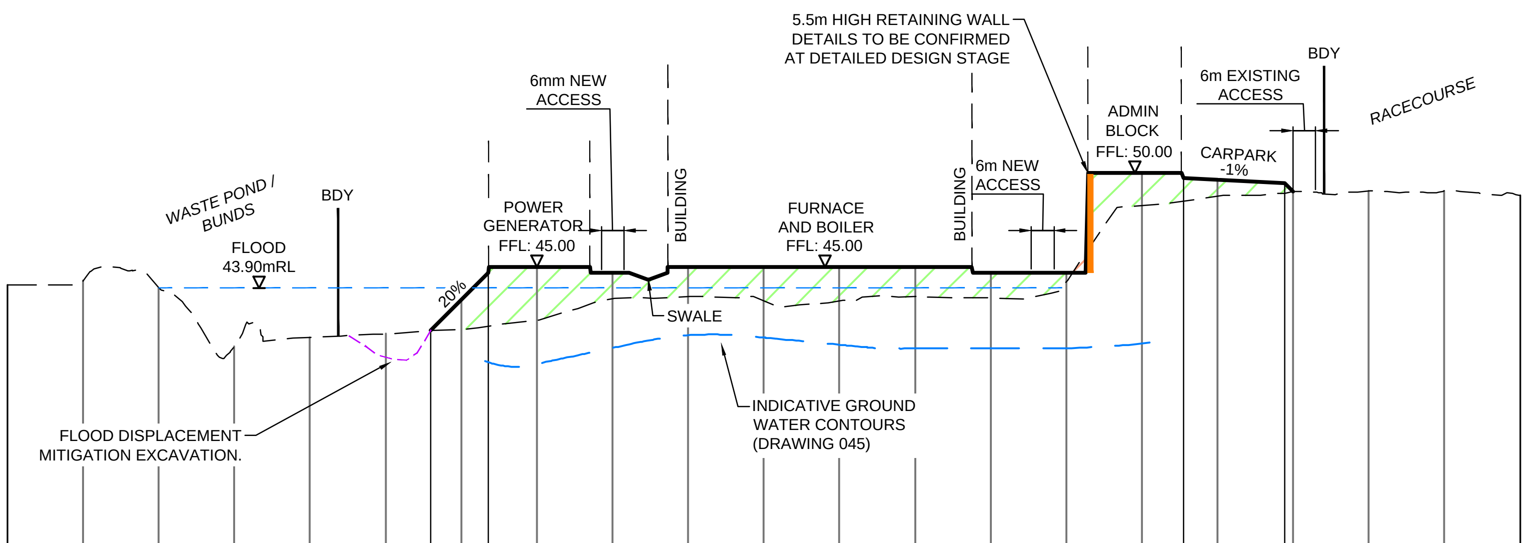


DATUM RL 30.00m

CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		41.79	
20.00		44.24	
40.00		40.88	
60.00		40.76	
80.00		40.97	
100.00		40.98	
109.00	40.90	40.90	0.00
120.00	43.10	40.69	2.41
126.17	44.34	40.48	3.85
130.42	44.13	40.44	3.68
134.35	44.42	40.45	3.96
140.00	44.47	40.47	4.01
160.00	44.67	42.16	2.51
162.51	44.70	42.33	2.37
162.78	45.00	42.35	2.65
180.00	45.00	43.06	1.94
200.00	45.00	43.29	1.71
220.00	45.00	43.51	1.49
234.06	45.00	44.22	0.78
240.00	45.00	44.87	0.13
260.00	45.00	47.32	-2.32
280.00	45.00	48.47	-3.47
292.75	45.00	48.56	-3.56
293.33	50.00	48.57	1.43
293.82	49.70	48.57	1.13
300.00	49.64	48.60	1.04
320.00	49.44	48.83	0.61
340.00	49.24	49.08	0.16
345.35	49.18	49.16	0.02
355.91	49.17	49.17	0.00
360.00		48.92	
380.00		49.06	
400.00		49.04	

SECTION B (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)



DATUM RL 30.00m

CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		44.06	
20.00		44.29	
40.00		43.90	
60.00		40.80	
80.00		41.27	
100.00		41.47	
111.89	41.64	41.64	0.00
120.00	43.26	41.71	1.55
127.19	44.70	41.86	2.84
127.29	45.00	41.86	3.14
140.00	45.00	42.19	2.81
153.99	45.00	43.05	1.95
154.16	44.70	43.06	1.64
160.00	44.70	43.34	1.36
164.37	44.70	43.36	1.34
169.46	44.33	43.36	0.97
174.58	44.70	43.39	1.31
174.63	45.00	43.39	1.61
180.00	45.00	43.45	1.55
200.00	45.00	43.22	1.78
220.00	45.00	43.21	1.79
240.00	45.00	43.43	1.57
255.05	45.00	43.38	1.62
255.38	44.70	43.38	1.32
260.00	44.70	43.36	1.34
280.00	44.70	44.23	0.47
285.06	44.70	45.72	-1.02
285.73	50.00	45.92	4.08
300.00	50.00	48.26	1.74
310.45	50.00	48.47	1.53
310.97	49.70	48.49	1.21
320.00	49.61	48.76	0.85
337.69	49.43	48.90	0.53
340.00	48.99	48.99	0.00
360.00		49.03	
380.00		49.03	
400.00		48.81	

SECTION A (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	AC
B	07/04/22	REGIONAL S92	GC	AC
C	19/04/22	REGIONAL S92	GC	AC

STAGE
RESOURCE CONSENT

PROJECT CONSULTANTS

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT
PAEWIRA RECYCLE PLANT

LOCATION
401 RACECOURSE PARADE, TE AWAMUTU

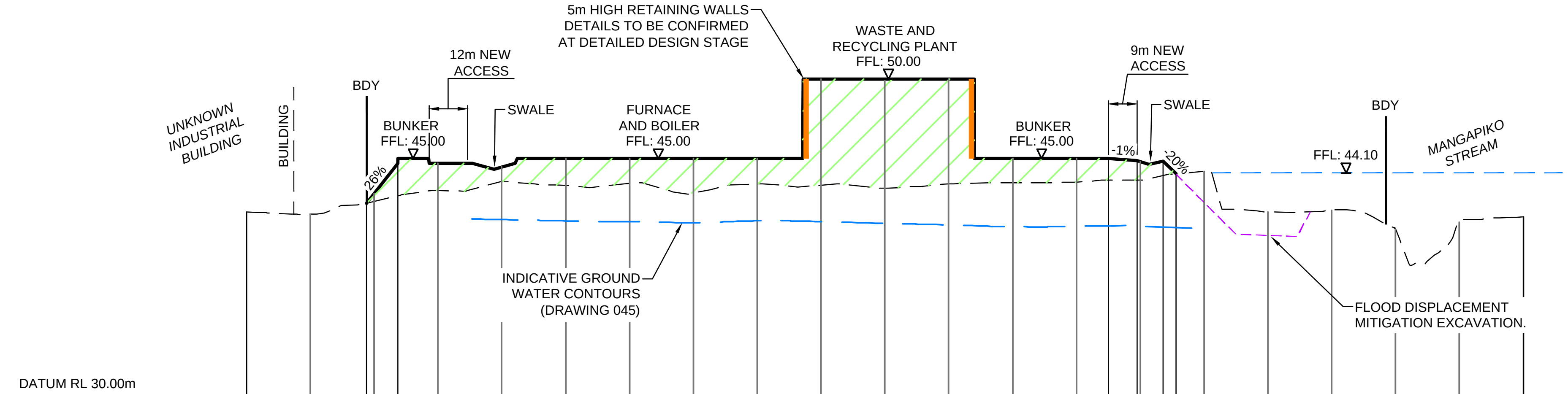
DRAWING TITLE
TYPICAL SECTION A AND B

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		A.COOK
CHECKED		G.CLARKE

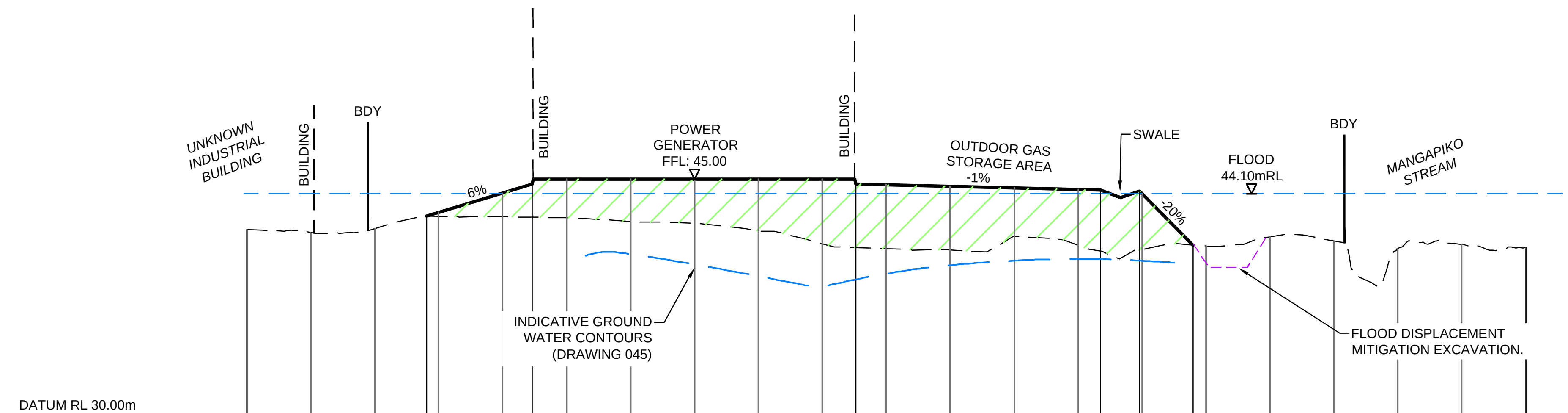
PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-011	C

C:\Users\gallagher.cai\Dropbox\Racecourse Road 401\CAD\RC010-019_SECTIONS.dwg, 011, 4/19/2022 2:50 pm



CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		41.66	
20.00		41.52	
37.63	42.21	42.21	0.00
40.00	42.82	42.32	0.50
47.33	44.70	42.67	2.03
47.37	45.00	42.68	2.32
57.10	45.00	42.97	2.03
57.17	44.70	42.97	1.73
60.00	44.70	43.01	1.69
70.70	44.70	43.07	1.63
77.59	44.34	43.45	0.89
80.00	44.47	43.56	0.91
84.22	44.70	43.50	1.20
84.77	45.00	43.49	1.51
100.00	45.00	43.32	1.68
120.00	45.00	43.46	1.54
140.00	45.00	42.85	2.15
160.00	45.00	43.40	1.60
174.28	45.00	43.26	1.74
174.38	50.00	43.26	6.74
180.00	50.00	43.34	6.66
200.00	50.00	43.14	6.86
220.00	50.00	43.43	6.57
228.00	50.00	43.47	6.53
228.06	45.00	43.47	1.53
240.00	45.00	43.49	1.51
260.00	45.00	43.52	1.48
270.00	45.00	43.67	1.33
279.02	44.88	43.67	1.21
280.00	44.81	43.67	1.15
282.76	44.63	43.73	0.90
287.22	44.85	43.94	0.91
291.24	44.05	44.05	0.00
300.00		44.21	
320.00		41.65	
340.00		41.76	
360.00		40.58	
380.00		41.02	
400.00		41.34	

SECTION D (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)



CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		41.85	
20.00		41.67	
40.00		41.92	
56.27	42.71	42.71	0.00
60.00	42.93	42.69	0.24
80.00	44.14	42.67	1.47
89.27	44.70	42.64	2.06
89.55	45.00	42.64	2.36
100.00	45.00	42.59	2.41
120.00	45.00	42.36	2.64
140.00	45.00	42.24	2.76
160.00	45.00	41.77	3.23
180.00	45.00	40.97	4.03
190.06	45.00	40.74	4.26
190.39	44.70	40.74	3.96
200.00	44.65	40.66	4.00
220.00	44.55	40.59	3.96
240.00	44.45	41.41	3.04
260.00	44.35	40.88	3.47
267.03	44.32	40.50	3.81
273.27	43.86	40.08	3.78
279.26	44.26	40.56	3.69
280.00	44.11	40.60	3.51
296.00	40.89	40.89	0.00
300.00		40.82	
320.00		41.41	
340.00		41.16	
360.00		40.69	
380.00		40.95	
400.00		40.74	

SECTION C (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	AC
B	07/04/22	REGIONAL S92	GC	AC
C	19/04/22	REGIONAL S92	GC	AC

STAGE
RESOURCE CONSENT

PROJECT CONSULTANTS

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT
PAEWIRA RECYCLE PLANT

LOCATION
401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE
TYPICAL SECTION C AND D

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		A.COOK
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-012	C

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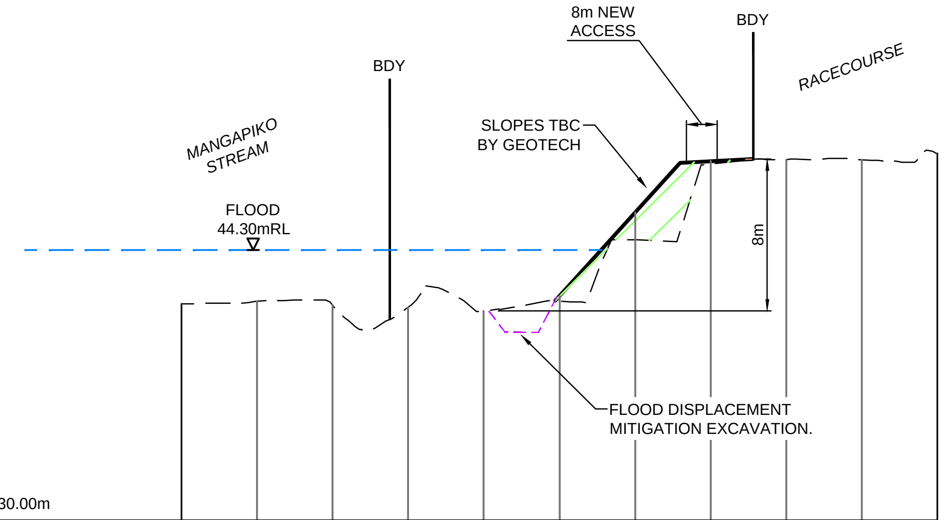
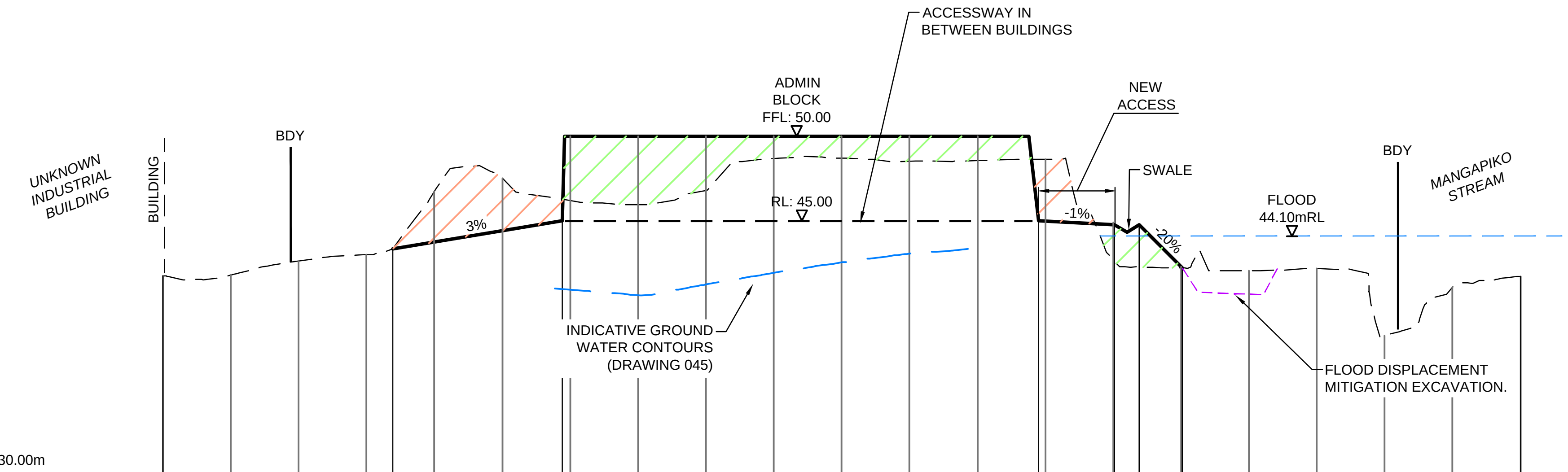


CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		41.44	
20.00		41.60	
40.00		41.37	
60.00		41.26	
80.00		41.09	
98.92	41.62	41.62	0.00
100.00	41.86	41.60	0.26
120.00	46.29	44.85	1.44
131.81	48.91	45.25	3.66
140.00	48.99	48.83	0.17
151.02	49.10	49.10	0.00
160.00		49.09	
180.00		49.07	
200.00		49.41	

SECTION F (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)



CHAINAGE	PROPOSED LEVEL	EXISTING LEVEL	CUT (-) / FILL (+)
0.00		41.77	
20.00		41.81	
40.00		42.64	
60.00		43.00	
67.69	43.34	43.34	0.00
80.00	43.75	46.72	-2.98
100.00	44.41	47.52	-3.11
117.69	45.00	46.27	-1.27
118.38	50.00	46.25	3.75
120.00	50.00	46.20	3.80
140.00	50.00	45.95	4.05
160.00	50.00	46.78	3.22
180.00	50.00	48.68	1.32
200.00	50.00	48.69	1.31
220.00	50.00	48.51	1.49
240.00	50.00	48.56	1.44
255.13	50.00	48.62	1.38
258.02	45.00	48.62	-3.62
260.00	44.98	48.62	-3.64
280.00	44.78	42.72	2.06
280.44	44.78	42.62	2.15
284.03	44.32	42.28	2.04
287.62	44.77	42.29	2.49
300.00	42.30	42.22	0.08
300.39	42.22	42.22	0.00
320.00		42.05	
340.00		42.21	
360.00		38.22	
380.00		41.08	
400.00		41.72	

SECTION E (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	AC
B	07/04/22	REGIONAL S92	GC	AC

STAGE
RESOURCE CONSENT

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT
PAEWIRA RECYCLE PLANT

LOCATION
401 RACECOURSE PARADE, TE AWAMUTU

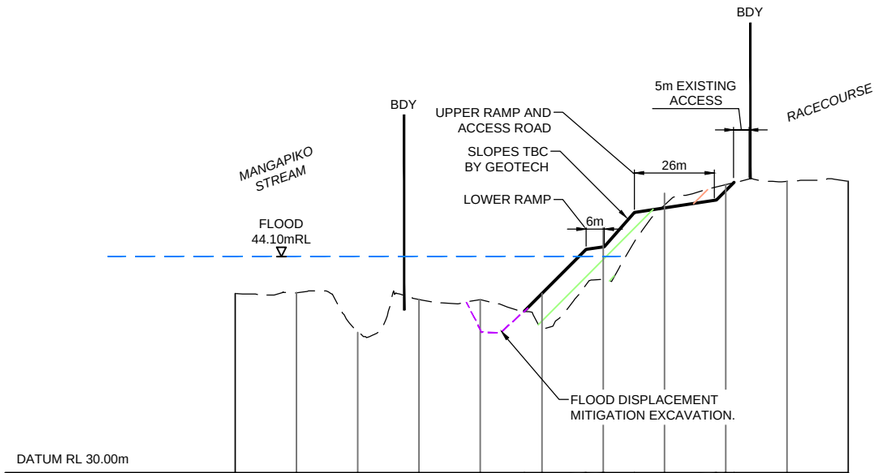
DRAWING TITLE
TYPICAL SECTION E AND F

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		A.COOK
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-013	C

C:\Users\gallagher.cal\Dropbox\Racecourse Road 401\CAD\RC010-019_SECTIONS.dwg, 013, 4/19/2022 2:50 pm



DATUM RL 30.00m

PROPOSED LEVEL						40.54	41.68	44.56	44.72	44.73	46.97	47.27	47.78	48.38	48.92		
EXISTING LEVEL	41.67	41.74	39.15	41.30	41.28	40.54	39.38	42.24	42.61	42.60	45.06	47.44	48.64	48.79	48.92	49.00	49.00
CUT (-) / FILL (+)						0.00	2.30	2.32	2.11	2.13	1.91	-0.17	-0.86	-0.41	0.00		
CHAINAGE	0.00	20.00	40.00	60.00	80.00	94.29	100.00	114.37	120.00	120.33	130.22	140.00	156.98	160.00	162.72	180.00	200.00

SECTION G (5x VERTICAL EXAGGERATION)
1:1000H 1:200V @ A1 (DOUBLE FOR A3)

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	AC
B	07/04/22	REGIONAL S92	GC	AC

STAGE
RESOURCE CONSENT

PROJECT CONSULTANTS

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT
PAEWIRA RECYCLE PLANT

LOCATION
401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE
TYPICAL SECTION G

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		A.COOK
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-014	B

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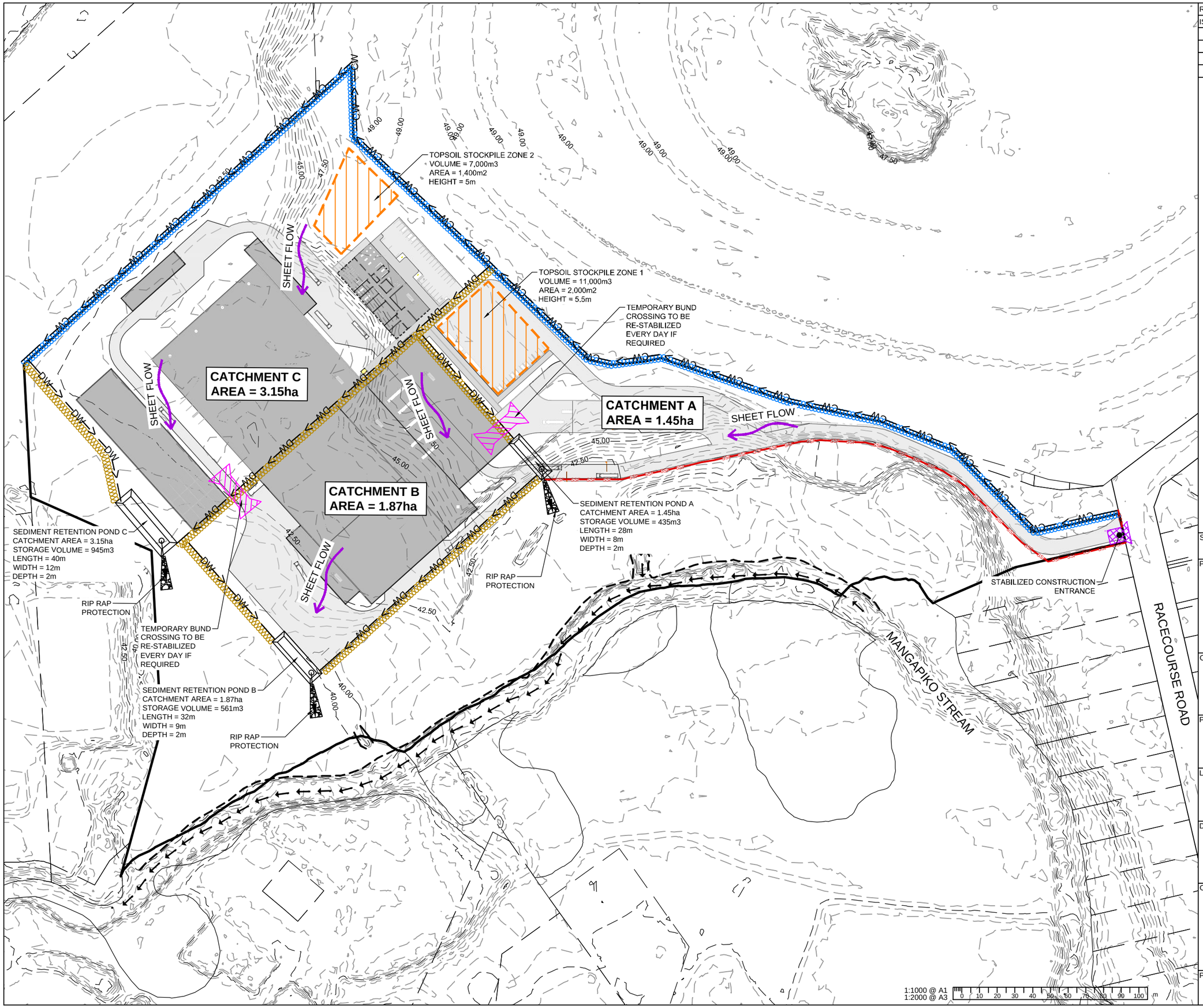

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	01/12/21	FOR RESOURCE CONSENT	GC	GCAI
B	11/04/22	FOR S92 RESPONSE	GC	GCAI

LEGEND:

- SUPER SILT FENCE
- CLEAN WATER DIVERSION BUND
- DIRTY WATER DIVERSION BUND
- STABILIZED CONSTRUCTION ENTRANCE
- POND

STAGE

RESOURCE CONSENT

PROJECT CONSULTANTS

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CLIENT

GLOBAL METAL SOLUTIONS

PROJECT

PAEWIRA RECYCLE PLANT

LOCATION

401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE

EROSION AND SEDIMENT CONTROL PLAN

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		G.CAI
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-027	B

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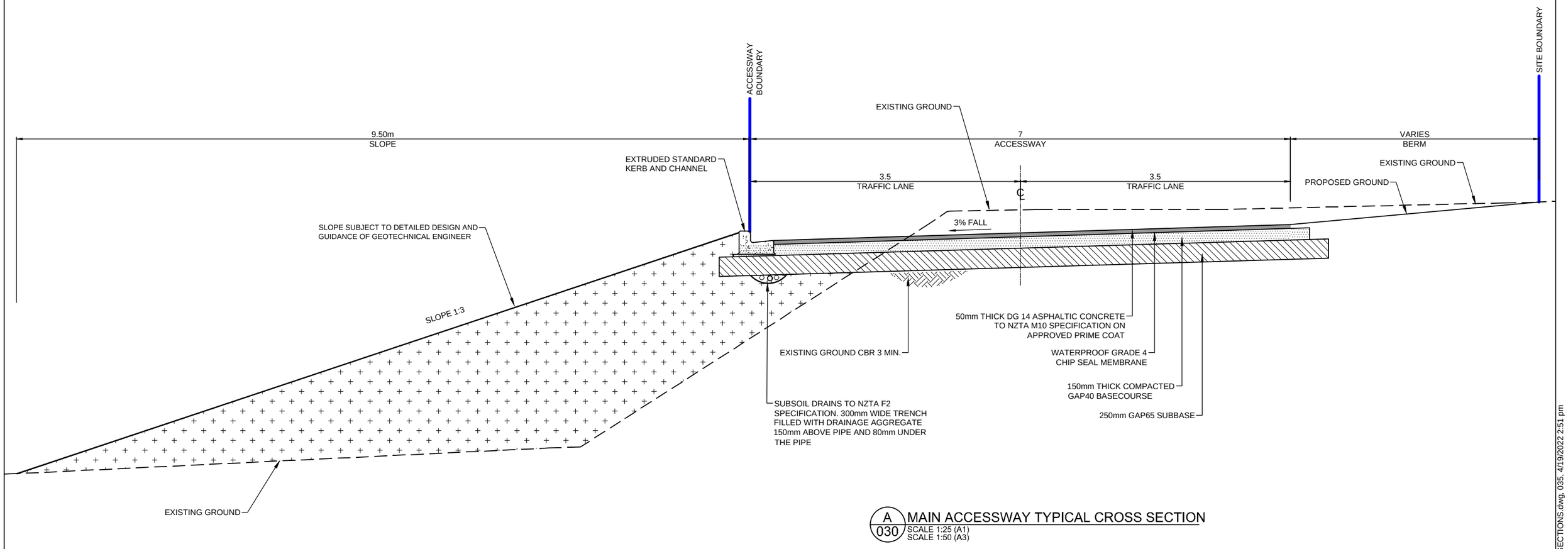

A 030 MAIN ACCESSWAY TYPICAL CROSS SECTION
SCALE 1:25 (A1)
SCALE 1:50 (A3)

1:25 @ A1
1:50 @ A3
0 400 800 1200 1600 2000 2400 mm

ISSUE	DATE	REVISION	CHKD	DRWN		NAME	DATE
A	01/12/21	FOR RESOURCE CONSENT	GC	GCAI	SURVEYED	TERRA	01/03/21
B	29/03/22	S92 RESPONSES	GC	GCAI	DESIGNED		
C	19/04/22	S92 RESPONSES	GC	GCAI	DRAWN		
					TRACED		
					CHECKED		

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CLIENT: GLOBAL METAL SOLUTIONS

PROJECT / LOCATION: 401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE: ROADING TYPICAL CROSS SECTION SHEET 1 OF 3

STAGE: FOR RESOURCE CONSENT
THIS DRAWING IS NOT SUITABLE FOR SETOUT PURPOSES

PROJECT NUMBER: 200065

SCALE: A1 1:25, A3 1:50

DWG NUMBER: RC-035

REVISION: C

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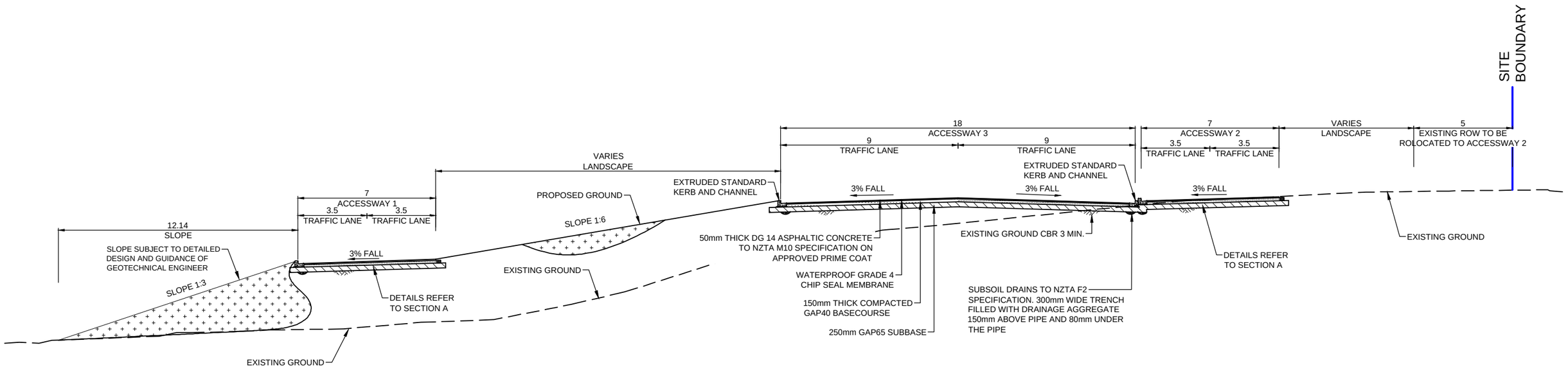

C 030 ACCESSWAY TYPICAL CROSS SECTION
SCALE 1:100 (A1)
SCALE 1:200 (A3)

1:25 @ A1
1:50 @ A3
0 400 800 1200 1600 2000 2400 mm

ISSUE	DATE	REVISION	CHKD	DRWN		NAME	DATE
A	01/12/21	FOR RESOURCE CONSENT	GC	GCAI	SURVEYED	TERRA	01/03/21
B	29/03/22	S92 RESPONSES	GC	GCAI	DESIGNED		
C	19/04/22	S92 RESPONSES	GC	GCAI	DRAWN		
					TRACED		
					CHECKED		

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT / LOCATION
401 RACECOURSE PARADE, TE AWAMUTU

DRAWING TITLE
ROADING TYPICAL CROSS SECTION
SHEET 3 OF 3

STAGE
FOR RESOURCE CONSENT
THIS DRAWING IS NOT SUITABLE FOR SETOUT PURPOSES

PROJECT NUMBER
200065

SCALE
A1 1:25
A3 1:50

DWG NUMBER
RC-037

REVISION
C

C:\Users\gallagher.cai\Dropbox\Racecourse Road 401\CAD\RC035_ROADING CROSS SECTIONS.dwg, 037, 4/19/2022 2:51 pm

NOTES:
1. GROUND WATER CONTOURS DETERMINED FROM DIPPED GROUND WATER LEVEL ONLY

EG 43.14
BGL 1.80m
GWT 41.34
HA03

EG 43.47
BGL 2.79m
GWT 40.68
CPT02

EG 48.18
BGL 7.6m
GWT 40.58
CPT01

EG 42.96
BGL 1.0m
GWT 41.96
HA06

EG 42.61
BGL 1.2m
GWT 41.41
HA07

EG 48.64
BGL 3.0m+
GWT 43.64
HA01

EG 43.82
BGL 3.0m+
GWT 40.82
HA05

EG 42.19
BGL 2.2m
GWT 39.99
CPT04

EG 43.23
BGL 2.63m
GWT 40.60
CPT06

EG 40.77
BGL 2.75m
GWT 38.02
CPT05

EG 40.81
BGL 0.5m
GWT 40.31
HA11

EG 39.85
BGL 0.5m
GWT 39.35
HA12

MANGAPIKO STREAM

RACECOURSE ROAD

1:1000 @ A1
1:2000 @ A3
0 10 20 30 40 50 60 70 80 90 100 m

REVISION

ISSUE	DATE	DETAIL	CHKD	DRWN
A	11/04/22	FOR RESOURCE CONSENT	GC	GCAI
B	19/04/22	FOR RESOURCE CONSENT	GC	GCAI

STAGE
RESOURCE CONSENT

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CLIENT
GLOBAL METAL SOLUTIONS

PROJECT
PAEWIRA RECYCLE PLANT

LOCATION
401 RACECOURSE PARADE,
TE AWAMUTU

DRAWING TITLE
GROUNDWATER CONTOURS PLAN

ORIENTATION

SCALE	A1	1:1,000
	A3	1:2,000
DATE		01/12/2021
SURVEYED		TERRA
DESIGNED		VARIOUS
DRAWN		G.CAI
CHECKED		G.CLARKE

PROJECT NUMBER	DWG NUMBER	REVISION
200065	RC-045	B

C:\Users\gallagher.cai\Dropbox\Racecourse Road 401\CAD\RC045_GROUNDWATER CONTOURS PLAN.dwg, 045, 4/19/2022 2:52 pm

ATTACHMENT 6

Key

- Site boundary
- Fence line
- Contour (0.5m Intervals)
- Proposed Buidlings
- Proposed Cycleway
- Proposed Planting (High)
- (Proposed Planting(Medium)
- Amenity Planting
- Proposed Planting (Low)
- Wetland Planting

N

Proposed cycleway link

Access road to Venn property

Proposed cycleway link to visitors centre and cafe

Proposed outdoor gathering space beside visitors centre and cafe

Amenity planting

Bunker

Temporary Bunker

Visitors Centre, Cafe and Museum

Furnace & Boiler System

Power Generator

Tipping and Vehicle Maneuvering Area

Weigh bridge office

Weigh bridge

Weigh bridge

Waste and Recycling Plant

Bunker

Internal site cycleway provides different experience travelling over wetland and along stream edge

Low level indigenous planting

High vegetation screens views towards Waste & Recycling Plant

Cycleway bridge crossing

Connects to balance of cycleway

Mangapiko Stream

1 C2

2 C2

Riparian planting

Potential view over remedial area

Cycle extension provides loop path with opportunity for viewing platforms

New footpath

New proposed acoustic screen fence

New pedestrian refuge

0 50 100 150 200 m

Design Intent

This proposal provides a broad overview of indigenous restoration planting for the Mangapiko Stream and associated secondary stream terrace within the broader grounds of the Paewira Waste to Energy Plant. Utilising a range of riparian and wetland indigenous species the proposal creates layers of low, intermediate and high swathes of vegetation which respond to the site topography, restoring the site and providing enhanced ecological habitat for the stream and stream terrace. The ecological restoration not only provides a varied and enjoyable setting for a proposed section of the Te Awamutu to Lake Ngaroto Cycleway, but once mature will assist in providing appropriate scale, screening and integration of the Paewira Waste to Energy Plant

1 Overview Plan
Scale: 1:1750

The purpose of this plan is to show the general intent of the design and may not be complete in every detail. This plan is not intended as a construction drawing and should not be used as such.

mansergh graham LANDSCAPE ARCHITECTS

Riparian Planting Overview

Paewira Streamside Remediation

Project No. **2022-016** | Phase **Draft** | Scale **shown @ A3** | Revision No. **R6** | Date **6/07/2022** | Drawn **YL** | Approved **MG**

Plan No. C1

ATTACHMENT 7

RIPARIAN CONCEPT PLAN SCOPE

Description of site – area, adjoning activities, site context etc,

Design principles

Visual concept plan over aerial showing:

- Property boundary
- Location of proposed buildings and roads
- Alignment of Te Awamutu to Pirongia cycleway
- Hydrology - flood plains
- Finished contours
- Any signficiant cultural features
- Extent of riparian area to be planted and protected under a covenant and within that:
    - Planting zones (high level explanation of outcome sought and probable plant mix for each zone)
    - Activity zones
    - Tracks
    - Visitor facilities e.g. seating, signage
    - Viewshafts
    - Location and details of stormwater infrastructure
    - Mahi toi (cultural infrastructure)
    - Any planned hard engineering works along stream bank
    - Any instream habitat enhancements
    - Any infrastructure to manage public access to wider site e.g. fencing, earth mounds
    - Any infrastructure to encourage play (not essential but something like mara hupara could be appropriate given mana whenua engagement and desire to host schools)

Proposed phasing

RIPARIAN DETAILED DESIGN PLAN SCOPE

Draft condition wording:

Prior to the issue of a s224 certificate, the consent holder shall submit to Council's Reserves Planning Team Leader for approval a restoration plan for [add description of area once confirmed] that has been prepared by a qualified ecologist in consultation with mana whenua and Taiea te Taiao (Pirongia to Maungatautari Ecological Corridor Project).

The riparian restoration plan's focus should be on enhancing existing habitat, re-establishing indigenous vegetation cover and increasing the area's resilience (that is, the capacity for the area to regenerate and self sustain), flooding resilience, improving the water quality flowing into the Mangapiko Stream, enhancing the aesthetic values of the area and mitigating any effects of the proposed development. The restoration plan shall include, but not be limited to, the following:

a) A plan showing:
    i) finished site contours,
    ii) integration with any adjoining reserves,

iii) details of stormwater infrastructure within the area,
iv) existing vegetation (including all trees and shrubs greater than 2m) to be retained,
v) maps and description of current status of weeds and pest plants,
vi) planting zones detailing the proposed plant species and locations, and
vii) location and design of any tracks to undertake maintenance programme and traplines.

b) A schedule of the species to be planted including botanical name, average plant height at time of maturity, planting density and timing of planting
c) An implementation programme that includes site preparation (pest plant and weed removal, fertiliser, mulching), planting timeframes and delivery model.
d) A 3 year operational maintenance programme that includes:
    i) releasing twice per season
    ii) pest plant and weed control, watering, supplementary/replacement planting plan specifications, mowing, litter control, track maintenance
    iii) timing of monitoring maintenance inspections, and
    iv) defects liability for plantings.
e) Protocols for any accidental discoveries of artifacts or remains.
f) A long term operational maintenance programme.

Reference documents:

https://www.aucklandcouncil.govt.nz/environment/plants-animals/plant-for-your-ecosystem/Documents/streamside-planting-guide.pdf

https://www.dairynz.co.nz/media/660477/waikato_riparian_management.pdf

https://restorationstrategy.nz/waipa/

ATTACHMENT 8

Postal Address Head Office Cambridge Office
Private Bag 2402 07 872 0030 07 823 3800
Te Awamutu 3840 101 Bank Street 23 Wilson Street
New Zealand Te Awamutu 3800 Cambridge 3434

4 March 2022

Terra Consultants
PO Box 5028
Frankton
Hamilton 3242

Digitally Delivered

Dear Chris

Resource Consent Application – Further information request

Application number:	LU/0323/21
Applicant:	Global Contracting Solutions Limited
Address:	401 Racecourse Road, Te Awamutu
Proposed activity(s):	Construct and operate plant to generate power through combustion of refuse derived fuel

In accordance with section 92 of the Resource Management Act 1991, further information is requested to enable an accurate and informed assessment to be undertaken. The following information is requested:

1. General Matters

1.1. Please provide visual montages / renders that show the proposed built form in relation to the neighbouring context and landscape. Suggested key locations for visual montages include views to the proposal from the neighbouring Racecourse land to the north, and the more elevated properties north of the Racecourse (such as the views shown in Figures 57 -59 of the application report), together with views of the proposal from the High School fields and Te Wānanga site on the southern side of Mangapiko Stream.

Reasons for request: To better understand the likely visual effect of the proposed infringement of up to 18 metres above the 20m maximum building height control that applies in the Industrial Zone

Reasons

1.2. There is inconsistency between the application drawings showing the fencing proposed to be established along the northern boundary. The landscaping plan shows a 3.5m high acoustic fence at the entrance end and a 1.8m high aluminium fence along the remainder of the boundary. The acoustic report identifies a 2.5m high acoustic fence reducing to a 1.8m high acoustic fence. Please confirm the height and nature of the proposed fencing along the northern boundary of the site.

for request: To confirm the nature of the proposed fencing along the northern boundary of the site.

1.3. The application states that the proposal will comply with the permitted standards for signs in the Residential Zone (which limits signs to no greater than 0.25m^2). The visuals attached to the report show signage that would appear to exceed this standard. Please confirm compliance, or whether consent is being sought to exceed this District Plan standard.

Reasons for request: To confirm the reasons for which the proposal requires resource consent.

2. Waste strategies

Council's Waste Minimisation Officer, Sally Fraser, has requested the following information in order to better understand the proposal:

2.1. The Ministry for the Environment's factsheet "A waste to energy guide for New Zealand", provides a series of questions that the Ministry recommends proposals to establish a waste to energy plant should address, available here: https://environment.govt.nz/assets/Publications/Files/waste-to-energy-guide-for-newhttps://environment.govt.nz/assets/Publications/Files/waste-to-energy-guide-for-new-zealand.pdfzealand.pdf. Please provide an assessment of the proposal against each of the questions listed in the Ministry's fact sheet.

2.2. Please provide an assessment of the proposal in terms of its alignment with achieving Council's Waste Management and Minimisation Plan 2017-2023 prepared under the Waste Minimisation Act 2008, available here: https://www.waipadc.govt.nz/ourhttps://www.waipadc.govt.nz/our-council/strategy-and-planning/wastemanagementcouncil/strategy-and-planning/wastemanagement

Reasons for requests 2.1 – 2.2: To better understand the extent to which the proposal aligns with Ministry guidance for this type of facility, and with Council's waste management plans prepared under the Waste Minimisation Act 2008.

3. Cultural effects

The application has been referred to Waipā District Council's iwi representative forum, Ngā Iwi Tōpū O Waipā (NITOW). Further to the meeting on-site with NITOW representatives, the following information is requested:

3.1. Could the applicant provide a presentation on its wastewater discharge plans to NITOW.

Reasons for request: To understand potential cultural effects associate with the discharge of wastewater.

4. Parks and Reserves

Council's consultant parks advisor, Anna McElrea of Xyst Ltd, has requested the following information to assist in her review of the proposal:

4.1. Please provide a plan showing setbacks of the proposed development from the Mangapiko Stream (highlighting where earthworks within 23m of the stream will occur and demonstrate the areas and depth of earthworks in this area) and the boundary to the T13 Growth Cell.

Reasons for request: To confirm the extent of works and development proximate to the stream area of future development area.

4.2. Please provide a landscaping plan for the Mangapiko Stream margins prepared by an appropriately qualified ecologist for the proposed restoration of the riparian area that includes a planting and maintenance programme.

Reasons for request: The application states there is a significant opportunity not shown on the landscaping plan for major restoration of the site's Mangapiko Stream margins and that it is anticipated agreement can be negotiated with Council on the form that landscaping will take along the Stream through the s92 process. I think this major restoration could definitely be a key component of the application's stormwater, visual and environmental mitigation. At a minimum we would be seeking 20m of planting along the entire edge in line with esplanade requirements under the RMA however a wider area would likely address the visual impacts of the proposed development when viewed from the Te Wānanga o Aotearoa site on the southern side of the stream opposite the subject site and Factory Road. This would align well with a number of initiatives underway to restore the mana and the mauri of this awa, such as Council's recently funded long term Mangapiko and Mangaohoi Stream Restoration Project for the esplanade reserves within Te Awamutu's urban boundaries and the Maungatautari to Pirongia Ecological Corridor Project https://www.landcare.org.nz/current-projecthttps://aus01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.landcare.org.nz%2Fcurrent-project-item%2Fm-mangapiko-mai-i-maungatautari-ki-maunga-pirongia-ahu-ake&data=04%7C01%7CAidan.Kirkby-

Reasons
McLeod%40waipadc.govt.nz%7C57c3b5621d5645f8efcf08d9bf4b13a5%7C612be5fd95854b98ab37699361a6452f%7C0%7C1%7C637751151487712270%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000&sdata=FVrRU6e%2BBqzK9C8ifoGFlXUh70qeST95387uAOzsoPk%3D&reserved=0*item/m-mangapiko-mai-i-maungatautari-ki-maunga-pirongia-ahu-ake*

4.3. Please outline how you intend to protect and maintain in perpetuity the proposed restoration planting discussed in the point above to ensure it achieves the desired long term visual buffer, stormwater mitigation, landscaping and ecological benefits outlined in the application? Options could include an esplanade strip or a covenant.

Reasons for request: To better understand the ability for the proposed restoration area to be maintained in perpetuity.

4.4. Can you please provide some commentary around the proposal's compliance with District Plan rule 7.4.2.11?

Reasons for request: This rule requires industrial development to provide outlook toward and visually connectivity to water bodies and reserve areas. The proposal is described as complying with this rule, but limited opportunity for visual connectivity appears to be provided.

4.5. Can you clarify why the proposed acoustic screen is lower along the Race Course boundary when the adjoining land is likely to be developed as residential housing and as part of this may include public open space such as a neighbourhood reserve?

for request: To confirm the effects of the proposal on the amenity of the neighbouring land, and the appropriateness of the mitigation proposed.

4.6. Could you consider further landscaping along the Race Course boundary to ensure the site is sufficiently landscaped and screened to create an appropriate buffer to the adjoining residential zone being the T13 Growth Cell to seek better alignment to District Plan rules 7.4.2.13 and 7.4.2.14?

Reason for request: To understand the opportunity for landscaping along the common boundary in accordance with these rules.

4.7. Can you please provide plans showing two options for the alignment of the Te Awamutu – Pirongia cycleway through the site that has previously been discussed with the applicant; one alongside the proposed vehicle entrance and one crossing the stream from the Te Wānanga o Aotearoa site. The plans should indicate widths and setbacks from the internal roads, how vehicle crossing points will be managed and how matters such as the impact of the high acoustic screen and the vehicle movements will be mitigated to create a safe and pleasant public cycleway.

Reasons for request: To understand how this cycleway could be incorporated into this development. It is understood it is the applicant's aspiration to have the walk/cycleway go past the proposed education centre and café.

5. Development engineering

Council's Senior Development Engineer, Harry Baxter, has identified the following matters as being required to fully assess the effects of the proposal:

Internal accessways

5.1. Please provide further information on the slope angle of the proposed stabilised / reinforced slopes supporting the internal access roads and ramps and detail how the slopes will be designed to support these anticipated loads. *Response: Please refer to section A on drawing 35, this shows a maximum 3:1 slope which is generally considered a stable slope across the industry. Section F/G on drawing 13-14 show a more generous slope of 1.4.5 extending to the base of the gully. Details relating to slope stability within the site, and any structures/methods that are required to improved stability will be addressed at the detailed design phase of the project by the geotechnical engineer.*

Reasons for request: To better understand the engineering implications of the proposed accessways and landform.

Water supply

5.2. The water demand of the proposal is stated as 170m^3/day in the application, however in meetings with Waipā District Council staff the applicant verbally advised that the proposal would have a daily water usage of 72m^3/day. Please clarify the water demand for this proposal. *Response: The process plant is designed for a total of 4 recycling lines and water demand for this is estimated at 170m3. This includes for processing and administration. The summary is detailed from spec sheet as detailed in Earthworks and infrastructure Report.*

5.3. Provide further detail on how demand will typically fluctuate on a daily basis and also at a greater interval if there are fluctuations over a longer timespan (e.g. weekly or seasonally). Information should be provided on measures to mitigate fluctuations in water demand. *Response: We consider that the usage will be generally even throught the day and any fluctuations will be catered for by the proposed provision of the on-site water supply backup demand storage tanks. Please refer to Earthworks and Infrastructure Report Section 9.2. This refers to 850m3 backup storage.*

5.4. Water supply modelling is required to assess the imposed demand on Waipā DC's infrastructure from this proposal. Waipā District Council's Water Services Asset Planning Engineer (Melissa.Allfrey@waipadc.govt.nz) should be contacted and the results of water supply modelling based on a worst case scenario (e.g. no supplementary rain water

Reasons

available and depleted backup storage) provided in a response to this request. *Response: Requires operation assessment by Waipa DC.*

Reasons for requests 5.2 – 2.4: To better understand likely demand and potential capacity constraints on the reticulated network.

Wastewater

5.5. The wastewater production from this proposal is stated in the report as 36.7m^3/day of calcified liquid to be carted away and 120m^3/day of daily washdown water that is to be sufficiently treated and disposed of to the public reticulated network. Due to the lack of clarity regarding water usage please confirm the daily wastewater that will be produced by this proposal. *Response: As describe in our Earthworks and Infrastructure Report Sewction 8.2.2 details that"* The wastewater from the recycling building is wastewater that is not considered suitable for the existing Waipa treatment facility. The waste discharge will be removed from the site in sealed trucks and disposed of at a managed waste facility. The daily liquid process waste volume is estimated at 36.7m3 per day plus approx. 120m3 of daily washdown water." The only wastewater to proposed to be discharged from the shall be from the administration building. This is described in Section 8 also and represent les that 1m3/day.

5.6. Provide information on how the calcified liquid will be settled in the tanks and then carted. *Response: All wastewater tanks shall be of specific design for liquids stored. We envisage that operational discharge from the tanks will prevent any significant buildup of solids and an operation and maintenance plan with schedule shall be in place where regular cleanout of all onsite tanks shall be undertaken.*

5.7. Demonstrate how the proprietary products will ensure that the discharged water from wash area is of acceptable quality for disposal to Waipā District Council's wastewater network. *Response: Please refer to item 5.5 that outlines all wastewater shall be taken off site.*

5.8. Wastewater modelling is required to assess the imposed demand on Waipā District Council's infrastructure from this proposal. Waipā District Council's Water Services Asset Planning Engineer (Melissa.Allfrey@waipadc.govt.nz) should be contacted to organise this and the results based on peak wet weather flow should be provided in a response to this request. *Response: Discharge of wastewater shall be within acceptable limits of the current receiving network and further modelling is considered unnecessary.*

Reasons for requests 5.5 – 5.8: To better understand how wastewater will be managed and potential implications of the proposal on Council's network.

Stormwater

5.9. Further detail should be provided on the condition of the existing outfalls to the Mangapiko River and as they are above the permanent flow level, information on any upgrades to

provide long term protection against erosion should be provided. Alternatively, confirmation should be provided that the outfalls will not accelerate any erosion within the Managapiko River. Response: Outfall A – is an existing 300mm pipe that discharges directly into the main stream flow. Outfall B is an existing swale that connects to the main stream flow. The condition of both is functional with the existing vegetation providing some erosion protection and treatment. Stormwater runoff from the proposal will be managed on site through the treatment and attenuation devices as described in the report. The result is a stormwater runoff flow which mimics the pre-development scenario and utilises existing outfalls. Therefore, here is no increased erosion potential of the outfalls or river.

Reasons for request: To better understand potential stormwater effects associated with the existing outfalls.

Built proposal

5.10. Please advise what importance level the buildings, retaining walls and stabilised slopes will be designed to as per Clause A3 of the Building Code.

for request: To have clarification of the seismic resilience of structures associated with the proposal in order to understand potential vulnerability to natural hazards.

6. Transportation

Council's consultant transportation engineer, Naomi McMinn of Gray Matter, has identified the following information as being required to understand the transportation effects of the proposal:

District Plan Requirements

6.1. The application is supported by a Transportation Assessment Report (TAR), where a Broad Integrated Transportation Assessment (ITA) is required by Rule 16.4.2.22. The Rule states that heavy vehicles are to be taken as 10 car equivalents. The proposal traffic generation is 2,890 car equivalents per day. Additional information is required to meet the Broad ITA checklist set out in Rule 21.2.16.3. The Broad ITA should consider the following matters:

a) Consideration of other developments, land use and transport network improvements including residential development in the Structure Plan area and planned improvements to pedestrian and cycle connections (Te Awamutu to Pirongia cycleway).

b) Predicted travel data and 10 year assessment period.

c) Appraisal of transportation effects including safety, efficiency, environmental, accessibility, integration and economic effects. Sensitivity testing. Pavement impacts (Rule 18.4.2.14) should be considered.

Reasons

d) Details of proposed mitigating measures and revised effects, including measures to encourage other modes. Travel planning for staff and visitors. Travel demand management measures and sensitivity testing mitigations.

e) Detailed assessment against the Waipā District Plan transportation rules and the Waipā Integrated Transport Strategy principles and objectives.

f) Assessment of effects, conclusion and suitability of the location of the proposal.

g) Recommendations in the form of proposed conditions.

Reasons for request: To better understand the proposal's transportation effects, in accordance with the ITA rules of the District Plan.

Clarification of the existing activity

6.2. Please confirm the existing site activity and vehicle movements at the vehicle crossing.

Reasons for request: It's not clear from the TAR what the site is currently being used for or how many vehicle movements are made at the existing at the vehicle crossing.

Clarification of the proposed activity

6.3. The application states that the northern portion of the site will be unaffected by the proposal, apart from a redirection of access to that part of the site, which is proposed to be served from the access lot identified as Greenhill Road on the Record of Title. Please provide the following information:

a) Clarify the nature of rights available to the subject site over the access lot, and

b) Provide an assessment of the safety effects associated with the increase in vehicles utilising the existing crossing taken from a posted 100km/hr speed zone of State Highway 3.

Reasons for request: To understand potential effects associated with redirecting access to the northern portion of the subject site.

6.4. Waipā District Council's GIS maps show that the neighbouring land incorporates an accessway that is intertwined with the accessway to the subject site. Refer **Figure 1** below. Please clarify if other sites or activities will be using the proposed vehicle crossing and confirm the total vehicle movements that will use the proposed vehicle crossing.

Reasons for request: It's not clear how the other sites that appear to have access to the existing vehicle crossing will be serviced.

Figure 1: Council's GIS map showing accessway for the adjoining site (highlighted in red) intertwined with subject site

6.5. Please clarify the proposed activity including operating days and hours:

a) Days and hours of plant operation

b) staff shifts (no. staff and hours)

c) Days and hours of domestic drop offs

d) Days and hours of commercial drop offs

e) Days and hours of education centre/exhibition centre open to public

f) Days and hours of café open to public

6.6. Update the trip generation of the proposed activity including operating hours and days (conflicting information provided in Section 1 and 4 of the TAR). The trip generation needs to consider trips associated with the café/education activities and domestic waste drop offs.

Reasons for requests 6.5 and 6.6: The proposed activity described in the application is a waste to energy plant with education centre and café. The TAR provides operating hours in Sections 1 and 4. However these are inconsistent. In addition, the TAR has not considered the traffic generation or effects of the education and café activities. The car park layout with three bus spaces implies buses are expected. ***Swept paths and truck turning at vehicle crossing***

6.7. Please provide the following information:

a) Provide right turn out swept paths for the design vehicle.

b) Confirm if 0.5m clearances are included in the swept path envelopes.

c) Confirm the extent of pavement widening and kerb.

Reasons for request: Swept paths for trucks turning right out of the site have not been provided and it is not clear if the swept paths include clearances. We are concerned the swept paths do not properly consider the existing kerb on the inside of the curve. The widening of the vehicle crossing will require the existing power pole on the northern corner of the vehicle crossing and overhead electricity services to be relocated.

6.8. Please provide the following information:

a) Provide further assessment of safety effects arising from trucks turning right into the site on following and opposing vehicles.

b) Confirm whether a right turn bay is required to address these effects.

Reasons for request: The proposal does not include carriageway widening to accommodate a flush median or right turn bay. The effects of the additional trucks sheltering waiting to turn right in to the site have not been considered. Given the lack of visibility around the curve, we are concerned that a waiting truck may not be seen by a southbound driver and could pose a safety risk.

Sight distance at the vehicle crossing

6.9. Confirm the sight distance to the north for the upgraded vehicle crossing. We have assessed the current sight distance at the existing vehicle crossing provided within the road reserve as approximately 50m.

6.10. Based on operating speed[1] of 60 km/hr the minimum sight distance required is 115m. The TAR states that the available sight distance is 83m to the north. Please provide the following information:

a) Provide an assessment of effects focusing on safety at the vehicle crossing as a result of the non-compliant sight distance.

Reasons for requests 6.9 – 6.10: To better understand the safety effects associated vehicle movements and drivers' sight lines.

Effects on the surrounding road network

6.11. Please provide the following information:

a) Provide the CAS crash data for the local road intersections and SH3 intersections that have not already been provided in the TAR and an assessment of the potential safety effects of the proposed activity on all road users at:

(i) SH3-Racecourse Road,

(ii) Mangapiko St-Factory Rd-Racecourse Rd- Tawhiao St,

(iii) Mangapiko St-Mutu St,

(iv) Mutu St-SH3,

(v) Tawhiao St- Alexandra St, (vi) Mutu St-Alexandra St.

All of the truck traffic is expected to use SH3. *Reasons: The proposal increases truck movements to around 3-4 times the existing number of trucks on Racecourse Road. There is the potential for adverse safety effects on all road users if the potential effects are not adequately considered at the state highway and local road intersections. The TAR has provided CAS data for Racecourse Road / Ohaupo Road (SH3), Racecourse Road / Taylor Avenue and Racecourse Road / Mangapiko Street. We are concerned that local road routes will be attractive to truck drivers traveling to/from the east and south. The TAR has not included approval from Waka Kotahi New Zealand Transport Agency as the Road Controlling Authority for SH3. The applicant is encouraged to consult with Waka Kotahi regarding the proposal, and to provide evidence of that consultation and any written approval to the Council.*

Internal parking and circulation layout

6.12. Please provide a parking assessment including expected car parking demand from all activities (including staff, visitors, buses, exhibition and education centre), duration, and frequency to confirm the expected parking demand can be accommodated on-site.

[1] Operating speed = 85th percentile speed, taken as posted speed plus 15%

Reasons for request: Visitor parking, bus parking and loading spaces appear to be provided on site. The arrangement for where staff will park on-site is not clear.

6.13. Please provide the following information:

a) Clarify the circulation arrangement for domestic waste drop-offs

b) Clarify the circulation arrangements for commercial and domestic drop-offs.

Reasons for request: It is not clear where domestic waste drop-offs will occur or how they will circulate on-site and over the weighbridge.

Walking and cycling

6.14. Please provide the following information regarding internal and external connections for walking and cycling:

a) Provide safe walking and cycling connections from Racecourse Road through the internal car park connecting to the buildings.

b) Provide details of how the proposal will connect to the existing and planned pedestrian/cycling routes to support staff and visitors traveling to the site by modes other than private car. This should include connections to the proposed Te Awamutu to Pirongia Cycleway.

c) Confirm the proposed on-site parking and end-of-journey facilities for cyclists (ie. charging points, showers, lockers, covered and secure parking, staff and visitor cycle parking) and locations within the site.

6.15. Given that the proposed crossing is around 25m wide, provide an assessment of safety effects for pedestrians walking to/from the future residential zone.

Reasons for requests 6.14 and 6.15: To better understand potential safety effects for pedestrians and cyclists associated with the proposal or undertaking journeys through or near to the site.

Pavement impacts

6.16. Provide an assessment of effects arising from the heavy vehicle loading on the surrounding local road network.

Reasons for request: The proposed trucks using the collector and local roads have the potential to damage the pavement. Refer to Rule 18.1.5 and Rule 18.4.2.14 of the District Plan.

7. Environmental Health

Council's environmental health officer, Glynn Jones, has requested the following information:

7.1. Confirmation that there will be no waste handling outside of the building.

7.2. Confirmation that the external and internal access doors for trucks tipping waste within the buildings are interlocked, so that one door is always shut.

7.3. A draft pest management plan to address potential nuisance effects associated with pests attracted by the waste.

Page

Reasons for requests 7.1 – 2.3: To better understand potential environmental health nuisance effects and associated mitigation.

Other Matters

As previously discussed with you, a review of the acoustic report is being undertaken, and any requests for further information that arise from that review will be supplied to you separately.

Next Steps

Within 15 working days from the date of this request you must either:

1. Provide the information requested, or
2. Advise Council in writing of the alternative date that you will provide the information by, or
3. Advise council in writing that you refuse to provide the information requested.

Please be advised that the statutory timeframes for processing your application have been put on hold until the further information requested has been received.

When all of the information requested has been provided I will review it to make sure it adequately addresses all of the points of this request. Please note that if council has to seek clarification on matters in the further information you provide, then this will be considered as information required under this letter. As such the application will remain on hold.

If you do not provide, or refuse to provide the information, council is required to notify your application under section 95(C) RMA. If this happens, you will be required to pay the notification fee in full before we proceed with the notification of your application.

Once all the information requested is received and assessed a determination will be made on whether the application will be processed on a notified or non-notified basis.

Please note that if you are dealing directly with other departments in Council in regard to the further information, the further information must still be sent to me.

If you are not sure how to respond, please call me and we can discuss your options.

Yours Sincerely

Aidan Kirkby-McLeod

Project Planner

Page

ATTACHMENT 9

Good morning Melissa

Please see the attached water demand spreadsheet.

We have chosen to keep it very simple. This would be a worst case we believe, during the dry months of the year (February). Even then, we would expect to be recycling a large quantity of the washdown water anyway.

Note that we can vary this water flow rate to suit your demand/supply profile as we have a good "buffering" system in place with the storage tanks upstream of the process plant.

Please get in touch if you have any questions.

Regards
Adam Fletcher

From: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>
Sent: Monday, 23 May 2022 12:43 PM
To: Adam <Adam@contractingsolutions.co.nz>
Cc: Chris Dillon <chris.dillon@terragroup.co.nz>
Subject: RE: External Sender: Project Paewira water modelling

[EXTERNAL] :
Hi Adam,

Just following up if we can get this water demand profile?

Thanks,
Melissa

Melissa Allfrey *Asset Planning Engineer* **WAIPA DISTRICT COUNCIL**
Melissa. Allfrey@waipadc.govt.nz | www.waipadc.govt.nz
DDI: 07 872 0082 | **Mob:** 027 358 2598

From: Melissa Allfrey
Sent: Wednesday, 11 May 2022 10:53 am
To: Adam <Adam@contractingsolutions.co.nz>
Cc: Chris Dillon <chris.dillon@terragroup.co.nz>
Subject: RE: External Sender: Project Paewira water modelling

Hi Adam,

Thanks for sending this through – just another question that has come up also, would we please be able to get an indicative 24 hour water demand profile for the site?

Thanks,
Melissa

From: Adam <Adam@contractingsolutions.co.nz>
Sent: Wednesday, 11 May 2022 10:48 am
To: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>

Cc: Chris Dillon <chris.dillon@terragroup.co.nz>
Subject: FW: External Sender: Project Paewira water modelling

Good morning Melissa

We have reviewed your Modelling Form. Our advisor has the comment below relating to the admin building waste output. I need to apologise for this error, it was a misinterpretation off the drawing on my part.

Regards
Adam Fletcher

From: Gary Clarke <gary.clarke@terragroup.co.nz>
Sent: Wednesday, 11 May 2022 10:38 AM
To: Chris Dillon <chris.dillon@terragroup.co.nz>; Adam <Adam@contractingsolutions.co.nz>
Subject: FW: External Sender: Project Paewira water modelling

[EXTERNAL] :
Hi Adam and Chris,

Thanks for email.

I have no probs with the proposed modelling. A correction is required based on the wastewater flows from the admin building. As per Section 8 of the infrastructure Report we outline daily discharge will be based on 52 staff and 40 visitors. With a daily discharge per person of 65l this has a max discharge of 5980l, or approx. 6m3. The form shows 1m3. To give reference we typically allow 1m3 to 1.5m3 per day per household so that's approx. 5 extra households, minor at best.

Cheers
Gary

From: Adam <Adam@contractingsolutions.co.nz>
Sent: Monday, 9 May 2022 7:36 am
To: Gary Clarke <gary.clarke@terragroup.co.nz>
Cc: Chris Dillon <chris.dillon@terragroup.co.nz>
Subject: FW: External Sender: Project Paewira water modelling

Hi Gary

On Thursday last week Chris and I had a very good discussion with the Waipa DC planning team. Once they understood our proposed operation they went away very comfortable.

However, they still need to do some modelling of their water and wastewater impacts. Attached is the form they send to their modelling team.

Can you confirm we are happy with the content please. Amend in red text if anything different please.

Regards
Adam

From: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>
Sent: Sunday, 8 May 2022 2:54 PM
To: Adam <Adam@contractingsolutions.co.nz>
Subject: RE: External Sender: Project Paewira water modelling

[EXTERNAL] :
Hi Adam,

Attached is the model request form. I will also send through the attached water and wastewater layout drawings as further information for the modelling team – would you please be able to review you are happy with this in terms of the flows and connections to be modelled?

The Water Services team need to also confirm the water supply network operation for the model scenario. Once confirmed, I will send through to WSP and they will liaise directly for any further information, fees and timeframes.

Thanks,

Melissa

Melissa Allfrey *Asset Planning Engineer* **WAIPA DISTRICT COUNCIL**
Melissa. Allfrey@waipadc.govt.nz | www.waipadc.govt.nz
DDI: 07 872 0082 | **Mob:** 027 358 2598

From: Adam <Adam@contractingsolutions.co.nz>
Sent: Monday, 2 May 2022 8:16 AM
To: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>
Cc: Robin Walker <Robin.Walker@waipadc.govt.nz>; Renee Coutts <Renee.Coutts@waipadc.govt.nz>
Subject: RE: External Sender: Project Paewira water modelling

Thanks Melissa

I w3ill send an invite now for Thursday at 1.30pm.

Regards
Adam

From: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>
Sent: Wednesday, 27 April 2022 2:28 PM
To: Adam <Adam@contractingsolutions.co.nz>
Cc: Robin Walker <Robin.Walker@waipadc.govt.nz>; Renee Coutts <Renee.Coutts@waipadc.govt.nz>
Subject: RE: External Sender: Project Paewira water modelling

[EXTERNAL] :
Hi Adam,

Thanks for getting in touch – yes, it would be good to discuss this so we can understand the modelling scope. Is this for both water & wastewater modelling?

If you could please invite Robin Walker (Waters Strategic Lead) and Renee Coutts (Water Services Compliance Team Leader) also that would be great. Next Wednesday (4th) after 2pm, or Thursday (5th) after 1pm should be suitable.

Kind regards,

Melissa

Melissa Allfrey *Asset Planning Engineer* **WAIPA DISTRICT COUNCIL**
Melissa. Allfrey@waipadc.govt.nz | www.waipadc.govt.nz
DDI: 07 872 0082 | **Mob:** 027 358 2598

From: Adam <Adam@contractingsolutions.co.nz>
Sent: Wednesday, 27 April 2022 1:08 PM
To: Melissa Allfrey <Melissa.Allfrey@waipadc.govt.nz>
Subject: External Sender: Project Paewira water modelling

Hello Melissa

I am the Project Director for the proposed Project Paewira Waste to Energy plant currently being assessed for consent by Waipa DC.

You were named in the s92 Request for Information letter as someone to be contacted regarding water supply modelling.

I would be happy to have a Teams meeting at your convenience to talk you through the proposal and our water requirements.

If you could let me know what would suit you, please and we can arrange it.

Regards
Adam Fletcher
Mob.: 027 222 3161

Water Drawdown Model 24hrs **Paewira**

Time	2am	4am	6am	8am	10am	12am	2pm	4pm
Usages								
170m3	14	14	14	14	14	14	14	14
6m3				1	1	1	1	1
Total	14	14	14	15	15	15	15	15

HUE/hr **7**
1000l/HU
Note: 5 day storage backup always available

6pm	8pm	10pm	12pm	**Time**	
14	14	14	14	**m3/2hrs**	**Operations**
1				**m3/2 hrs**	**Admin/Visitors**
15	14	14	14	**m3/2hrs**	

ATTACHMENT 10

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Mr C Dillon
Terra Consultants
PO Box 5028
Frankton
Hamilton 3242

6 July 2022

Copy via email: **chris.dillon@terragroup.co.nz**

Dear Chris

401 RACECOURSE ROAD, TE AWAMUTU - SECTION 92 RESPONSE

Further to your recent instructions, we have reviewed the request for further information and have responded to the traffic matters raised.

It should be noted, the access location and design has been amended from the original traffic report and therefore will be assessed as part of this review.

The item numbers have been based on the original request.

6 TRANSPORTATION

6.1 BROAD ITA

The application is supported by a Transportation Assessment Report (TAR), where a Broad Integrated Transportation Assessment (ITA) is required by Rule 16.4.2.22. The Rule states that heavy vehicles are to be taken as 10 car equivalents. The proposal traffic generation is 2,890 car equivalents per day. Additional information is required to meet the Broad ITA checklist set out in Rule 21.2.16.3. The Broad ITA should consider the following matters:

a) Consideration of other developments, land use and transport network improvements including residential development in the Structure Plan area and planned improvements to pedestrian and cycle connections (Te Awamutu to Pirongia cycleway).

b) Predicted travel data and 10 year assessment period.

c) Appraisal of transportation effects including safety, efficiency, environmental, accessibility, integration and economic effects. Sensitivity testing. Pavement impacts (Rule 18.4.2.14) should be considered.

d) Details of proposed mitigating measures and revised effects, including measures to encourage other modes. Travel planning for staff and visitors. Travel demand management measures and sensitivity testing mitigations.

e) Detailed assessment against the Waipā District Plan transportation rules and the Waipā Integrated Transport Strategy principles and objectives.

f) Assessment of effects, conclusion and suitability of the location of the proposal.

g) Recommendations in the form of proposed conditions.

Comment: The original transportation figures were considered to be high level original estimates. Following the s92 requests, we (in combination with the client) have revisited in detail the operating hours and transportation required in relation to the volume of waste needed for consistent operation of

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the generation plant. This also accounts for the shift patterns, and bus and visitor numbers. The total equivalent vehicle movements now fall below the threshold between a simple and a broad ITA requirement, as we anticipated in preparation of the original application but failed to make clear.

For example, a single unit truck (Class 2/4) can deliver 10 tonnes on average. Expecting 100 deliveries per day, as in our original application, reaches 1000 tonnes without any other deliveries. This is significantly higher than expected, especially on top of HPMV trucks which can carry 25 tonnes.

Table 1 shows the proposed traffic generation for the site including an assessment in accordance with Rule 16.4.2.22.

Table 1: Traffic generation

Vehicle type	Number	Car Equivalent	Movements per day
HPMV	25 per day	10 car equivalents	500 per day
Class 2/4 truck – waste delivery	20 per day	10 car equivalents	400 per day
Cars / trailers	50 per day	1 car equivalent	100 per day
Waste water	2 per day	10 car equivalents	40 per day
Ash removal	1 per day	10 car equivalents	20 per day
Supply deliveries	1 per day	10 car equivalents	20 per day
Diesel gas deliveries	1 per day	10 car equivalents	20 per hour
Staff	60 per day	1 car equivalent	120 per day
Buses	5 per day	10 car equivalents	100 per day
Visitors	20 per day	1 car equivalent	40 per day
TOTAL			**1,360 per day**

*Assumes worst case of the one vehicle per day in the peak hour

Section 16.4.2.22 of the District Plan outlines what level of traffic assessment is required depending on road type and traffic volume. Given Racecourse Road is a Collector Road and the site will generate over 250 vehicles per day (but less than 1500 vehicles per day) a "*Simple Integrated Transportation Assessment (ITA)*" is required. This has been provided previously.

6.2 EXISTING ACTIVITY VEHICLE MOVEMENTS

Please confirm the existing site activity and vehicle movements at the vehicle crossing.

Reasons for request: It's not clear from the TAR what the site is currently being used for or how many vehicle movements are made at the existing vehicle crossing.

Comment: The site is currently being used as a farm / residential type activity and as such the existing traffic generation is expected to be minimal (1-2 movements per hour or 10-20 movements per day).

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There is also a Fonterra goods store serviced by the access road with vehicle movements factored into these numbers. Of note their primary access is however via Factory Road adjacent to the Wastewater ponds.

6.3 PROPOSED ACTIVITY

The application states that the northern portion of the site will be unaffected by the proposal, apart from a redirection of access to that part of the site, which is proposed to be served from the access lot identified as Greenhill Road on the Record of Title. Please provide the following information:

a. Clarify the nature of rights available to the subject site over the access lot, and

Comment: The Certificate of Title borders the Greenhill Road access so providing normal District Plan access rights. Given the nature of the land change for the Racecourse and future potential land development in the area, the Waipa District Council will need to consider all land holders on the proposed strategic direction of transportation access in the area. However, this is not an evaluation that needs to be considered by this application.

b. Provide an assessment of the safety effects associated with the increase in vehicles utilising the existing crossing taken from a posted 100km/hr speed zone of State Highway 3. Reasons for request: To understand potential effects associated with redirecting access to the northern portion of the subject site.

Comment: There will be no increase in traffic utilising the existing crossing on SH3.

6.4 ACCESSWAY

*Waipā District Council's GIS maps show that the neighbouring land incorporates an accessway that is intertwined with the accessway to the subject site. Refer **Figure 1** below. Please clarify if other sites or activities will be using the proposed vehicle crossing and confirm the total vehicle movements that will use the proposed vehicle crossing.*

Reasons for request: It's not clear how the other sites that appear to have access to the existing vehicle crossing will be serviced.

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Comment: The site shown in the above diagram will retain its current access through the proposed upgraded vehicle crossing. This is shown on Figure 11 below. Note that this site also gains access via Factory Road. As described above, this is an existing right and the level of traffic is very low, averaging one vehicle per week.

6.5 PROPOSED ACTIVITY

Please clarify the proposed activity including operating days and hours:

a) Days and hours of plant operation;

Comment: The operation of the plant will essentially occur 24 hours per day, 7 days per week. This is fully enclosed within the plant building. However, in terms of "opening hours", this will generally be 7am-6pm with modifications for Sundays and public holidays.

b) staff shifts (no. staff and hours)

Comment: Table 2 shows the proposed activity operating hours and staff shift numbers.

Table 2: Proposed Activity

Shift	Hours	Engineers	Recycling	Yard	Other	Total
Morning	7am – 3pm	10	8	5		23
Afternoon	3pm - 11pm	10	8	2		20
Night	11pm – 7am	7	6	1		14
Other	8am – 5 pm				6	6
Total		27	22	8	6	63

c) Days and hours of domestic drop offs

Comment: Domestic drop-offs will occur 8am-6pm Monday to Saturday.

d) Days and hours of commercial drop offs

Comment: Commercial drop-offs will occur 7am-6pm Monday to Saturday..

e) Days and hours of education centre/exhibition centre open to public

Comment: This will occur 8am-5pm Monday to Saturday.

f) Days and hours of café open to public

Comment: This will occur 8am-5pm Monday to Saturday.

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6.6 TRIP GENERATION

Update the trip generation of the proposed activity including operating hours and days (conflicting information provided in Section 1 and 4 of the TAR). The trip generation needs to consider trips associated with the café/education activities and domestic waste drop offs.

Reasons for requests 6.5 and 6.6: The proposed activity described in the application is a waste to energy plant with education centre and café. The TAR provides operating hours in Sections 1 and 4. However these are inconsistent. In addition, the TAR has not considered the traffic generation or effects of the education and café activities. The car park layout with three bus spaces implies buses are expected.

Comment:

See item 6.1 previously.

6.7 SWEPT PATHS AND TRUCK TURNING AT VEHICLE CROSSING

Please provide the following information:

a) Provide right turn out swept paths for the design vehicle.

Comment: The access on Racecourse Road has been amended due to the properties either side of the access now being purchased by the applicant (No 381 and 417 Racecourse Road). This obviously has removed any significant obstruction in the access design including shifting the access to the north to significantly improve sight distance.

This has been provided in **Attachment A.**

b) Confirm if 0.5m clearances are included in the swept path envelopes.

Comment: The dashed cyan line is the 0.5m vehicle clearance in the vehicle tracking diagrams.

c) Confirm the extent of pavement widening and kerb.

Comment: Please refer to **Attachment A** including extent of widening and kerbs.

6.8 SAFETY EFFECTS

Please provide the following information:

a) Provide further assessment of safety effects arising from trucks turning right into the site on following and opposing vehicles.

Comment: As noted above the access has changed since lodgement. There will be no safety implications arising from trucks turning right into the site on the opposing vehicles as shown in Figure 1 below (and Appendix A) as the truck has adequate space to undertake the manoeuvre without encroaching onto the opposing lane.

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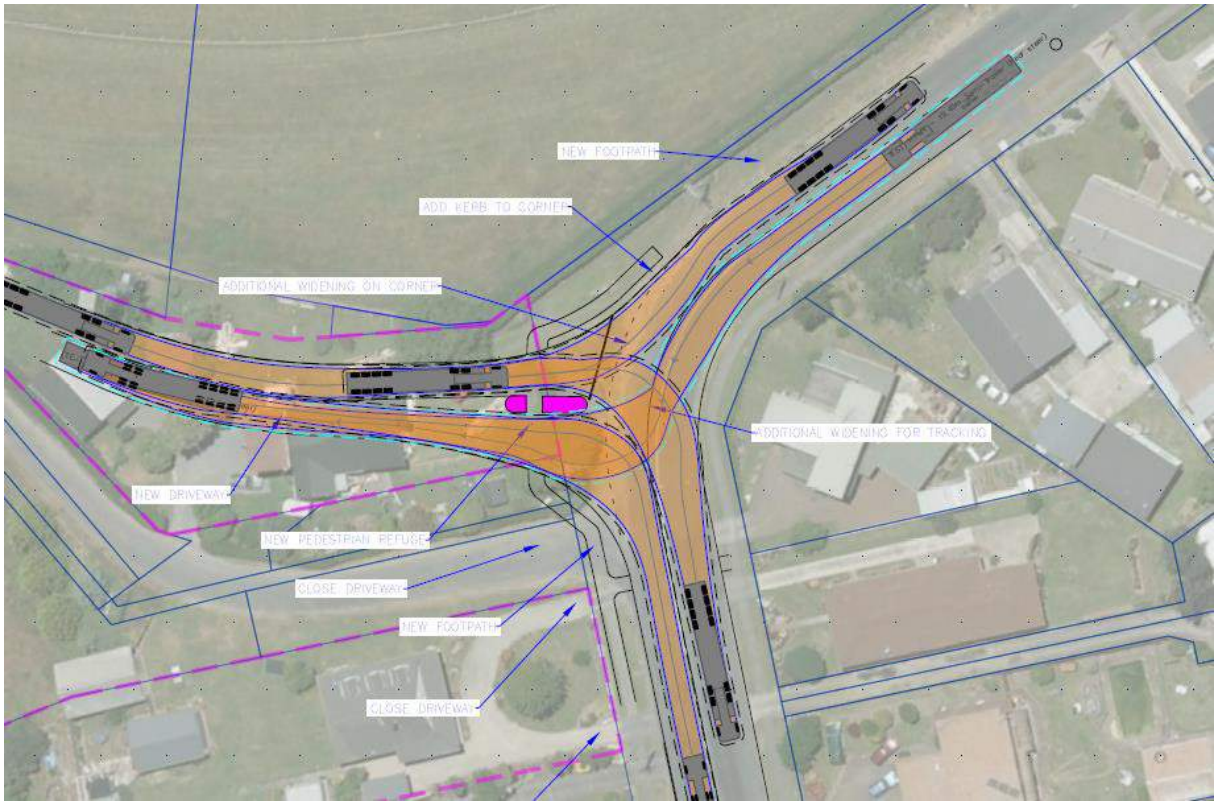
Figure 1: Tracking / revised access



b) Confirm whether a right turn bay is required to address these effects.

Comment: There is adequate space for a truck to turn into the site without any safety issues to the opposing vehicles, therefore a right turn bay is not considered to be necessary.

6.9 SIGHT DISTANCE

Confirm the sight distance to the north for the upgraded vehicle crossing. We have assessed the current sight distance at the existing vehicle crossing provided within the road reserve as approximately 50m.

Comment: Figure 2 and **Attachment A** shows the sight distance from the access to the north. The access has been shifted to the north so over 300m is now achieved to the east.

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Figure 2: Sight distance along Racecourse Road to the north

6.10 SIGHT DISTANCE REQUIREMENT

Based on operating speed of 60 km/hr the minimum sight distance required is 115m. The TAR states that the available sight distance is 83m to the north. Please provide the following information:

a) Provide an assessment of effects focusing on safety at the vehicle crossing as a result of the non-compliant sight distance.

Comment: The access has been redesigned. The available sight distance now exceeds 300m, therefore is considered acceptable and significantly exceeds this requirement.

6.11 CRASH DATA

Please provide the following information: a) Provide the CAS crash data for the local road intersections and SH3 intersections that have not already been provided in the TAR and an assessment of the potential safety effects of the proposed activity on all road users at:

(i) SH3-Racecourse Road,

Comment: An assessment of the surrounding area's road safety record has been undertaken using the NZTA's CAS database for the five year period 2017 – 2021 including all crashes reported in 2022. The study area includes the intersection of SH3 / Racecourse Road. The identified crashes are summarised as follows:

- Twelve crashes occurred at the intersection of Racecourse Road / SH3. Of these, seven crashes resulted in 2 severe and 7 minor injuries. The crashes resulted from alcohol test above limit, failure to give way at a priority traffic control, vehicle following too closely and attention diverted by phone. The remaining crashes were non-injury occurring from loss of control when turning, failure to notice car slowing and incorrect merging;
- Three crashes occurred on SH3 near the site, with no injuries. The crashes resulted from loss of control and incorrect merging.

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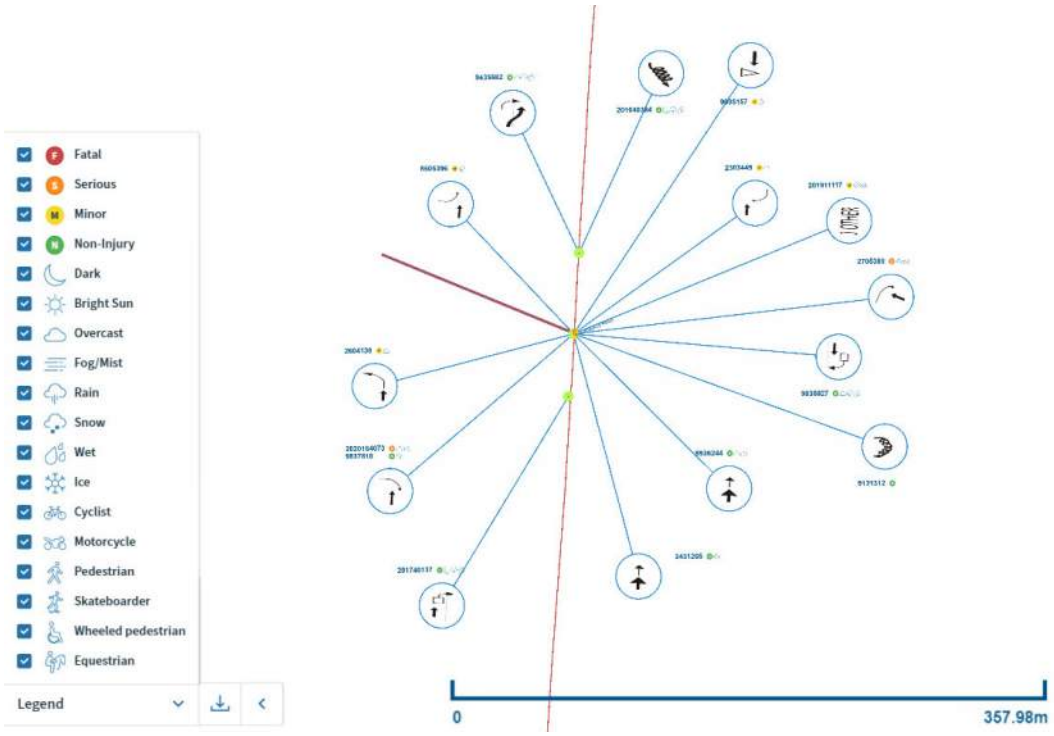
Figure 3 shows the collision diagram.

Figure 3: Collision Diagram SH3 / Racecourse Road



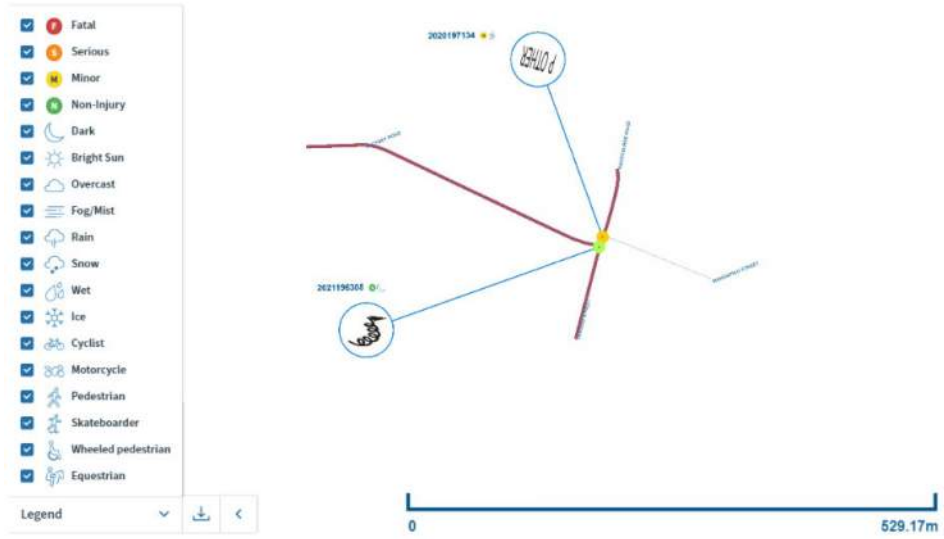
(ii) Mangapiko St-Factory Rd-Racecourse Rd- Tawhiao St,

Comment: The identified crashes are summarised as follows:

- Two crashes occurred at the intersection of Mangapiko Street / Factory Road / Tawhiao Street. Of these, one crash resulted in 1 minor injury occurring from pedestrian running heedless of traffic. The remaining crash was non-injury occurring from loss of control when turning.

Figure 4 shows the collision diagram.

Figure 4: Collision Diagram Mangapiko Street / Factory Road / Tawhiao Street



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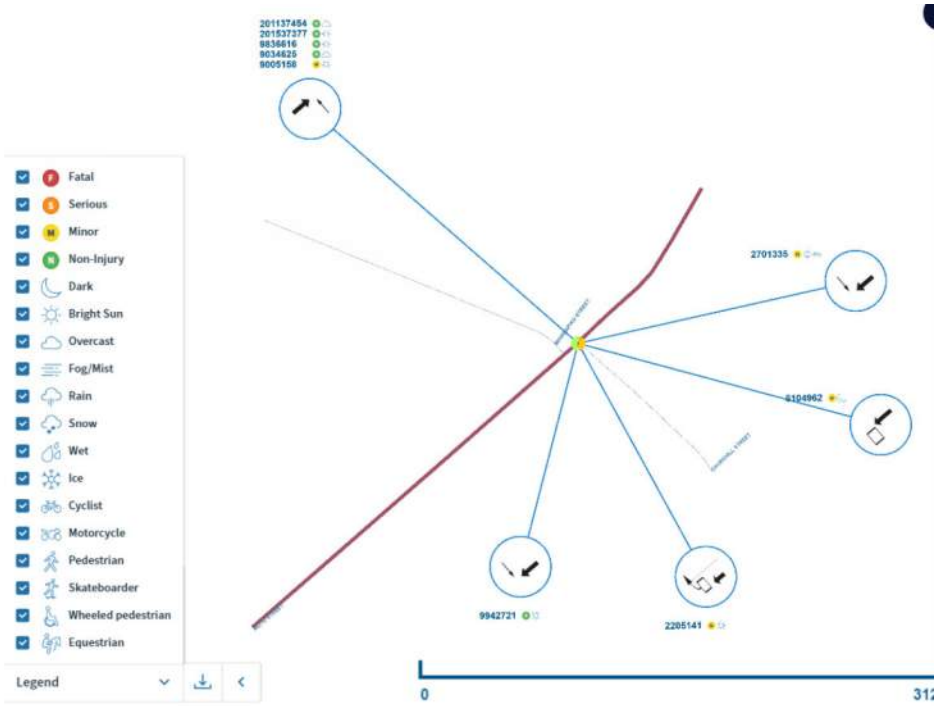
(iii) Mangapiko St-Mutu St,

Comment: The identified crashes are summarised as follows:

- Two crashes occurred at the intersection of Mangapiko Street / Mutu Street. Of these, one crash resulted in 1 minor injury occurring from failure to notice car slowing. The remaining crash was non-injury occurring from failure to check blind spot;
- Six crashes occurred at the intersection of Mutu Street / Gorst Avenue. Of these, two crashes resulted in 2 minor injuries occurring from failure to notice another party and attention diverted by other traffic. The remaining crashes were non-injury occurring from failure to give way at a priority traffic control, failure to give way at a priority traffic control and incorrect merging.

Figure 5 shows the collision diagram.

Figure 5: Collision Diagram Mangapiko Street / Mutu Street



(iv) Mutu St-SH3,

Comment: The identified crashes are summarised as follows:

- Six crashes occurred at the intersection of Mutu Street / SH3. Of these, one crash resulted in 1 minor injury occurring from alcohol test above limit (failure to notice car slowing). The remaining crashes were non-injury occurring from vehicle following too closely, failure to notice another party, vehicle too far left, failure to give way at a priority traffic control and loss of control when turning; and
- One crash occurred on SH3, resulting in 1 minor injury occurring from alcohol test above limit.

Figure 6 shows the collision diagram.

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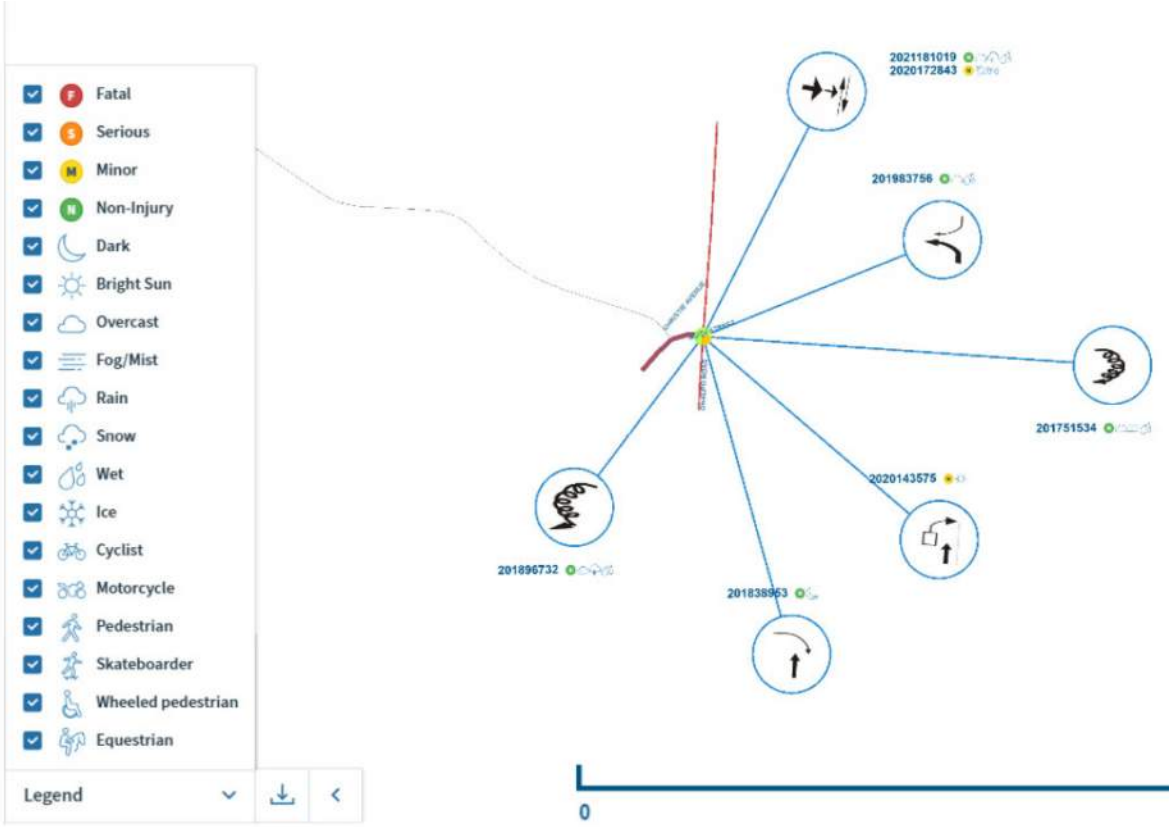
Figure 6: Collision Diagram – Mutu Street / SH3



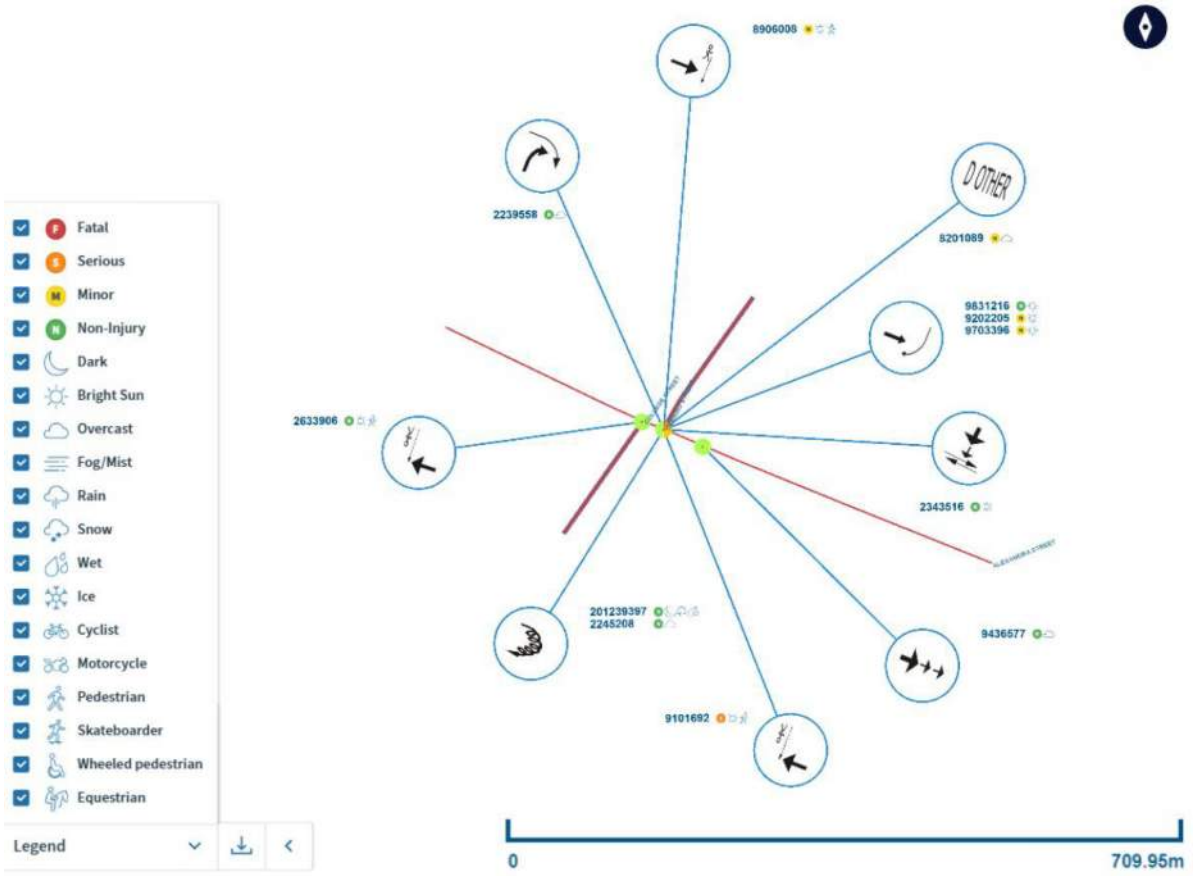
(v) Tawhiao St- Alexandra St,

Comment: The identified crashes are summarised as follows:

- Ten crashes occurred at the intersection of Tawhiao Street / Alexandra Street. Of these, five crashes resulted in 5 minor injuries and 1 severe injury occurring from pedestrian running heedless of traffic, new driver, mental illness and failure to give way. The remaining crashes were non-injury occurring from incorrect merging, loss of control when turning, stolen vehicle and failure to notice vehicle; and
- Two crashes occurred on Alexandra Street, with no injuries. The crashes resulted from pedestrian running heedless of traffic and failure to notice queue.

Figure 7 shows the collision diagram.

Figure 7: Collision Diagram – Tawhiao Street / Alexandra Street



(vi) Mutu St-Alexandra St.

Comment: The identified crashes are summarised as follows:

- Seven crashes occurred at the intersection of Alexandra Street / Mutu Street / Rewi Street. Of these, two crashes resulted in 2 minor injuries occurring from vehicle travelling too fast and failure to give way at a priority traffic control. The remaining crashes were non-injury occurring from alcohol test above limit, failure to give way at a priority traffic control and incorrect merging; and
- Four crashes occurred on Alexandra Street, with no injuries. The crashes resulted from failure to notice queue, attention diverted by cell phone, failure to notice car slowing and loss of control.

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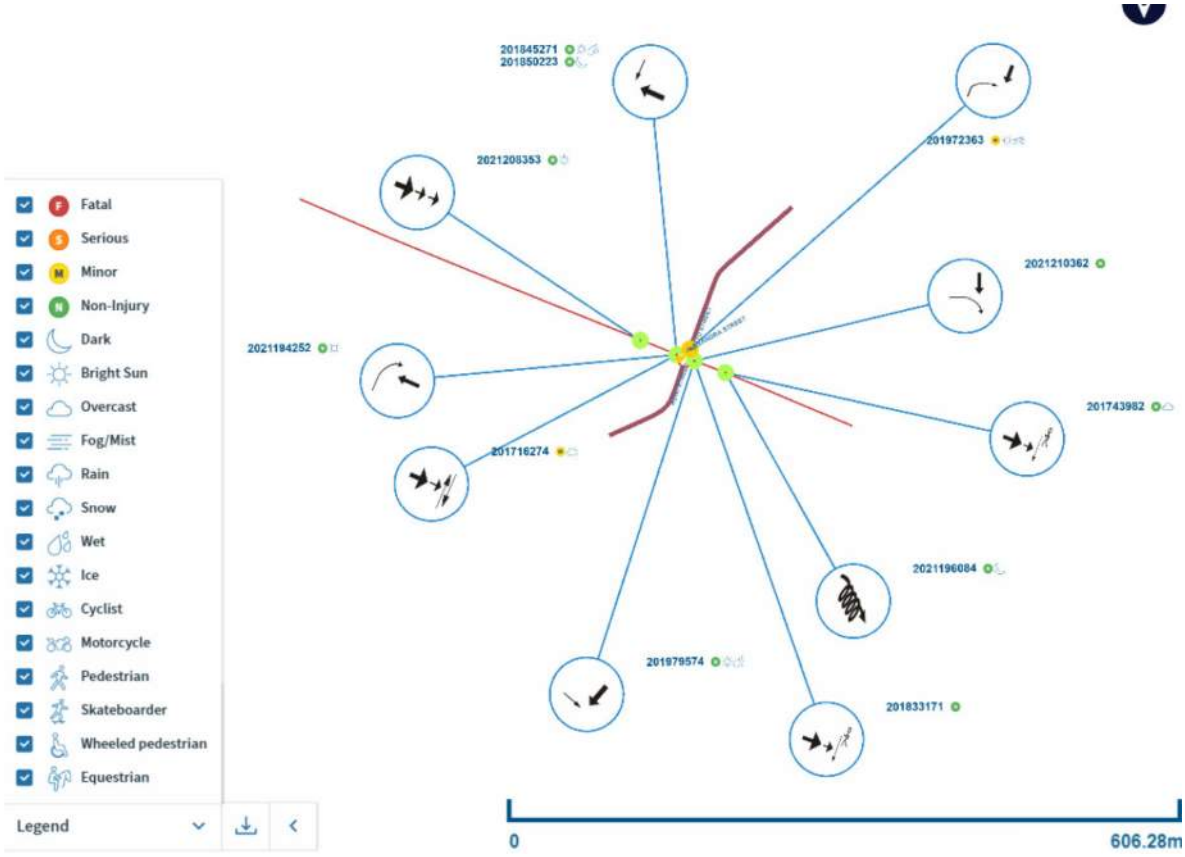
Figure 8 shows the collision diagram.

Figure 8: Collision Diagram – Mutu Street / Alexandra Street



6.12 INTERNAL PARKING

Please provide a parking assessment including expected car parking demand from all activities (including staff, visitors, buses, exhibition and education centre), duration, and frequency to confirm the expected parking demand can be accommodated on-site.

Reasons for request: Visitor parking, bus parking and loading spaces appear to be provided on site. The arrangement for where staff will park on-site is not clear.

Comment: Figure 9 below shows the main parking area. This shows a total of 42 parking spaces and sufficient room for buses. In terms of parking demand:

- Table 2 indicates the peak parking demand will be 3pm for staff, where 23 staff will end their shift and 20 will begin. Assuming 80% are in cars (the others ride share, cycle or get dropped off) then the parking demand for staff will peak at 34 spaces. However this will be a very short duration (5-10 minutes). In reality the actual demand will be around 20 spaces for staff.
- Buses are expected to be up to 5 per day (all could be at the same time)
- Visitors are expected to be 20 per day or up to 5 in any one time
- As such peak parking demand is expected to be 39 cars and 5 buses. This can be accommodated in the are shown in Figure 9.

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Figure 9: Main parking area

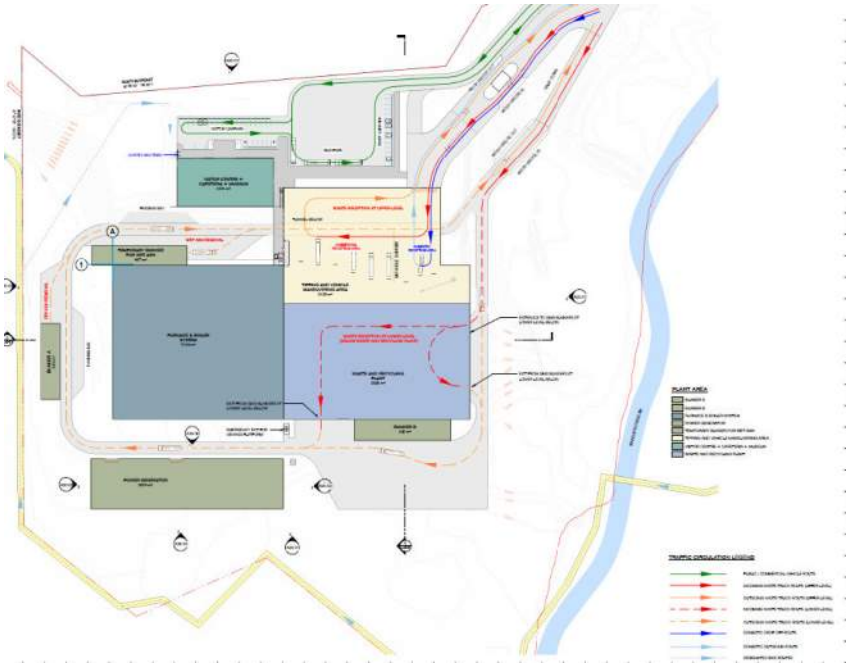
6.13 DOMESTIC WASTE DROP-OFF

Please provide the following information:

a) Clarify the circulation arrangement for domestic waste drop-offs

Comment: Figure 10 and Appendix B shows this circulation

Figure 10: Circulation



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b) Clarify the circulation arrangements for commercial and domestic drop-offs.

Comment: Figure 10 / Appendix B shows this circulation

6.14 WALKING AND CYCLING

Please provide the following information regarding internal and external connections for walking and cycling:

a) Provide safe walking and cycling connections from Racecourse Road through the internal car park connecting to the buildings.
b) Provide details of how the proposal will connect to the existing and planned pedestrian/cycling routes to support staff and visitors traveling to the site by modes other than private car. This should include connections to the proposed Te Awamutu to Pirongia Cycleway.
c) Confirm the proposed on-site parking and end-of-journey facilities for cyclists (ie. charging points, showers, lockers, covered and secure parking, staff and visitor cycle parking) and locations within the site

Comment: Figure 11 below shows a landscape concept incorporating the walking and cycling connections.

As noted previously, a significant proportion of traffic generated by the site will be heavy vehicles which cannot travel by other modes (eg cycling or walking). The client is engaged with Waipa DC to incorporate the proposed Te Awamutu-Lake Ngaroto cycleway into the development. As per Figure 11 the site will enhance the pedestrian and cycling connections in the area as well as providing safe pedestrian and cycle access to the site from Racecourse Rd, avoiding the heavy traffic accessway.

This cycle route connects with the exhibition/visitor centre. At the point at which it terminates, e-bike chargers will be installed, and secure covered sheds for staff (if necessary). The building design incorporates staff facilities including showers and lockers.

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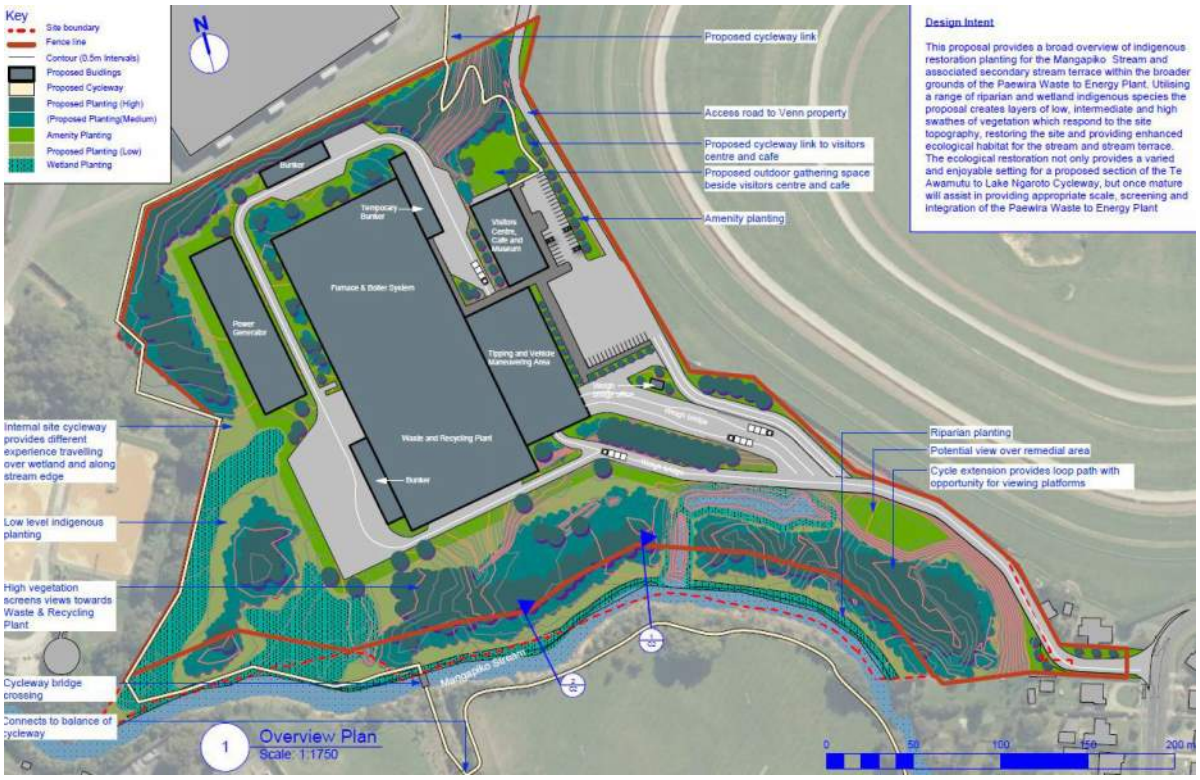
Figure 11: Walking and Cycling connections



6.15 ASSESSMENT OF SAFETY EFFECTS

Given that the proposed crossing is around 25m wide, provide an assessment of safety effects for pedestrians walking to/from the future residential zone.

Reasons for requests 6.14 and 6.15: To better understand potential safety effects for pedestrians and cyclists associated with the proposal or undertaking journeys through or near to the site.

Comment: The width of the crossing is needed to accommodate truck tracking. The layout has been amended to include a pedestrian refuge and footpaths to improve pedestrian provision at the access.

6.16 PAVEMENT IMPACTS

Provide an assessment of effects arising from the heavy vehicle loading on the surrounding local road network.

Comment: This is considered to be a pavement issue rather than traffic engineering.

We trust this answers Councils transportation questions on this application. If you have any further questions, please do not hesitate in contacting us.

Yours sincerely

Commute Transportation Consultants

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
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Nabi Mussa

Senior Transport Consultant

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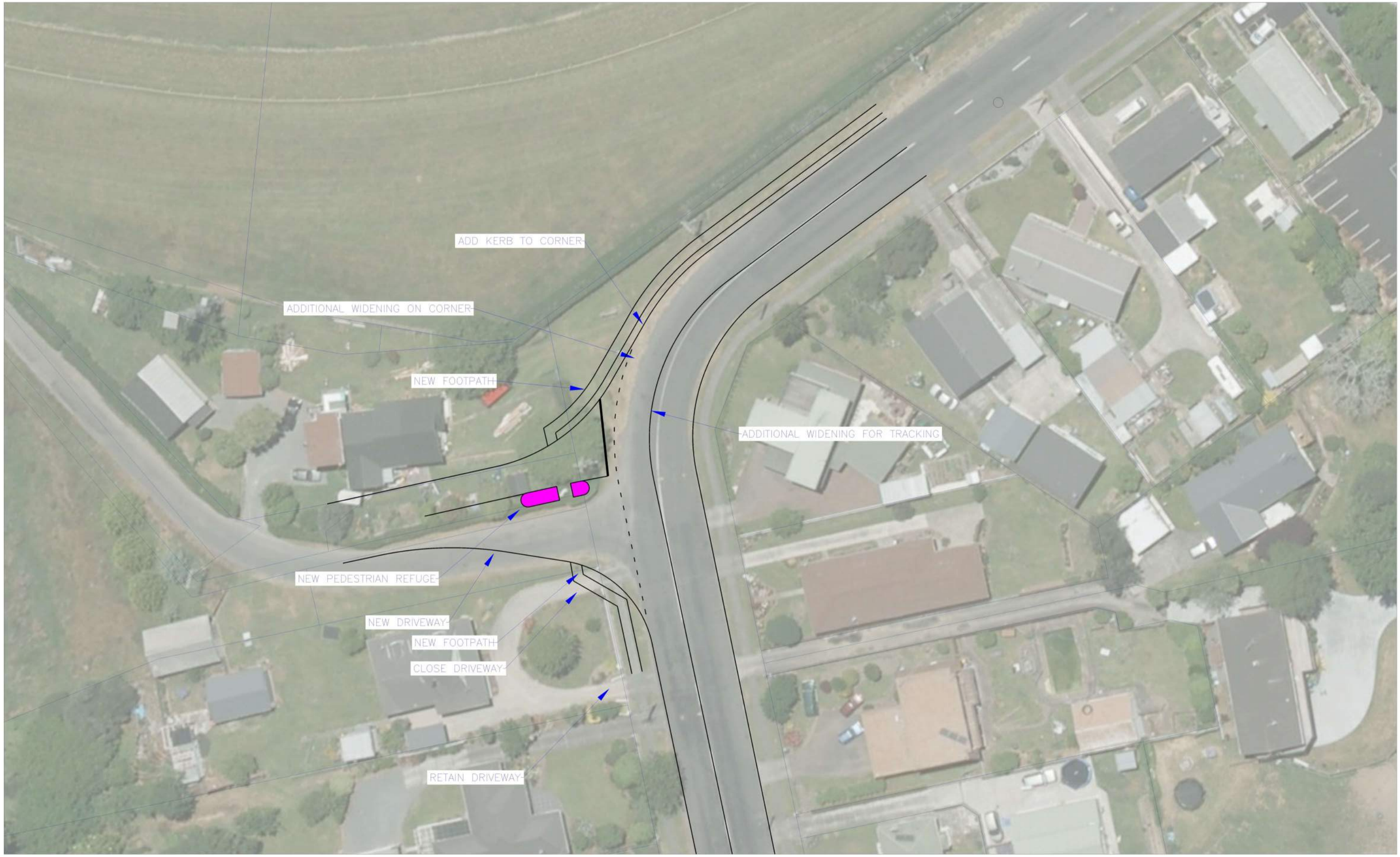
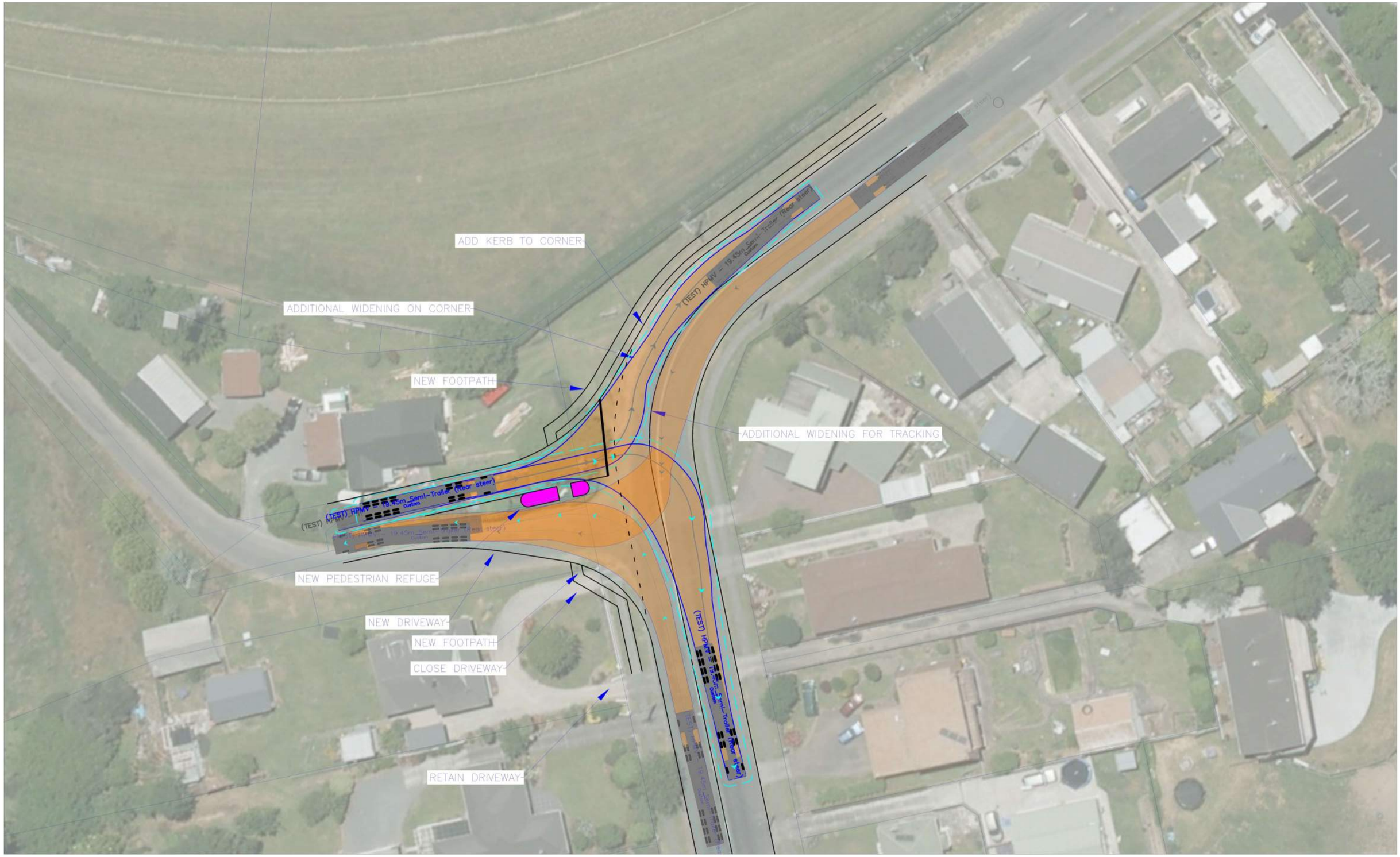
APPENDIX A: VEHICLE TRACKING DIAGRAMS



Revision notes:		
Rev:	Date:	Notes:

Drawn by: LH J002086	Project: PAEWIRA	Date: 17th MAY 2022	commute TRANSPORTATION CONSULTANTS	Figure: A1
Client: GLOBAL METALSOLUTIONS	Drawing Title: LAYOUT	Scale @ A3: 1:500		
		Revision: A		



Revision notes:

Rev:	Date:	Notes:

Drawn by:
LH
J002086

Client:
GLOBAL METALSOLUTIONS

Project:
PAEWIRA

Drawing Title:
VEHICLE TRACKING
23m HPMV B-train

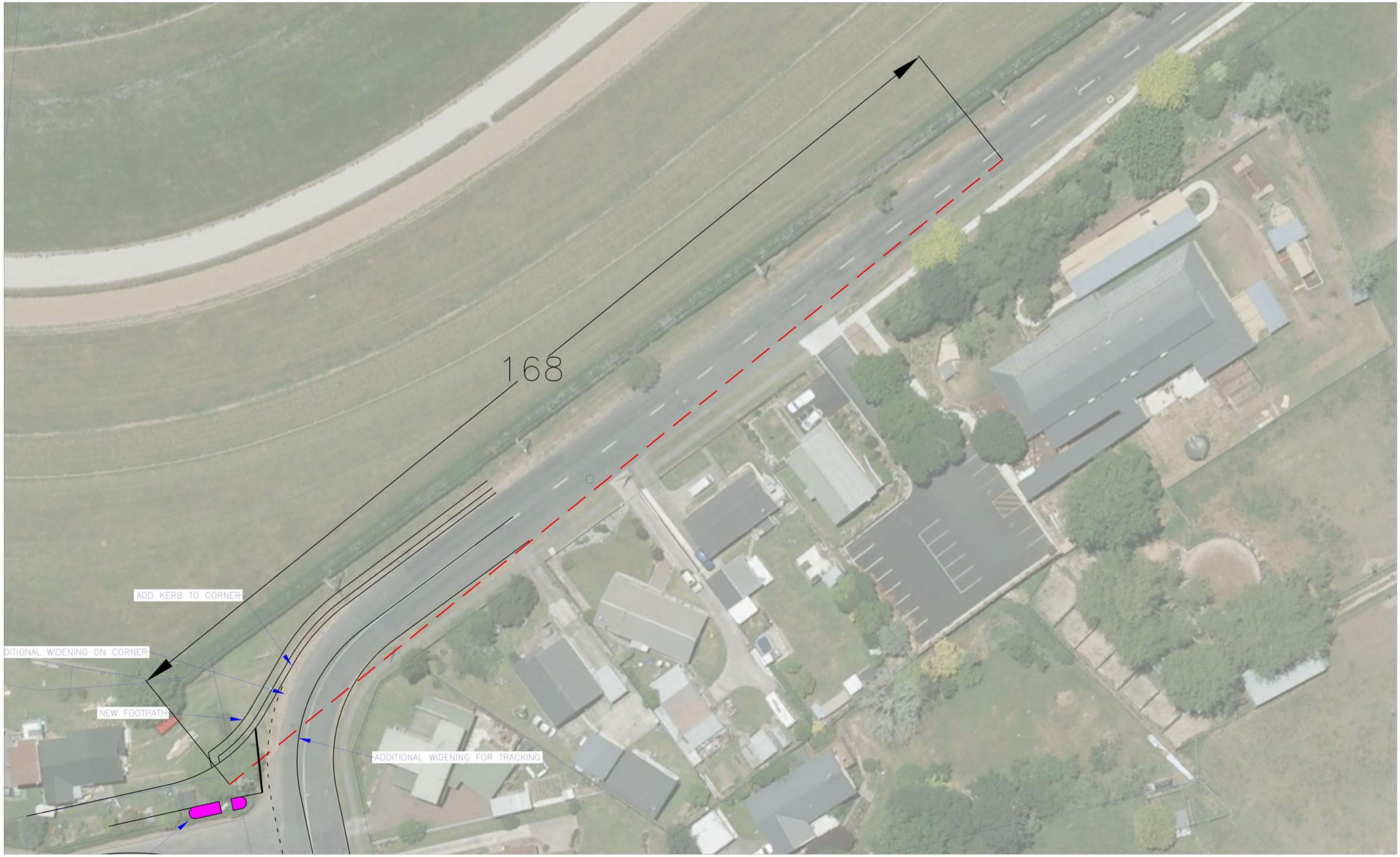
Date:
17th May 2022

Scale @ A3:
1:500

Revision:
A

commute
TRANSPORTATION CONSULTANTS

Figure:
A2



Revision notes:		
Rev:	Date:	Notes:

Drawn by: LH, J002086

Client: GLOBAL METALSOLUTIONS

Project: PAEWIRA, Revised Access

Drawing Title: VEHICLE TRACKING, 19m HPMV Semi-trailer

Date: 17th May 2022

Scale @ A3: 1:500

Revision: A

commute TRANSPORTATION CONSULTANTS

Figure: A3

4 Leek Street, Newmarket
PO Box 128259, Remuera 1541, Auckland
Ph. 09 869 2825
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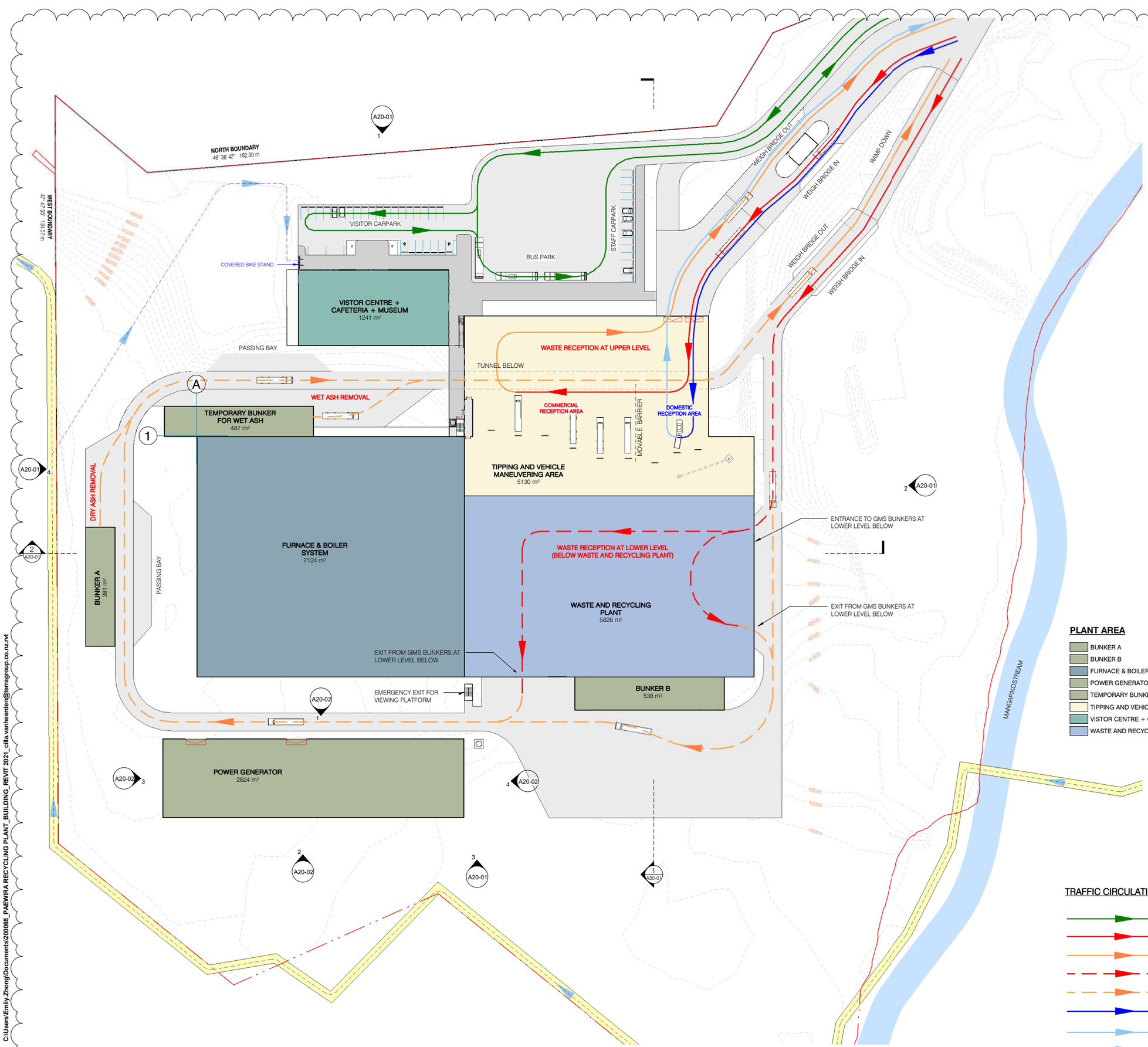
APPENDIX B: CIRCULATION DIAGRAM



C:\Users\Emily.Zhong\Documents\200065_PAEWIRA RECYCLING PLANT_BUILDING_REVIT 2021_cilla.vanheerden@terragroup.co.nz.rvt

NOTES

COPYRIGHT OF THIS DRAWING IS VESTED IN TERRA CONSULTANTS.

ALL DIMENSIONS ARE TO BE CHECKED ON SITE BEFORE FABRICATION OF ANY COMPONENTS.

DO NOT SCALE. FIGURED DIMENSIONS MUST BE TAKEN IN PREFERENCE TO SCALE.

ALL ARCHITECTURAL PLANS TO BE READ IN CONJUNCTION WITH ENGINEERS DETAILS. PLEASE NOTIFY THE ARCHITECT OF ANY ANOMALIES BETWEEN ARCHITECT'S AND CONSULTANTS'

FOR RESOURCE CONSENT

DATE STAMP 4/07/2022 4:00:37 pm

REV	DESCRIPTION	DATE
A	S92	08.06.2022

terra consultants
79 GRAFTON ROAD,
GRAFTON, AUCKLAND 1010
09 357 3557
WWW.TERRAGROUP.CO.NZ

PROJECT STATUS:

PROJECT TITLE:
PAEWIRA WASTE TO ENERGY PLANT

PROJECT ADDRESS:
PAEWIRA – 401 RACECOURCE ROAD, TE AWAMUTU

SHEET TITLE:
CIRCULATION PLAN

PROJECT ISSUE DATE:
DECEMBER 2021

SCALES
1 : 600 at A1

DESIGNER	DRAWN BY	CHECKER
Designer	Author	Checker

PROJECT NO.	SHEET NO.	REV NO.
200065	A01-05	A

ATTACHMENT 11

17 June 2022

710.30172-L01-v1.0 - Project Paewira Section 92 REsponse (Acostics).docx

Global Contracting Solutions Limited
C/- Terra Consultants
Level 13, Tower Building,
48 Ward Street,
Hamilton, 3204

Attention: Chris Dillon

Dear Chris,

LU/0323/21 Project Paewira
Response to Section 92 Request - Acoustic Effects

In November 2021, SLR prepared an assessment of the acoustic effects (the SLR Report – 710.30172-R01-v1.1 dated 29 November 2021) associated with the proposal to develop and operate a waste to energy facility at 401 Racecourse Road in Te Awamutu. Following the issue of the SLR Report some changes have been made to the proposal. The section below identifies these changes and the updated noise levels as a result.

UPDATE TO THE PROPOSAL

Subsequent to the SLR Report being completed, the applicant (Global Contracting Solutions Limited) has purchased 381 and 417 Racecourse Road. This has resulted in a redesign of the site entrance. Figure 1 shows the amended entrance to the site with the nearest additional noise sensitive receivers.

The numbers of vehicles visiting the site have also been revised as shown in the response to section 6 of the request for further information by the Waipa District Council prepared by Commute Transportation Consultants. Table 1 summarises the updated traffic numbers. In general, vehicle movements are slightly reduced. The most notable change is related to the number of delivery trucks (referred to as Class 2/4 Trucks in the SLR Report) which have reduced from 100 trucks per day to 20 trucks per day.

As a result of the above, the previously recommended mitigation of acoustically effective fencing along the property boundaries with 381 and 417 Racecourse Road is no longer relevant. SLR recommend that the recommended 1.8m acoustic screen along the Racing Club (see Section 6.4 and Figure 6 of the SLR Report) be extended as shown in Figure 2.

Table 2 presents the predicted noise rating levels at the surrounding properties based on the updated site entrance design and traffic data. These results supersede those presented in the SLR Report.

Table 1 Summary of updated vehicle traffic movements

Vehicle Type	Total Daily Movements(1)	Daytime Period	Night-time Period
		Average vehicle movements per hour(2)	Peak vehicle movements per 15-minutes(2)
Light-vehicles			
Staff	60	15	11
Visitors	20	1	None
Car and Trailer Deliveries	50	3	None
Heavy Vehicles			
HPMV's	25	4	None
Class 2/4 Trucks	20	1	None
Service Trucks	5	1	None
Busses	5	1	None

Note to Table 1:

(1) Information provided by the applicant

(2) SLR interoperation of the information provided

Figure 1 Updated Site Entrance Layout

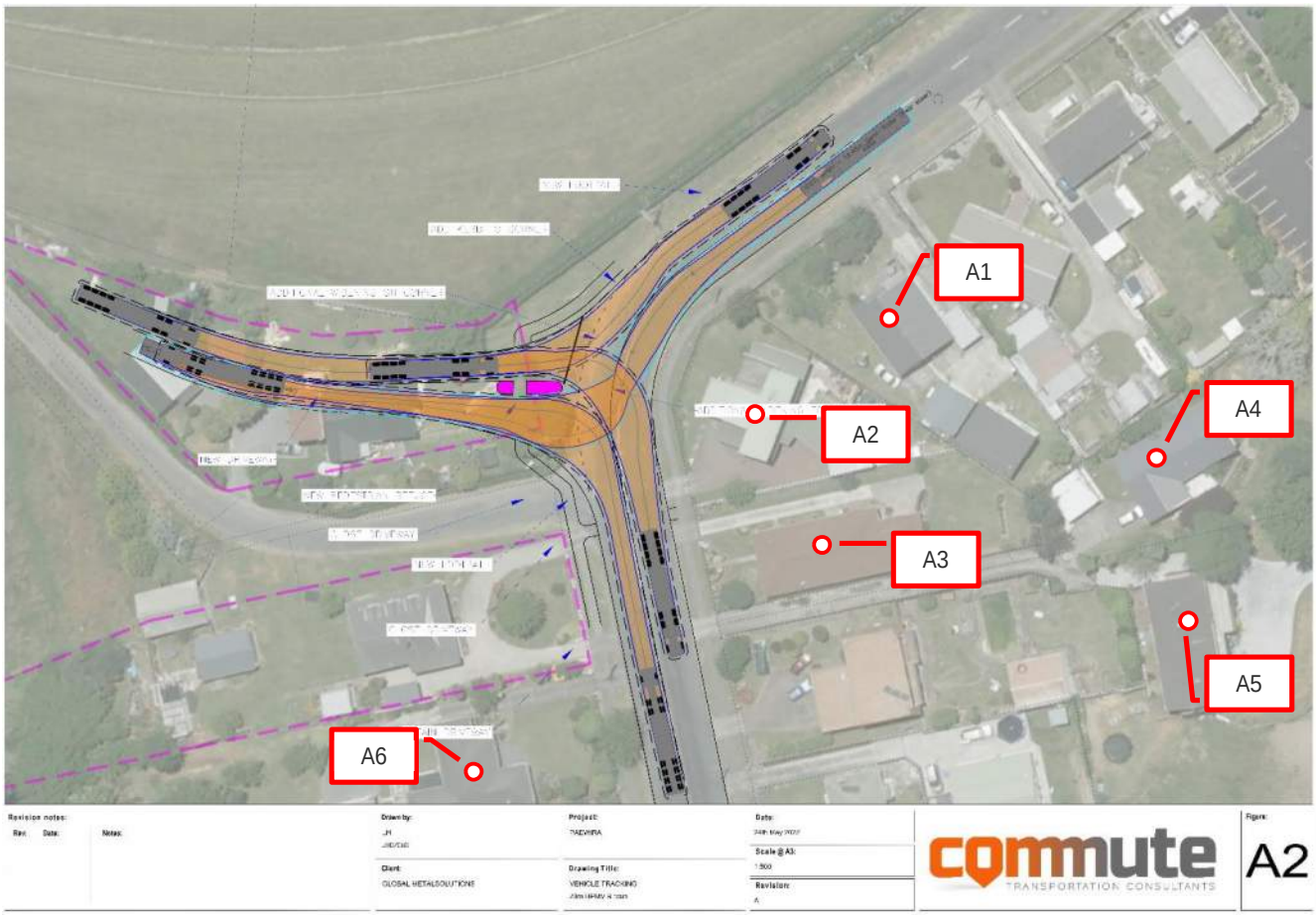


Figure 2 Aerial Image showing the recommended acoustic barrier along the Racing Club

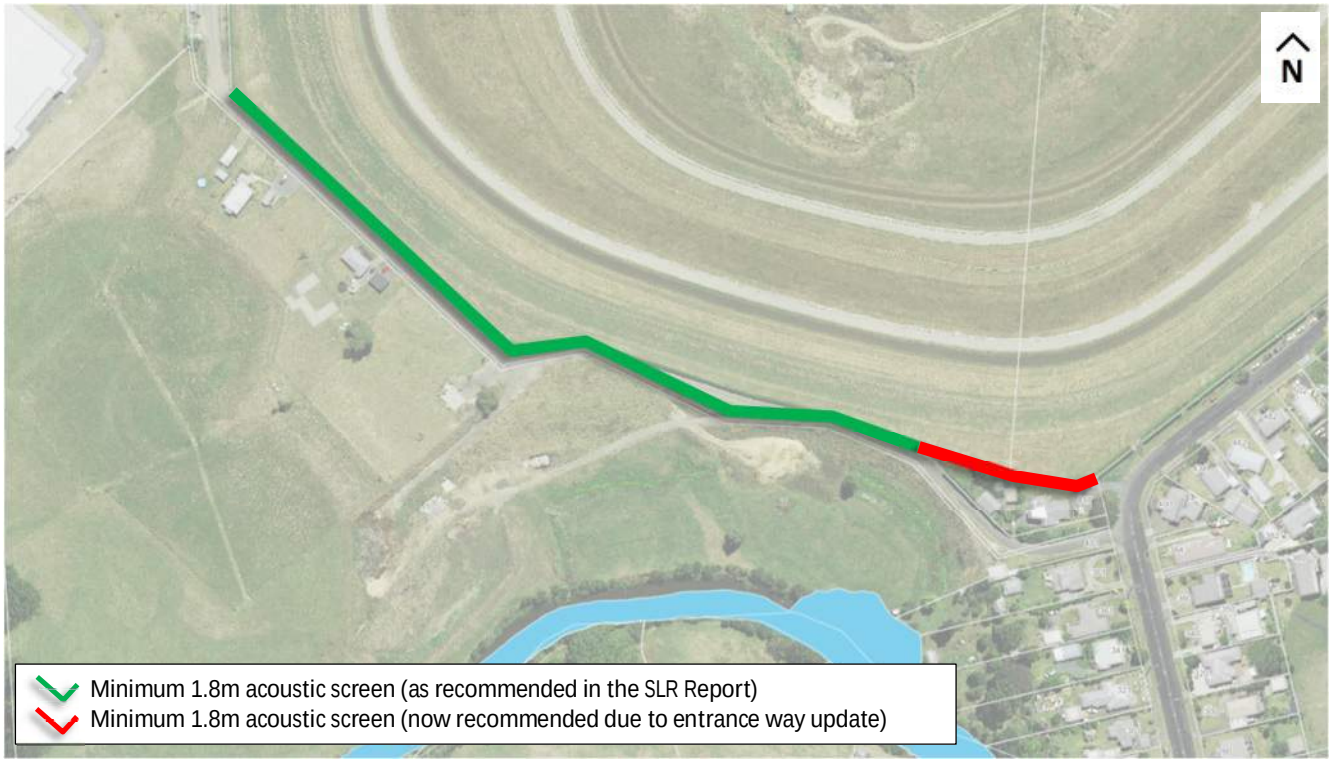


Table 2 Predicted Operational Rating Noise Level

Receiver Number and Address		Floor Level	Predicted Rating Level				Comment
			Daytime Period (dB L_{Aeq})		Night-time Period (dB L_{Aeq})		
			Predicted	Criteria	Predicted	Criteria	
A1	434 Racecourse Rd	GF	45	50	34	40	Compliance
A2	400 Racecourse Rd	GF	49	50	36	40	Compliance
A3	384 Racecourse Rd	GF	46	50	34	40	Compliance
A4	382 Racecourse Rd	GF	45	50	34	40	Compliance
A5	380 Racecourse Rd	GF	45	50	34	40	Compliance
A6	361 Racecourse Rd	GF	45	50	34	40	Compliance
R1	1025 Racecourse Rd (50m set back)	GF	45	50	34	40	Compliance
		1F	46	50	35	40	
R3	190 Factory Rd (School's Sport Grounds)	GF	43	50	35	40	Compliance
R4	1498 Alexandra St (Te Awamutu Dairy Factory)	GF	41	60	40	45	Compliance
R5a	Racecourse Rd (Wastewater plant)	GF	45	60	45	45	Compliance
R5b	Racecourse Rd (Storage building)	GF	42	60	41	45	Compliance

Notes: Levels for R2a and R2b have been omitted because of the acquisition of these properties (381 and 417 Racecourse Road) by the applicant.

COUNCIL REQUEST FOR FURTHER INFORMATION

Following a review of the SLR Report (by Hegley Acoustics) Waipa District Council have requested further information via a letter dated 11 April 2022 (the Council request).

This letter serves as an addendum to the SLR report and assessment to provide the information requested in the Council request.

Council Request – 8.1

> Please provide further comment on noise effects associated with the formation of the accessway, including the noise levels to the receivers on the opposite side of Racecourse Road.

SLR Response

Details of the specific construction equipment and methodology, including for the construction of the accessway, were not available at the time of writing the SLR report. This is still presently the case; however, an indicative assessment is presented below, based on a typical construction methodology for the accessway. SLR notes that following the purchase of the 381 and 417 Racecourse Road, as noted above, the closest receivers are approximately 25 m to the east of the accessway construction works and are single-storey dwellings

The loudest typical construction activities associated with the formation of an accessway are associated with the compaction works. These works could be completed with either a non-vibratory roller or vibratory roller of varying operating weights. Table 3 identifies typical sound pressure levels at 10 m from such sources, along with approximate setback distances to compliance at occupied residential buildings, based on the applicable construction noise limit of 70 dB L_{Aeq}.

Table 3 Construction equipment and typical noise emission levels

Plant Item	Plant noise level at 10m	Approximate setback distance to compliance without mitigation (1)
Vibratory Roller	75 dB L_{Aeq}	20 m
Non-vibratory roller	70 dB L_{Aeq}	10 m

Notes to Table:

(1) NZS6803:1999 compliance level is 70 dB LAeq, representative of the day-time limit (7:30am to 6:00pm).

(2) Based on acoustically effective screening between the noise source and the ground floor receiver. Higher floors will have limited shielding and setback distances are likely to vary from that stated above

Based on the shortest distance from the residential building at 400 Racecourse Road to the accessway compaction works (being approximately 25 m), compliance can be achieved using either of the two compaction methods (vibratory or non-vibratory) providing the equipment used is limited to either vibratory compactors with an operating weight less than or equal to 10 ton or non-vibratory compactors with an operating weight less than or equal to 20 ton.

Council Request – 8.2 (a)

> Given that driven piles are significantly noisier than bored piles and that it is often the case that bored piles are a suitable alternative, are driven piles consistent with the best practicable option?

SLR Response

The SLR assessment was based on impact/driven piling to represent a conservative 'worst-case' scenario. This assessment found that noise levels from impact piling are expected to comply with the relevant noise and vibration limits. As bored piling is typically quieter it would be expected that bored piling would also comply; all other factors being equal, if bored piling was a suitable alternative then this would likely be the best practicable option. Section 2 of the Resource Management Act (RMA) define the Best Practicable Option (BPO) in relation to a discharge of a contaminant or an emission of noise, means the best method for preventing or minimising the adverse effects on the environment having regard, among other things, to:

a. the nature of the discharge or emission and the sensitivity of the receiving environment to adverse effects; and

b. the financial implications, and the effects on the environment, of that option when compared with other options; and

c. the current state of technical knowledge and the likelihood that the option can be successfully applied

However, at this stage SLR is not aware of which method is going to be used as this decision would need to consider the ground conditions, the availability, and the cost of both methods among other factors. Notwithstanding, both methods can meet the noise and vibration expectations of the plan.

Council Request – 8.2 (b)

> Given that barriers are proposed to line the entrance way for the control of operational noise, is their installation prior to the earthworks for the accessway being undertaken consistent with the best practicable option?

SLR Response

As noted above in response to request 8.1, further to the properties closest to the accessway being acquired by the applicant.

Council Request – 8.3

> Can SLR confirm that noise from the substation does not contain a special audible characteristic?

SLR Response

To provide a robust assessment, a special audible characteristics adjustment was included in the SLR Report assessment for the Turbine Hall building noise source, which contains the substation.

Council Request – 8.4

> SLR identify several sources as having a special audible characteristic. Can SLR please confirm how they have implemented the penalty that NZS 6802 attributes to such sounds? In particular, have they added the penalty to the individual source with the special audible characteristic or have they added the penalty to the overall noise from the site at each receiver?

SLR Response

A special audible characteristic adjustment has been added to the individual sources (as identified in the SLR Report) which have been assumed to exhibit special audible characteristics, in accordance with the methodology set out in Clause 6.3 of NZS 6802: 2008.

Council Request – 8.5 (a)

> In section 6.3.5, SLR report vehicle movements per hour, both in terms of peak traffic and again as an average before stating it is the average movements they have used for analysis. For example, for the Heavy Production Motor Vehicles, they report 10 movements (arrivals and departures) during the peak hour but have modelled an average of 4 movements.
>
> (a) Please explain why the averaging method differs from that described by NZS 6802? This question relates to the fact that the approach adopted averages traffic noise rather than plant noise.

SLR Response

The duration adjustments applied to the various sources have been applied in accordance with the methodology of NZS 6802: 2008, specifically Clause 6.4. These apply to noise sources which vary through the assessment period (in this case vehicle movements during the daytime period of 7:00 am to 10:00 pm). Other noise sources associated with the proposal which operate continuously, such as the boiler furnace hall, do not have a duration adjustment.

Council Request – 8.5 (b)

> Please confirm that the average noise level reported in Table 10 will not be more than 5 dB below the noise level from the site during the hour of peak traffic flow.

SLR Response

The modelled average vehicle movements are no lower than 33% of the peak vehicle movements, this ensures that the difference between peak and average vehicle noise would be no greater than 5 dB – as required by NZS 6802: 2008.

Council Request – 8.6

SLR has considered the potential future development of the racecourse. The assessment point of these future dwellings is reported as being 50m from the site boundary. Can SLR confirm whether this is an assumed distance to allow for analysis or is it based on a provision of the WDP? If the 50m was reduced, what effect would it have on the assessment? Does the WDP permit two storey houses and, if so, was the Racing Club receiver modelled as a two-storey dwelling? Would a two-storey receiver be protected by the 1.8m barrier proposed for this boundary?

SLR Response

To undertake an analysis, it was necessary to identify a location or distance from the application site for dwellings on the Racing Club site. The 50 m setback distance adopted in the SLR Report was based on advice provided to SLR by Terra Consultants regarding the likely location of future development on the racecourse land. The SLR Report assumes that the future development at the Racing Club could include two storey buildings, as noted in Table 2 of the report.

At the time of writing this response, SLR understands that there is no specific WDP provision requiring a defined setback from the subject site. If the setback distance is reduced from what was assumed in the SLR Report, the future residences could be exposed to higher noise levels from the subject site, the level change being dependent on the change in distance.

With the recommended 1.8 m acoustic screening along the shared property boundary with the Racing Club (see Figure 2), the Plan's day and night noise limits (at ground floor and first floor receivers) are predicted to be met at a distance of 35 m from the shared boundary.

SLR has also calculated the potential noise rating levels at the boundary if development were to occur closer than 35 m to the boundary. A calculation based on an assessment location (for both ground-floor and first-floor receivers) 3.5 m from the shared boundary identifies the following highest predicted noise rating levels at the most exposed locations on the Racing Club property. This calculation assumes the recommended 1.8 m high acoustic screen is in place.

- Daytime
  - Ground-floor 54 dB L_{Aeq}
  - First-floor 58 dB L_{Aeq}
- Night-time
  - Ground-floor 40 dB L_{Aeq}
  - First-floor 42 dB L_{Aeq}

The highest potential daytime noise levels received within the Racing Club property occur adjacent to the site entrance way. The highest potential night-time noise levels received within the Racing Club property occur in the area close to the northern end of the visitor's car park area (due to being the closest location to the boiler furnace hall).

As the assessment location for noise effects on the Racing Club property is a technical planning issue, requiring planning specialist input, we defer to the further information provided in the applicant's planning s92 response regarding this issue.

Council Request – 8.9

> The Assessment points out that the major contributor to the receivers about the accessway is vehicles on the accessway. Could SLR please include the dwellings on the opposite side of Racecourse Road immediately adjacent to the accessway in their assessment (382 and 400 Racecourse Road)?

SLR Response

Please refer to Table 2 above which presents the noise levels at these receivers. SLR notes the noise levels at these receivers are compliant with the relevant Waipa District Plan noise limits.

Council Requests – 8.7, 8.8, 8.10, 8.11 and 8.12

These requests all relate to the assessment of previously predicted exceedances at 381 and 417 Racecourse Road either side of the accessway. These requests are no longer relevant further to the properties closest to the accessway being acquired by the applicant and noise levels at other surrounding properties predicted to comply with the relevant noise limits.

We trust the above serves to supply the information required, should you have any queries please do not hesitate to contact us.

Yours sincerely

LJ JANSEN
Associate Acoustic Consultant

Checked/
Authorised by: PR