Planning | Surveying | Engineering | Environmental

B23178 – 61 Hampton Downs Road, Te Kauwhata

Transportation Assessment Report

Document Control

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Contents

1 Introduction

CKL has been engaged by National Green Steel Ltd (Green Steel) to provide a transportation assessment for a proposed metal recycling facility and steel manufacturing plant located at 61 Hampton Downs Road.

This report addresses the transportation matters of the proposal and includes the following:

- Levels of vehicular traffic likely to be generated by the proposed metal recycling plant,
- Associated effects on the performance and safety of the surrounding road network;
- Adequacy and function of the parking and access provisions; and
- Consideration of the transportation related provisions within the Waikato District Plan.

At the time of writing the Waikato District Plan was partly operative, although is noted that the Transportation section is under appeal. As such, the Rules of the Partly Operative District Plan (PODP) have been used for assessment purposes, unless there is a significant discrepancy with the Operative District Plan (OPD) Rules.

These and other matters will be addressed in the detail of the report that follows. By way of summary, it is concluded that the proposed development can be established such that there will be less than minor effects to the function, capacity and safety of the surrounding transportation network.

2 Existing Environment

2.1 Site Location

Figure 1 is an aerial photograph with the subject site at 61 Hampton Downs Road outlined in yellow.

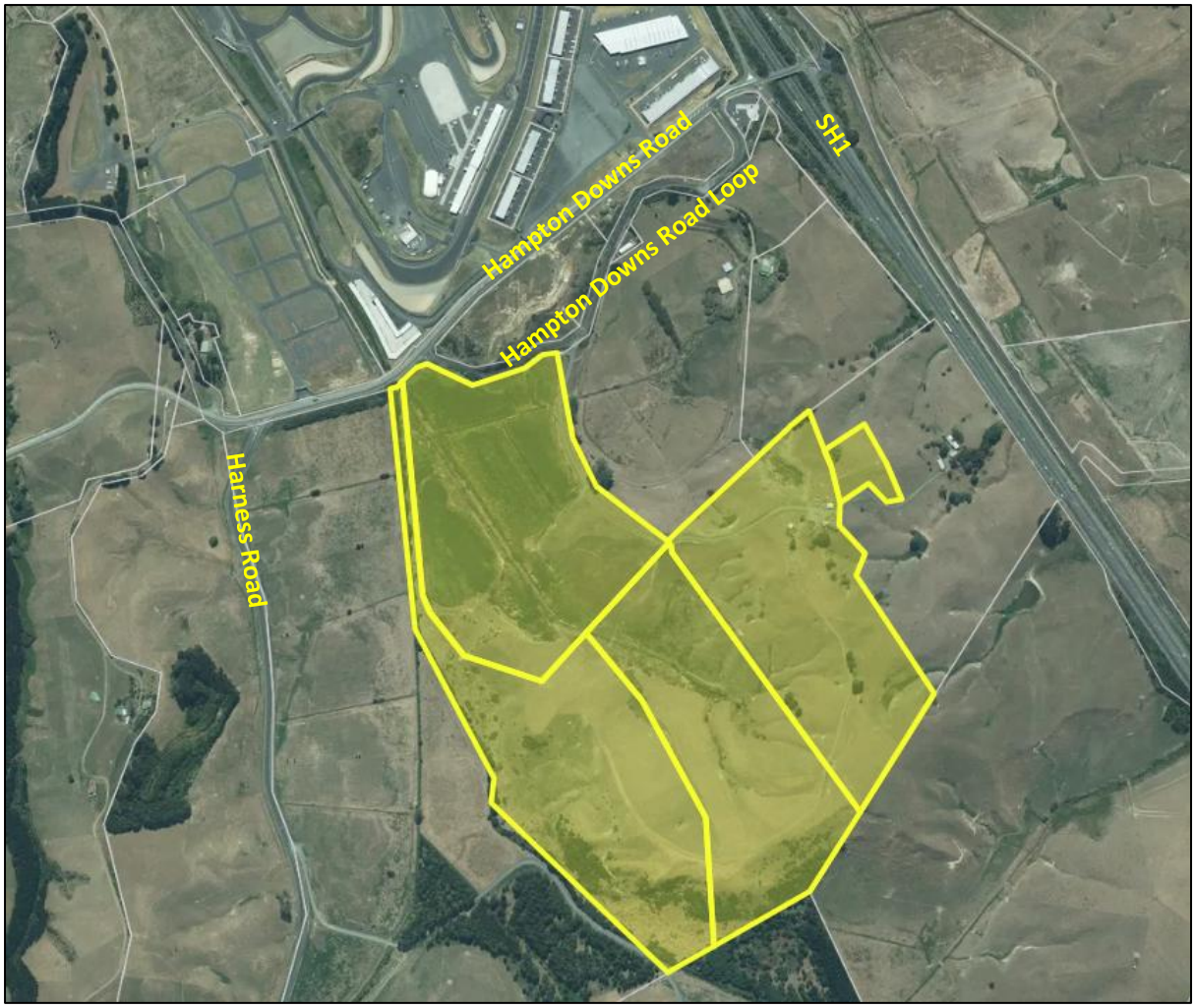

FIGURE 1: AERIAL PHOTOGRAPH OF SITE

The site has frontage to both Hampton Downs Road and Hampton Downs Road Loop[1]. The site is located within the general rural zone (GRUZ) in the PODP.

2.2 Road Network

Figure 2 portrays the site highlighted in red in the context of the wider road network.

[1] It is noted that Hampton Downs Road Loop is a crescent road and is the road name stated in the PODP but it is referred to as Harness Road on Google Maps.

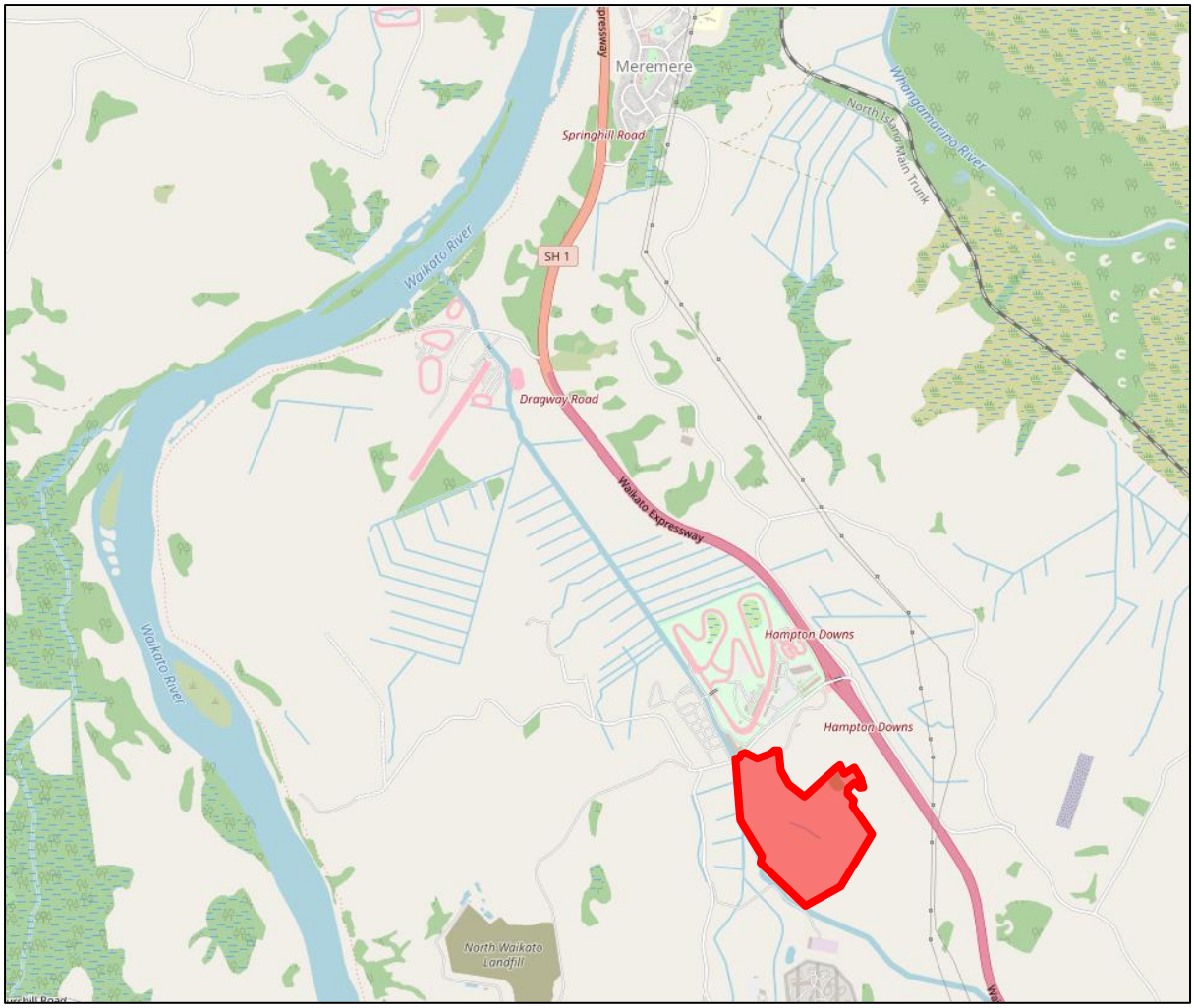

FIGURE 2: SURROUNDING ROAD NETWORK

Hampton Downs Road and Hampton Downs Road Loop are classified as local roads within the PODP. Hampton Downs Road is a two-way, two-lane road with a marked centreline and shoulder. These roads form part of a no-exit network between the Waikato River and State Highway 1. The posted speed limit is 60km/h across the frontage of the site and no parking is provided.

Both Hampton Downs Road / Hampton Downs Road Loop intersections take the form of a stop controlled, T-intersections where vehicles on Hampton Downs Road Loop are required to stop.

Access to Hampton Downs Road is via the State Highway 1 interchange adjacent.

2.3 Public Transport

There are no public transport services within the vicinity of the site.

2.4 Walking and Cycling

There are no footpaths or cycle lanes on Hampton Downs Road and surrounding roads.

2.5 Traffic Volumes

Mobile Roads was used to obtain traffic volumes for Hampton Downs Road. The peak hour is typically around 10% of the daily traffic volume which was adopted for this assessment as Mobile Roads only provides daily traffic volumes. Table 1 below shows a summary of the existing traffic volumes.

TABLE 1: EXISTING TRAFFIC VOLUMES

Road	Location	Peak Hour (vph)	Daily (vpd)
Hampton Downs Road	West of State Highway 1	182	1,816
Hampton Downs Road Loop	South of Hampton Downs Road	3	25

2.6 Road Safety

2.6.1 CAS Analysis

A search was made in the NZTA Crash Analysis System for all reported crashes that had occurred along the full length of Hampton Downs Road Loop and Hampton Downs Road between Harness Road and Hampton Downs Road Loop, over the last five-year period. The search found that five crashes occurred within the study area which resulted in property damage only.

Of these, one crash occurred on Hampton Downs Loop Road when a driver who parked without engaging the handbrake caused the car to roll back into the swale.

Two crashes occurred midblock on Hampton Downs Road. Of these, one was caused by a motorbike rider turning right then suddenly swerving left and getting hit by a car travelling straight on Hampton Downs Road and another crash was a driver losing control going straight on Hampton Downs Road.

Two crashes occurred at the northbound interchange. Of these, one crash was caused by a driver losing control turning left towards the northbound onramp hitting the barrier, and the other was a rear end incident on the northbound off-ramp.

Overall, no crashes were reported that involved the subject site and no crashes involved any pedestrians or cyclists. No common crash trends or factors have been identified and as such, no specific road safety issues have been identified in relation to the subject site. Figure 3 below shows the crash locations.

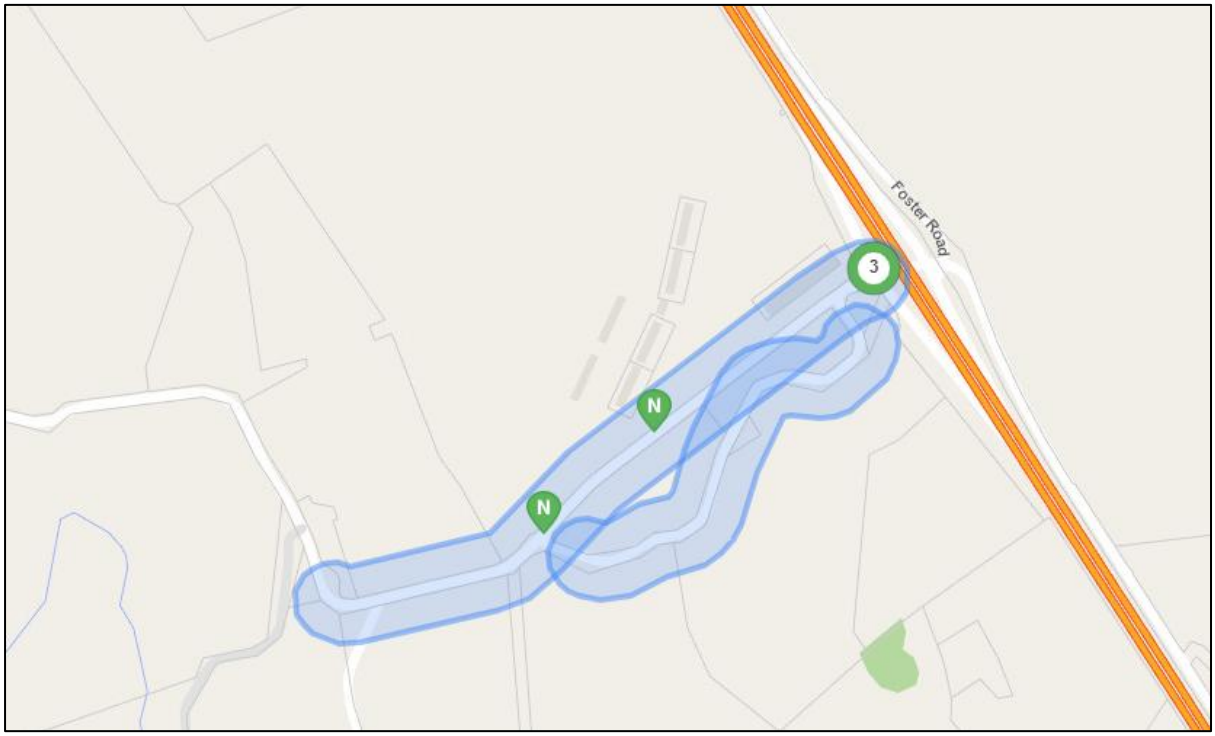

FIGURE 3: CRASH DIAGRAM

2.6.2 MegaMaps Analysis

The Waka Kotahi MegaMaps database has been used to has identify both the personal and collective risk ratings for the roads described above.

- Collective risk is the measure of how likely a crash is to happen along a given stretch of road network.
- Personal risk relates to the chance that if a crash does occur that it involves a given individual. It is not unusual to see higher personal risks on a road, particularly when there are low traffic numbers.

Table 2 below shows a summary of the MegaMaps Risk Ratings for surrounding roads.

TABLE 2: MEGAMAPS RISK RATINGS

Road	Collective Risk	Personal Risk
Hampton Downs Road	Low	Low
Hampton Downs Road Loop	Low	Low

The associated risk ratings of low personal and collective risk aligns with the observed crash record in the vicinity of the site and therefore demonstrates that the road corridor operates in what can be considered relative safety.

2.7 Committed Environmental Change

There are no known developments or roading upgrades that are committed that would have a noticeable impact on traffic patterns across the frontage of the site.

3 Proposal

It is proposed to develop the site at 61 Hampton Downs Road into a metal recycling facility and steel manufacturing plant. Figure 4 below shows a scheme plan.

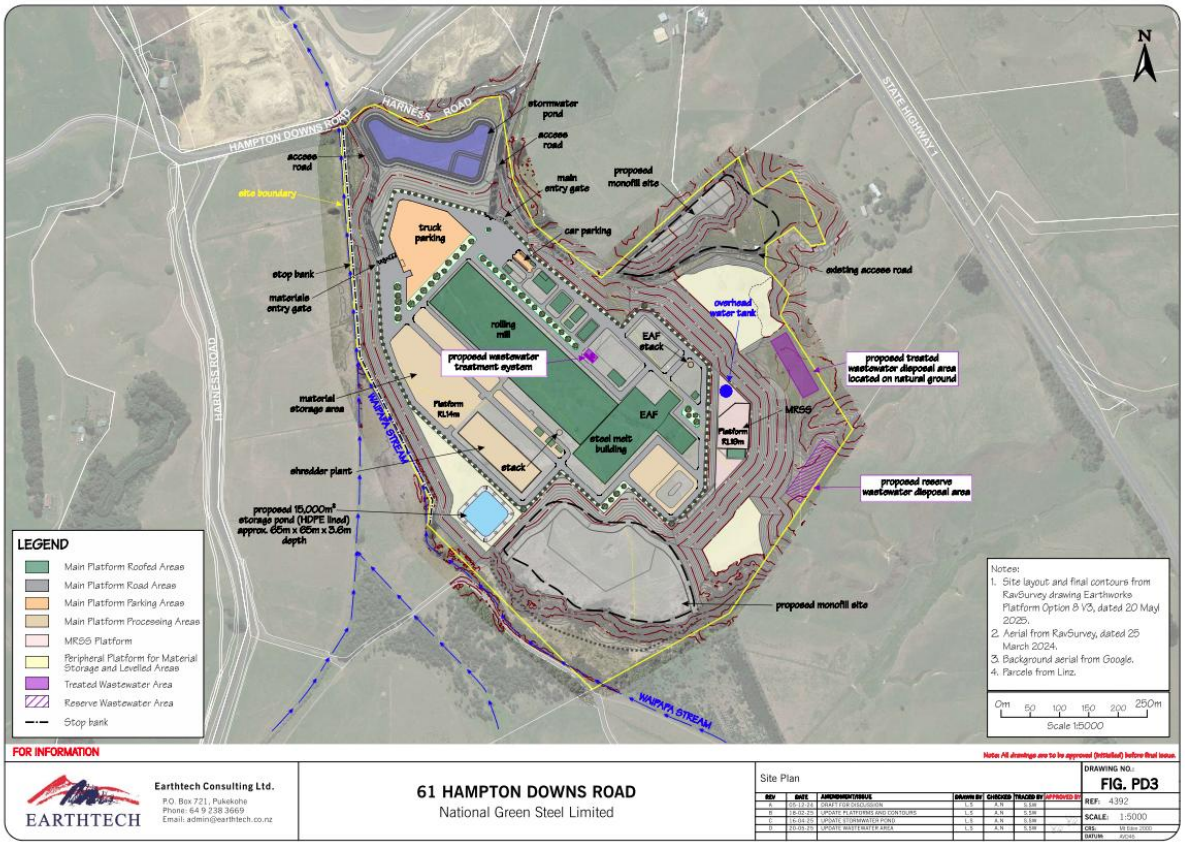

FIGURE 4: PROPOSED DEVELOPMENT

Staff and visitor access is proposed via Hampton Downs Road Loop, with heavy commercial vehicle (HCV) access being proposed direct from Hampton Downs Road itself. Both of these vehicle crossings to site are existing. It is noted that two areas of monofiill are proposed as part of the development. These are to take waste material from the metal shredding process only.

Some 100 staff and visitor car parks are proposed onsite.

4 Traffic Effects

The expected trip generation will be calculated based on a first-principles basis. It is anticipated that the proposed metal recycling facility and steel manufacturing plant metal will operate over a 24-hour period with 200 staff across three shifts. Up to 50 HCVs are expected to arrive across two shifts i.e. 16 hours.

The expected staff shift times are as follows:

- 8am to 4pm (100 staff)
- 4pm to 12am (60 staff)
- 12am to 8am (40 staff)

For the staff peak hour trip generation, this is expected to occur between staff changeover between the 8am and 4pm shifts when 100 staff leave and 60 staff arrive within the same hour. This equates to 160vph

assuming that all people drive to work and no car sharing occurs. With 200 staff, the daily staff trip generation is expected to be 400vpd.

For HCV movements, up to 50 HCVs are expected across two shifts or 16 hours. Truck arrivals are expected to be distributed evenly across this 16-hour period which equates to three to four HCVs or six to eight HCV movements per hour. The 50 HCVs or 100 HCV movements are expected to occur within a 16-hour window across two shifts.

It is understood that the metal shredding process results in approximately 100T of waste materials daily. Assuming truck only movements, this equates to an average of some 6HCV loads per day (i.e. 12 HCV movements). These would be either internal to the site or would use the existing accessway over which 61B Hampton Downs Road has an easement to access the eastern monofil area. None of this traffic would be generated to or from the public road network and has therefore not been included within the traffic generation assessment.

Table 3 below shows the expected trip generation summary.

TABLE 3: EXPECTED TRIP GENERATION SUMMARY

	Size	Peak Hour (vph)	Daily (vpd)
Staff	200	160 (during shift changeover)	400
HCVs	50 (16-hour)	6 to 8	100 (16-hour)
Total		**166 to 168**	**500**

A single lane typically supports 1,000vph to 1,400vph. Given the existing traffic volumes on Hampton Downs Road are less than 200vph, the additional trips generated by the proposed metal recycling plant are expected to be within the carrying capacity of the road and not expected to result in a material effect on the surrounding road network.

The PODP has a maximum trip generation of 200 vehicle movements per day for sites within the GRUZ, with no more than 15% being truck movements. The site is expected to generate 500vpd with 400vpd being staff and 100vpd being truck movements. The expected trip generation has 25% truck movements which means the proposed metal recycling plant exceeds the 200vpd threshold and 15% truck threshold. However, as assessed above, the existing volumes on Hampton Downs Road are less than 200vph and the additional 166vph to 168vph are within the carrying capacity of the surrounding road network. As such, this non-compliance is not expected to result in any adverse material effects.

5 Access Effects

Access is proposed to Hampton Downs Road Loop (main entrance) for staff and via Hampton Downs Road for HCVs (alternative entrance). These two existing access locations can be seen circled in red in Figure below.

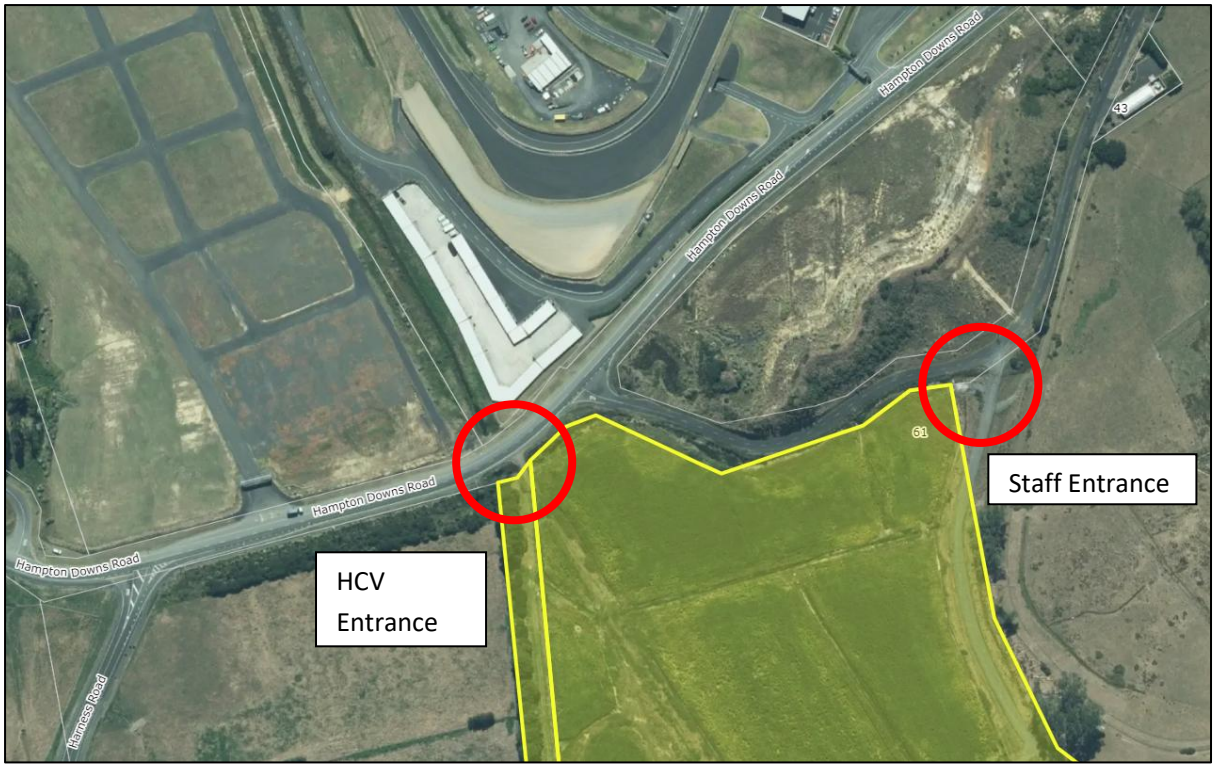

FIGURE 5: EXISTING ACCESS LOCATIONS

The staff entrance is shared with 23 Hampton Downs Road and 61B Hampton Downs Road. The first section of the accessway is owned by 23 Hampton Downs Road with an easement in favour of 61 and 61B Hampton Downs Road. The next section of the main access is owned by 61 Hampton Downs Road and 61B Hampton Downs Road has an easement over this section of the accessway. In terms of the proposed development, this will also form the staff and visitor entrance. It is recommended that this accessway (Accessway 1) be upgraded to a minimum 6m formed width and 10m ROW width between the site access and Hampton Downs Road Loop to facilitate two-way flow. This will mitigate any traffic effects on the other users of the accessway. Given the scale of expected traffic demands it is also advised that the vehicle crossing be delineated with 'give way' markings supported by appropriate signage.

In terms of traffic accessing Hampton Downs Road Loop, both the intersections with Hampton Downs Road have good level of visibility and delineation. Given the traffic demands on Hampton Downs Road and the expected traffic demands to and from site, it is considered that there is no need for additional delineation, particularly given the majority of movements will be left in and right out.

The HCV access (Accessway 2) will also utilise an existing vehicle crossing. This is currently formed as a field access only and should be upgraded to a Regional Infrastructure Technical Specification (RITS) compliant heavy commercial crossing. It is proposed to serve an 8m wide formed access way which is sufficient to allow for two-way movement of HCVs. This is over the required width of accessway in the PDOP. Given the available forwards visibility for following traffic, no signage or delineation is considered necessary.

Both Hampton Downs Road and Hampton Downs Road Loop are classed as local road in the PODP. As such, the PODP prefers access to be via the road with lower traffic volumes. In this instance, whilst Hampton Downs Road Loop has lower traffic volumes, it is considered that its form is such that access from Hampton Downs Road for HCVs is preferable.

Accessway 3 extends from the end of Accessway 1 at the staff entrance to the site to the eastern monofill. Accessway 3 also serves 61B Hampton Downs Road. It is proposed that Accessway 3 have a 3m formed width within a 5.3m wide corridor. It is assessed that this is suitable for use by HCVs accessing the monofil site, however, it is recommended that passing places be provided at regular intervals to allow for situation where residential traffic from 61B Hamptons Downs Road may meet HCV traffic associated with the monofill site.

5.1 Separation

For accesses onto a local road with a posted speed limit of 60km/h, the PODP requires 20m of vehicle crossing and intersection separation. There is over 50m of vehicle crossing and intersection separation available for both accesses which complies with the separation requirements of the PODP.

5.2 Width

Whilst not in the Heavy Industrial Zone (HIZ), the site is expected to perform a heavy industrial function. The PODP standards for the HIZ do not therefore apply, however, they have been reviewed in order to ensure that appropriate access based on the activity and not the zoning is provided. Under the PODP TRPT-Table 12, a private access serving one activity in the HIZ is required to have a legal width of 6m with no formed width being specified, with this increasing to a legal width of 100m and formed width of 6m if 2 – 8 activities are served. Accessway 1 serves more than one activity and the proposed cross section appropriately reflects the HIZ function of the accessway, being approximately 10m wide with a 6m sela width. Similarly, Accessway 2 is proposed as having an 8m wide formed width. This exceeds the expectations of the HIZ accessway requirements and is considered appropriate to accommodate the expected traffic using this access.

For an access serving up to four allotments or activities in the GRUZ, TRPT-Table 13 of the PODP requires a minimum legal width of 6m and formed width of 3m. Accessway 3 is expected to carry low volumes of traffic and as such the GRUZ rules have been considered. The proposed Accessway 3 complies in terms of the formed width, however it is noted that the legal width is slightly below the minimum requirements. This is due to the accessway being existing an only the use of it changing. It is assessed that effects of this non-compliance are negligible.

5.3 Gradient

Regarding gradients, the PODP has a maximum of 1 in 5 (20%) with a 2m long transition gradient of 1 in 8 (12.5%) for grade changes greater than 12.5%. Based on the s long sections provided by Aerys for each accessway, it is assessed that they all comply with these requirements once regraded.

5.4 Visibility

The PODP has minimum sight distance requirements based on the speed environment and number of vehicle movements per day. The speed environment has been taken as 70km/h which is 10km/h above the posted speed limit. Table 4 below shows a summary of PODP requirements and the sight distance available for an access serving more than 40vpd.

TABLE 4: SIGHT DISTANCE ASSESSMENT

Direction	Speed Environment	PODP Requirement	Available West	Available East
Main Access	70km/h	150m	150	175m
Alternative Access	70km/h	150m	200m+	200m+

Overall, the access provision is assessed as being fully compliant against both PODP with the exception of providing access via Hampton Downs Road. However, this non-compliance is assessed as providing a better outcome for the safe and efficient operation of the road network.

6 Parking Effects

6.1 Car Parking Provision

The parking provision will have 100 parking spaces which accommodates the expected number of staff trips as well as accommodating visitor parking.

The ODP has been used to determine the cycle parking requirement based on the number of staff as the PODP is based on Gross Floor Area (GFA). The proposed metal recycling facility and steel manufacturing plant has a disproportionately large floor area compared to the number of staff on site and would lead to an out of scale number of cycle parks being required. The PODP does not have any minimum or maximum parking requirements that apply to the site. The proposed 100 car parking spaces, two of which are accessible are assessed as being suitable for the site.

The PODP requires accessible parking a rate of one per 50 car parking spaces. With 100 spaces, two will need to be accessible which satisfies this rule. There are 100 car parking spaces proposed, two of which are accessible which satisfies this rule.

The car parking areas will be located in the areas circled in red in Figure below. The main parking area is located adjacent to the main site access and the Administration building. This is also where the cycle parking is to be provided. A separate area of HCV parking is proposed near the alternative access, with further car parking also being provided here.

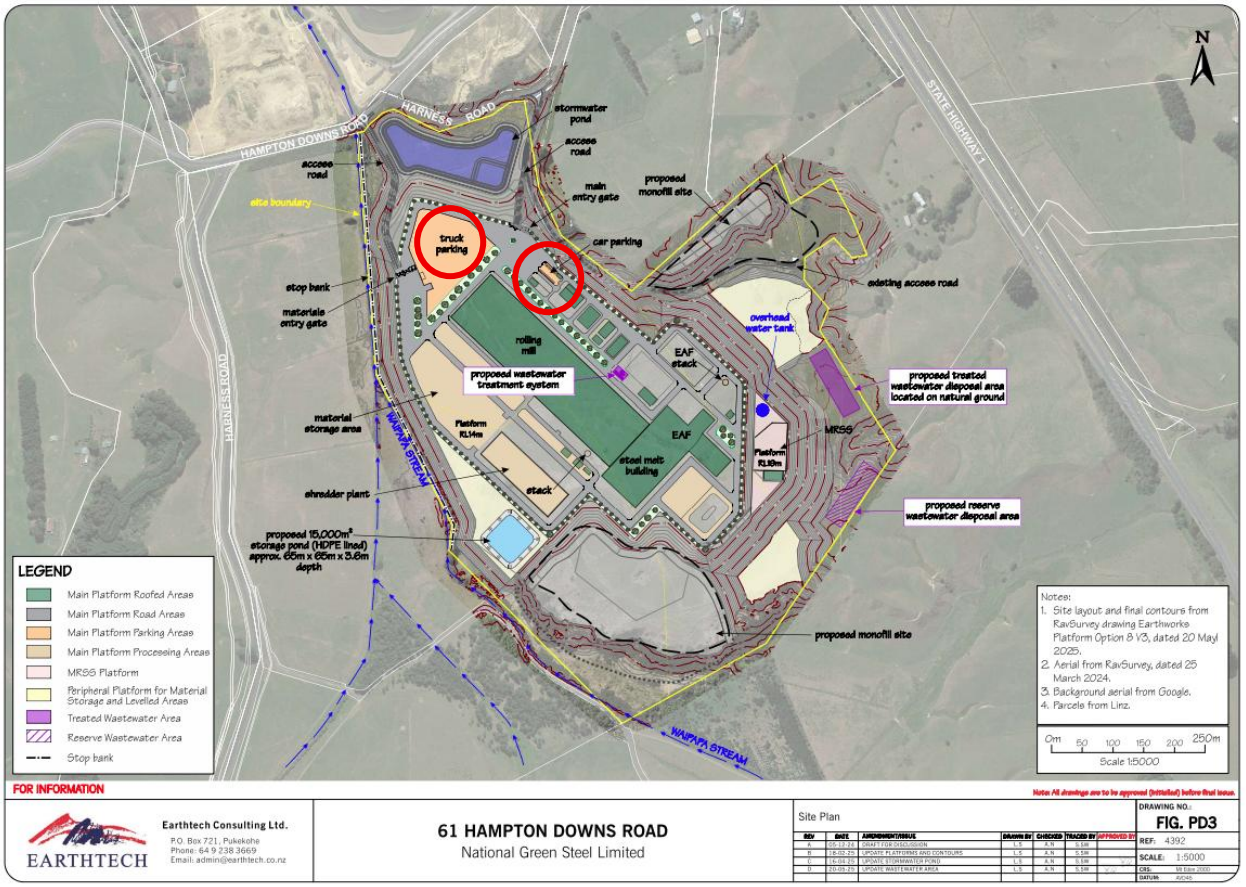

FIGURE 6: PARKING AREAS

6.2 Car Parking Dimensions

The PODP requires 90-degree parking spaces to be 2.7m wide, 5.1m long, and have 6.8m of manoeuvring space. The proposed parking spaces are 2.7m wide, 5.1m long, and have 6.8m of manoeuvring which satisfies the dimensional requirements of the PODP. This can be seen in Figure and Figure below.

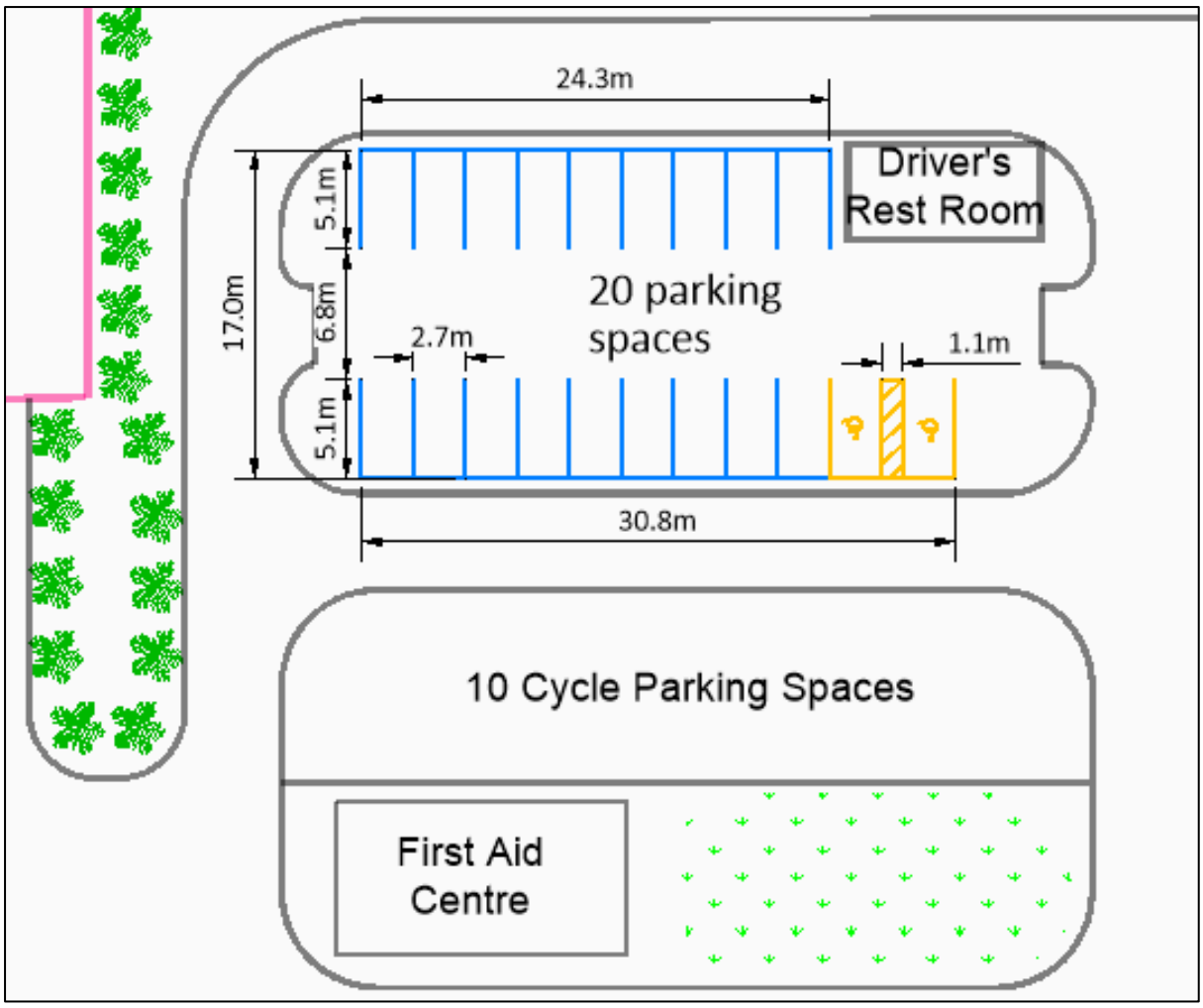

FIGURE 7: PARKING AREA 1

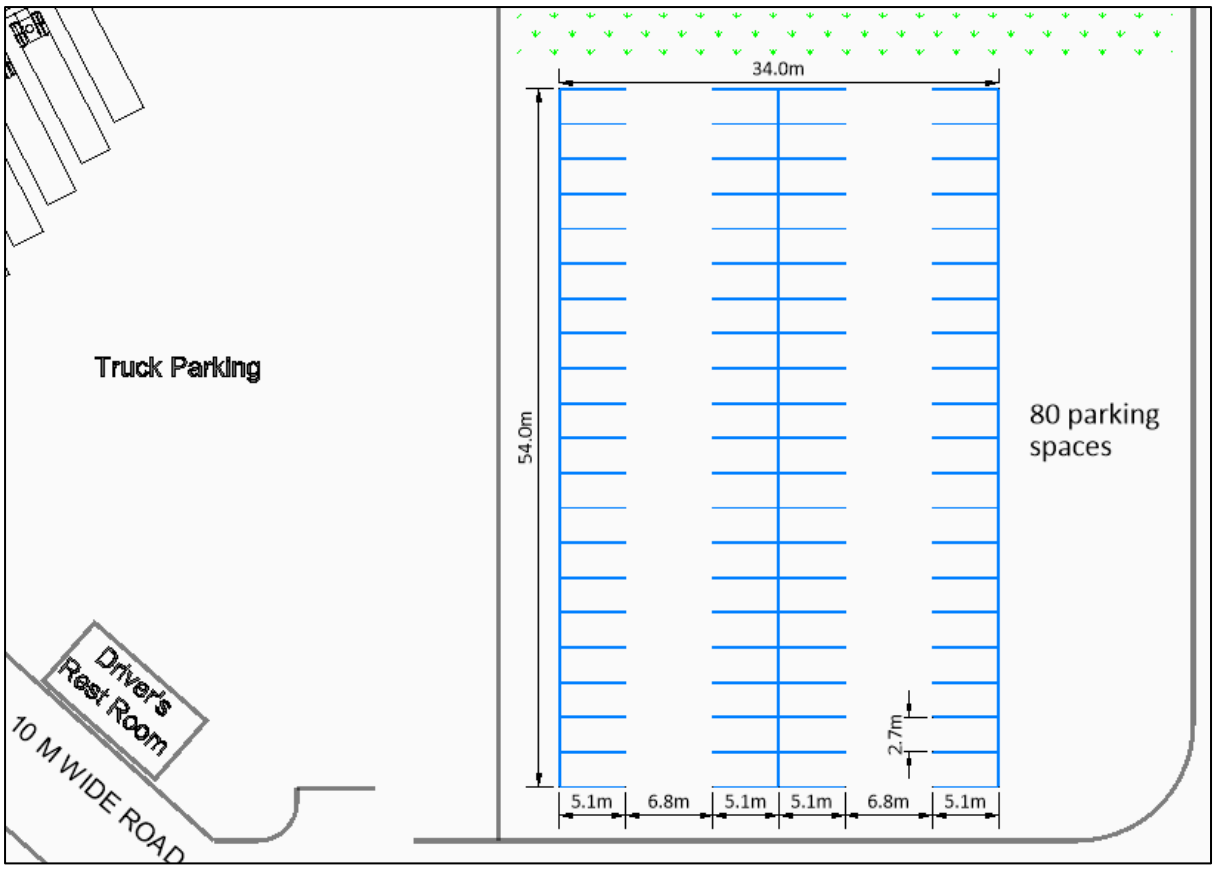

FIGURE 8: PARKING AREA 2

6.3 Cycle Parking

The ODP requires cycle parking spaces at a rate of one cycle space per 10 staff. With up to 100 staff at any given shift, this equates to 10 cycle parking spaces required. There are at least 10 cycle parking spaces proposed which satisfies this rule. Cycle spaces will be located adjacent to the parking area with the drivers rest room.

6.4 Loading

The PODP requires one loading space for Heavy Goods Vehicles. There is at least one loading space within the site to accommodate this which satisfies this requirement.

Overall, the parking provision is assessed as being appropriate for the plant and compliant with the PODP requirements.

7 Road Safety Effects

The road safety report identified in Section 2.6 suggests that there are no discernible existing road safety issues associated with this part of Hampton Downs Road or Hampton Downs Road Loop. No new accesses are proposed, and the level of trip generation is unlikely to result in significant congestion. As such, the proposed development is assessed as being unlikely to have a detrimental effect on road safety.

8 Statutory Assessment

An assessment of the proposed metal recycling plant has been undertaken against the relevant transportation rules in section TRPT of the PODP. This can be seen in Table 5 below.

TABLE 5: PODP ASSESSMENT

Rule	Requirement	Proposed	Compliance
TRPT-R1: Vehicle access for all activities			
1a(i)	The site has legal physical access to a formed road that is maintained by a road controlling authority;	Site has access to a formed public road.	Complies
1a(ii)	The site has a vehicle access that is constructed to comply with the relevant requirements of Table 1 – Separation distances, Figure 6 – Separation distances, Table 2 – Minimum sight distances and Figure 8 – Minimum sight distances, Tables 12 and 13 except: (1) Rule TRPT-R1(1)(a)(ii) does not apply where the separation distance requirements of Table 1 – Separation distances and Figure 6 – Separation distances cannot be achieved on a site's road frontage due to existing vehicle accesses on adjacent sites;	Site access will be designed to compliant standards. See section 5 of this report.	Complies / Compliance expected
1a(iii)	No new vehicle access shall be created from Newell Road (south of Birchwood Lane);	No access is provided to Newell Road.	Complies
1a(iv)	No access, access leg or right-of-way shall run parallel to any road within 30m of the road, except: (1) Rule TRPT-R1(1)(a)(iv) does not apply to farm races, or unsealed internal rural accesses in sites within the Rangitahi Peninsula Structure Plan Area and Opotoru Road;	Access does not run parallel within 30m of another road.	Complies
1a(v)	On a site with legal access to two roads, the activity only accesses the road with the lower classification in the road hierarchy in Table 4 – Functions of roads within the Road Hierarchy and Table 5 – Road Hierarchy list (where the roads have the same classification, access is only to the road with the lower average daily traffic movements) except in the KLZ – Kimihia Lakes zone where this rule does not apply;	Site has frontage to Hampton Downs Road and Hampton Downs Loop Road which are classified as local roads within the District Plan. HCV access is proposed to Hampton Downs Road which has the higher traffic volume.	Non-compliance
1a(vi)	New vehicle accesses/entrances are not to be constructed to any site from the following roads: (1) Main Street, Huntly; (2) Jesmond Street, Ngaruawahia; (3) Bow Street, Raglan (James Street to Cliff Street); (4) George Street, Tuakau (Gibson Road to Liverpool Street); (5) Great South Road, Pokeno (Selby Street to Market Street); and (6) Main Street, Te Kauwhata (Saleyard Road to Baird Avenue); and	No new accesses proposed on these roads.	Complies
1a(vii)	No new vehicle access shall be created within 30 metres of a railway level crossing;	No level crossings within the vicinity of the site	N/A
1a(viii)	All existing and new accesses and roads that cross an operational rail network via a level crossing must be maintained in accordance with the sight line triangles provided in Table 14 – Required restart sight distances for Figure 18; and	No level crossings within the vicinity of the site	N/A
1a(ix)	New vehicle access shall not be located within an Identified Area, with the exception of a Significant Natural Area which is addressed in the ECO – Ecosystems and indigenous biodiversity chapter.	Site is not in this area.	N/A
TRPT-R2: On-site parking and loading			

1a(i)	The loading space requirements, manoeuvring and parking space dimensions in Table 6 – Required loading bays, and Table 9 – Car manoeuvring and parking space dimensions, noting: (1) When calculating the requirements for loading on the basis of the prescribed floor area, the area for parking, loading and manoeuvring shall be excluded; (2) If the calculation results in a fraction, then that figure shall be rounded to the nearest whole number; (3) 90 percentile car dimensions in Figure 9 – 90th Percentile car tracking curve minimum radius apply; (4) The requirements of Table 6 – Required loading bays do not apply to residential and rural activities; (5) Accessible parking spaces must comply with the New Zealand Building Code D1/AS1 New Zealand Standard for Design for Access and Mobility – Buildings and Associated Facilities (NZS: 4121-2001) and Table 7 – Accessible parking spaces; and	One loading space required and at least one proposed to serve the site.	Complies
1a(ii)	On-site bicycle space requirements in Table 8 – Required bicycle spaces, except: (1) The requirements of Table 8 – Required bicycle spaces do not apply to residential and rural activities;	Cycle parking provision designed to ODP standards relating to staff numbers rather then PDOP GFA requirements.	Non-compliance
1a(iii)	Where parking is provided any on-site car parking spaces for non-residential activities within the GRZ – General residential zone and MRZ – Medium density residential zone must be set back at least 3m from the road boundary of the site and screened by planting or fencing from being viewed from the road;	Proposed metal recycling plant is a non-residential activity in a non-residential zone.	N/A
1a(iv)	On-site car parking spaces (where provided) and loading bays comply with the requirements of Table 9 – Car manoeuvring and parking space dimensions and Figure 9 – 90th Percentile car tracking curve minimum radius and be located on the same site as the activity;	Parking provision designed to compliant standards.	Complies
1a(v)	On-site car parking spaces and loading bays are to be sealed if five or more parking spaces are provided;	Parking areas will be sealed.	Complies
1a(vi)	On-site car parking spaces and loading bays are to be permanently marked if five or more parking spaces are provided;	Parking spaces will be formally marked.	Complies
1a(vii)	On-site car parking spaces and loading bays are not to be located on any shared access or residential living court;	Parking and loading spaces will not be located on shared accesses or residential living courts.	Complies
1a(viii)	Vehicles occupying any onsite car parking or loading spaces must have ready access to the road (or relevant access or right of way) at all times, without needing to move any other vehicle occupying other onsite car parking or loading spaces	Parking and loading spaces to have ready access to the road at all times.	Complies
1a(ix)	Loading bays are not required on sites with sole frontages to the following: (1) Main Street, Huntly; (2) Jesmond Street, Ngaruawahia; (3) Bow Street, Raglan (James Street to Cliff Street); (4) George Street, Tuakau (Gibson Road to Liverpool Street); (5) Great South Road, Pokeno (Selby Street to Market Street); or (6) Main Street, Te Kauwhata (Saleyard Road to Baird Avenue); and	Site is not in these areas.	N/A
1a(x)	New on-site parking and loading bays shall not be located within an Identified Area, with the exception of a Significant Natural Area which is addressed in the ECO – Ecosystems and indigenous biodiversity chapter	Site is not in these areas.	N/A
TRPT-R3: On-site manoeuvring and queuing			

1a(i)	On-site manoeuvring space shall be provided to ensure that no vehicle is required to reverse onto from or to a road except; (1) Rule TRPT-R3(1)(a)(i) does not apply to Local Roads within the GRZ – General residential zone, MRZ – Medium density residential zone, LLRZ – Large lot residential zone and SETZ – Settlement zone with a posted speed limit of less than 60 km/h	Site is not in these areas.	N/A
1a(ii)	A 90th percentile car, as defined in Figure 9 – 90th Percentile car tracking curve minimum radius, can enter and exit all parking spaces without making more than one reverse movement, excluding spaces required for a dwelling	Parking provision designed to compliant standards.	Complies
1a(iii)	On-site manoeuvring space for any heavy vehicle shall comply with the tracking curve (relevant for the type of activities to be carried out on the site and the largest combination standard configuration heavy vehicle permitted on the road(s) to which the site has frontage trucks to be used)	Parking provision designed to compliant standards.	Complies
1a(iv)	On-site manoeuvring space shall be formed	On-site manoeuvring is proposed to be formed.	Complies
1a(v)	On-site queuing space shall be provided in accordance with Table 10 – Queuing space for vehicles entering and exiting any on-site car parking, loading or manoeuvring space, where: (1) Length is measured from the road boundary where vehicles first enter the site; and (2) On-site queuing above must not encroach into the required on-site manoeuvring area	Sufficient queueing space is available on-site.	Complies
1a(vi)	On-site manoeuvring and queuing spaces are not required on sites with vehicle accesses/entrances to the following: (1) Main Street, Huntly; (2) Jesmond Street, Ngaruawahia; (3) Bow Street, Raglan (James Street to Cliff Street); (4) George Street, Tuakau (Gibson Road to Liverpool Street); (5) Great South Road, Pokeno (Selby Street to Market Street); (6) Main Street, Te Kauwhata (Saleyard Road to Baird Avenue)	Site is not in these areas.	N/A
1a(vii)	New on-site manoeuvring shall not be located within an Identified Area, with the exception of a Significant Natural Area which is addressed in the ECO – Ecosystems and indigenous biodiversity chapter.	Site is not in these areas.	N/A
TRPT-R4: Traffic Generation			
1a	Where any site gains access from an arterial or regional arterial (including state highway) road, there is a maximum of 50 Equivalent Car Movements (ECM) per day. Note: ECM – 1 car movement is equivalent to I car movement / 1 truck movement is equivalent to 3 car movements / 1 truck and trailer movement is equivalent to 5 car movements.	Site does not gain access from arterial roads.	N/A
1a(i)	Within the GRZ – General residential zone, MRZ – Medium density residential zone, or RLZ – Rural lifestyle zone there is a maximum of 100 vehicle movements per site per day, and no more than 15% of these vehicle movements are heavy vehicle movements	Site is not in these zones.	N/A
1a(ii)	Within the RPZ – Rangitahi Peninsula zone there is a maximum of 200 vehicle movements per site per day, and no more than 5% of these vehicle movements are heavy vehicle movements	Site is not in this zone.	N/A

1a(iii)	Within the BTZ – Business Tamahere zone, COMZ – Commercial zone, TCZ – Town centre zone or LCZ – Local centre zone there is a maximum of 300 vehicle movements per site per day, and no more than 15% of these vehicle movements are heavy vehicle movements	Site is not in this zone.	N/A
1a(iv)	Within the GRUZ – General rural zone: (1) There is maximum 200 vehicle movements per site per day and no more than 15% of these vehicle movements are heavy vehicle movements; (2) For activities directly associated with horticulture harvesting, a maximum of 300 vehicle movements per site per day for up to a month, once in a 12-month period and no more than 33% of these vehicle movements are heavy vehicle movements; or (3) Within the Agricultural Research Centres identified on the planning maps as a specific controls there is maximum 3000 vehicle movements per site per day	Site is expected to generate 500vpd, 400 from staff and 100 from truck movements which exceeds this threshold. See section 0 of this report.	Non-compliance
1a(v)	Within the GIZ – General industrial zone and HIZ – Heavy industrial zone (excluding the Huntly Power Station and Huntly Quarry site): (1) Maximum 250 vehicle movements per site per day and no more than 15% of these vehicle movements are heavy vehicle movements	Site is not in this zone.	N/A
1a(vi)	From the Huntly Power Station site as shown as the HIZ – Heavy industrial zone on the planning maps: (1) All vehicle movements generated from all activities on the site combined (including those movements which were lawfully established prior to 5 December 2012), there is a maximum 750 vehicle movements per site per day; and (2) Maximum 300 of these vehicle movements are heavy vehicle movements	Site is not in this zone.	N/A
1a(vii)	From the Huntly Quarry site: (1) All vehicle movements generated from all activities on the site combined (excluding those movements which were lawfully established prior to 5 December 2012), there is maximum 350 vehicle movements per site per day; and (2) No more than 150 of these vehicle movements are heavy vehicle movements, increasing to 200 once the Huntly Bypass section of the Waikato Expressway is open for public use	Site is not in this zone.	N/A
1a(viii)	Within PREC27 and PREC28 of the TKAZ – Te Kowhai airpark zone there is a maximum 250 vehicle movements per site per day and no more than 15% of these vehicle movements are heavy vehicle movements	Site is not in these zones.	N/A
1a(ix)	Within PREC29 and PREC30 of the TKAZ – Te Kowhai airpark zone there is a maximum of 30 vehicle movements per site per day and no more than 4 of these vehicle movements are heavy vehicle movements except:	Site is not in these zones.	N/A
1a(x)	Movement restrictions do not apply if the activity is an event or promotion (including temporary events) in PREC29 or a community facility in PREC29	Site is not in this zone.	N/A
1a(xi)	From the Horotiu Industrial Park does not exceed 15.4 trips/ha gross land area/peak hour	Site is not in this zone.	N/A
1a(xii)	Within the KLZ – Kimihia Lakes zone there is a maximum of 850 vehicle movements per hour and no	Site is not in this zone.	N/A

	more than 15% of these vehicle movements are heavy vehicle movements		
TRPT-R5: Operation, maintenance and minor upgrading of existing public roads, State Highways and associated road network activities			
1a(i)	The works occur within the road reserve or railway corridor	Construction of new access will be within the road reserve.	Applies
1a(ii)	Works within the road or railway corridor must be for the purpose of: (1) Maintaining or improving effectiveness or efficiency consistent with the function of the existing public road or railway corridor; or (2) Maintaining or improving safety for road users or adjacent properties	Proposed access location complies with the District Plan requirements.	Complies
1a(iii)	Lighting shall be designed and located to comply with the Australia New Zealand Roading Lighting Standard 1158, (series) – Lighting for Roads and Public Spaces: 2005	Lighting to be assessed by others.	N/A
1a(iv)	Any earthworks must comply with Rule AINF-R8	Earthworks to be assessed by others.	N/A
TRPT-R6: New public roads, including where the road has been identified on the planning maps as an indicative road, and associated road network activities			
1a(i)	The public road is located within road or unformed road as shown on the planning maps	No new public roads proposed.	N/A
1a(ii)	The public road is not located within an Identified Area	No new public roads proposed.	N/A
1a(iii)	The design requirements of Tables 12 or 13 based on their function within the Road Hierarchy as set out in Table 4 – Functions of roads within the Road Hierarchy, except: (1) Any National routes or Regional arterial roads shall be subject to Rule TRPT-R6(2); (2) The specified minimum Road/right of way reserve widths in Tables 12 or 13 do not include any additional width required for a turning head; (3) Any private access, right of way or access allotment over 70m in length must be constructed to be in accordance with the highest dimensions required for an access allotment in Tables 12 or 13; and (4) The requirements of Tables 12 or 13 shall not apply to taxiways within the TKAZ – Te Kowhai airpark zone	No new public roads proposed.	N/A
1a(iv)	Within road or unformed road located within the Tamahere RLZ – Rural lifestyle zone, all roads must:	No new public roads proposed.	N/A
1a(v)	Comply with the minimum widths specified in Figure 12; and	No new public roads proposed.	N/A
1a(vi)	Have swale drains on both sides of the carriageway capable of collecting all road runoff and overland flow towards the road or right of way from a 20% Annual Exceedance Probability event; and	No new public roads proposed.	N/A
1a(vii)	In areas of poorly-drained soils, either the stormwater is to be directed to areas with higher infiltration, or infiltration systems are to be constructed	No new public roads proposed.	N/A
1a(viii)	Within road or unformed road located within the RPZ – Rangitahi peninsula zone, the relevant access and road requirements of the Rangitahi Structure Plan take priority over the standards in Table 12 or 13 in the event of any conflict	No new public roads proposed.	N/A
1a(ix)	The road connection between Wayside Road and Travers Road comprising the extension of Bragato Way, Te Kauwhata	No new public roads proposed.	N/A

1a(x)	All roads and vehicle accesses shall be constructed in accordance with Table 12 and Figures 14, 15 and 16	No new public roads proposed.	N/A
1a(xi)	Stormwater collection must be through grassed swales prior to reaching reticulated systems	No new public roads proposed.	N/A
1a(xii)	Any earthworks must comply with Rule AINF-R8	No new public roads proposed.	N/A
TRPT-R7: Access and new roads in the TKAZ – Te Kowhai airpark zone			
1a(i)	The design requirements of Table 12 or 13, based on their function within the Road Hierarchy as set out in Table 4 – Functions of roads within the Road Hierarchy, except: (1) The requirements of Table 12 or 13 shall not apply to taxiways within Te Kowhai airpark.	Site is not in this zone.	N/A
1a(ii)	Road alignment and the taxiway network within the TKAZ – Te Kowhai airpark zone shall be in general accordance with APP10 – Te Kowhai Aerodrome	Site is not in this zone.	N/A
1a(iii)	The western boundary of the TKAZ – Te Kowhai airpark zone shall provide for future connectivity options (vehicular and / or pedestrian) in general accordance with the location identified in APP10 – Te Kowhai Aerodrome.	Site is not in this zone.	N/A
1a(iv)	Any earthworks must comply with Rule AINF-R8	Site is not in this zone.	N/A
TRPT-R8: Off-road pedestrian walkways and cycleways, being sections of the public walkway and cycleway network that are not located within the road network			
1a(i)	Have a minimum 2.0m width or 2.5m where alongside an arterial road or forming a shared path	No off-road footpaths or cycleways proposed.	N/A
1a(ii)	Are formed	No off-road footpaths or cycleways proposed.	N/A
1a(iii)	Any earthworks must comply with Rule AINF-R8	No off-road footpaths or cycleways proposed.	N/A
1a(iv)	Are not located within an Identified Area	Site is not in these areas.	N/A
TRPT-R9: Stock underpasses			
1a(i)	Any earthworks must comply with Rule AINF-R8	No stock underpasses proposed.	N/A
1a(ii)	Are not located within an Identified Area	Site is not in these areas.	N/A
TRPT-R10: Esplanade reserves and strips where a road is stopped			
1a	Where land comprising a stopped road or any part of a stopped road adjoins:	No esplanade reserves or stopped roads within the vicinity of the site.	N/A
1a(i)	The mark of mean high water springs of the sea	Site is not in these areas.	N/A
1a(ii)	The bank of any river with an average width of 3m or more	Site is not in these areas.	N/A
1a(iii)	The margin of any lake with an area of 8 hectares or more Section 345(3) of the Local Government Act 1974 and section 118 of the Public Works Act 1981 will apply only where the land comprising the stopped road or part of the stopped road is identified	Site is not in these areas.	N/A
1a(iv)	In APP7 – Esplanade priority areas	Site is not in these areas.	N/A
1a(v)	On the planning maps as requiring an esplanade reserve, esplanade strip or access strip to be set aside	Site is not in these areas.	N/A
TRPT-R11: Buildings and structures within a road/rail level crossing sight triangle			
1	Not permitted	No level crossings within the vicinity of the site.	N/A

The above assessment has identified that the proposed metal recycling plant has three non-compliances against the relevant transportation rules of the PODP. The first relates to the location of the HCV access on Hampton Downs Road where it should technically be from Hampton Downs Road Loop. Given the formation of Hampton Downs Loop Road, it is considered that HCV access is more appropriate from Hampton Downs Road. In all other aspects, the proposed site accesses can comply with the PODP Rules. Accessway 1 is also undersized for the number of allotments it will serve. It is therefore recommended that this be upgraded to provide a 6m wide formed width within an approximately 10m ROW corridor between Hampton Downs Road Lopp and the main gate into the site.

The second non-compliance relates to vehicle trip thresholds. The proposal exceeds the 200vpd and therefore an assessment of effects is required. This Transportation Assessment Report provides that consideration.

The third non-compliance relates to the degree of cycle parking provision. The PODP requires cycle parking related to gross floor area. The proposal is a very large site with external operations as well as internal ones. It is considered that applying the ODP cycle parking rates that are related to employees is a more effective way of governing cycle parking provision. The proposals comply with the ODP rates. This is therefore considered to be a technical non-compliance only with the PODP.

It is noted that the above rules within the PODP are being appealed. An assessment against the ODP has also been undertaken as provided in Table 6 below.

TABLE 6: ODP ASSESSMENT

Rule	Requirement	Proposed	Compliance
A11 Parking, Loading Bays, Services Lanes and Manoeuvring Space			
A11.1(a)	Parking and Loading bays are provided that complies with Table1 and Figures 1, 2 and 3, and Appendix B (Engineering Standards)	Parking provision expected to be designed to compliant standards.	Compliance expected
A11.1(b)	Bicycle spaces are provided that comply with Table2	Parking provision expected to be designed to compliant standards.	Compliance expected
A11.1(c)	Parking, loading bays and manoeuvring spaces are sealed, drained and permanently marked if 5 or more parking spaces are required, excluding parking spaces required for a dwelling.	Parking provision expected to be designed to compliant standards.	Compliance expected
A11.1(d)	Parking, loading bays are not located on a shared access or living court and are not obstructed when in use	There are no shared accesses within the site and parking areas will not be obstructed when in use.	Complies
A11.1(e)	Parking, loading bays and manoeuvring spaces are located on the same site as the activity for which they are required.	All parking spaces will be provided on-site.	Complies
A11.1(f)	In Business Zones, a service lane is provided that complies with Table 4 and Appendix B (Engineering Standards) and so that a vehicle is not required to reverse to or from a road, shared access or across a footpath.	Site is not in Business Zone but no reverse manoeuvres are required.	N/A
A12 Manoeuvring Space			
A12.1(a)	No vehicle is required to reverse to or from a road or a shared access	No reverse manoeuvres are required.	Compliance expected

A12.1(b)	A 90 percentile car, as defined in Figure 2, can enter and exit all parking spaces without making more than one reverse manoeuvre, excluding spaces required for a dwelling.	A car is readily able to access the site and the parking/circulation areas.	Compliance expected
A12.1(c)	A 90 percentile car, as defined in Figure 2, can enter and exit one parking space per dwelling, without making more than one reverse movement	No more than reverse movement will be required.	Compliance expected
A12.1(d)	A 90 percentile truck, as defined in Figure 2, can enter and exit all loading spaces required under Table 1 without making more than one reverse movement.	No more than reverse movement will be required.	Compliance expected
A13 Queuing Space			
A13.1(a)	On-site queuing space is provided in accordance with Table 3 for vehicles entering or exiting the parking, loading, manoeuvring or service area.	A minimum 5.5m queuing length is required. This which is expected to be provided given the size of the site.	Compliance expected
A14 Access and Vehicle Entrances			
A14.1(a)	The site has Vehicles access to a formed road that maintained by Council	The site has access to a formed public road	Complies
A14.1(b)	No more than 3 activities share a private access	Only one activity is served by the HCV access (Accessway 2) and no more than 3 activities are served by Accessway 1. Accessway 2 serves 2 activities.	Complies
A14.1(c)	No access, access leg or right-of-way runs parallel to any road within 30m of the road	Access is not parallel within 30m of another road.	Complies
A14.1(d)	Every access and road entrance is laid out and constructed to comply with relevant standards	Access provision expected to be designed to compliant standards.	Compliance expected
A14.1(e)	No new entrance is created from a limited access road	No new access locations are proposed from a limited access road.	Complies
A14.1(f)	No access or entrance within 10m of a road has a gradient steeper than 12 degrees	Access is not expected to have a gradient steeper than 12 degrees.	Compliance expected

The proposed development is fully compliant with the relevant transportation rules of the ODP and assessed as being appropriate.

9 Conclusion

It is proposed to develop the site at 61 Hampton Downs Road in Te Kauwhata into a metal recycling plant. The following conclusions have been reached:

The number of trips generated by the site has been calculated to be in the order of 166 to 168vph. Given the existing traffic volumes are less than 200vph on Hampton Downs Road, the expected trip generation is well within the carrying capacity of the road. As such, no adverse effects are anticipated on the surrounding road network has a result of traffic generated by the proposed metal recycling plant.

Access to Hampton Downs Road and Hampton Downs Road Loop will be provided via two existing vehicle crossings. These crossings comply with the requirements of the PODP. The three proposed accessways are generally compliant with the relevant rules for the GRUZ. However the proposed activity is more akin

to HIZ and it is recommended that the accessways be upgraded to reflect the proposed activity rather than the zoning.

The provision of HCV access to Hampton Downs Road is non-compliant with the PODP, however, given the formation of Hampton Downs Road Loop, this is considered to be a more appropriate outcomes for all road users. No new accesses are created and the increase in traffic movements is unlikely to create significant congestion. As such, the proposal is unlikely to exacerbate the existing road safety record.

The parking and loading space provision has been designed to comply with the relevant standards. Cycle parking complies with ODP requirements and is expected to be sufficient to meet demands.

Give the above, it is considered that appropriate consent conditions should require the following:

- Accessway 1 should have a formed width of 6m within corridor width of approximately 10m as per the Aerys plan;
- The existing vehicle crossing at Accessway 1 should be upgraded with delineation and signage to better govern vehicle use of this crossing;
- Accessway 2 should have a formed width of 8m within an approximately 12m wide corridor as per the Aerys plan; and
- Accessway 3 should have a formed width of 3m within an approximately 6m wide corrido as per the Aerys Plan. It is also recommended that at least 1 passing bay be provide between the Staff entrance to the site and the monofill site.

Overall, it is concluded that there are no traffic engineering or transport planning reasons to preclude approval of the proposed development, subject to the recommended upgrades

CKL