BEFORE AN INDEPENDENT HEARINGS PANEL
OF THE WAIKATO DISTRICT COUNCIL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the proposed Waikato District Plan (Stage 1) Hearing 25

JOINT STATEMENT OF EVIDENCE BY DHARMESH CHHIMA AND SARAH NAIRN OF THE SURVEYING COMPANY ON BEHALF OF HYNDS PIPE SYSTEMS LIMITED AND THE HYNDS FOUNDATION

PLANNING

17 February 2020

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1. INTRODUCTION AND SUMMARY

1.1 This evidence is prepared on behalf of Hynds Pipe Systems Limited and the Hynds Foundation. Hynds operate a large scale manufacturing plant on the site at 9 McDonald Road, Pokeno (**Hynds Factory Site**).

1.2 The land which is the subject of this hearing is located directly to the south of the Hynds Factory Site, at 62 Bluff Road (the **Subject Site**). The land (27.4ha) was purchased by Hynds to prevent incompatible uses establishing next to the Hynds Factory Site and also to enable an expansion of the existing Hynds operation.

1.3 The Subject Site is zoned Aggregate Extraction and Processing (**AEP**) in the Operative Waikato District Plan (**OWDP**) and proposed to be zoned Rural in the Proposed Waikato District Plan (**PWDP**). The focus of this evidence is Hynds' request that the lower portion of the 62 Bluff Road site (the **Expansion Land**) be zoned Heavy Industrial whilst retaining the proposed Rural zone on the upper portion of the site.

1.4 In our view, the proposed Heavy Industrial zone will have a number of positive planning outcomes which are summarised below:

(a) This proposal takes land which is currently lying fallow and not overly suitable for a rural use and gives it an economic purpose by enabling the expansion of a regionally significant industrial operation;

(b) Enabling an expansion of the Hynds operation will recognise the substantial investment that has been made in the Hynds Factory Site to date and will allow the manufacturing plant to grow and evolve. This will not only help to ensure that the operation remains competitive but will likely avoid the need for all or part of the operation to move to a new location.

(c) There is no more undeveloped Heavy Industrial land in Pokeno, therefore the increase in Heavy Industrial zoned land resulting from this proposal is important and will help reinforce the role of Pokeno as the premier industrial hub in the northern Waikato;

(d) Hynds already own this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use;

(e) The various specialists that have reviewed the proposal on behalf of Hynds have confirmed that the proposal will not be impactful on the surrounding environment given the limited scale and extent of the land to be zoned Heavy Industry and as the expansion will likely be consumed into the wider Hynds Factory Site when viewed or experienced from surrounding land;

(f) The upper hillslopes of the Subject Site are protected from large scale development and quarrying and, in fact, will be significantly enhanced by the revegetation / sculpture park project;

(g) Planning is about making places and it is clear that Pokeno needs activities and employers like Hynds as an "anchor point" for the town. Enabling an expansion of the existing operation will help ensure that Hynds continues to be an "anchor point" for the town.

1.5 We have undertaken the assessment required by section 32 of the RMA. The results of that assessment are that the proposal are the most appropriate way of giving effect to the objectives of the PWDP.

1.6 The proposal has been assessed in terms of '3 lens' assessment required by the Waikato District Council's Framework Report and our conclusions are as follows:

(a) The proposal is consistent with the context setting objectives and policies in the PWDP relating to supporting the growth of the region's industry, increasing the supply of industrial zoned land in the Strategic Industrial Growth Node at Pokeno, and protecting the wider rural landscape and rural productivity;

(b) The proposed rezoning is consistent with the higher order documents as it:

- Will give effect to the objectives and policies in the Waikato Regional Policy Statement (**WRPS**) seeking to provide for and facilitate the growth of regionally significant industry and channel such growth into strategic industrial growth nodes;
- is consistent with the relevant growth strategies given that the proposal will increase the amount of industrial land in a location specifically identified for that purpose; and
- Will contribute to meeting the 150-220ha of employment land that the Framework Report identifies should be provided for in the PWDP.

(c) In our opinion the proposed rezoning is in-line with best practice planning as the extent of the proposed Heavy Industrial zone has been carefully thought out to ensure that it is large enough to enable a meaningful expansion of the Hynds operation but yet is not so large as to detract from the landscape character or be impactful on the rural amenity of surrounding dwellings. The need to protect landscape character and rural amenity has meant that the western boundary of the proposed Heavy Industrial zone does not follow a cadastral boundary but this will only be an interim situation as it can be remedied through a boundary adjustment.

(d) The proposal will ensure that sensitive activities are not located adjoining the existing Hynds Factory Site.

1.7 The proposal to zone the land Heavy Industrial has been reviewed by lighting, noise, visual, stormwater and traffic experts who have all concluded that the proposed Heavy Industrial zone will not be impactful on the surrounding environment given the relatively small extent of the proposed zone and as it will adjoin land already used for Heavy Industrial purposes. It is also noteworthy that the visual evidence by Ms de Lambert also identifies a positive visual effect accruing from the revegetation of the upper hillslopes of the Subject Site.

1.8 Overall, it is our opinion that this proposal is the most appropriate zoning for this land as it enables an existing, regionally important activity to grow and evolve

whilst also continuing to act as an 'anchor point' for employment in the township and ensuring the protection and enhancement of the important rural backdrop to the town.

2. EXPERIENCE AND QUALIFICATIONS

Dharmesh Chhima

2.1 My full name is Dharmesh Chhima. I am a Senior Planner at TSC in Pukekohe. I hold a Bachelor of Planning (Hons) and a Masters of Architectural Studies (Hons) from the University of Auckland.

2.2 My relevant professional experience spans 12 years working for local authorities and 4 years in my current private sector role at TSC. In my 12 years with local authorities (Auckland Council and former Franklin District Council) I was involved in assessing a wide range of land use, subdivision, water take and discharge consent applications. In my 4 years at TSC I have been the lead planner on resource management projects from the feasibility and design stage through to project completion. This has included the preparation and lodgement of rural and urban land use and subdivision consent applications in the Waikato District.

Sarah Nairn

2.3 My full name is Sarah Nairn. I am a Senior Planner at TSC in Pukekohe. I hold a Bachelor of Science and a Masters of Planning Practice (Hons) from the University of Auckland.

2.4 My relevant professional experience spans 20 years in both the private and public sectors in New Zealand and the United Kingdom. In the public sector, I have worked in the policy team at Auckland Council undertaking a wide variety of plan changes to the Auckland City Isthmus District Plan. In this role, I was also part of the team who undertook a review of the Hauraki Gulf Islands District Plan and inputted into the preliminary stages of the Auckland Unitary Plan.

2.5 Within the private sector, I have worked for a range of clients to obtain resource consents for large scale residential subdivisions and other development projects. I have also undertaken private plan changes to rezone land such as Three Kings Quarry in Auckland. I also presented evidence at the Auckland

Unitary Plan hearings on a range of issues. These roles have provided me broad spectrum of both policy and resource consent experience in the Auckland and Waikato regions and New Zealand generally.

3. CODE OF CONDUCT

3.1 We confirm that we have read the 'Expert Witnesses Code of Conduct' contained in the Environment Court of New Zealand Practice Note 2014 (**Code**). This evidence has been prepared in compliance with that Code in the same way as if giving evidence in the Environment Court. In particular, unless we state otherwise, this evidence is within our sphere of expertise and we have not omitted to consider material facts known to us that might alter or detract from the opinions we express.

3.2 In preparing this statement of evidence, we have read the s42A Framework Report prepared by Mark Nairn Davey as well as submissions relevant to the Subject Site and surrounding sites.

4. SCOPE OF EVIDENCE

4.1 This evidence has been structured in the following way:

(a) Sections 5, 6 and 7 set out the background as to the submitters, location of the Subject Site and the relief sought;

(b) Sections 8, 9 and 10 undertake a Rezoning Assessment of the relief sought in accordance with the '3 Lens' approach set out in the Framework Report by Mark Davey;

(c) Sections 11 and 12 provide and assessment of the effects of the proposal and set out the conclusions of the Section 32 analysis;

(d) Section 13 sets out a series of conclusions as to why the relief sought is the most appropriate zoning for the subject site.

5. SUBMITTERS

5.1 This evidence is prepared on behalf of Hynds Pipe Systems Limited and the Hynds Foundation. The Hynds Foundation is the charitable foundation established by the Directors of Hynds Holdings.

5.2 This evidence refers to Hynds Pipe Systems Limited and the Hynds Foundation collectively as Hynds (unless a distinction is made between the two).

6. SUBJECT SITE

6.1 Hynds operate a large scale manufacturing plant on the site at 9 McDonald Road, Pokeno. The Subject Site (27.4ha) is located directly to the south of the Hynds Factory Site and is largely undeveloped. Hynds also own the site to the south of the Subject Site at 10 Bluff Road. The Subject Site is highlighted red on the plan below while the adjoining two sites are shown with a red circle:

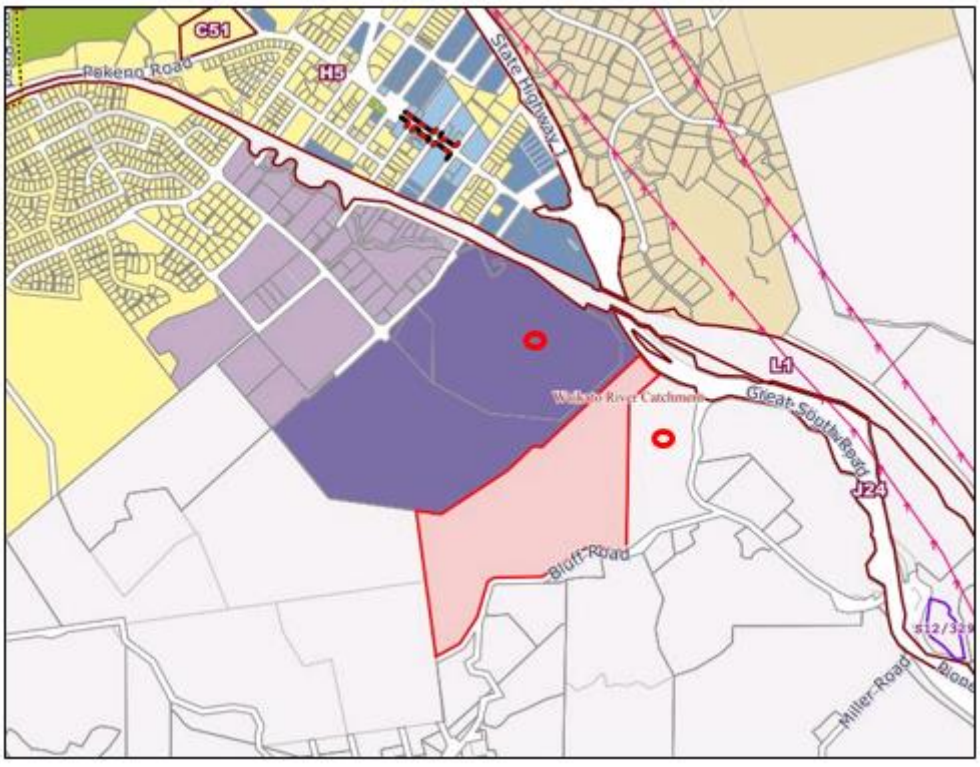

Figure 1 Plan Showing Subject Site (highlighted red)

6.2 As the evidence of Adrian Hynds sets out, it is intended that the lower portion of the Subject Site is used to expand the existing industrial operation on the Hynds

Factory Site. The upper portion of the site is intended to be largely revegetated and developed for a sculpture park.

7. RELIEF SOUGHT

7.1 The AEP Zone was applied to the Subject Site in the OWDP in recognition of the fact that the land was intended to be quarried. This zoning remained unaltered through the Pokeno Structure Plan process (2011) in recognition of the intended use and because it ensured that sensitive activities would not be located adjoining the industrial activities.

7.2 In the PWDP, the Subject Site is zoned Rural. This was opposed by the then owners of the Subject Site (Grander Investments (S548)) who lodged a submission seeking the Heavy Industrial zone be applied to the whole site. The Grander Investments submission was subsequently supported by the further submissions of Hynds.

7.3 Having undertaken the zoning assessment set out below and considered Hynds' proposed future uses of the site, the relief sought has been revised so that the Heavy Industrial zone is now only sought to be applied to the lower portion of the site (4.27ha). The map below shows the revised extent of the Heavy Industrial zone now sought by Hynds:

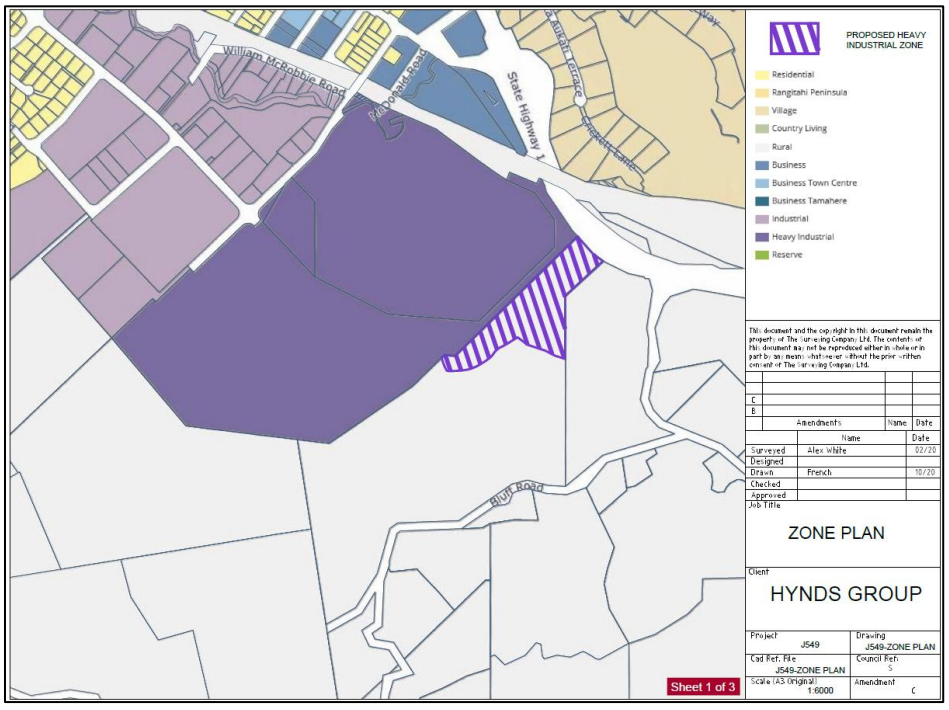

Figure 2 Plan Showing Revised Extent of Heavy Industrial Zone

7.4 The zone boundary shown on Figure 2 above has been determined so that the Heavy Industrial zone includes the consented earthworks area (as discussed on page 24 of this evidence below) and the majority of low lying, developable land. It also includes the relic landslide so that the stabilization of the landslide can be undertaken as part of the redevelopment of the Expansion Land.

7.5 The Framework Report by Mark Davey sets out a '3 lens' assessment to be undertaken as part of any proposal to zone land. This assessment is set out in sections 8, 9 and 10 below and focuses on the statutory tests and technical planning elements. However, before embarking on our assessment of the statutory tests and the technical elements, we consider that it is useful to step back and take note of the merits of the proposal from a pure planning perspective. The merits as we see them are outlined below:

(a) This proposal takes land which is currently lying fallow and not overly suitable for a rural use and gives it an economic purpose by enabling the expansion of a regionally significant industrial operation;

(b) Enabling an expansion of the Hynds operation will recognise the substantial investment that has been made in the Hynds Factory Site to date and will allow the manufacturing plant to grow and evolve. This will not only help to ensure that the operation remains competitive but will likely avoid the need for all or part of the operation to move to a new location;

(c) There is no more undeveloped Heavy Industrial land in Pokeno, therefore the increase in Heavy Industrial zoned land resulting from this proposal is important and will help reinforce the role of Pokeno as the premier industrial hub in the northern Waikato;

(d) Hynds already own this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use;

(e) The various specialists that have reviewed the proposal on behalf of Hynds have confirmed that the proposal will not be impactful on the surrounding environment given the limited scale and extent of the land to be zoned Heavy Industry and as the expansion will likely be consumed into the wider Hynds Factory Site when viewed or experienced from surrounding land;

(f) The upper hillslopes of the Subject Site are protected from large scale development and quarrying and, in fact, will be significantly enhanced by the revegetation / sculpture park project; and

(g) Planning is about making places and it is clear that Pokeno needs activities and employers like Hynds as an "anchor point" for the town. Enabling an expansion of the existing operation will help ensure that Hynds continues to be an "anchor point" for the town.

8. LENS 1: ASSESSMENT OF RELEVANT OBJECTIVES AND POLICIES IN THE PWDP

8.1 The Framework Report identifies that the 'starting point' for a zone assessment is to evaluate the proposal against the relevant objectives and policies in the PWDP and provides a matrix in Appendix 2 to assist in this process. This assessment is undertaken in the table below:

Relevant Objectives and Policies	**Assessment**
Growth occurs in defined growth areas (1.5.2(a)).	The proposal of the lower portion of the site will provide for "growth", albeit that it is limited to a relatively small area (4.27ha). This growth is consistent with Objective 1.5.2(a) as the growth will be located in Pokeno which is identified as an Industrial Growth Area in the Future Proof Strategy 2017.
Protect and enhance green open space, outstanding landscapes, and areas of cultural, ecological,	Policy (1.12.8(b)(vi)) will be given effect to by the fact that the area to be zoned Heavy Industrial is limited to the lower portion of the site. This means that large scale 'urban' built development is not enabled on the upper hill slopes above

Relevant Objectives and Policies	Assessment
historic and environmental significance (1.12.8(b)(vi)).	the township. Keeping these hill slopes free of 'urban' built development was a key landscape principle established by the Pokeno Structure Plan. This principle is also supported by the evidence of Ms de Lambert on behalf of Hynds. In addition to the upper hill slopes being protected from 'urban' built development, the proposal by Hynds for a sculpture park/revegetation will also serve to 'enhance' the landscape as sought by Policy 1.12.8(b)(vi). The concept plans attached to the evidence of Ms de Lambert demonstrate this enhancement. The sculpture park/revegetation project will also include enhancement of the Significant Natural Area (**SNA**) on the upper portion of the Subject Site. The evidence on behalf of Hynds to Hearing 21a Significant Natural Areas sought that the SNA on the upper portion of the Subject Site be retained and therefore protected. Under the PWDP the lower portion of the site also has a SNA located on it. However, at the SNA Hearing 21a, the evidence presented on behalf of Waikato District Council recommended that this lower SNA be removed, The evidence presented on behalf of Hynds also sought that the SNA be removed as the ecological values of the lower portion of the site were low, with it predominantly characterised by invasive weed/pest species. Overall, limiting the extent of the Heavy Industrial zone to the lower portion of the site will protect and enhance the landscape values of the upper hillslopes and will not compromise any significant ecological values.
Industry is only to be located in identified Industrial zones and the industrial strategic growth nodes of	The proposal is consistent with Policy 4.1.6 as the proposed Heavy Industrial zone will become part of the Industrial Strategic Growth node at Pokeno.

Relevant Objectives and Policies	Assessment
Tuakau, Pokeno, Huntly and Horotiu (4.1.6).	
Business town centres are maintained as the primary retail, administration, commercial service and civic centre for each town (4.5.3(a)(i)).	The proposal is consistent with this policy as expanding the Hynds operation on the Subject Site will not detract from or compete with the services provided within the Pokeno Town Centre. In fact, the proposal will enhance the Pokeno town centre by providing an increased employment base which will utilise the services and retail in the town centre. Overall, we see the Hynds operation as an "anchor point" for the town centre and Pokeno generally. This role will be enhanced by the proposed Heavy Industrial zone.
Maintain sufficient supply of industrial land within strategic industrial nodes to meet foreseeable future demands, having regard to the requirements of different industries to avoid the need for industrial activities to locate in non-industrial zones (4.6.3(a)).	The proposed Heavy Industrial zone would be a positive step towards providing the "sufficient supply" sought by 4.6.3(a). Whilst the area to be zoned is relatively small, it would nonetheless make an important contribution towards achieving the additional 150-220ha[1] of future employment land that needs to be identified in the PWDP. In our view this contribution to the supply of Industrial land would be particularly valuable as: • There is no more undeveloped Heavy Industrial land in Pokeno so even a small increase is an <u>important</u> increase, particularly as Pokeno is a Strategic Industrial Growth node and therefore the location where you would expect a "sufficient supply"; • Hynds already own this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use;

1 Paragraph 279 of Framework Report by Mark Davey

Relevant Objectives and Policies	Assessment
	• Enabling the expansion of the Hynds operation will help to ensure that Hynds does not "outgrow" the existing site and force all or part of the operation to move to another location or a non-industrial zone; • The existing Hynds Factory Site has required substantial investment. It is prudent planning to recognise this investment and build on it by enabling the operation to grow and evolve, especially as one of the objectives of the Heavy Industrial zone is to support the economic growth of industry.
Maintain activities within specific sites containing lawfully established industrial activities that are not immediately adjacent to towns or villages (4.6.5(a)).	4.6.5(a) is not relevant to this proposal as the Subject Site is immediately adjacent to Pokeno township.
Infrastructure can be efficiently and economically provided (4.1.3(a)).	The Infrastructure Feasibility Report by The Surveying Company indicates that infrastructure can be efficiently and economically provided on the Subject Site. This report is attached to this evidence as Appendix 1. We also note the following statement from Campbell McGregor's evidence: "In conclusion having assessed the existing infrastructure and acknowledging that further consents will be required in relation to any proposed development, I consider there are no infrastructural constraints that would prohibit the ability to develop the Expansion Land. On this basis I support the proposed rezoning of the Expansion Land".[2]
Rural character and amenity are maintained (5.3.1(a) and 5.3.4(a)(b)).	The rural character and amenity of the Subject Site is maintained by limiting the extent of the Heavy Industrial zone to the lower portion of the site. This avoids urban built development on the important upper hill slopes and also ensures that noise, lighting, traffic and visual effects are not impactful on surrounding sites. Evidence is provided on

2 Evidence of Campbell James McGregor on behalf of Hynds Pipe Systems Limited and the Hynds Foundation in support of rezoning request (17 February 2021) at [8.5].

Relevant Objectives and Policies	Assessment
	behalf of Hynds in relation to noise, lighting, traffic and visual effects. This is further discussed in Section 11 below.
Effects on rural character and amenity from rural subdivision: (a) Protect productive rural areas by directing urban forms of subdivision, use and development to within the boundaries of towns and villages; (b) Ensure development does not compromise the predominant open space, character and amenity of rural areas; (c) Ensure subdivision, use and development minimise the effects of ribbon development; (e) Subdivision, use and development opportunities ensure that rural character and amenity values are maintained; (f) Subdivision use and development ensures the effects on public infrastructure are minimised. (5.3.8(a),(b),(c),(e),(f)).	The Subject Site is not zoned rural under the OWDP. It is not currently used as a productive rural unit and nor is it likely to be, given its limited size and large amount of steep topography. Additionally, the New Zealand Land Resource Information Systems Portal indicates that the vast majority of soil on the site is Land Class 6 with a small portion of Land Use class 4. Neither of these land use classes indicate High Class Soils as per the definition in the PWDP. We also note that the Subject Site adjoins an existing Heavy Industrial use and Pokeno village in general. As identified above, rural character and amenity is maintained by this proposal due to the limited extent and location of the proposed Heavy Industrial zoning. The proposed Heavy Industrial rezoning will not promote "ribbon development" as it simply "rounds out" the existing Pokeno Industrial hub rather than creating a ribbon of development extending along State Highway 1. As identified above, rural character and amenity is maintained by this proposal due to the limited extent and location of the proposed Heavy Industrial zoning. As identified above, the Infrastructure Feasibility Report by The Surveying Company attached to this evidence and the evidence of Mr McGregor on behalf of Hynds both indicate that the required infrastructure to service the site can be provided. Therefore, there will not be any significant effects on public infrastructure.
Meets district wide rules and any relevant overlays.	Any development on the Subject Site will need to meet the district wide controls relating to Infrastructure (and any others

Relevant Objectives and Policies	Assessment
	that are relevant). We are not aware of any significant impediment that would prevent this from being achieved. As identified above, the evidence presented to Hearing 21a on behalf of both the Council and Hynds sought that the SNA on the lower portion of the site be removed. The SNA on the upper part of the site will be protected and enhanced as a part of the revegetation/sculpture park proposal.

8.2 The above table was prepared on the basis of the matrix contained in Appendix 2 to the Framework Report. In addition to the objectives and policies identified as being relevant in Appendix 2, we consider that the proposal i is the most appropriate way to achieve Objective 4.6.1 which states as follows:

4.6.1 Objective – Economic growth of industry

(a) The economic growth of the district's industry is supported and strengthened in industrial zones.

8.3 Overall, we consider that the proposal to zone the lower portion of the Subject Site Heavy Industrial is a balanced approach which is the most appropriate way to achieve the objectives and policies in the PWDP as it will:

- Support growth of the region's industry;
- Increase the supply of industrial zoned land;
- Enhance the Strategic Industrial Growth node of Pokeno;
- Avoid urban development on productive rural land;
- Protect rural landscape character and amenity; and
- Provide infrastructure efficiently and effectively.

9. LENS 2: CONSISTENCY WITH HIGHER ORDER POLICY DOCUMENTS AND STRATEGIES

9.1 The second step of the 3 Lens approach set out in the Framework Report is to assess the proposal against the relevant higher order documents, namely the National Policy Statement - Urban Development 2020 (**NPS-UD**) and the

WRPS**.** This is important as sections 74 and 75 of the Resource Management Act 1991 (**RMA**) require district plans to give effect to any National Policy Statement and any operative regional policy statement.

9.2 These higher order documents are best assessed in a 'top down' fashion given that the higher level documents direct those that follow rather than the other way around.

National Policy Statement - Urban Development

9.3 The NPS-UD requires district plans provide sufficient residential and business development capacity. The Council is required to give effect to this policy statement in the PWDP. It is listed as a 'tier 1' territorial authority.

9.4 In this regard, paragraph 279 of the Framework Report identifies that recent work commissioned by the Waikato District Council has concluded that 150-220ha of land for future employment needs to be provided in the PWDP. In the longer term 460ha of business land will be required by 2045.

9.5 It is considered that this proposal will make an important contribution to providing the required business development capacity, especially as the proposed Heavy Industrial zone is in a location where it is able to be serviced and is already sought after by an established operator for industrial use. It would be prudent planning to "snap up" this opportunity. In our opinion the proposal will give effect to the NPS-UD and will help the Council to fulfil its obligations under that document.

Waikato Regional Policy Statement

9.6 The second 'higher order' document to be considered is the WRPS which must be given effect to in the PWDP. In our view, one of the key considerations in the WRPS for this proposal is Objective 3.2. This objective states:

> "Recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining, and where appropriate, enhancing access to physical and

natural resources to provide for regionally significant industry and primary production activities which support such industry….".

9.7 The proposal to zone the lower portion of the Subject Site Heavy Industrial gives effect to the above objective as it will enable Hynds to access land for regionally significant industry. It will also contribute to the economic wellbeing of the community given that Hynds employs a significant number of people from Pokeno and the wider area.

9.8 Objective 3.2 is given effect to by Policy 4.4 which seeks to manage natural and physical resources to provide for the continued operation and development of regionally significant industry. Providing for an expansion of the Hynds operation will give effect to this policy as it will help ensure continued operation and development of the existing manufacturing plant. It is also relevant to note that the methods associated with Policy 4.4 specifically mention applying zones (such as the Heavy Industrial zone proposed) to enable operation and development of regionally significant industry.

9.9 Having established that the WRPS requires that regionally significant industry is to be provided for, it is then relevant to consider where such industry should be located. Guidance on this is provided in Policy 6.14 which states that new industrial development should predominantly be located in the strategic industrial nodes.

9.10 The location of the Strategic Industrial Growth Node at Pokeno is shown on the map below:

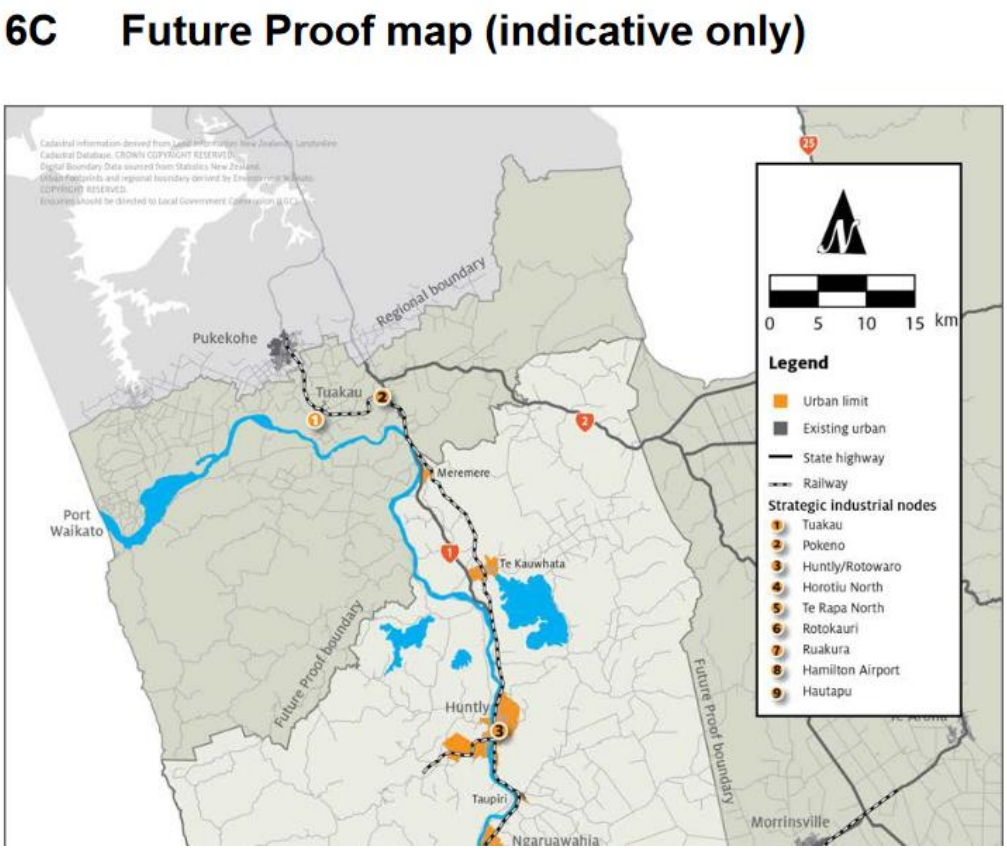

Figure 3 Future Proof Map showing Location of Pokeno Strategic Industrial Node (identified with a 2)

9.11 It is also relevant to note that the development principles in section 6A of the WRPS make specific mention of the need for urban intensification and redevelopment as this minimises the need for urban development in greenfield areas. This proposal is considered to be consistent with that principle.

9.12 The Framework Report highlights the need to assess a proposed zone against Implementation Method 6.1.8 in the WRPS. This assessment is undertaken in Appendix 5 of this evidence and confirms that all the information required to understand this proposal has been provided.

Growth Strategies

9.13 There are two growth strategies that have been prepared to manage growth in the Waikato region. These strategies do not have the same status as the WRPS as they are not RMA planning documents. As such, they are documents that

the Council must "have regard to" when preparing the PWDP, rather than being required to give effect to them in the PWDP.

9.14 The first strategy is the Future Proof Strategy which was approved in 2017. This strategy seeks to ensure that urban development within the Waikato region has a compact form of development. To achieve this, the Future Proof Strategy contains a plan showing the expected settlement pattern, an extract of this plan is contained in Figure 4 below:

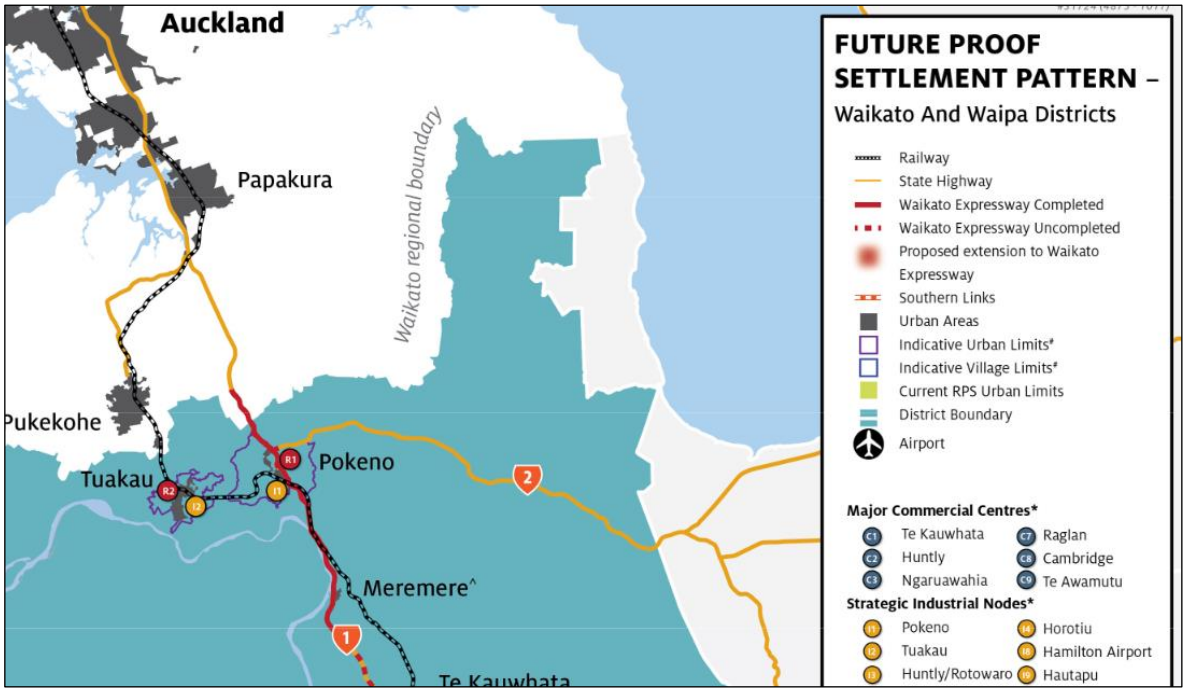

Figure 4 Future Proof Settlement Pattern 2017

9.15 The yellow circle on the plan above identifies Pokeno as being a Strategic Industrial Node. We consider that this proposal is consistent with the above plan as it provides a small amount of additional industrial land in a Strategic Industrial Growth Node.

9.16 The second growth strategy is Waikato 2070. This plan also seeks a compact form of development but focuses on the Waikato District, rather than being

region wide like the Future Proof Strategy. Waikato 2070 includes a series of Development Plans, one of which relates to Pokeno and is set out below:

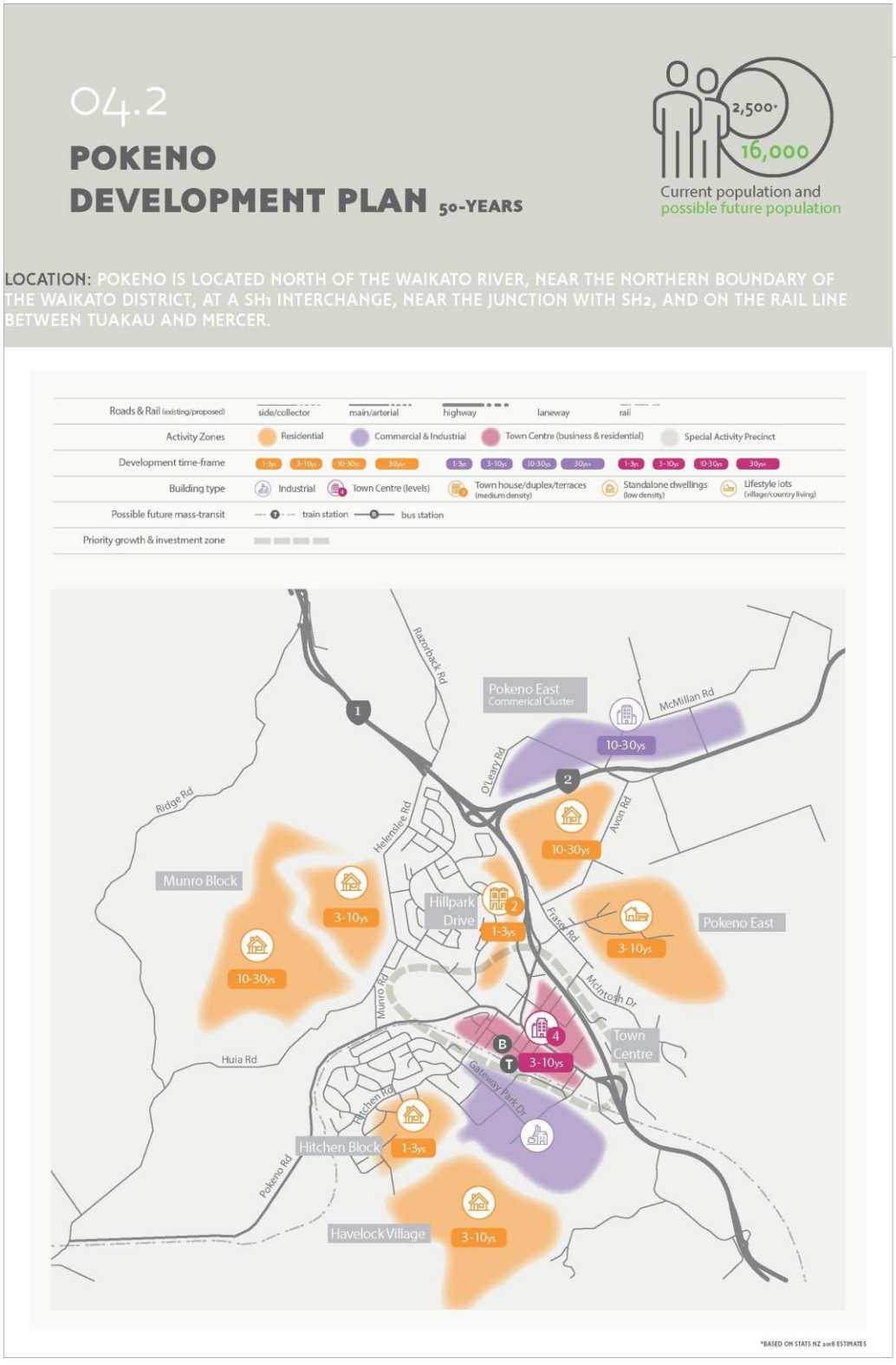

Figure 5 Pokeno Development Plan Waikato 2070

9.17 Again the proposal is consistent with the above plan as it provides for industrial activity in the purple Industrial Area located at the end of Gateway Park Drive.

9.18 Overall, the proposal is considered to be consistent with the higher order documents as the proposal:

- Will give effect to the NPS-UD by providing for additional business land in an appropriate location;
- Will give effect to the objectives and policies in the WRPS seeking to provide for and facilitate the growth of regionally significant industry and channel such growth into strategic industrial growth nodes;
- Is consistent with the relevant growth strategies given that the proposal will increase the amount of industrial land in a location specifically identified for that purpose;
- Will contribute to meeting the 150-220ha of employment land that the Framework Report identifies should be provided for in the PWDP.

10. LENS 3: PLANNING BEST PRACTICE

10.1 The third and final step of the '3 Lens' approach set out in the Framework Report requires an assessment of the proposed rezoning against a range of matters that relate to 'planning best practice'. This assessment is undertaken in the table below:

Planning Best Practice Issues	Assessment
Economic costs and benefits are considered	The Section 32 reports published with the PWDP identified the costs and benefits of the Industrial Zones per se and concluded that these zones enable economic and social benefits for the community, particularly through the provision of employment and ensuring that people do not need to travel outside the district to work. Applying the Heavy Industrial zone will enable an expansion of a regionally significant industrial activity. This will not only have benefit to Hynds but will also benefit the wider economy. An expansion of the Hynds operation is also of economic benefit to Pokeno as it will help ensure that the Hynds operation will

Planning Best Practice Issues	Assessment
	stay in Pokeno and continue to be a key employer and an anchor point for the town. The costs of the proposed Heavy Industrial zone relate to the loss of rural land, although this loss is mitigated by the fact that the land does not contain a productive use currently, does not contain High Class soils and has a gradient/topography that is not well suited to productive uses. These site characteristics are reflected in the current AEP zone applied to the Subject Site in the OWDP. The fact that the land to be zoned Heavy Industrial will no longer be part of the rural landscape could also be considered a cost although this is also mitigated by the fact that the upper hill slopes are being maintained as part of the rural environment. The evidence of Ms de Lambert addresses this matter specifically at paragraph 4.10 where it is noted that there are low adverse effects on landscape character.
Changes take into account the issues debated in recent plan changes	The Pokeno Structure Plan (Plan Change 24 (**PC24**)) debated a number of issues which are relevant to this proposal. The first issue related to the protection of the rural backdrop of Pokeno. As stated above, this proposal is consistent with this principle given that the upper hill slopes are to be retained in the Rural zone as notified. This is discussed further in Ms de Lambert's evidence on behalf of Hynds. The second issue related to the protection of Heavy Industrial activities from reverse sensitivity effects. PC24 put in place a 'trifecta' of planning provisions that both enabled and protected the Hynds Factory Site in the OWDP. This trifecta was made up of: • The Industrial 2 zone applied to the Hynds Factory Site (this zone enabled the operation that we see today); • The application of the AEP zone to land adjoining the Hynds Factory Site (this ensured that sensitive activities were not adjoining the industrial activity);

Planning Best Practice Issues	Assessment
	• A setback which required dwellings to be located 500m from the AEP zone boundary. The proposed Heavy Industrial zone will contribute to re-instating the second element of the trifecta set out above as it will ensure that sensitive land uses do not locate adjoining the Hynds Factory Site. There is also no concern that sensitive activities will locate adjoining the Subject Site as Hynds own the adjacent site at 10 Bluff Road. This second element of the 'trifecta' will sit alongside the existing Heavy Industrial zone on the Hynds Factory Site (first element) and the 'Heavy Industrial Buffer" sought in the evidence presented to the Rural zone hearings (third element) to create a revised and updated 'trifecta' of planning provisions.
Changes to zone boundaries are consistent with the maps in the plan that show overlays or constraints e.g. hazards.	As identified above, a SNA was applied to the lower portion of the Subject Site in the PWDP but the evidence presented on behalf of the Waikato District Council and Hynds at Hearing 21a has recommended that this be removed. The SNA on the upper portion of the Subject Site will remain in the Rural zone and is therefore unaffected by the proposed Heavy Industrial zone. The Subject Site is not identified as being subject to any flood hazard overlays in Stage 2 of the PWDP.
Changes take into account features of the site (where it is, what the land is like, what it is used for and what is already built there).	The Heavy Industrial zone is limited to the lower portion of the site. This ties in with the Heavy Industrial zone on the adjoining Hynds Factory Site and also recognises that the upper portion of the site is steep and not suitable for the large flat platforms required for industrial activity. In addition, limiting the extent of the Heavy Industrial zone also recognises that the upper hill slopes of the Subject Site have significant landscape value as a backdrop for the Pokeno township. This is addressed further in Ms de Lambert's evidence on behalf of Hynds.

Planning Best Practice Issues	Assessment
	Retaining the Rural zone on the upper-portion of the site also aligns with Hynds' intent to revegetate and restore this part of the site into an enriched bush and open space sculpture park. Part of these works will also include enhancement and protection of the SNA on the upper portion of the site.
Zone boundary changes recognise the availability, or lack of, major infrastructure.	Zoning part of the Subject Site Heavy Industrial recognises that this land can be serviced through connections on the existing Hynds Factory Site. This is confirmed in the Infrastructure Feasibility Report (attached to this evidence as Appendix 1) and Mr McGregor's evidence on behalf of Hynds.
There is adequate separation between incompatible land uses.	The land is separated from surrounding dwellings by the 10 Bluff Road site and the remaining Rural zoned portion of the Subject Site. All of this land is owned by Hynds. This separation will ensure that the amenity of surrounding dwellings is maintained. This is confirmed in the lighting, noise and landscape/visual evidence prepared on behalf of Hynds and is further discussed in Section 11 below. It is also noted that the AEP zone applied to the Subject Site in the OWDP will have (or should have) created an expectation that the Subject Site will be quarried. The proposed Heavy Industrial zone will be less impactful on surrounding sites than if the site was used in accordance with the existing AEP zone.
Zone boundaries need to be clearly defensible.	There are a range of considerations that have been taken into account in determining the location of the proposed Heavy Industrial zone boundary including: • The zone boundary has been aligned to include the existing consented earthworks area; • The zone boundary has been set to include the majority of the low lying area (being the developable land as compared to the steep upper slopes);

Planning Best Practice Issues	Assessment
	• The zone boundary aligns with the cadastral boundary of the existing Hynds Factory Site on the western boundary; • The zone boundary has been aligned to include the relic landslide identified in the geotechnical report. This will allow stabilization of the landslide to be undertaken as part of the redevelopment works on the Expansion Land.
Zone boundaries follow property boundaries.	The boundary of the proposed Heavy Industrial zone will follow the northern, eastern and southern boundaries of the site but will not follow the western boundary - so as to exclude the upper hill slopes. This will create a "split zone" of Rural and Heavy Industrial which is not ideal from a best practice planning perspective. However, the split zone will only be an interim issue as Hynds will undertake a boundary adjustment along the zone boundary so that all land zoned Heavy Industrial will be held with the 9 McDonald Road title and all land zoned Rural will be contained in the 62 Bluff Road title. In effect, the boundary adjustment will make the split zone 'disappear'.
Generally, no "spot zoning".	The proposed Heavy Industrial zone will not create a "spot zone" as it will adjoin an existing area of Heavy Industrial zoned land.
Zoning takes into account existing resource consents and existing use rights, but this does not determine zoning.	A regional earthworks consent has been approved for the northern portion of the Subject Site. These works will provide for an expansion of the existing yard and storage area and are shown on plans contained in Appendix 3. The fact that this consent has been obtained and given effect to shows that Hynds are committed to an expansion onto the Subject Site and that an expansion is a realistic and practical option, albeit that further consents are required as the current consent does not relate to all of the expansion land.

Planning Best Practice Issues	Assessment
Zoning for business and industrial land is consistent with additional locational criteria (as set out in paragraph 162 of the Framework Report).	The land to be zoned Heavy Industrial meets these additional criteria as: • The land is low lying and when added to the adjoining site will help to create a large, flat platform; • The land can be serviced relatively easily as it can connect into the infrastructure already in place on the Hynds Factory Site; • A geotechnical review has been undertaken and has determined that there are no significant impediments to the site being developed for industrial uses; • The land will enjoy the same access and connections to main transport routes as the existing Hynds Factory Site, including that it is in close proximity to State Highway 1; • The land is separated from dwellings by the 10 Bluff Road site and the remaining Rural zoned portion of the Subject Site. All of this land is owned by Hynds. This will ensure that the amenity of existing dwellings is maintained.

10.2 In addition to the above 'best planning practice' matters set out in the Frameowrk Report , we are of the view that consideration also needs to be given to paragraph 223 of the Framework Report. which states that the AEP Zone in the OWDP was replaced by the Industrial and Heavy Industrial Zones in the PWDP.

10.3 Given that the Subject Site was zoned AEP in the OWDP, it is unclear as to why the 'replacement' to Heavy Industrial did not occur in the PWDP. Nonetheless, what is clear is that applying the Heavy Industrial zone to the lower portion of the Subject Site is "consistent with" the Council's approach to zoning.

10.4 Overall, the proposal is considered to meet the 'best planning practice' guidance as the extent of the proposed Heavy Industrial zone has been carefully thought out to ensure that it is large enough to enable a productive expansion of the Hynds operation but yet is not so large as to detract from the landscape character or be impactful on the rural amenity of surrounding dwellings. The need to protect landscape character and rural amenity has meant that the

western boundary of the proposed Heavy Industrial zone does not follow a cadastral boundary but this will only be an interim situation as it can be remedied through a boundary adjustment.

10.5 Furthermore, the proposal will ensure that sensitive activities are not located adjoining the existing Hynds Factory Site. This contributes to the re-instatement of the 'trifecta' of planning provisions which was in place in the OWDP. This 'trifecta' not only enabled the establishment of the Hynds operation but also protected it from reverse sensitivity effects.

10.6 In our opinion, and in light of the best practice guidance, the proposal is the most appropriate zoning for this Site.

11. ASSESSMENT OF EFFECTS

11.1 As part of a proposal to apply a particular zone it is appropriate and necessary to consider the effects of the zone on the surrounding area. Such an assessment has been undertaken on behalf of Hynds by visual, traffic, lighting, noise and infrastructure specialists. These specialists all come to the conclusion that expanding the Heavy Industrial zone will have inconsequential/low effects on surrounding sites. This is largely because the land to be rezoned is limited in size and as the use of this land will be consumed into the wider Hynds operation when viewed or experienced from surrounding land. The experts are all in agreement that Hynds' rezoning proposal is the most appropriate.

11.2 It would be lengthy to quote the conclusions of all of these specialists so we have refrained from that exercise, however, we do wish to draw the panels attention to the conclusion of Ms de Lambert as this evidence highlights that the proposal will not only have landscape and visual effects that are low, but it will also have positive landscape effects as a result of the revegetation of the upper portion of land:

> "I consider the landscape and visual effects resulting from the rezoning will be **low** to **very low** / benign. Furthermore, significant **positive** landscape effects will result from Hynds' proposed management of the remaining portion of Rural zoned land with revegetation of a large portion of the residual 23.53ha, ecological

rehabilitation of the boulder stream and establishment of a sculpture park facility accessible to workers and the community".[3]

12. SECTION 32 ANALYSIS

12.1 Appendix 4 to this evidence contains an analysis of the proposal in accordance with Section 32 of the RMA (and in accordance with the template contained in the Framework Report). This analysis identifies that the most appropriate zoning option is to zone the lower portion of the site Heavy Industrial (and retain the upper portion of the Subject Site as Rural).

12.2 This option enables lower portion of the site to be developed for industrial use which will in turn generate positive economic and employment outcomes for Hynds, Pokeno and the Waikato region generally. It will also facilitate a positive environmental outcome in that the development on the lower portion of the site will fund the regeneration project on the upper portion of the site. The regeneration project on the upper portion of the site will also protect and enhance the rural and landscape character of the upper hill slopes which are an important backdrop to Pokeno township.

12.3 The option of applying the Heavy Industrial zone to the lower portion of the site is preferable to, and more appropriate than, retaining the Rural zone over the whole site as such a zoning will preclude the positive economic and employment outcomes generated by development on the lower portion of the site. It would also preclude the enhancement works on the upper portion of the site as these works are contingent on the development on the lower portion of the site for their funding. In essence, retaining the Rural zone over the whole site will most likely result in the land lying fallow as it has done for a number of years.

12.4 The option of applying the Heavy Industrial zone to the lower portion of the site is also more appropriate than rezoning the whole site Heavy Industrial as such a zoning may not protect the upper hill slopes from urban development. These hill slopes have been identified as having important landscape values and are not suitable for large scale industrial development.

3 Evidence of Rachel Virginia de Lambert on behalf of Hynds Pipe Systems Limited and the Hynds Foundation in support of rezoning request (17 February 2021) at [6.2].

13. CONCLUSIONS

13.1 The ultimate question for this hearing is to determine if the Rural zone (as proposed in the PWDP) is the most appropriate zone for the Subject Site or if the Heavy Industrial zone should be applied to the lower portion of the land (with the upper portion being zoned as Rural).

13.2 Having considered the merits of the proposal and undertaken the '3 lens' assessment required by the Framework Report and the section 32 assessment required by the RMA, we are of the view that applying the Heavy Industrial zone to the lower portion of the land is the most appropriate zone as it will enable a range of positive planning outcomes including:

- Supporting the growth of the region's industry;
- Increasing the supply of industrial zoned land;
- Enhancing the Strategic Industrial Growth node of Pokeno;
- Avoiding urban development on productive rural land;
- Protecting appropriate areas of the rural landscape character and amenity;
- Providing infrastructure efficiently and effectively;
- Avoiding reverse sensitivity effects;
- Giving effect to the relevant growth strategies; and
- Achieving best practice planning by giving effect to issues debated in the Pokeno Structure Plan process.

13.3 In contrast, the Section 32 analysis shows that retaining the Rural zone over the whole site is not effective or efficient given that the land is not overly suitable for rural activities and will not contribute to the economy of Pokeno and the wider region.

13.4 The proposal to zone the land Heavy Industrial has been reviewed by lighting, noise, visual, stormwater and traffic experts who have all concluded that the effects of the proposed Heavy Industrial zone will be low/negligible on the surrounding environment, given the relatively small extent of the proposed zone and as it will adjoin land already used for Heavy Industrial purposes. It is also noteworthy that the visual evidence by Ms de Lambert also identifies a positive visual effect accruing from the revegetation of the upper hillslopes of the Subject Site.

13.5 In our view, the wide range of positive planning outcomes that will be enabled by the Heavy Industrial zone makes this the most appropriate zone for the lower portion of the Subject Site and therefore the most likely to enable the Council to carry out its functions in a manner which promotes sustainable management of natural and physical resources.

DHARMESH CHHIMA AND SARAH NAIRN

17 February 2021

APPENDIX 1: INFRASTRUCTURE FEASIBILITY REPORT BY THE SURVEYING COMPANY

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INFRASTRUCTURE FEASIBILITY REPORT FOR HYNDS

62 BLUFF ROAD, POKENO

Version	Review/Amendment	Date
1.0	As Submitted	February 2021

PROJECT REFERENCE: J549

DATE: FEBRUARY 2021

VERSION 1.0

1.0 INTRODUCTION

TSC Limited has been engaged by Hynds to prepare an Infrastructure Feasibility Report for the proposed rezoning of the lower portion of the land at 62 Bluff Road to Heavy Industrial (Expansion Land). This report addresses matters relating to stormwater, wastewater, water reticulation, earthworks and roading to allow for the industrial use of the Expansion Land.

1.1 EXISTING SITE

The subject site at 62 Bluff Road is located directly to the south of the Hynds Factory Site at 9 McDonald Road, Pokeno. The site is currently located within the Aggregate Extraction and Processing Zone of the operative Waikato District Plan and is largely undeveloped.

1.2 SCOPE OF REPORT

The scope of this report is to describe the nature and extent of the engineering activities required to service the proposed rezoning. The assessments carried out in this report are a desktop analysis and are preliminary in nature based on the assumptions and information available at the time.

2.0 EARTHWORKS

Bulk earthworks will be required to improve the site contours to enable industrial use of the Expansion Land.

A geotechnical assessment has been undertaken by Ground Consulting Limited to determine the geotechnical feasibility of developing the Expansion Land. A desktop study along with subsurface investigations has been carried out with the results outlined in the Ground Consulting Report, REF: R6615-1B, dated 11 December 2020.

A detailed design of the earthworks will need to be carried out at the time of development. This design should be undertaken in accordance with the finding of the abovementioned geotechnical report and with the Waikato Regional Infrastructure Technical Specifications (hereafter referred to as the RITS).

All earthworks within the site will need to be undertaken with the appropriate erosion and sediment control measures to ensure all adverse effects are mitigated. The erosion and sediment control plans will be designed and constructed in accordance with Waikato Regional Council Erosion & Sediment Control Guidelines for Soil Disturbing Activities.

3.0 STORMWATER

The RITS – Section 4 – Stormwater outlines the stormwater design and construction standards for all land development activities within the Waikato Region. A detailed design will be required at the time of development to ensure that the reticulation and discharge of stormwater adheres to the relevant Engineering Code of Practice and District and Regional standards.

3.1 STORMWATER RETICULATION

Any detailed stormwater reticulation design will be designed in accordance with Section 4.2 of the RITS. The reticulation will need to convey, as a minimum, the 10% AEP storm event adjusted for climate change (2.1°C).

3.2 STORMWATER QUALITY TREATMENT

It is anticipated that any activity within the Expansion Land will require stormwater quality treatment. The RITS, the Waikato Regional Plan and Waikato District Plan require stormwater to be treated prior to its final discharge into the receiving environment. The RITS outlines several solutions that can be incorporated into the design. These include the following;

- Wetland,
- Raingardens,
- Swales,
- Proprietary Filtration System, and
- Infiltration System.

In general terms, a constructed wetland would provide the required stormwater quality treatment and quantity control (covered later in this report). The constructed wetland would be situated at the low point of the site to cater for the entire catchment. It is likely that the constructed wetland would be located within the neighbouring property at 10 Bluff Road which is owned by Hynds.

Alternatively, at source treatments such as Raingardens, Swales, Proprietary Filtrations Systems or Infiltration Systems can be adopted into a detailed design exclusively or as part of a treatment train ensuring the treatment devices remain within the Expansion Land. These details would need to be investigated during the detailed design stage.

3.3 STORMWATER QUANTITY CONTROL

It is anticipated that any activity in the Expansion Land will require stormwater quantity control. The RITS and the Waikato Regional Plan and Waikato District Plan requires development to attenuate the stormwater flows to pre-development levels for storm events up to and including the 1% AEP storm. The RITS outlines several solutions that can be incorporated into the design.

- Wetland/Pond,
- Tanks, and
- Infiltration Device.

As mentioned earlier in this report, a constructed wetland/pond would provide the required stormwater quantity controls as required by the RITS and the Regional and District Plans. Again, the constructed wetland/pond would likely be located within the neighbouring property at 10 Bluff Road.

Alternatively, above ground tanks, underground tanks or infiltration devices could be adopted into a detailed design enabling the devices to be located within the Expansion Land. These details would be investigated during the detailed design stage.

3.4 UPSTREAM CATCHMENT

The Expansion Land includes low lying areas which currently convey stormwater flows from the upstream catchment. As part of the overall earthworks and stormwater design, the existing overland flow path will be realigned to convey the flows from the upstream catchment. The realignment will direct stormwater towards the existing 1200Ø culvert located at the intersection of Pioneer Road and State Highway 1.

4.0 WASTEWATER

The RITS – Section 5 – Wastewater outlines the design principles of wastewater design and construction standards for all land development activities. A detailed design will be required at the time of development to provide for the disposal of wastewater.

4.1 WASTEWATER RETICULATION

The existing private wastewater infrastructure serving the Hynds Factory Site connects to the public wastewater network in McDonald Road. It is anticipated that the private wastewater system within the Hynds Factory Site will be extended to service the Expansion Land. Due to the topography, it is unlikely that a gravity connection can be made to the existing private reticulation on the Hynds Factory site. It is anticipated that a private pump station will be required to reticulate the wastewater into the private network.

Alternatively, the private pump station on the Expansion Land could pump the wastewater directly into the public network on McDonald Road. A rising main from the pump station can be installed through the Hynds Factory Site. It is anticipated that the rising main will be laid/thrust along the western side of the existing driveway of the Hynds Factory Site.

Prior to any connection to the public wastewater network, the following will be required.

- Detailed Engineering Design;
- Consents and Engineering Approval from Waikato District Council.

It is noted that some activities that could be carried out on the Expansion Land (hardstand, storage) may not require a wastewater connection. Alternatively, any wastewater servicing requirements could be met by providing onsite wastewater disposal.

5.0 WATER SUPPLY

The RITS – Section 6 – Water outlines the design principles of water reticulation design and construction standards for all land development activities. A detailed design will be required at the time of development to supply water to the Expansion Land.

5.1 WATER RETICULATION

A public water main (200Ø PVC) is located within the berm on McDonald Road and services the Hynds Factory Site. It is anticipated that water reticulation within the Hynds Factory Site will be extended through to service the Expansion Land. Alternatively, a new water line from the Expansion Land can be laid/thrust along the western side of the existing driveway of the Hynds Factory Site and connected to the abovementioned public water main.

Prior to any connection to the public water reticulation, the following will be required.

- Detailed Engineering Design;
- Consents and Engineering Approval from Waikato District Council.

It is noted that some activities that could be carried out on the expansion land (hardstand, storage) may not require a water connection. Alternatively, water supply could be provided through a tank supply (onsite roof water collection).

6.0 ROADING

6.1 SITE ACCESS

It is expected that the Expansion Land will be accessed from the existing driveway within the Hynds Factory Site (9 McDonald Road). There are no impediments identified in extending the existing driveway through to service the Expansion Land.

As detailed in Section 3 of this report, stormwater from the new driveway will need to be managed in accordance with the relevant Regional and District Council documents.

7.0 CONCLUSION

The stormwater generated from the potential development of the Expansion Land can be adequately catered for in terms of stormwater quality treatment and quantity control. This can be achieved via a constructed wetland/pond on the adjoining property at 10 Bluff Road. Alternatively, at source treatment can be provided, if required.

Wastewater from the Expansion Land can be reticulated through the Hynds Factory Site to the existing wastewater network on McDonald Road. It is expected that the wastewater will need to be pumped to the existing wastewater network.

Water can be reticulated through the Hynds Factory Site to the existing water network on McDonald Road.

Site access can be obtained via the Hynds Factory Site.

Based on the desktop analysis described in this report and information available at the time, it is our opinion that the Expansion Land can be feasibly serviced by stormwater, wastewater, water and private road.

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Civil Engineer

Reviewed: Ed Armstrong
TSC Ltd.
Civil Engineer

Approved: John Gasson
TSC Ltd.
Managing Director

APPENDIX 2: GEOTECHNICAL FEASIBILITY REPORT

STUART P.C LIMITED

62 & 10 BLUFF ROAD,
POKENO

GEOTECHNICAL FEASIBILITY ASSESSMENT FOR HYNDS PROPOSED REZONING REQUEST AS PART OF THE WAIKATO DISTRICT PLAN REVIEW

REF: R6615-1B
DATE: 11 DECEMBER 2020

GCL
Ground Consulting Ltd

REPORT QUALITY CONTROL

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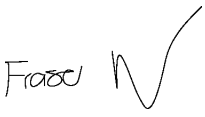
AUTHOR SIGNATURE			REVIEWER SIGNATURE	
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1 INTRODUCTION

1.1 PROJECT BACKGROUND

A geotechnical feasibility assessment has been undertaken by GCL for a proposed Hynds rezoning request as part of the Waikato District Plan review comprising the properties held by the Hynds Foundation at 10 and 62 Bluff Road, Pokeno.

This geotechnical feasibility assessment has been prepared for the purpose of providing sufficient geotechnical information in order to develop and progress the Proposed Waikato District Plan Change to allow heavy industrial land use.

A Site Location Plan is presented as Drawing 001.

1.2 PROPOSED SITE DEVELOPMENT

Hynds wish to expand their existing factory operation on the adjacent site at 9 McDonald Road to incorporate a portion of the north eastern corner of 62 Bluff Road. This would involve reprofiling a portion of the low-lying land of approximately 4.27 hectares. It is likely that the recontouring of the land may extend into the adjacent property of 10 Bluff Road. (See Zone Plan Sheets 1 to 3, Appendix A).

The low-lying land appears to be wet as a result of poor drainage from an undersized culvert under the State Highway installed by the Ministry of Works. The proposed recontouring for the zone plan will require earthworks in order to provide suitable gradients for some development areas. No earthworks plans have been provided to date and as such all likely earthworks profiles are assumed at this stage.

Plans of the anticipated heavy industrial area (hereby described as the development area)and Zone Plans are presented in Appendix A.

2 DESKTOP STUDY

2.1 PREVIOUS INVESTIGATIONS

GCL has undertaken a number of geotechnical investigations within the area surrounding the proposed site development and are therefore familiar with the local geology.

2.2 NEW ZEALAND GEOTECHNICAL DATABASE

The New Zealand Geotechnical Database (NZGD) has been viewed but no geotechnical investigations of significance have been identified in proximity to the project site.

2.3 HISTORIC AERIAL PHOTOGRAPHS

Aerial photographs available from the Waikato GIS Viewer and Google Earth dating from 2001 to 2020 were studied to observe the site over time and assess the geomorphological setting. The review of historic aerial photography indicates that from at least 2001 to 2014 the site has remained largely untouched with little to no significant human modification.

However, sometime between 2001 to 2010 a large landslide event occurred in the southern central portion of the proposed development area (as outlined in Drawing 002 and 003).

In early 2015 modification of the proposed development area included the construction of a farm track and two stream crossings requiring the deposition of site-won fill materials sourced from the western mid-section of the large landslide area.

During 2018, the neighbouring property (Hynds existing factory site) to the north-east, 9 McDonald Road, commenced earthworks which created an extension of more flat lying topography and resulted in the deposition of minor fill volumes within the north-eastern portion of the proposed development area of 10 – 62 Bluff Road.

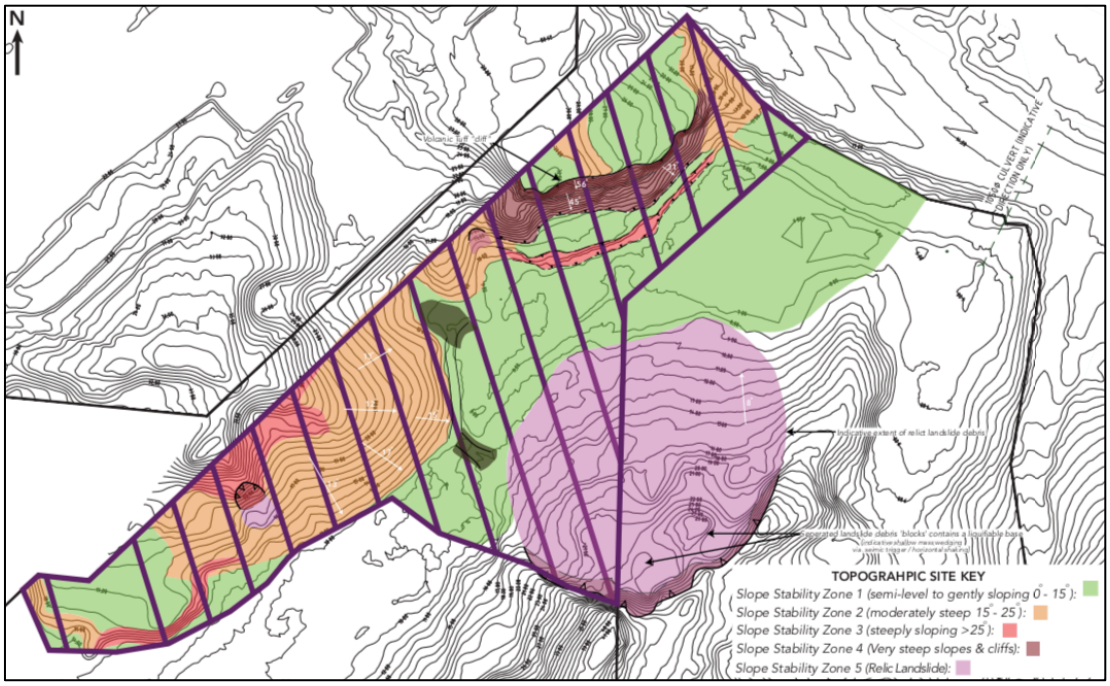
3 SITE CONDITIONS

3.1 SITE TOPOGRAHPY & GEOMORPHOLOGY

The proposed development area predominantly consists of semi-level low-lying topography with upper elevations of moderate, steep and sub-vertical cliff features. These topographies have been split into five defined "zones", of which will be referred to through-out the report.

An overview of the site topography is presented on Figure 1 below together with a brief summary of the topographical relief and geomorphology of the area.

Figure 1: Site Topography Overview



3.1.1 Semi-level to Gentle Topography (ZONE 1)

The low-lying portions of the proposed development area form flat to semi-level topography, as shown on Figure 1 and Drawing 004.

This topography consists primarily of slopes with gradients less than 15° to the horizontal, and typically comprises the low-lying central wet-land and peripheral adjoining landforms.

3.1.2 Moderately Sloping Topography (ZONE 2)

Areas pertaining to Zone 2 comprise moderately steep topography within the elevated site sections. The moderately steep topography consists of measured slope angles of between 15° to 25° to the horizontal.

The moderately steep slopes are generally uniform in gradient, but commonly contain minor shallow regolith type slope instability features in the form of soil creep terraces. This is further discussed within Section 4.3 and 5.2.

3.1.3 Steeply Sloping Topography (ZONE 3)

Minor sections of the site area comprise steep topography with measured slope angles of between 25° and up to 45° to the horizontal within the elevated sections of the site.

These slopes typically contain shallow to medium depth slope instability features and in places have evidence of localised recent and/or relic landslide activity. This is further discussed within Section 4.3 and 5.2.

3.1.4 Very Steep Slopes & Cliffs (ZONE 4)

The northern portion of the proposed development area contains a wide and continuous sub-vertical cliff exposure of between 5m to 12m high with associated very steep slopes at measured angles of between 45° to 62° to the horizontal.

The cliff exposure is strongly cemented but does contain weathered and fractured blocks prone to fall-out. Historic rock fall is observed at the base of the cliff, with the ground and slope at the cliff base considered to consist of rock-fall debris.

3.1.5 Relic Landslide (ZONE 5)

The southern central extent of the development area comprises land that has been subject to the landslide described in Section 2.3. The resultant landform comprises undulating and hummocky ground with a definitive back scar feature. The slopes are generally shallow in nature between 0-15° to the horizontal.

The area was not subject to specific investigation for the purposes of this report on the grounds that the area is unlikely to be physically developed at this stage. Should this zone be developed in the future, it will require targeted investigation to understand the cause/trigger of the initial failure, the underlying ground and groundwater regime and identify suitable mitigation works to stabilise the ground suitable for heavy industrial development.

3.2 SITE SURFACE WATER FEATURES

The development area contains a large central low lying section, which appears to hold surface water in parts of the corridor. The area contains a series of tributary streams that conjoin to the central watercourse which trends from the south-west to north-east.

A number of overland flow paths descend from the upper site elevations, channelling along the base of numerous incised gully features adjacent to the low-lying central corridor.

3.3 PUBLISHED GEOLOGY

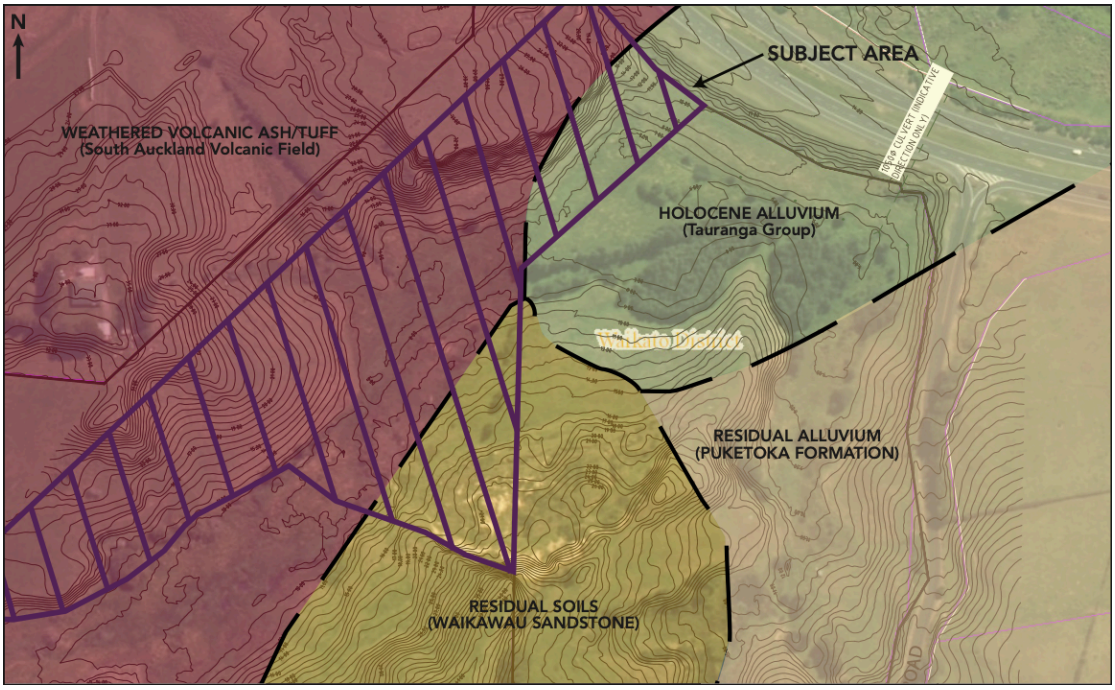
The Geological Map of New Zealand, Sheet 3, at a scale of 1:250,000 maps the proposed development area as being predominantly underlain by undifferentiated Kerikeri Volcanic Group tuff of South Auckland Volcanic Field.

Figure 2 below provides an excerpt from the Geological Map of New Zealand, Sheet 3, at a scale of 1:250,000 which covers the proposed development area.

As observed from Figure 2, the proposed development area is underlain by varying geological units. However, based on the recent ground investigations and site mapping, GCL are of the opinion that the true site geology map differs broadly from that presented by the published map. The point of differences are:

- The upper elevations comprise residual soils and weathered rock of the Waikawau Sandstone, lapped at their medium to lower elevations by the Puketoka Formation.
- The lower lying Puketoka Formation is partially covered by Holocene alluvium of the Tauranga Group.
- A site specific geological map of the site has been formed by GCL and is presented as Drawing 003.

Figure 2: Extract of the Geological Map of New Zealand, Sheet 3, 1:250,000



3.3.1 Holocene Alluvium

Holocene alluvium of the Tauranga Group is a relatively young geological unit, typically comprising compressible clay, silt, and organic material. This is typically found in isolated low-lying areas adjacent to streams and gullies. However, it is also found in restricted flat areas where volcanic deposits have dammed a former stream and alluvial soils have been deposited in the lake formed behind or within former explosion craters.

3.3.2 Puketoka Formation

The Puketoka Formation consists of residual alluvium from the middle to late Pleistocene, typically consisting of a heterogeneous sequence of interbedded fine grained sands, silts and clays derived from volcanic ash and tuff; estuarine peat and coarse grained soils.

3.3.3 Waitemata Group Waikawau Sandstone

The Waikawau Sandstone of the Waitemata Group consists of residual soils and rock comprising calcareous, glauconitic fine to medium sandstone with minor siltstone, tuff and conglomerates.

The Waikawau sandstone is exposed in two regions of the wider property, with one in the northern portion of the proposed development zone and the one to the south of the zone. The northern outcrop consists of weathered conglomerate and fine to medium sandstone with flaggy lenses of mildly calcareous deposits. The southern outcrop largely comprises fine grained sandstone and siltstone with major calcareous compositions.

3.3.4 Anthropogenic Deposits

Uncontrolled and semi-engineered fill deposits are present across the proposed zone, as shown on Drawing 003.

The fill materials are assumed to consist of local soil deposits and as such comprise fine to medium sands, residual clay alluvium, tuff and gravels.

A large expanse of the fill is assumed along the north-eastern edge of the proposed zone, deposited / formed during the ministry of works construction of the adjacent state highway. Minor deposits have also been placed within the proposed development area as part of wet area and general farm track accessways.

4 SITE INVESTIGATIONS

4.1 GENERAL

Site investigations for the purposes of this report have comprised a site walkover, engineering geomorphological mapping exercise across the wider property and the completion of 15 hand augur boreholes across the proposed zone area. The investigation excludes the landslide area defined as Zone 5 The site investigations and geomorphological mapping details are shown on Drawing 002.

4.2 SUB-SURFACE INVESTIGATIONS

Sub-surface investigations have been undertaken within the area of proposed development zone. The sub-surface investigations have comprised 15 hand auger bores to a maximum depth of 4.0m, with Scala penetrometer testing constructed at the base of five of the hand auger bore holes to effective refusal (>15 blows per 100mm).

Core recovered from the hand auger bores has been logged and is presented in Appendix A. Logging of the core has been undertaken in accordance with NZ Geotechnical Society Guidelines for the Field Classification and Description of Soil and Rock for Engineering Purposes.

The Scala penetrometer results have been plotted on logs as presented in Appendix A. Determination of the soil density as tested by the Scalas has been undertaken in accordance with NZ Geotechnical Society Guidelines for the Field Classification and Description of Soil and Rock for Engineering Purposes, Table 2.8.

4.3 SITE MAPPING AND GEOMORPHOLOGICAL FEATURES

A series of notable geomorphological features exist across the proposed development area and are described in detail below. The location and extent of described geomorphological features are shown on Drawing 002.

4.3.1 Bluffs/Cliffs

A wide and continuous sub-vertical cliff exposure of between 5m to 12m high exists within the northern portion of the proposed zone.

The sub-vertical cliff exposure comprises weathered rock consisting of interbedded cemented conglomerates and fine to coarse grain sandstones. The rock outcrop is moderately fractured and weathered, with a number of small blocks prone to fall out on to the slope below.

The lower profiles of the cliff exposure extend into steeply sloping topography in which the residual soil and rock debris are evident. The rock debris coincides with a semi-level terrace which extends up to 20m from the base of the cliff / bluff and lower associated steep slopes.

4.3.2 Low Lying Wet Ground

The lower lying sections of the proposed development zone comprise a broad area sectioned by a number of tributary streams and a central watercourse running from south-west to north-east. These surface water courses have made for wetter ground compared to the surrounding areas.

The wet ground is confined on all sides by moderate to steep slopes and a number of minor gully features.

The wet ground has been artificially dammed by the construction of the adjacent State Highway in the north-eastern sections of the proposed development area. An undersized culvert under the State Highway installed by the Ministry of Works has resulted in an increase in surface water and wet ground during extreme weather events.

4.3.3 Landslide

A number of inactive and relic mass landslide features have been observed across the site and proposed development area.

The typical mode of failure is considered to be via. the residual soil mass failing on the less weathered and impermeable underlying rock mass where the topography steepens. The relic landslide features are likely to relate to the Waitemata Group Waikawau Sandstone, where a ground model of transitional weathering, differential soil strengths and contrasting permeability is present.

Additionally, as previous discussed, the moderate and steep slopes across the site contain shallow regolith soil creep type slope instability. This mode of instability however is considered to be more superficial than that of the above landslide features.

Typically, the upper 250mm to 500mm of the soil profile experiences movement via. periodic saturation and soil swelling, resulting in increase in pore pressures and reduction in undrained shear strength, mobilising the soil under gravity, the magnitude of the mass often dependant on the specific slope grade.

4.4 SUB-SURFACE CONDITIONS

A summary of the sub-surface conditions identified in the investigations undertaken is presented below. The sub-surface conditions have been extrapolated between the investigations undertaken. Whilst care has been taken to provide sufficient sub-surface information following best practice for the purposes of land development feasibility, no guarantee can be given on the validity of the inference made.

4.4.1 Topsoil

Topsoil mantles the site to typically depths between 0.20 to 0.4m.

4.4.2 Recent Colluvium

Recent colluvial soil commonly mantles the moderately steep to steep slopes within the steeper slopes of the proposed development area to observed depths between 0.5m to 0.75m.

The colluvial soil is associated with shallow regolith type slope instability which is developed on slope angles of typically >15° to 35° to the horizontal.

4.4.3 Holocene Alluvium

Holocene alluvium associated with the Tauranga Group underlies the low-lying wet area to a depth of at least 4.0m.

The soil typically consists of clayey SILT, CLAY and some lenses of sand. The soils are typically wet and saturated, firm to stiff and of low to high plasticity depending on the soil's granular content.

Down-hole shear strength testing undertaken provided an undrained shear strength of between 45kPa and 140kPa. The undrained shear strengths typically provided values of less than 100kPa, which is anticipated in Holocene alluvium deposits given their young age and normally consolidation condition.

4.4.4 Puketoka Formation

Residual soils associated with the Waipapa Group underlies regions of the site as indicated on Drawing 003, to depths of at least 3.0m.

The soil typically consists of clayey SILT and SILT with variable clay content, which is generally very stiff to hard, moist with low to moderate plasticity and insensitive.

Down-hole shear strength testing undertaken provided an undrained shear strength of between 71kPa and >214kPa. The undrained shear strengths typically provided values of greater than 100kPa, a relatively more competent soil compared to Holocene alluvium which is not unexpected due to its geological age and the geological setting.

4.4.5 Waikawau Sandstone

Residual soils and weathered rock boulders associated with the Waikawau Sandstone underlies regions of the site as indicated on Drawing 003, to depths of at least 3.0m.

The soil typically consists of sandy SILT and clayey SILT with variable sand content, which is generally very stiff to hard, moist with low to moderate plasticity and insensitive.

Down-hole shear strength testing undertaken provided an undrained shear strength of between 107kPa and 192kPa.

Scala penetrometer testing was constructed at the base of the hand auger bores which provided a blow count of typically between 2 and >14 per 100mm with the strengths increasing with depth and typically greater than 3 blows per 100mm. The blow count correlates to a medium dense to dense material. The transition into highly weathered sandstone bedrock is likely at the base of the Scala penetrometer testing where values increase to >10 blows per 100mm.

4.4.6 Non-Engineered Fill

Non-engineered fill has been identified in some localised areas of the proposed zone to depths of between 0.6m to 0.8m.

Based on the extent of fill recorded in the investigations and geomorphological mapping of the site, we anticipate two separate fill deposits, as described below, within the proposed development area.

Uncontrolled fill:

The fill identified within hand auger bores HA106 and HA107 are considered to be uncontrolled materials, typically comprising clayey SILT with mixed topsoil which is stiff, moist and of low plasticity. Down-hole shear strength testing undertaken provided an undrained shear strength of between 52kPa and 77kPa, which indicates a non-engineered material.

Possibly controlled fill:

Fill has been identified within HA113 in an area assumed to comprise fill materials deposited as part of the adjacent State Highway construction by the Ministry of Works. HA113 has refused at a shallow depth of 0.6m and as such has not achieved a detailed level of ground investigation across this geological unit.

Given the construction history and investigations refusal, it is possible that this soil mass provides adequately engineered conditions; however further investigation will be required specific to any proposed development within the influence of the unit.

4.5 GROUNDWATER CONDITIONS

Groundwater was encountered in hand augers HA103, 106, 107, 111, 112 and 114 at depths ranging between 0.9m to 2.6m from respective ground level at which the investigations were undertaken, all of which correspond with low-lying areas of the proposed zone.

The recorded groundwater levels indicate a coherent and perched groundwater depth of approximately 7.5mRL as related to the surveyed contours shown on Drawings 002, 003 and 004.

4.6 GROUND MODEL

The proposed development zone comprises three predominant geological units, as outlined on Drawing 003 and defined within Section 3.3 of this report.

We consider the following ground model appropriate to the proposed development area, with some geologies either present, overlain or eroded out depending on the given elevation and topographic relief at any one point:

- The site is ultimately underlain by residual soils followed by weathered bedrock associated with the Waikawau Sandstone unit of the Waitemata Group.
- The residual Waikawau unit is blanketed by the Puketoka Formation which overlies the moderate and gently sloping portions of the proposed development area.
- The Puketoka Formation is overlain by Holocene alluvium within the low-lying portions of the site. The Holocene alluvium has been identified to depths of up to 4.0m around the peripheral edges of low-lying topography and could be anticipated to extend to depths of up to 10.0m within the more central and incised portions of the wet area.
- Uncontrolled fill has been placed in localised areas of the proposed development area in order to provide general access to land adjacent and across the wet area.
- Possibly controlled and engineered fill has been deposited across the north-eastern portion of the proposed development area as part of the State Highway construction.
- A relic landslide dating back to the early 2000s occupies the central southern section of the proposed zone.

5 GEOTECHNICAL CONSIDERATIONS

5.1 GENERAL

The following sections provide some commentary on the engineering geology and geotechnical engineering constraints and opportunities that the site presents in context of the proposed Hynds rezoning request as part of the Waikato District Plan review. The considerations are as follows:

- Slope Stability (soil/rock)
- Consolidation Settlement
- Liquefaction
- Bearing Capacity

5.2 SLOPE STABILITY

The proposed zone comprises a range of topographies from semi-level to steep slopes and a well-defined cliff / bluff as well as the area of pre-existing shallow landslide.

The landforms have been categorised into three slope instability hazard vulnerability classes (low, medium and high) based on the expected geology (per the geological model) and the ground surface topography (LiDAR data). The slope profile limits have been derived based on

the geomorphological mapping, our previous experience and knowledge of similar soils and topography within the greater North Waikato region.

TABLE 1: Slope Instability Potential

GEOLOGICAL UNIT	SLOPE INSTABILITY POTENTIAL – SLOPE PROFILE LIMITS		
	Low	Moderate	High
Holocene Alluvium	0-10°	10-20°	>20°
Puketoka Formation	0-15°	15-25°	>25°
Residual Waikawau Soils	0-18°	18-28°	>28°

As outlined in Section 3.1 of this report, the site comprises a large proportion of semi-level low-lying wet area boarded by a range of gentle to steeply sloping topography. Further to this, the topographies have been delineated into four zones based on their slope angle and associated slope instability features.

In regard to the five topographic zones, 1 to 5 as illustrated on Drawing 004, we consider the below slope stability risk matrix to apply:

TABLE 2: Slope Instability Zone Risk Matrix

TOPOGRAHPIC ZONE	SLOPE INSTABILITY POTENTIAL RISK		
	Low	Moderate	High
ZONE 1	X		
ZONE 2		X	
ZONE 3			X
ZONE 4			X
ZONE 5			X

Zone 4 contains sub-vertical weathered cliffs / bluffs, which have experienced rock fall and are prone to future rock fall which may affect proposed structures and/or future land use objectives if not mitigated. Such mitigation measures may include implementing an appropriate set-back distance from the cliff face estimated in the range of 20m or the construction of a rock-fall debris bund or the installation of rock-bolt and steel mesh retaining.

Zone 5, although not on steep slopes associated with the residual soils of the Waikawau Sandstone, has already failed and is therefore considered high risk due to residual soil strengths and pre-existing failure planes.

5.3 CONSOLIDATION SETTLEMENT

5.3.1 General

The proposed development area is underlain by three predominant geologies, namely the Holocene alluvium, the Puketoka Formation and the weathered Waikawau Sandstone unit.

The three geologies have distinct differences in potential compressibility due to their relative geological age, depositional history and shear strengths.

5.3.2 Holocene Alluvium

Holocene alluvium is mapped within the proposed development area according to the Geological Map of New Zealand; however, based on recent site observations and ground investigations the Holocene Alluvium extends further and beyond that presented by the published geology (as shown on Drawing 003). Accordingly, Holocene alluvium underlies the wide majority of the proposed development area and as such is likely to provide a large influence on the limitations and/or geotechnical constraints for future site developments.

The Holocene alluvium is a relatively young geology and as described within Section 3.3.1 and identified from recent ground investigations detailed within Section 4.4.3 comprises relatively weak soils consisting of clays, silts, sands and potentially organic deposits.

Beca Limited (Beca) has assessed settlements within Holocene Alluvium present in the southern parts of the Drury Structure Plan area. Based on their findings, settlement may be in the range of 50mm to 250mm for fill depths up to 2m and increasing to 200mm to 1,000mm for fill thicknesses of up to 8m. The above results are generally aligned with GCL's experience with relative ground loads imposed on Holocene alluvium of the South Auckland region.

As such, the Holocene alluvium is likely to generate a relatively high settlement in relation to relatively low applied loads, necessitating restrictive limits on proposed development fill and building loads. Alternatively, specific site remedial measures may be adopted including site pre-loading and deep foundations embedded into competent ground at depth.

5.3.3 Puketoka Formation

The residual soils of the Puketoka Formation as identified within the recent ground investigations are typically competent with relatively high shear strengths. However, the Puketoka Formation is known to comprise lenses of compressible peat and weak clay and silt deposits and furthermore has been identified within recent investigations to contain saturated soils below the groundwater table level (HA103).

The Puketoka Formation is generally considered susceptible to consolidation under moderate to low applied ground loads and as such may generate a relatively moderate settlement. Specific site remedial measures may be adopted including site pre-loading and deep foundations embedded into competent ground at depth.

5.3.4 Waikawau Sandstone

The residual soils and weathered rock profiles of the Waikawau Sandstone are typically competent, with relatively high shear strengths and low compressibility characteristics with relatively low settlement potential.

5.3.5 Fill Deposits

The uncontrolled fill deposits have high compressibility characteristics given the low level of compaction effort during their placement, as indicated by the relatively low shear strengths identified in recent ground investigations. The uncontrolled fill is therefore considered to provide high settlement potentials similar to that of the adjacent and underlying Holocene alluvium.

Where the fill has been potentially engineered within the north-eastern extent of the proposed development area the material remains likely to generate moderate to high settlement. This may be a conservative approach, but due to lack of certainty on the compaction effort applied at the time of placement, this is considered an appropriate assumption.

5.4 LIQUEFACTION POTENTIAL

5.4.1 General

Liquefaction occurs due to an increase in pore water pressure as a result of an earthquake event resulting in significant loss of soil strength. It is often manifest as ejection of soil at the ground surface leading to associated ground settlement. Loose silts and sands below the water table are the most susceptible to liquefaction.

The occurrence of liquefaction depends on many factors, including the soil particle size and distribution, groundwater level, soil density, and in-situ stresses. Following liquefaction, significant ground deformation may occur as the soil particles are re-arranged into a denser state. Such deformations can be damaging to structures located on such soils. There may also be additional building foundation settlement as a result of loss of bearing capacity.

5.4.2 Liquefaction Susceptibility

As discussed in Section 3.3, the proposed development site is underlain by three distinct geological formations; comprising Waikawau Sandstone, the Puketoka Formation and the Holocene alluvium.

The three geologies contain varying particle sizes, depositional environments and soil densities which influence a soil's susceptibility to experiencing liquefaction under potential seismic accelerations.

5.4.3 Holocene Alluvium

The Holocene alluvium typically comprises weakly layered and geologically recent soil deposits consisting of compressible CLAY, loose SILT and horizons of fine sand in some instances.

Holocene alluvium is typically deposited within locally low-lying environments confined by the erosional and/or damming horizons of more competent geological bodies (such as the Waikawau Sandstone); and therefore, typically contain elevated groundwater tables.

Furthermore, the Holocene alluvium deposits typically provide a seismic subsoil class D & E based on NZS 1170:2004 in relation to potential ground shaking severity. The above classification is generalised from the desktop study to date, making assumptions of the upper limits of the Holocene alluvium and our local experience in relation to depth to bedrock and relative soil strengths in the area.

As such, the Holocene Alluvium typically comprises a range of soil properties susceptible to liquefaction under SLS and ULS seismic return periods for the Pokeno area.

5.4.4 Puketoka Formation

The Puketoka Formation is typically competent with relatively high shear strengths based on recent ground investigations undertaken within the proposed development area. However, the Puketoka Formation is known to comprise lenses of compressible peat and weak clay, silt and sand deposits. Furthermore, it has been identified within recent investigations to contain saturated soils below the groundwater table level (HA103).

The Puketoka Formation soils have been sourced in part by the historic erosion of the adjacent and underlying Waikawau Sandstone unit, and as such the presence of sand dominated layers within its lower profiles is likely.

The Puketoka Formation is typically classified with a seismic subsoil class D according to NZS 1170:2004 in relation to potential ground shaking severity. The above classification is generalised from the desktop study to date. Further investigations may prove a subsoil class C depending on depth to weathered bedrock units of the underlying Waikawau Sandstone.

As such, the Puketoka Formation comprises a range of soil properties susceptible to liquefaction under SLS and ULS seismic return periods for the Pukekohe area.

5.4.5 Waikawau Sandstone

The Waikawau Sandstone unit comprises residual fine to medium grained soils and weathered clay minerals which transition into the highly weathered bedrock sandstone and conglomerate components of the broader unit.

Due to the relatively high density and degree of cementation of the unit, it is not considered to be prone to liquefaction.

5.4.6 Summary

The underlying geologies have been categorised into three liquefaction vulnerability classes (low, medium and high) based on the expected nominal ULS land settlement during a magnitude 5.8 earthquake in conjunction with the anticipated seismic subsoil class discussed above for each geology. The expected nominal ULS land settlement have been derived based on our previous experience with the local geology and knowledge of the soil performance under similar seismic loading conditions.

TABLE 3: Liquefaction Potential

GEOLOGICAL UNIT	LIQUEFACTION POTENTIAL EXPECTED NOMINAL ULS LAND SETTLEMENT		
	Low (0-25mm)	Moderate (25-100mm)	High (>100mm)
Holocene Alluvium		X	X
Puketoka Formation		X	
Waikawau Sandstone Unit	X		

The liquefaction potential within Holocene alluvium within the proposed development area to be "Moderate to High", with nominal ULS land settlements expected to be between 25mm to 200mm in relation to a seismic subsoil class D and a magnitude 5.8 earthquake with a 1/25 SLS and 1/500 ULS return period.

The liquefaction potential within the Puketoka Formation is generally considered to be "Moderate" with nominal ULS land settlements expected to be between 25mm to 100mm in relation to a seismic subsoil class D and a magnitude 5.8 earthquake with a 1/25 SLS and 1/500 ULS return period.

The liquefaction potential within the Waikawau Sandstone unit is considered to be "Low" with nominal ULS land settlements expected to be less than 25mm in relation to a seismic subsoil class C and a magnitude 5.8 earthquake with a 1/25 SLS and 1/500 ULS return period.

Furthermore, the extent by which liquefaction can affect development can be coarsely assessed with knowledge of the "crust thickness" overlying a liquefiable soil, i.e. the thickness of the surface soils (non-liquefiable cohesive soils and/or above groundwater level) which 'raft' over the liquefied soils.

Based on experience gained from the Christchurch sequence of earthquakes and published empirically based information (Ishihara, 1985) it is anticipated that where the "crust thickness" exceeds a minimum of 3 m, the effects of liquefaction can generally be mitigated without significant damage to structures at ground surface. This assumes that the "crust" is of sufficient capacity/strength to 'raft' over the liquefiable layers, though this does not preclude global settlement and deep-seated lateral spreading.

5.5 BEARING CAPACITY

Bearing capacity is discussed in this report in terms of ultimate limit state design methods outlined in AS/NZS 1170. As such, in accordance with AS/NZS 1170, we have provided "ultimate" bearing capacity values and an appropriate "dependable" bearing capacity for foundation design. The dependable bearing capacity has been determined from a strength reduction factor of 0.5 (i.e. a factor of safety of 2) which is in general accordance with the requirements of AS/NZS 1170.

The bearing capacity of any particular geological unit will vary depending on its weathered state, depth of potential founding horizon and proximity to groundwater. As such, a specific ultimate bearing capacity will require a site investigation cognisant of the structural loads, finished floor levels and foundation solutions.

However, the following ranges of undrained shear strengths, ultimate bearing capacities and dependable bearing capacities are likely to be realised based on the geological units encountered on site:

TABLE 4: Bearing Capacity Summary

GEOLOGICAL UNIT	GEOTECHNICALBEARING CAPACITY PARAMETERS		
	Undrained Shear Strength (c_u)	Ultimate Bearing Capacity (kPa)	Dependable Bearing Capacity (kPa)
Holocene Alluvium	25-30	150-180	75-90
Puketoka Formation	40-75	240-450	120-225
Waikawau Sandstone Unit (Residual Soils)	50+	Min 300	Min 150
Waikawau Sandstone Unit (Weathered Rock)	150+	900+	450+

6 DEVELOPMENT FEASBILITY

6.1 GENERAL

The proposed development zone comprises a variety of topographical relief, ground conditions and geological units with varying engineering and geotechnical properties. The resulting ground model does present some engineering challenges but they are not considered to be prohibitive to the proposed concept and land use change for industrial use.

Whilst this study can only be considered preliminary in its nature, GCL considers that appropriately managed and executed ground and earthworks should provide suitably stable ground for future industrial development.

Some commentary on the site in terms of the engineering constraints and opportunities are summarised below.

6.2 GEOLOGICAL GROUND MODEL

The geological ground model is a consideration of the underlying geology and its relationship with the site's topography and relief. The interplay of the two has direct implication on the likely engineering geology characteristics of the underlying soils and the constraints they will present.

Based on the investigations undertaken so far, the most convenient form of zoning the site is based on the likely slope stability categories as presented in Drawing 004. The slope stability is basically determined by the underlying geology, and therefore the likely engineering characteristics.

Slope Stability Zones 3 and 4 will pose the most significant challenges to the development due to the steepness of the topography. Slope Stability Zone 5 will require significantly more targeted investigation to understand the development constraints and mitigation in order to allow this area to be safely developed.

6.3 MAIN CONSTRAINTS AND OPPORTUNITIES

The following is a summary of the main issues, constraints and opportunities the site presents in terms of the proposed development and land use:

6.3.1 Drainage

The low lying areas of the site are clearly impacted by the presences of the wet ground and poor drainage running adjacent to and south of the proposed development area. The soils immediately adjacent to the wet ground will require subsoil drainage to ensure groundwaters report to the lowest part of the site. From here a more comprehensive and integrated ground and stormwater drainage system to manage the low lying areas will be required.

6.3.2 Soft Soils

The presence of soft compressible alluvial soils in the lower lying areas of the site may cause long term stability and settlement issues. However, given the likelihood that such areas will be subject to engineered fill placement, there is the opportunity to pre-load the susceptible

areas to accelerate any consolidation settlement. This should be considered in cognisance of the site drainage requirements discussed above.

Some residual ground loading constraints may remain within some areas depending on the outcome of specific site investigations. Should any development exceed any set constraints, ground solutions such as site pre-loading or deep foundations are considered to be suitable improvement options.

6.3.3 Liquefaction

Assessment of liquefaction has only been very preliminary for the purposes if this report. It may prove necessary to undertake more targeted investigation and assessment of the liquefaction potential of the soft soils associates with the Holocene alluvium and Puketoka Formation prior to development. However, based on the knowledge of the site and low risk of seismic activity in the region of any consequence, the risk of liquefaction is thought to be low to moderate.

The land development required for the land use change through earthworks, drainage implementation and upfilling may also provide the appropriate engineering mitigation to further reduce the risk of liquefaction having any impact on the site.

6.3.4 Localised Slope Stability

As previously stated, Slope Stability Zones 3, 4 and 5 will pose the most significant challenges to the site's development with Zone 5 requiring significantly more investigation. However, engineering solutions can be implemented to reduce or remove the risk.

Shallow soil type instability features can often be mitigated through simple earthworks and implementation of land drainage to reduce groundwater pore pressures. Where steeper slopes exist, or finished ground levels require the excavation of the toes of such features, retaining structures can be constructed.

In the case of the rock bluffs in the north of the site, where rock fall and potential rock face instability can occur, mitigation measures can be applied such as implementing an appropriate set-back distance from the cliff face (estimated in the range of 20m but subject to modelling), the construction of a simple rock-fall debris bund or the installation of active measures at the face including scaling, rock-bolting and steel mesh retention.

6.3.5 Site Won Material

Subject to appropriate screening and earthworks specifications being developed, there is the opportunity to reuse site won materials for use as bulk engineering fill material.

6.4 CONCLUSIONS

The site can be suitably developed for the proposed land use change to industrial use, but will be subject to significant recontouring and careful civil engineering input to realise the potential of the site.

The scope of works is very much achievable with appropriate planning, detailed design and the employment of a competent earthworks and civils contractor implementing good engineering practice.

There are no significant geotechnical constraints that cannot be suitably managed, mitigated or designed out of the proposed development.

7 LIMITATIONS

7.1 GENERAL

Ground Consulting Ltd has undertaken this assessment in accordance with the brief as provided, based on the site location as shown on Drawing 002. This report has been provided for the benefit of our client, and for the authoritative council to rely on for the purpose of processing the consent for the specific project described herein. No liability is accepted by this firm or any of its directors, servants or agents, in respect of its use by any other person, and any other person who relies upon information contained herein does so entirely at their own risk.

7.2 FURTHER INVESTIGATIONS REQUIRED

This assessment has been undertaken for the proposed site development to date for the purposes of Hynds rezoning request as part of the Waikato District Plan review. Any structural changes, alterations and additions made to the proposed development should be checked by a suitably qualified person and may require further investigations and analysis.

DRAWINGS

GCL Ground Consulting Ltd

STUART P.C LIMITED

62 & 10 BLUFF ROAD, POKENO, WAIKATO

SITE LOCATION PLAN

Rev	Date	Status	Drafted	Reviewer
A	07/10/2020	Issued	LK	FW

File Ref. MAC://Projects_6500/6615/R6615-1A/R6615-1A-DRW001.ai

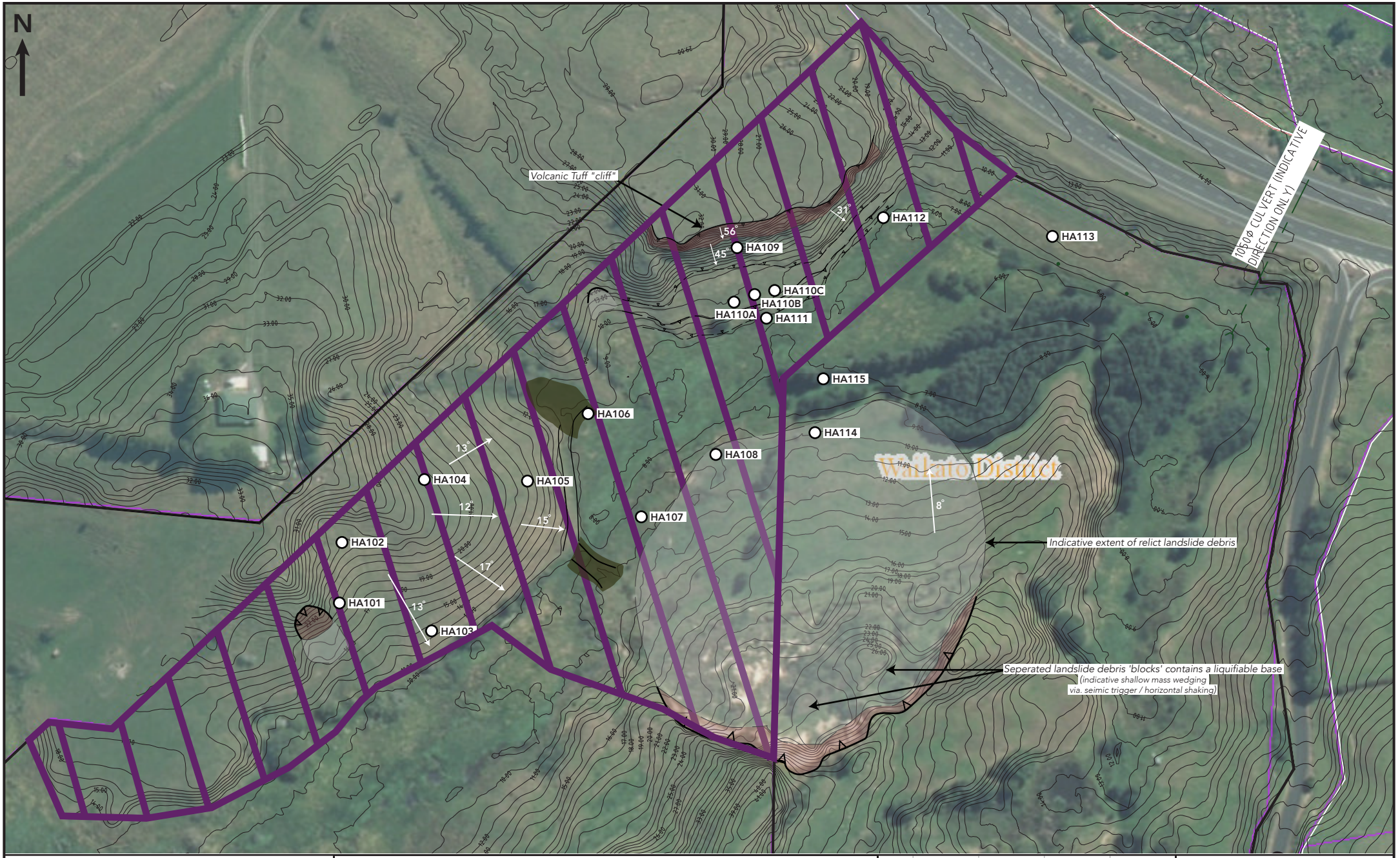
Scale (A4) 1:25,000

0 100m 500m 1000m

Project No. 6615

Report Ref. R6615-1A

Drawing No. 001



GCL Ground Consulting Ltd

STUART P.C LIMITED

62 & 10 BLUFF ROAD, POKENO, WAIKATO

INVESTIGATION LOCATION PLAN

Rev	Date	Status	Drafted	Reviewer
A	07/10/2020	Issued	LK	FW
B	16/12/2020	Issued	LK	FW

File Ref. MAC://Projects_6500/6615/R6615-1B/R6615-1B-DRW002.ai

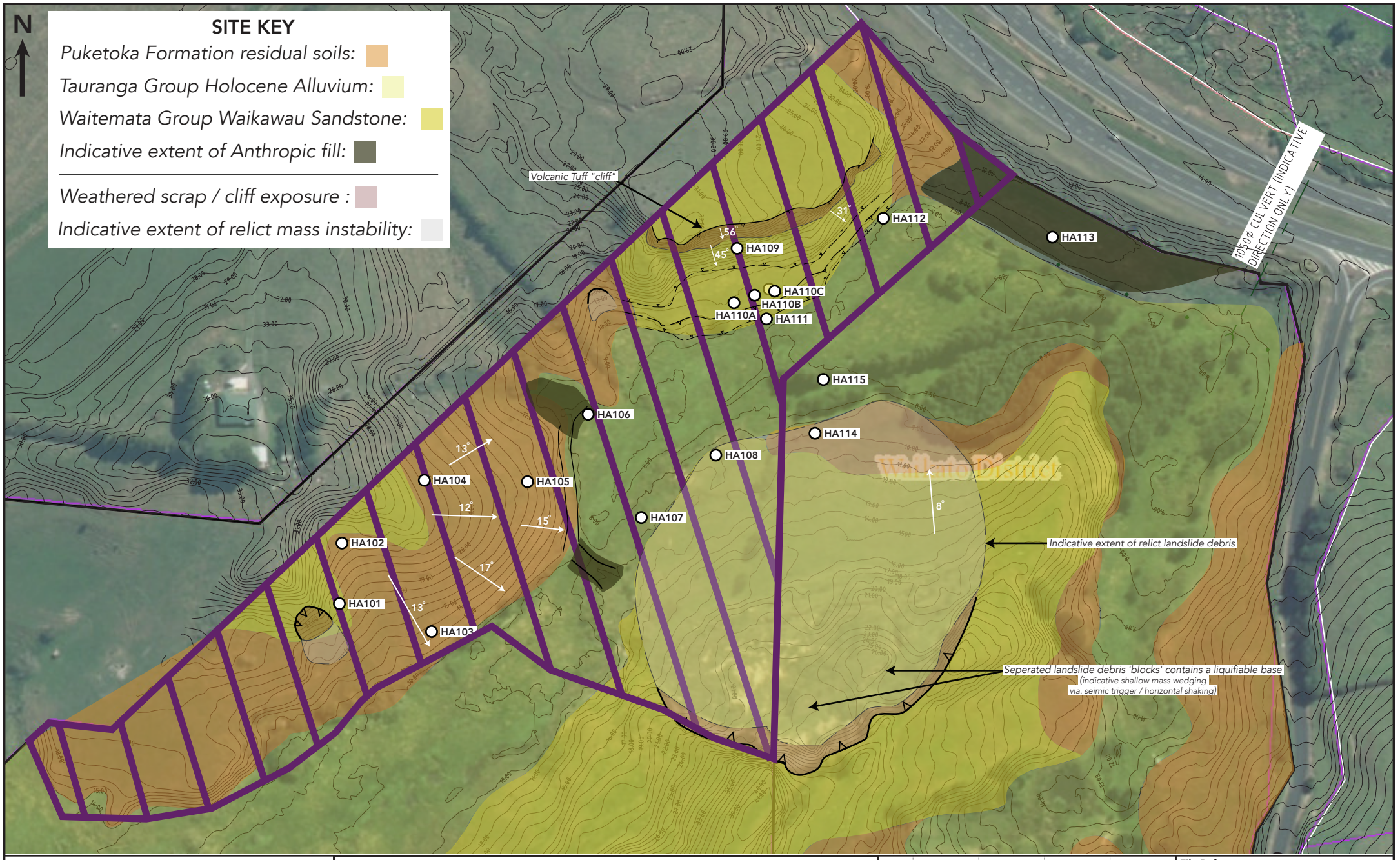
Scale (A4) 1:2,000

0 8 40 80m

Project No. 6615

Report Ref. R6615-1B

Drawing No. 002



GCL Ground Consulting Ltd

STUART P.C LIMITED

62 & 10 BLUFF ROAD, POKENO, WAIKATO

SITE GROUND MODEL

Rev	Date	Status	Drafted	Reviewer
A	07/10/2020	Issued	LK	FW
B	16/12/2020	Issued	LK	FW

File Ref. MAC://Projects_6500/6615/R6615-1B/R6615-1B-DRW003.ai

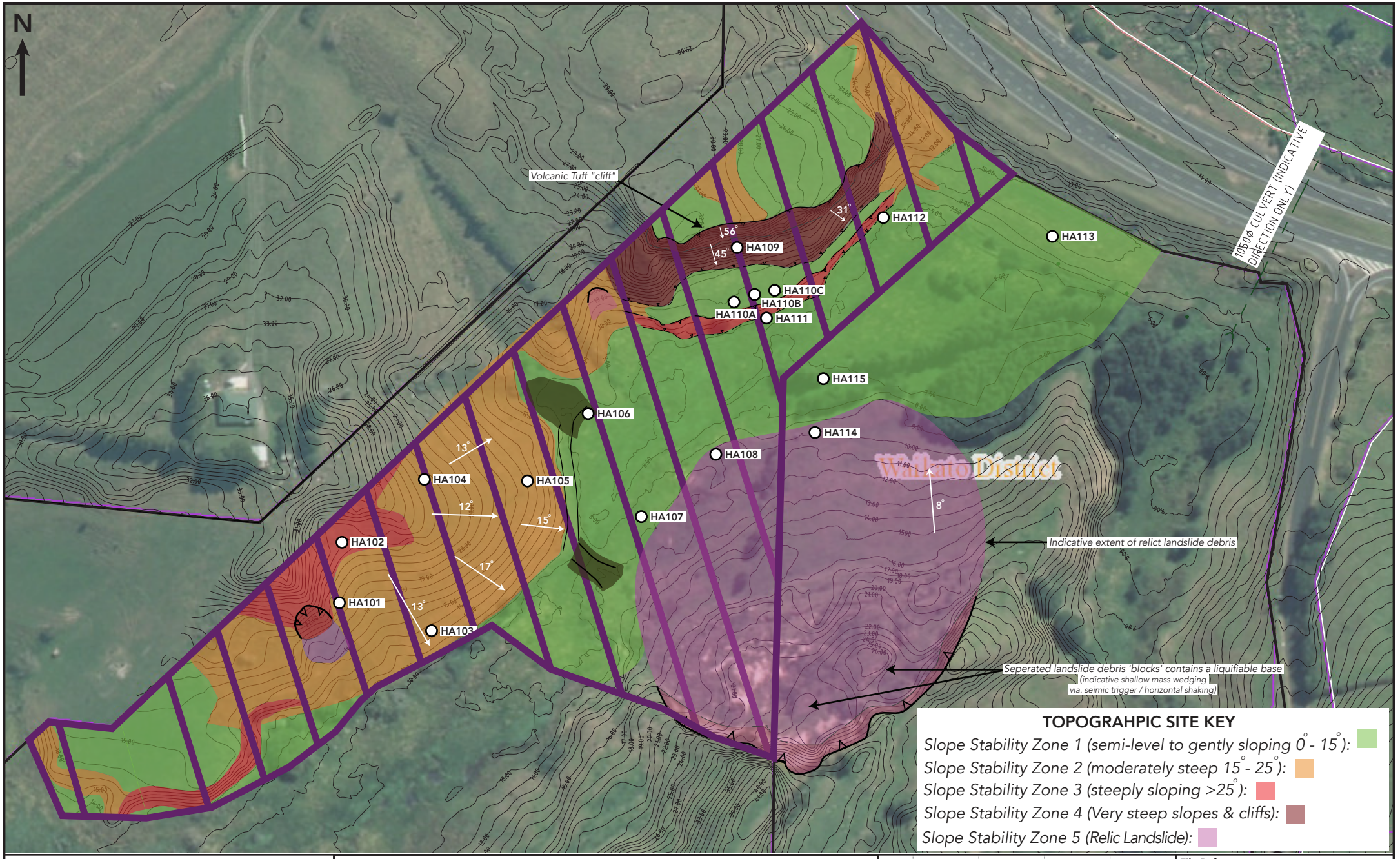
Scale (A4) 1:2,000

0 8 40 80m

Project No. 6615

Report Ref. R6615-1B

Drawing No. 003



GCL Ground Consulting Ltd

STUART P.C LIMITED

62 & 10 BLUFF ROAD, POKENO, WAIKATO

SLOPE STABILITY MODEL

Rev	Date	Status	Drafted	Reviewer
A	07/10/2020	Issued	LK	FW
B	16/12/2020	Issued	LK	FW

File Ref. MAC://Projects_6500/6615/R6615-1B/R6615-1B-DRW004.ai

Scale (A4) 1:2,000

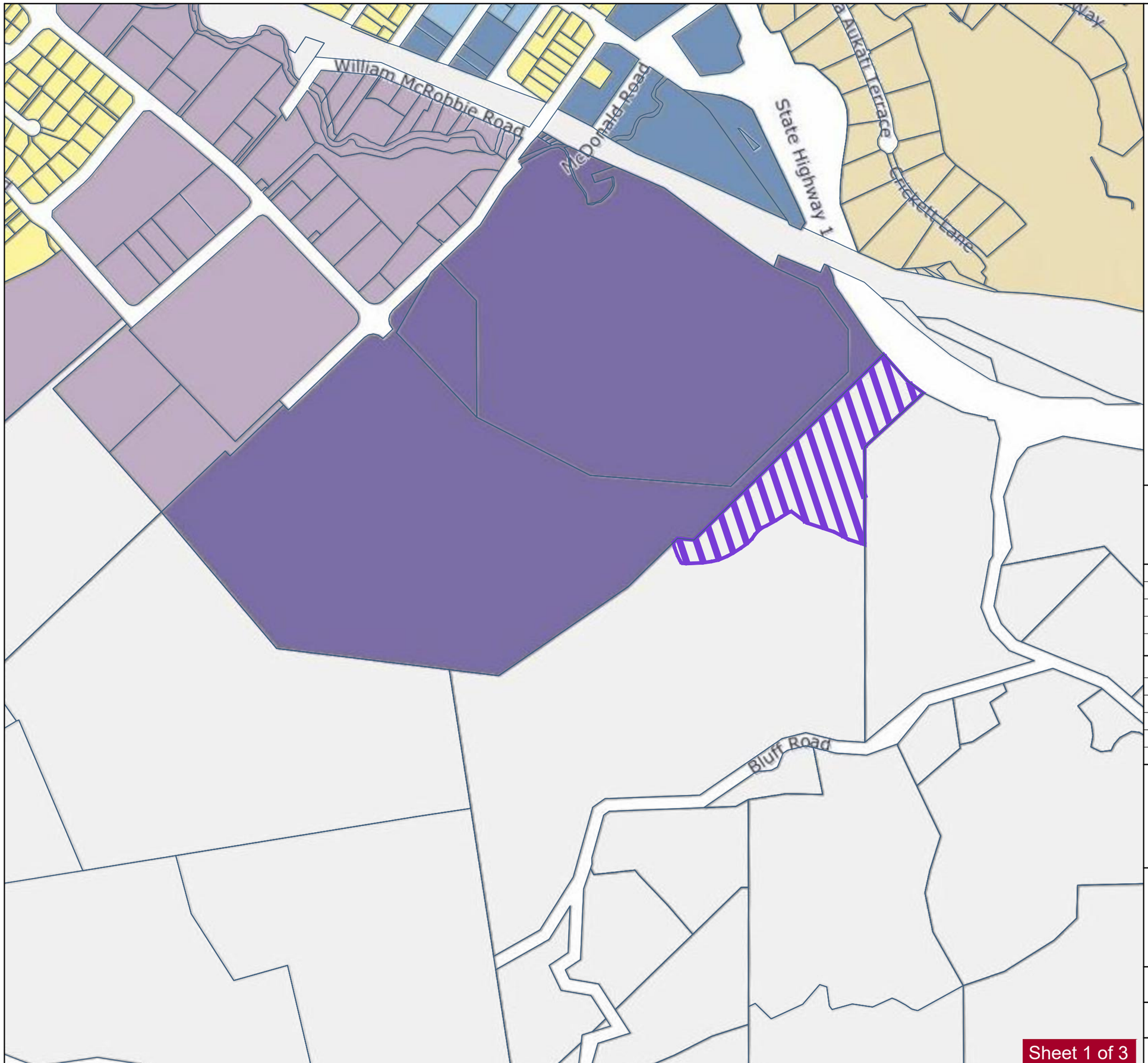
0 8 40 80m

Project No. 6615

Report Ref. R6615-1B

Drawing No. 004

APPENDIX A: PROPOSED ZONE PLANS



PROPOSED HEAVY INDUSTRIAL ZONE

- Residential
- Rangitahi Peninsula
- Village
- Country Living
- Rural
- Business
- Business Town Centre
- Business Tamahere
- Industrial
- Heavy Industrial
- Reserve

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

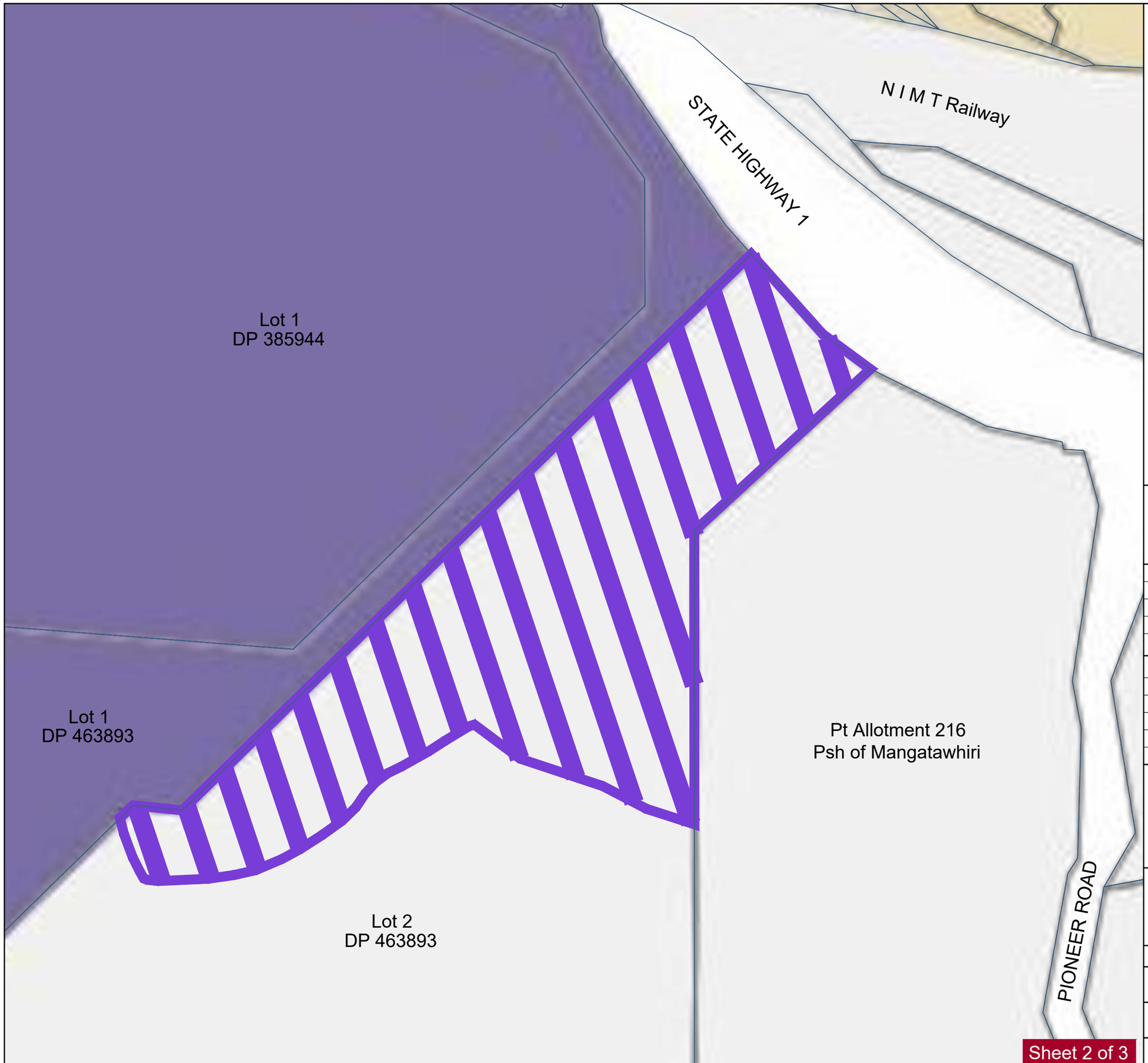
Job Title

ZONE PLAN

Client

HYNDS GROUP

Project: J549	Drawing: J549-ZONE PLAN
Cad Ref. File: J549-ZONE PLAN	Council Ref: S
Scale (A3 Original): 1:6000	Amendment: C



HEAVY INDUSTRIAL ZONE

PROPOSED HEAVY INDUSTRIAL ZONE 4.27ha

PROPOSED RURAL ZONE

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

Job Title

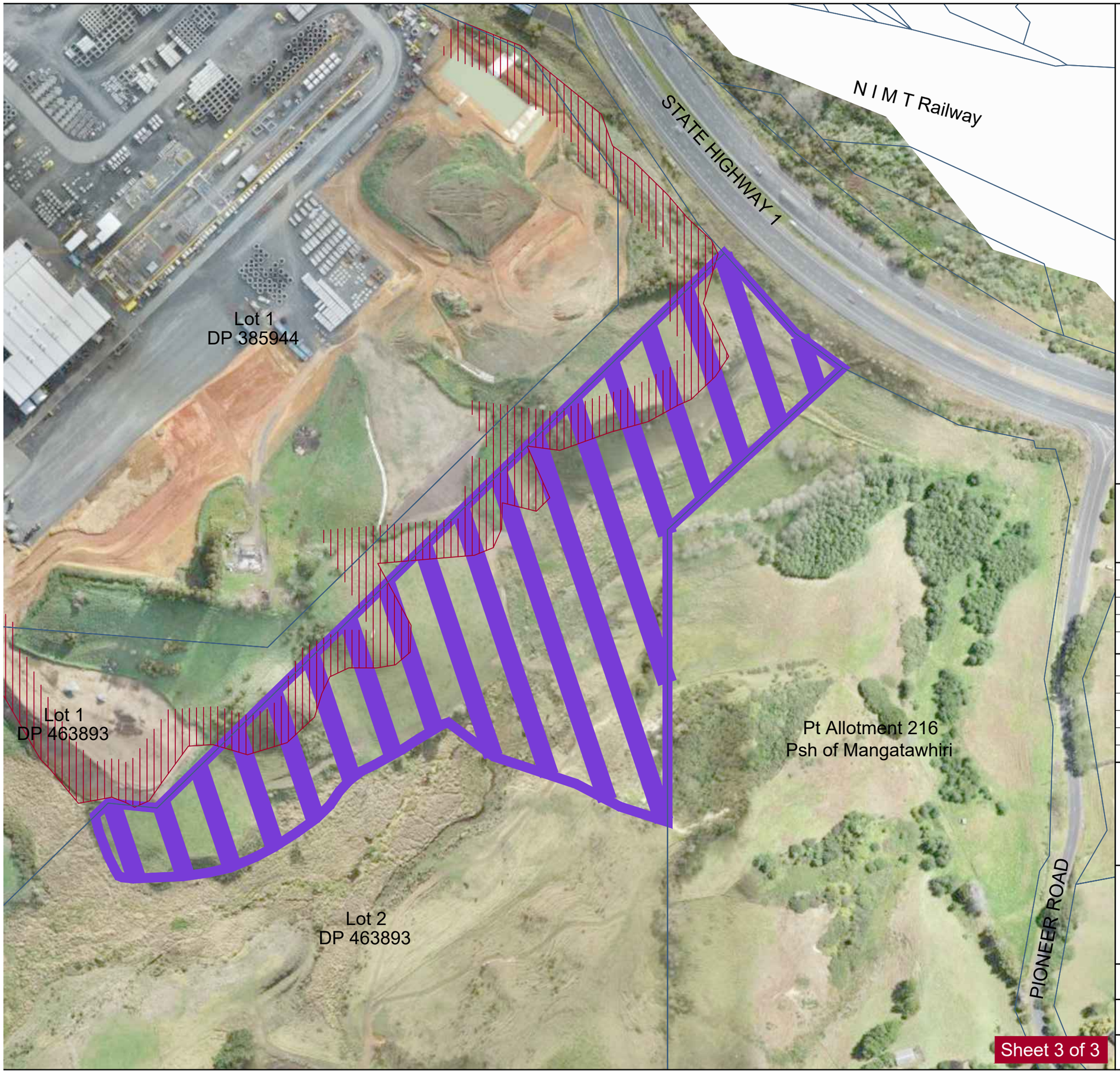
ZONE PLAN

Client

HYNDS GROUP

Sheet 1 of 1

Project: J549	Drawing: J549-ZONE PLAN
Cad Ref. File: J549-ZONE PLAN	Council Ref: S
Scale (A3 Original): 1:2000	Amendment: C



PROPOSED HEAVY INDUSTRIAL ZONE 4.27ha

CONSENTED EARTHWORKS AREA (WRC)

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

Job Title

ZONE PLAN WITH AERIAL OVERLAY

Client

HYNDS GROUP

Project: J549	Drawing: J549-ZONE PLAN
Cad Ref. File: J549-ZONE PLAN	Council Ref: S
Scale (A3 Original): 1:2000	Amendment: C

APPENDIX B: INVESTIGATION LOGS

INVESTIGATION LOG

HA101

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2021, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)
Topsoil	TOPSOIL.				
Puketoka Formation	Clayey SILT; light brown. Very stiff; low plasticity; moist; Moderate sensitive.			115 52	
	SILT, with some clay and sand; light grey. Hard; low plasticity; moist.	1		160 52 UTP -	
	SILT, with some clay and sand; light grey. Wet; Moderate plasticity.	2		UTP - UTP -	
	End of Investigation: 3m Target depth	3		UTP -	

Vane Shear Strength: 50 100 150 200

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Groundwater

Investigation Information

Depth	3m	**Logged By**	A.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA102

Report Ref: R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location: 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2021, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Puketoka Formation	Clayey SILT; brownish orange. Hard to very stiff; dry to moist; Moderate plasticity; insensitive.	1		>200 - 186 135		
	Clayey SILT; brownish orange mottled light grey. Very stiff; moist; Moderate plasticity; insensitive.	2		194 158 149 95		
	Clayey SILT; light brownish orange mottled light grey. Very stiff to hard; moist; Moderate plasticity; insensitive.	3		>200 - >200 -		
	End of Investigation: 3m Target depth 3.0m: With trace sand.					

Vane Shear Strength: 50 100 150 200

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	3m	**Logged By**	A.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA103

Report Ref: R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location
62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Puketoka Formation	Clayey SILT; light brownish orange mottled light brown and brownish orange. Hard; moist; Moderate plasticity; insensitive.			>214 -		
	Clayey SILT, with trace sand; light brownish orange mottled light brown. Very stiff; moist; Insensitive; moderate plasticity.	1		192 103		
	1.3m: Becomes moderate to high plasticity.			145 92		
	Silty CLAY; light brownish orange mottled light brownish orange. Very stiff; high plasticity; moist; insensitive.	2		137 92		SWL 2.30m
	SILT, with some clay; brownish orange. Very stiff; moist; Low to moderate plasticity; insensitive.					
	Sandy CLAY, with some silt; light brownish orange mottled light brown. Stiff to very stiff; high plasticity; wet to saturated.			71 31		
	End of Investigation: 3m Target depth	3		168 77		

Investigation Information

Depth	3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA104

Report Ref: R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location

62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Values (kPa)
Topsoil	TOPSOIL.		
Puketoka Formation	Clayey SILT; light brownish orange. Hard to very stiff; moist; Moderate plasticity; insensitive.		>200 -
	Clayey SILT; light brownish orange mottled light grey. Very stiff; moist; Moderate plasticity; insensitive.	1	169 98
	Clayey SILT; light grey mottled light brownish orange. Very stiff; moist to wet; Moderate plasticity; insensitive.		140 92
		2	186 101
			160 87
	End of Investigation: 3m Target depth	3	172 92

Vane Shear Strength — Vane No:2021, Vane Size: 19mm (50, 100, 150, 200)

Scala Penetrometer (Blows / 100mm) (2, 4, 6, 8, 10, 12, 14, 16, 18)

Groundwater

Investigation Information

Depth	3m	**Logged By**	A.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA105

Report Ref: R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location: 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2021, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Puketoka Formation	Clayey SILT; light brownish orange. Very stiff; dry to moist; Moderate plasticity; moderate to low sensitive.			155 64		
	Clayey SILT; light brownish orange mottled light grey. Very stiff; moist; Moderate plasticity; insensitive.	1		160 101		
	1.9m: With trace reddish orange tuff.			143 87		
		2		109 64		
	Clayey SILT; brown. Very stiff to hard; moist; Moderate plasticity; insensitive.			>200 -		
	Organic SILT, with some clay; dark grey mottled brown. Hard; moist; Moderate plasticity.					
	End of Investigation: 3m Target depth	3		>200 -		

Vane Shear Strength: 50 100 150 200

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	3m	**Logged By**	A.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA106

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
FILL	Clayey SILT, with minor topsoil; dark brown mottled light brownish orange. Stiff; moist; Low to moderate plasticity; insensitive.			77 47		
Topsoil	TOPSOIL.	1		95 36 25 19		
Tauranga Group	CLAY, with some silt; dark brown mixed brownish orange and light grey. Firm to stiff; high plasticity; wet; insensitive. 1.7m: Becomes light grey. 2.0m: Becomes saturated; low recovery.	2		31 16 64 41		SWL 2.00m
		3		46 24 72 30 45 42		
	End of Investigation: 4m Target depth	4		64 50		

Investigation Information

Depth	4m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA107

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2021, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
FILL	Clayey SILT, with trace sand; light brownish orange mixed light grey. Stiff; moist; Moderate plasticity; insensitive.			52 44		
Topsoil	TOPSOIL. Wet.	1		72 55		
Tauranga Group	CLAY, with minor silt and sand; light green. Stiff to very stiff; high plasticity; wet; insensitive.			83 61		1.80m
	2.2m: Becomes saturated.	2		86 49		
	Clayey SAND; light grey. Very stiff; saturated; insensitive.			140 75		
	End of Investigation: 3m Target depth	3		UTP -		

Vane Shear Strength scale: 50 100 150 200

Scala Penetrometer (Blows / 100mm) scale: 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	3m	**Logged By**	A.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

Log ref: R6615-1A HA107

INVESTIGATION LOG

HA108

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Tauranga Group	Clayey SILT; dark brownish orange mottled green. Stiff; moist; Moderate plasticity; insensitive.			99 56		
	Sandy CLAY, with minor silt; green. Very stiff; high plasticity; moist; Insensitive.	1		45 42		
	CLAY, with some silt; light brown. Stiff to very stiff; high plasticity; wet; Moderate sensitive.					
	1.4m: Becomes saturated; low recovery.			52 21		
		2		49 12		
	2.5m: With some wood.			UTP -		
	End of Investigation: 2.7m Effective refusal					
	2.7m: Unable to penetrate because of wood.					
		3		UTP -		

Vane Shear Strength scale: 50 100 150 200

Scala Penetrometer (Blows / 100mm) scale: 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	2.7m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA109

Report Ref
R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location
62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.			TS				
Calcareous, sandy siltstone with minor fine sandstone and tuff beds.	Sandy SILT, with trace clay; brownish orange. Very stiff; low plasticity; moist; Moderate sensitive.					107 41		
	0.9m: With trace highly weathered tuff.		1			192 57		
	End of Investigation: 1.65m Effective refusal						18 12 8 15 15	

Vane Shear Strength scale: 50 100 150 200
Scala Penetrometer scale: 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	1.65m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

Log ref: R6615-1A HA109

INVESTIGATION LOG

HA110A

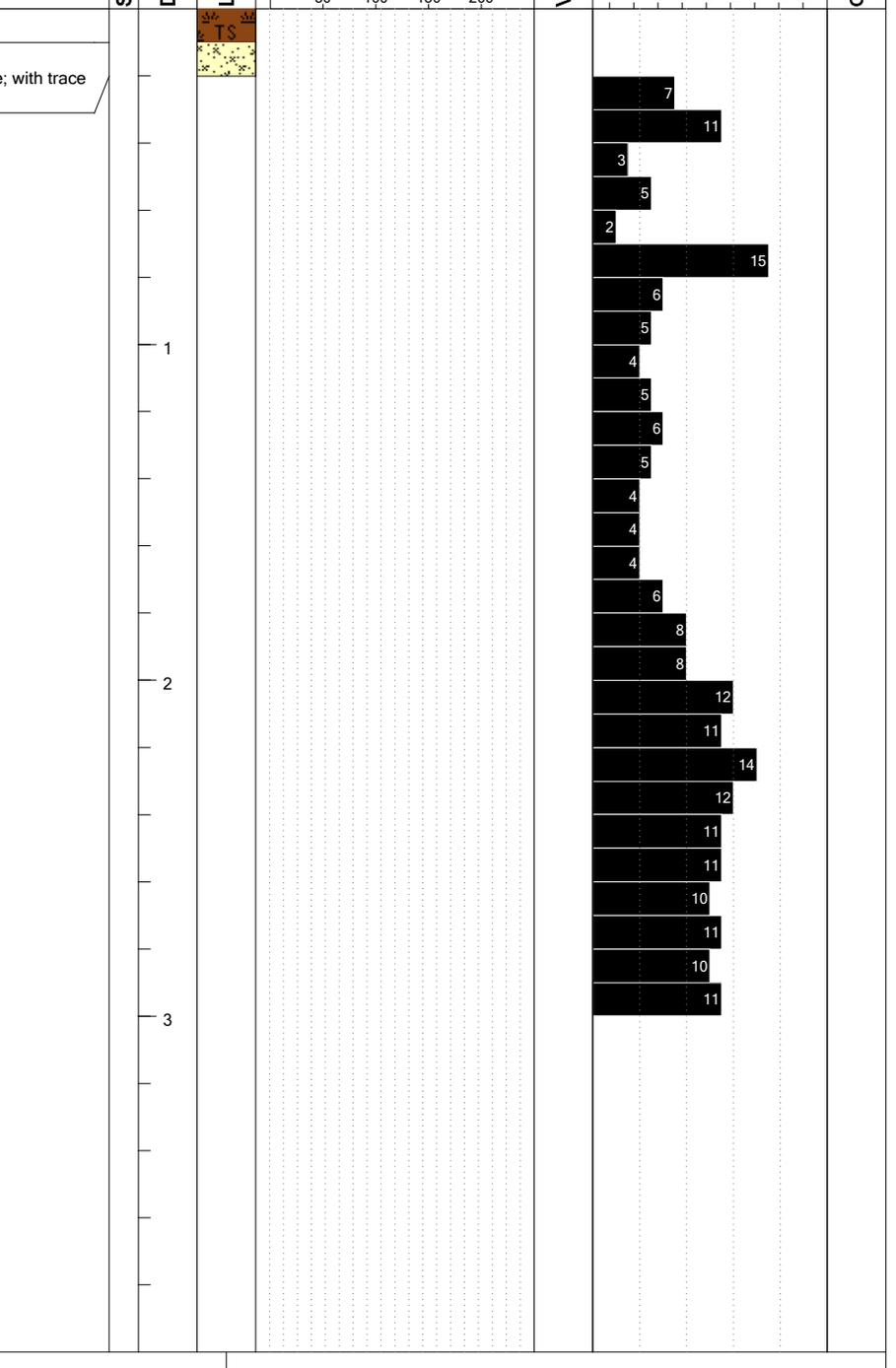
GCL Ground Consulting Ltd

Report Ref
R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location
62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend
TOPSOIL	TOPSOIL.		TS
	Sandy SILT, with trace clay; dark brown. Very stiff; low plasticity; moist; Moderate sensitive; with trace highly weathered tuff.		
	End of Investigation: 3m Effective refusal		



Investigation Information

Depth	3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA110B

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Legend	Vane Shear Strength (Vane No: / Vane Size: 0mm) 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
pso	TOPSOIL.		TS				
minor	Sandy SILT, with trace clay; dark brown. Very stiff; low plasticity; moist; Moderate sensitive; with trace highly weathered tuff.	1 2 3					
	End of Investigation: 0.3m Effective refusal						

Investigation Information

Depth	0.3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA110C

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength (Vane No: / Vane Size: 0mm) 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
pso	TOPSOIL.		0	TS				
minor	Sandy SILT, with trace clay; dark brown. Very stiff; low plasticity; moist; Moderate sensitive; with trace highly weathered tuff.		1					
	End of Investigation: 0.3m Effective refusal		2					
			3					

Investigation Information

Depth	0.3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA111

Report Ref
R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location
62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Topsoil	TOPSOIL.	
Puketoka Formation	Clayey SILT, with minor sand; brown mixed brownish orange and light grey. Very stiff; moist; Moderate sensitive; moderate plasticity. 0.7m: With trace wood.	1
	Sandy SILT, with some clay, with trace gravel; green mottled brownish orange. Wet; Moderate plasticity.	2
	End of Investigation: 1.55m Effective refusal	3

Samples | Legend | Vane Shear Strength (Vane No:2553, Vane Size: 19mm; 50 100 150 200) | Values (kPa): 157, 33, UTP, - | Scala Penetrometer (Blows / 100mm; 2 4 6 8 10 12 14 16 18): 1, 1, 1, 1 | Groundwater: SWL 0.90m

Investigation Information

Depth	1.55m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

Log ref: R6615-1A HA111

INVESTIGATION LOG

HA112

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL, with trace gravel.			137 57		
Puketoka Formation	Silty CLAY; brownish orange mixed light brown. Stiff; moist; Moderate plasticity; insensitive.	1		77 44		SWL 1.00m
	CLAY, with some silt; dark green. High plasticity; wet; Moderate sensitive.					
	SAND; green. Wet; With trace weathered sandstone.					
Tauranga Group	Silty CLAY; green. High plasticity; wet.			127 54		
	Sandy CLAY; green. Hard; high plasticity; wet to saturated; With trace weathered sandstone.	2		>214 -	20	
	End of Investigation: 2.2m Effective refusal	3				

Vane Shear Strength: 50 100 150 200

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	2.2m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA113

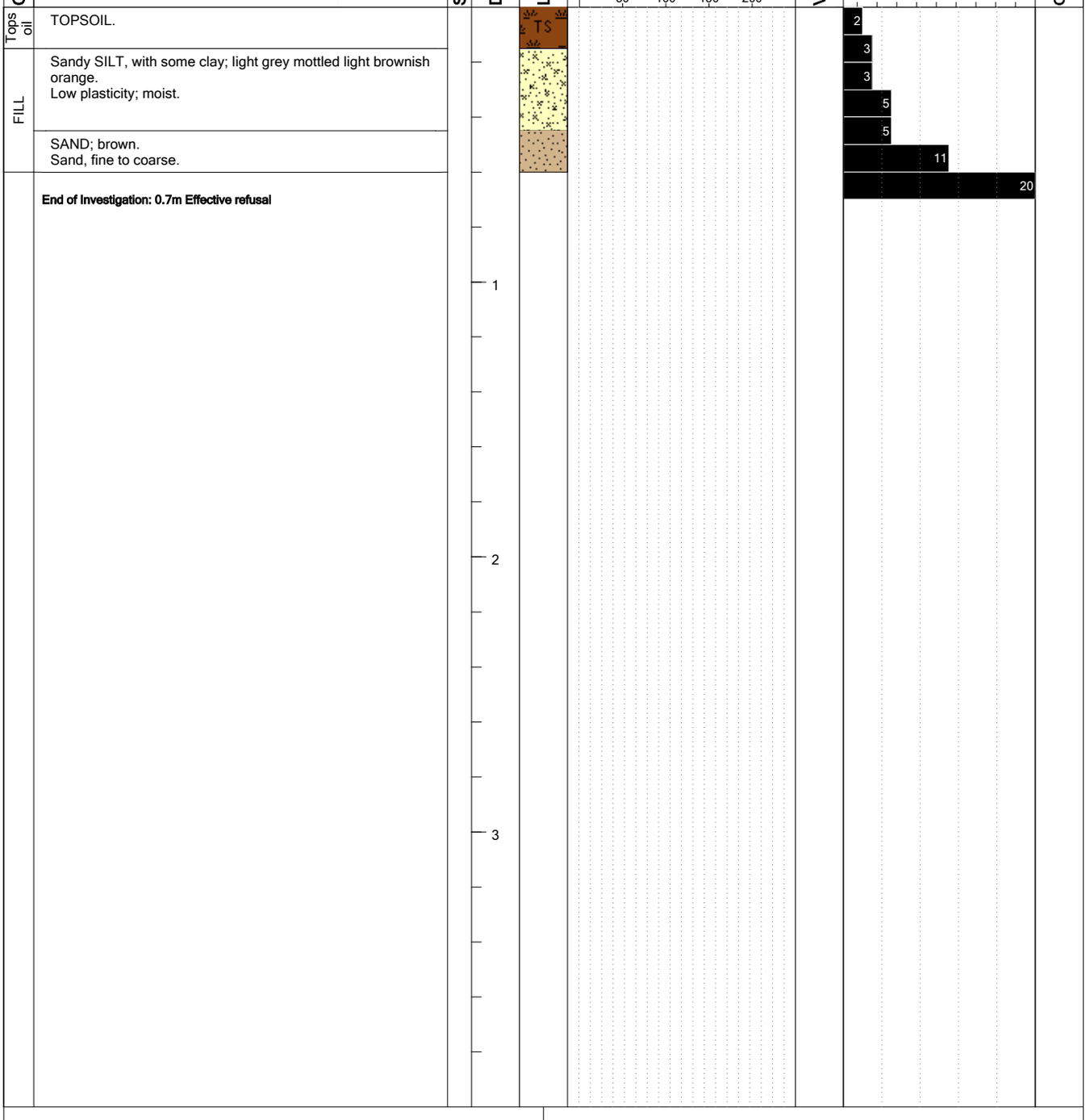
Report Ref
R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location
62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)
Topsoil	TOPSOIL.	
FILL	Sandy SILT, with some clay; light grey mottled light brownish orange. Low plasticity; moist.	
	SAND; brown. Sand, fine to coarse.	
	End of Investigation: 0.7m Effective refusal	

Samples | Legend | Vane Shear Strength (Vane No: / Vane Size: 0mm; 50 100 150 200) | Values (kPa) | Scala Penetrometer (Blows / 100mm; 2 4 6 8 10 12 14 16 18) | Groundwater



Investigation Information

Depth	0.7m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus:	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA114

Report Ref: R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location

62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Puketoka Formation	Clayey SILT; light brownish orange mottled light brown. Very stiff to hard; moist; Moderate plasticity; moderate to low sensitive.			200 65		
	1.5m: Becomes brown mottled orange and light brown.	1		122 76		
	1.8m: Becomes dark grey mixed light grey and light brownish orange.			206 83		
	CLAY, with minor silt; brown mottled light grey. Hard; moist; Moderate plasticity; insensitive.	2		>214 -		
	Silty CLAY; dark brown mixed brownish orange and light grey. Hard; moist; Moderate to high plasticity.					
	Silty CLAY; brownish orange moyylrf light grey. Very stiff; high plasticity; moist; Moderate sensitive.			180 65		SWL 2.60m
	Sandy SILT, with some clay, with trace organic soil; light brownish orange mixed dark brown, with trace black speckles. Very stiff; moist; Moderate to high plasticity; insensitive. 2.6m: Becomes wet.					
	End of Investigation: 3m Target depth	3		119 74		

Investigation Information

Depth	3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	ffective refus	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

INVESTIGATION LOG

HA115

Report Ref R6615-1A

Client	Coordinates (NZTM2000)	Elevation	Location Method (±2m)
Stuart P.C Limited			MAP

Location 62 & 10 Bluff Road, Pokeno, Waikato 62 & 10 Bluff Road, Pokeno, Waikato

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Depth (m)	Vane Shear Strength (Vane No:2553, Vane Size: 19mm)	Values (kPa)	Scala Penetrometer (Blows / 100mm)	Groundwater
Topsoil	TOPSOIL.					
Tauranga Group	Clayey SILT; brownish orange mottled light brown. Very stiff; moist; Moderate plasticity; insensitive.					
	Clayey SILT; grey mottled brownish orange. Very stiff to stiff; moist; Moderate plasticity; insensitive.			134 68		
	Organic SILT, with some clay; dark grey. Hard; moist; Low to moderate plasticity.	1		92 62		
	CLAY, with some silt; dark green. Stiff; high plasticity; wet; Moderate sensitive.			72 28		
	SAND, with some clay; dark grey. Stiff; low plasticity; wet; Moderate sensitive.					
	Sandy CLAY; light green. Very stiff; high plasticity; wet; Insensitive.	2		52 28		
				115 47		
	End of Investigation: 3m Target depth	3		211 146		

Vane Shear Strength: 50 100 150 200

Scala Penetrometer (Blows / 100mm): 2 4 6 8 10 12 14 16 18

Investigation Information

Depth	3m	**Logged By**	V.L	**Start Date**	08/10/20
Termination	Target depth	**Checked By**	F.W	**End Date**	08/10/20
Machine Used		**Test Pit Dimensions**		**Logged Date**	08/10/20

Investigation Type

- [x] Hand Auger (50mm)
- [ ] Test Pit
- [ ] Scala Penetrometer

Water Legend

- Standing Water Level
- Out flow
- In flow

Log ref: R6615-1A HA115

APPENDIX C: SITE PHOTOGRAPHS

Features: Low Lying wet-land area & adjacent cliff face zone

SITE LOOKING NORTH-EAST FROM THE FILLED WATERCOURSE CROSSING	SITE LOOKING NORTH FROM THE FILLED WATERCOIURSE CROSSING
	
SITE LOOKING NORTH-WEST FROM THE SOUTH-EASTERN BOARDER OF PROPOSED SITE DEVELOPMENT	SITE LOOKING SOUTH-WEST FROM THE NORTH-EASTERN MARGIN OF THE PROPOSED SITE DEVELOPMENT
	

Features: Moderate and steep slopes within the western portion of the proposed site development area

SITE LOOKING SOUTH-WEST FROM THE BASAL ASPECT OF THE CLIFF/BLUFF FEATURE

SITE LOOKING NORTH-EAST FROM THE SOUTH-WESTERN MARGINS OF PROPOSED SITE DEVELOPMENT

Features: Cliff / bluffs

SITE LOOKING NORTH-EAST FROM THE FILLED WATERCOURSE CROSSING

SITE LOOKING NORTH FROM THE FILLED WATERCOIURSE CROSSING

SITE LOOKING SOUTH-EAST FROM THE NORTH-WESTERN MODERATE SLOPES

SITE LOOKING SOUTH-EAST FROM BELOW THE ADJACENT BLUFF

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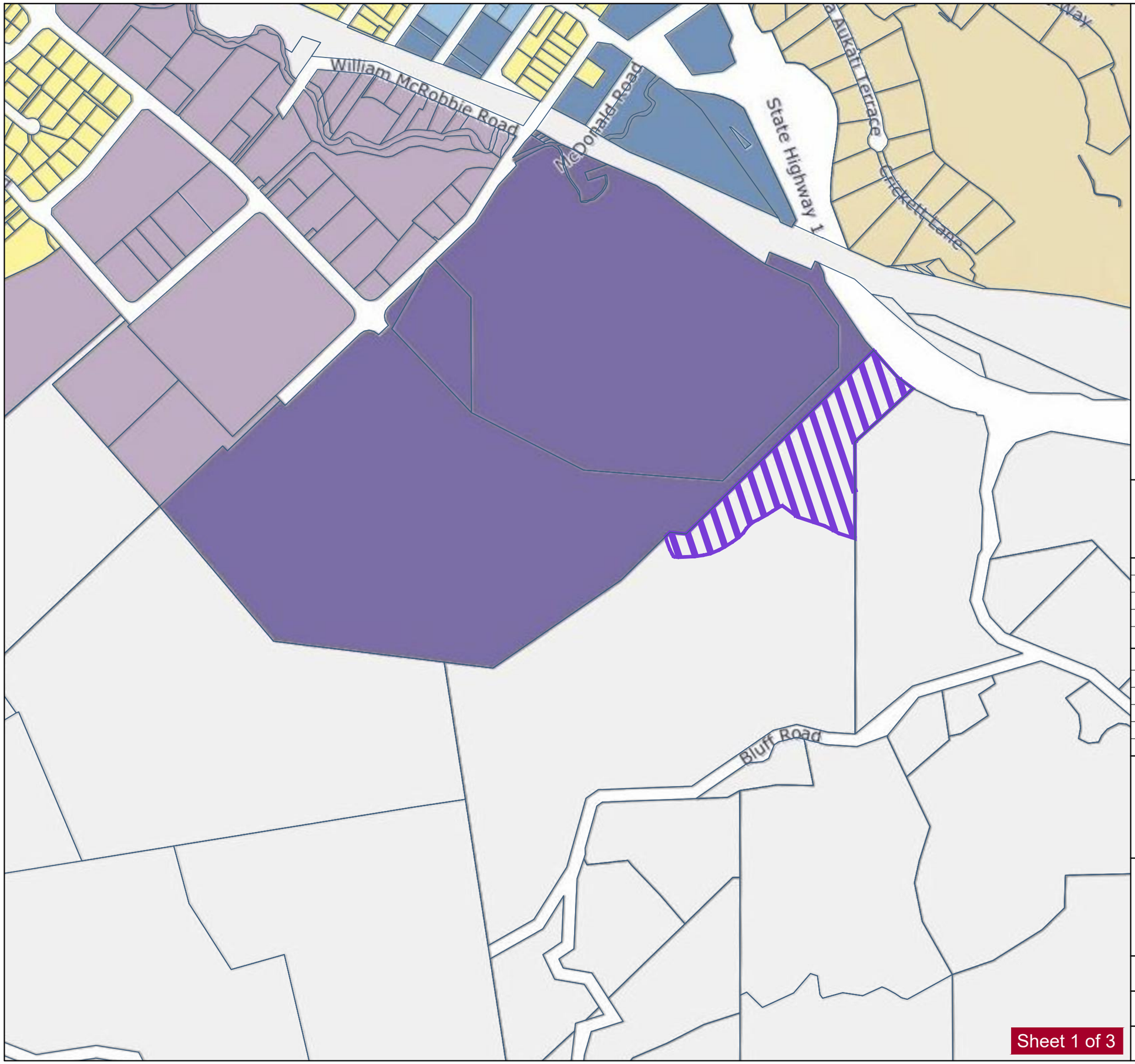
TEL: 09 239 2229

GCL
Ground Consulting Ltd

APPENDIX 3: EXPANSION LAND PLANS



PROPOSED HEAVY INDUSTRIAL ZONE

- Residential
- Rangitahi Peninsula
- Village
- Country Living
- Rural
- Business
- Business Town Centre
- Business Tamahere
- Industrial
- Heavy Industrial
- Reserve

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

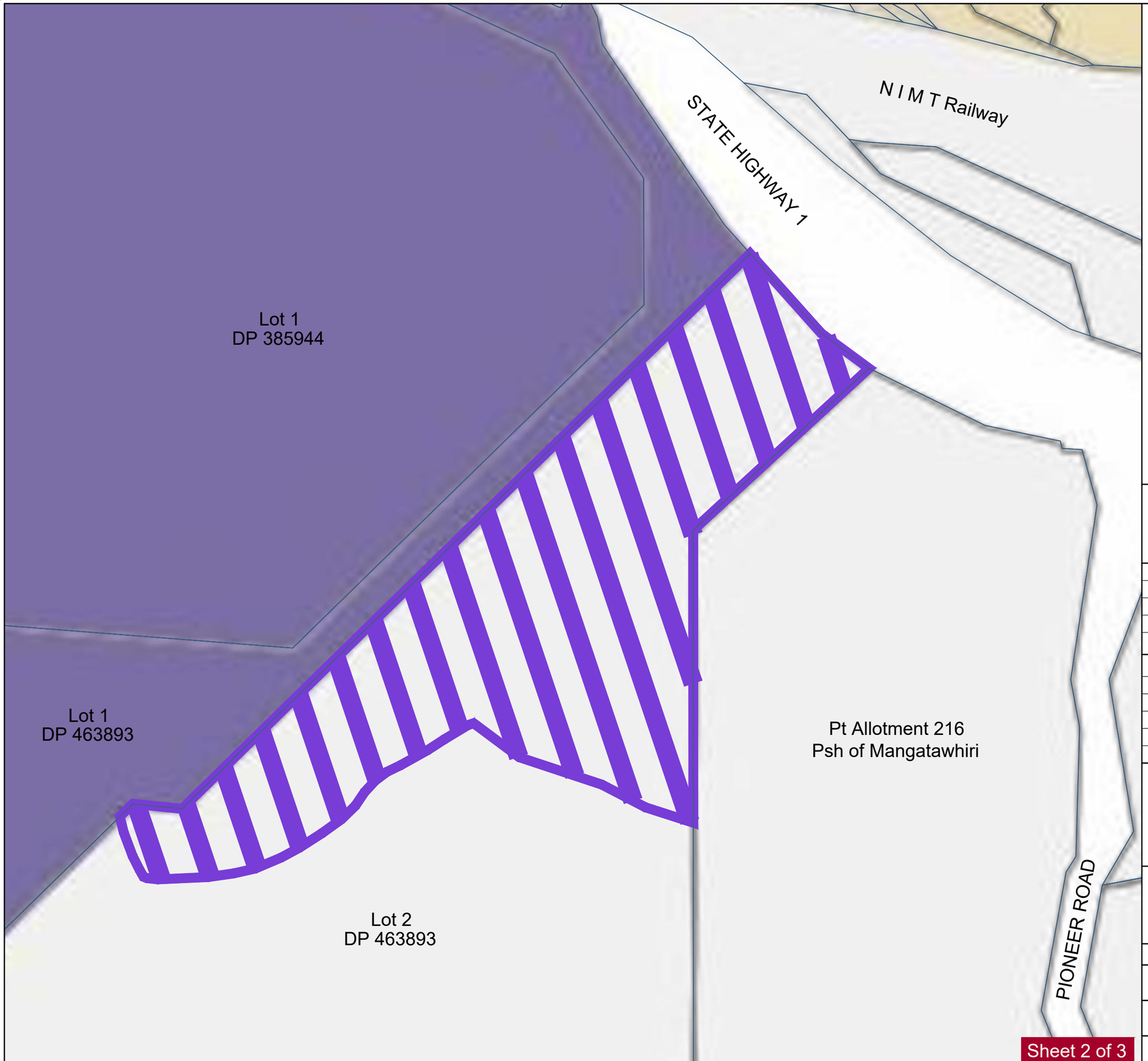
Job Title

ZONE PLAN

Client

HYNDS GROUP

Project: J549	Drawing: J549-ZONE PLAN
Cad Ref. File: J549-ZONE PLAN	Council Ref: S
Scale (A3 Original): 1:6000	Amendment: C



HEAVY INDUSTRIAL ZONE

PROPOSED HEAVY INDUSTRIAL ZONE 4.27ha

PROPOSED RURAL ZONE

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

Job Title

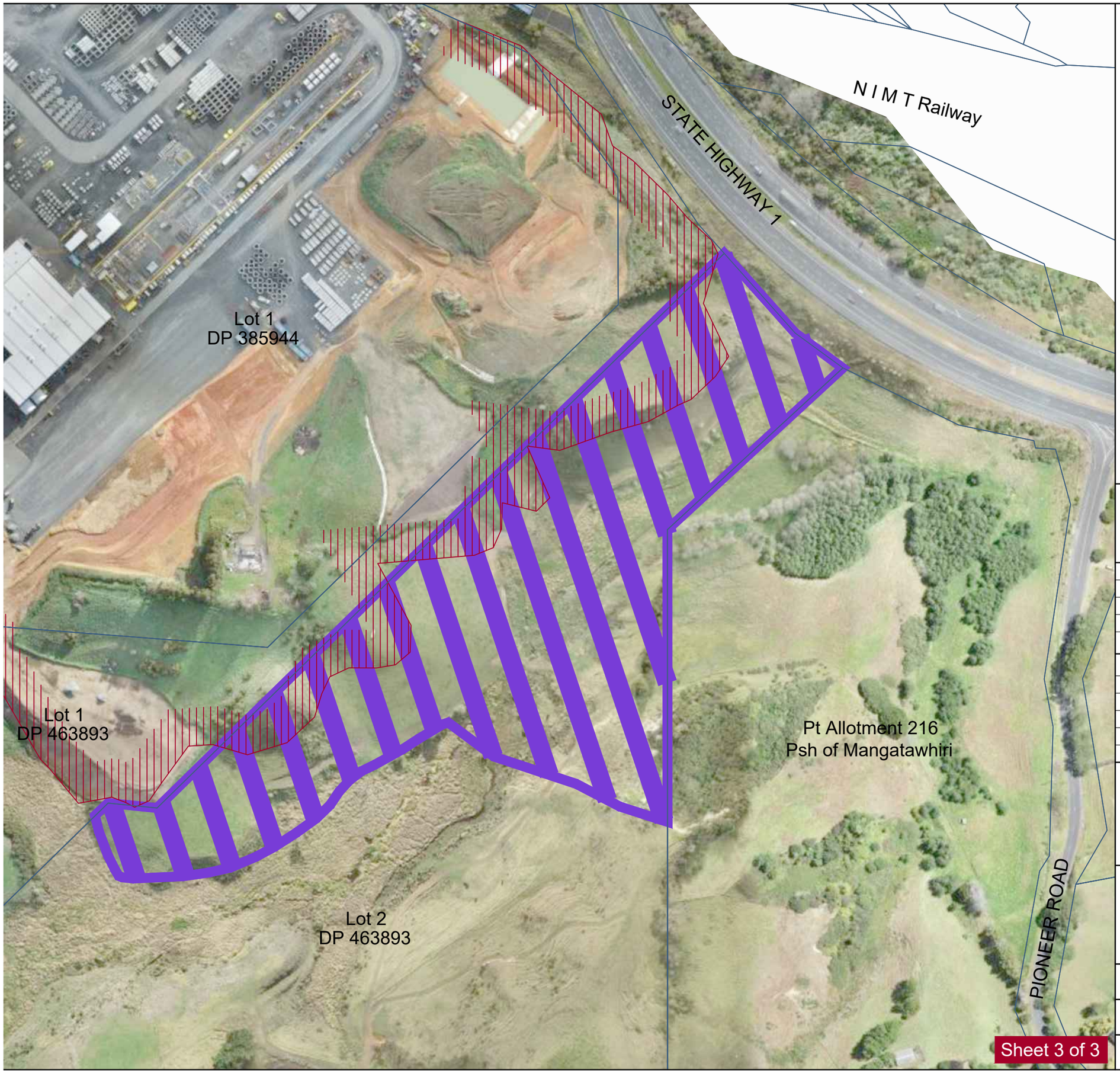
ZONE PLAN

Client

HYNDS GROUP

Sheet 1 of 1

Project	Drawing
J549	J549-ZONE PLAN
Cad Ref. File	Council Ref:
J549-ZONE PLAN	S
Scale (A3 Original)	Amendment
1:2000	C



PROPOSED HEAVY INDUSTRIAL ZONE 4.27ha

CONSENTED EARTHWORKS AREA (WRC)

	Amendments	Name	Date
C			
B			

	Name	Date
Surveyed	Alex White	02/20
Designed		
Drawn	French	10/20
Checked		
Approved		

Job Title

ZONE PLAN WITH AERIAL OVERLAY

Client

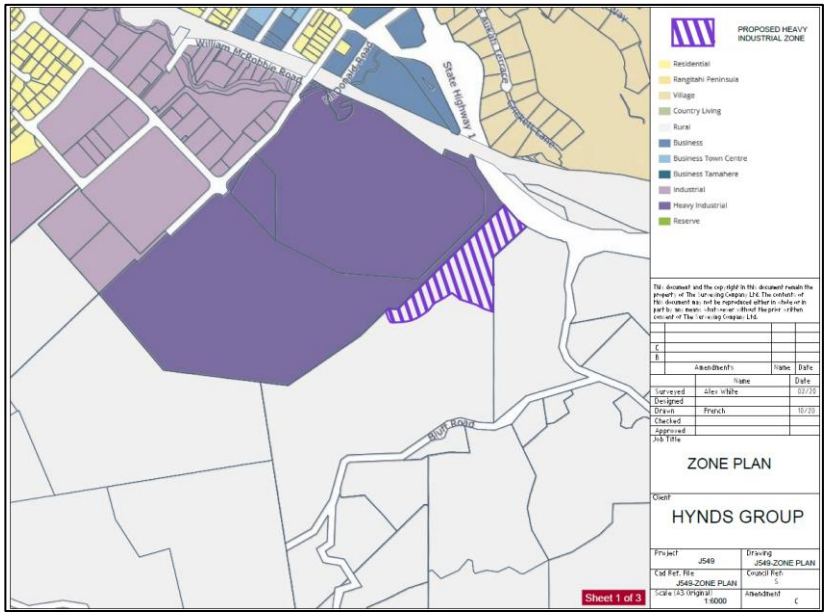
HYNDS GROUP

Project: J549	Drawing: J549-ZONE PLAN
Cad Ref. File: J549-ZONE PLAN	Council Ref: S
Scale (A3 Original): 1:2000	Amendment: C

APPENDIX 4: SECTION 32 ANALYSIS

S32 Evaluation – 62 Bluff Road, Pokeno (Hynds)

Table 1: Zoning Proposal

The specific provisions sought to be amended	Assessment of the efficiency and effectiveness of the provisions in achieving the objectives of the Proposed Waikato District Plan (PWDP)
The zoning proposal	This proposal seeks to rezone a 4.27ha piece of land to Heavy Industrial. The site is zoned AEP in the OWDP and rural in the PWDP. The land to be rezoned is identified below and is intended to enable an expansion of the adjacent existing Hynds manufacturing, processing and distribution operation which is located at 9 McDonald Road, Pokeno. 

Relevant objectives of the PWDP	The relevant objectives and policies in the PWDP are the Strategic Objectives as identified in 1.12.8, the policies relating to the urban environment and those in the Industrial and Rural Zones. The relevant Strategic Objectives are set out below: **1.12.8 Strategic objectives** (a) The matters set out in paragraphs 4.1.1 – 4.1.7 provide the overarching directions for the development of the objectives, policies and other provisions within the district plan. (b) In summary, the overarching directions include the following: (i) Urban development takes place within areas identified for the purpose in a manner which utilises land and infrastructure most efficiently. (ii) Promote safe, compact sustainable, good quality urban environments that respond positively to their local context. (iii) Focus urban growth in existing urban communities that have capacity for expansion. (iv) Plan for mixed-use development in suitable locations. (v) Encourage community collaboration in urban growth decisions (vi) Protect and enhance green open space, outstanding landscapes and areas of cultural, ecological, historic, and environmental significance. **4.1 Strategic Direction** **4.1.1 Objective – Strategic** (a) Liveable, thriving and connected communities that are sustainable, efficient and co-ordinated. **4.1.7 Objective – Character of towns** (a) Development in the Residential, Village, Industrial and Business zones is attractive, connnected and reflects the existing character of towns.

	The proposal achieves the above objectives in an efficient and effective manner as it will increase the supply of industrial land in an area that has been identified for that purpose – namely the Pokeno Strategic Industrial Growth Node. Furthermore: • The proposal is located such that infrastructure can be provided effectively and efficiently; • The proposal will focus growth around the existing Pokeno township which has capacity for such growth; and • Limiting the Heavy Industrial zone to the lower portion of the site is an effective mechanism for protecting the upper hillslopes which have landscape significance. The relevant policy relating to the urban environment is set out below: **4.1.6 Policy – Commercial and industrial activities** (a) Provide for commercial and industrial development in the following zones: (i) Business Town Centre; (ii) Business; (iii) Industrial; and (iv) Heavy Industrial. (b) Industry is only to be located in identified Industrial Zones and the industrial strategic growth nodes of: (i) Tuakau; (ii) Pokeno; (iii) Huntly; and (iv) Horotiu. The proposal is consistent with the above policy as it locates industrial activity in the Pokeno Industrial Strategic Growth Node.

	The objectives of the Industrial and Heavy Industrial zones are set out below: **4.6 Industrial and Heavy Industrial Zones** **4.6.1 Objective – Economic growth of industry** (a) The economic growth of the district's industry is supported and strengthened in industrial zones. **4.6.6 Objective – Manage adverse effects** (a) The amenity values of sensitive activities and ecosystem values outside of industrial zones are protected from the significant adverse effects of industrial activities. The proposal to rezone the lower portion of the Subject Site to Heavy Industrial is an effective and efficient way of achieving Objective 4.6.1 as the land to be rezoned will support the economic growth of the Hynds operation by enabling an expansion of the existing operation. There is no other available Heavy Industrial zoned land available in Pokeno. Limiting the extent of the Heavy Industrial zone to the lower portion of the site is an effective and efficient means of maintaining the amenity values of the surrounding land. This has been confirmed by the evidence of various specialists on behalf of Hynds who have all confirmed that the proposal will not result in significant adverse effects on surrounding land. The evidence provided on behalf of Hynds is as follows: • Lighting – Laurie Cook; • Stormwater and Infrastructure – Campbell McGregor; • Traffic – Todd Langwell; • Visual/Landscape – Rachel de Lambert; and • Noise – Craig Fitzgerald.

	The relevant objectives of the Rural zone are set out below: **5.1.1 Objective – The rural environment** Objective 5.1.1 is the strategic objective for the rural environment and has primacy over all other objectives in Chapter 5. (a) Subdivision, use and development within the rural environment where: (i) high class soils are protected for productive rural activities; (ii) productive rural activities are supported, while maintaining or enhancing the rural environment; (iii) urban subdivision, use and development in the rural environment is avoided. **5.2 Productive Versatility of Rural Resources** **5.2.1 Objective - Rural resources** (a) Maintain or enhance the: (i) Inherent life-supporting capacity and versatility of soils, in particular high class soils; (ii) The health and wellbeing of rural land and natural ecosystems; (iii) The quality of surface fresh water and ground water, including their catchments and connections; (iv) Life-supporting and intrinsic natural characteristics of water bodies and coastal waters and the catchments between them. **5.3 Rural Character and Amenity** **5.3.1 Objective - Rural character and amenity** (a) Rural character and amenity are maintained. The proposal is an effective and efficient means of giving effect to the above objectives as it avoids urban development on land containing high class soils and/or a productive rural activity. Furthermore, the limited scale and extent of the proposed zoning is an effective means of maintaining rural character and amenity, particularly as it does not enable extensive urban development on the upper hill slopes which provide a rural backdrop to Pokeno. The only area where the proposal is at variance with the objectives relates to objective 5.1.1 which seeks to avoid urban development in the rural environment. However, this variance is not considered to be significant for the following reasons: • Objective 5.1.1 has primacy over the other objectives and policies in the Rural zone <u>but does not</u> have primacy over objectives and policies in other zones (such as objective 4.6.1 of the Industrial Zones or the Strategic Direction);

	• The Subject Site is part of the rural environment as identified in the PWDP. Given that this zoning is only proposed, it should not be taken as a given – especially as the Subject Site was zoned AEP in the OWDP. In our view, it is the operative provisions that will determine the extent of the rural environment not the proposed provisions; and • The subject site is located on the edge of the Pokeno township adjacent to an existing heavy industrial operation. Zoning a location such as this is not as impactful as zoning land in the wider rural environment and this needs to be taken account of. As a result of the assessment above, we consider that the proposed zoning is an effective and efficient means of achieving the objectives of the PWDP as the proposed zoning will take a piece of land which is lying fallow and not overly appropriate for a rural use and give the land an economic purpose in that it will enable an expansion of a regionally significant industrial activity. This expansion will be of economic benefit to Hynds, Pokeno and the Waikato region in general. The expansion will also support Pokeno township by facilitating the continuation of the Hynds operation which is a key employer and anchor point for the township. Limiting the scale and extent of the Heavy Industrial zone is also an efficient and effective mechanism for managing the potential effects of the zoning as it will ensure that the upper hill slopes of the site are not developed for an urban purpose.
Scale and significance of the zoning proposal	Scale and significance of proposal As identified above, the spatial extent of the proposed zoning is limited to 4.27ha. Whilst 4.27ha is reasonably large in the context of 'urban sites' it is relatively small in this context. In particular: • 4.27ha equates to 16% of the Subject Site (27ha); • 4.27ha equates to 19% of the existing Hynds Factory Site at 9 McDonald Road (22.6ha); • 4.27ha equates to 8% of all Heavy Industrial land in Pokeno (being the Hynds and Synlait sites which total 50.6ha); and • 4.27ha equates to approximately 5% of all Industrial land in Pokeno (88ha).

	Whilst the proposal is limited in its scale and extent, it is still of a size which will enable an effective and efficient expansion of the existing Hynds operation. To demonstrate this, an area of approximately 4ha on the existing Hynds Factory Site has been identified on the aerial photo below – it can be seen that a substantial amount of product can be stored and distributed in an area of 4ha.  Figure 1 Aerial Photo of existing Hynds Factory Site It should be noted that manufacturing and distribution operations are increasingly needing larger pieces of industrial land to meet their needs (particularly when compared to operations/sites 20-30 years ago). This is due to the need to achieve an 'economy of scale' in terms of both manufacturing and distribution. District Plan provisions up and down the country need to take account of these requirements and ensure that the sites which are zoned for industrial uses are of an appropriate size to enable the scale of today's industrial operations. This is highlighted at paragraphs

	4.4 to 4.7 in the evidence of Adrian Hynds that was presented on behalf of Hynds at Hearing 7 where he outlines the difficulties in finding a piece of land which is both appropriately located and appropriately sized. This proposal helps to ensure that the Hynds operation at Pokeno can continue to operate effectively and efficiently by making available additional Heavy Industrial zoned land. This is addressed in Adrian Hynds' evidence for this hearing. Overall, given the relatively small size of this extension, it could be concluded that the proposal is of local significance. However, the fact that the land to be rezoned is located in the Pokeno Strategic Industrial Growth node elevates its importance to being of regional significance - especially when combined with the fact that the Hynds operation at Pokeno is also of regional, if not, national significance. <u>Higher order documents</u> The relevant higher order documents are the National Policy Statement - Urban Development 2020 (**NPS-UD**) and the Waikato Regional Policy Statement (**WRPS**)**.** Sections 74 and 75 of the Resource Management Act 1991 require district plans to <u>give effect</u> to any National Policy Statement and any operative regional policy statement. These higher order documents are best assessed in a 'top down' fashion given that the higher level documents direct those that follow rather than the other way around. <u>National Policy Statement - Urban Development</u> The NPS-UD requires district plans provide sufficient residential and business development capacity. The Council is required to give effect to this policy statement in the PWDP. It is listed as a 'tier 1' territorial authority.

	In this regard, paragraph 279 of the Framework Report identifies that recent work commissioned by the Waikato District Council has concluded that 150-220ha of land for future employment needs to be provided in the PWDP. In the longer term 460ha of business land will be required by 2045. It is considered that this proposal will make an important contribution to providing the required business development capacity, especially as the proposed Heavy Industrial zone is in a location where it is able to be serviced and is already sought after by an established operator for industrial use. It would be prudent planning to "snap up" this opportunity. In our opinion the proposal will give effect to the NPS-UD and will help the Council to fulfil its obligations under that document. <u>Waikato Regional Policy Statement</u> The second 'higher order' document to be considered is the WRPS which must be given effect to in the PWDP. In our view, one of the key considerations in the WRPS for this proposal is Objective 3.2. This objective states: "Recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining, and where appropriate, enhancing access to physical and natural resources to provide for regionally significant industry and primary production activities which support such industry….". The proposal to zone the lower portion of the Subject Site Heavy Industrial gives effect to the above objective as it will enable Hynds to access land for regionally significant industry. It will also contribute to the economic wellbeing of the community given that Hynds employs a significant number of people from Pokeno and the wider area. Objective 3.2 is given effect to by Policy 4.4 which seeks to manage natural and physical resources to provide for the continued operation and development of regionally significant industry. Providing for an expansion of the Hynds operation will give effect to this policy as it will help ensure

	continued operation and development of the existing manufacturing plant. It is also relevant to note that the methods associated with Policy 4.4 specifically mention applying zones (such as the Heavy Industrial zone proposed) to enable operation and development of regionally significant industry. Having established that the WRPS requires that regionally significant industry is to be provided for, it is then relevant to consider where such industry should be located. Guidance on this is provided in Policy 6.14 which states that new industrial development should predominantly be located in the strategic industrial nodes in Table 6-2. This proposal is consistent with this policy as the proposed Heavy Industrial land will be located in the Strategic Industrial Node in Pokeno.

The location of the Strategic Industrial Growth Node at Pokeno is shown on the map below:

6C Future Proof map (indicative only)

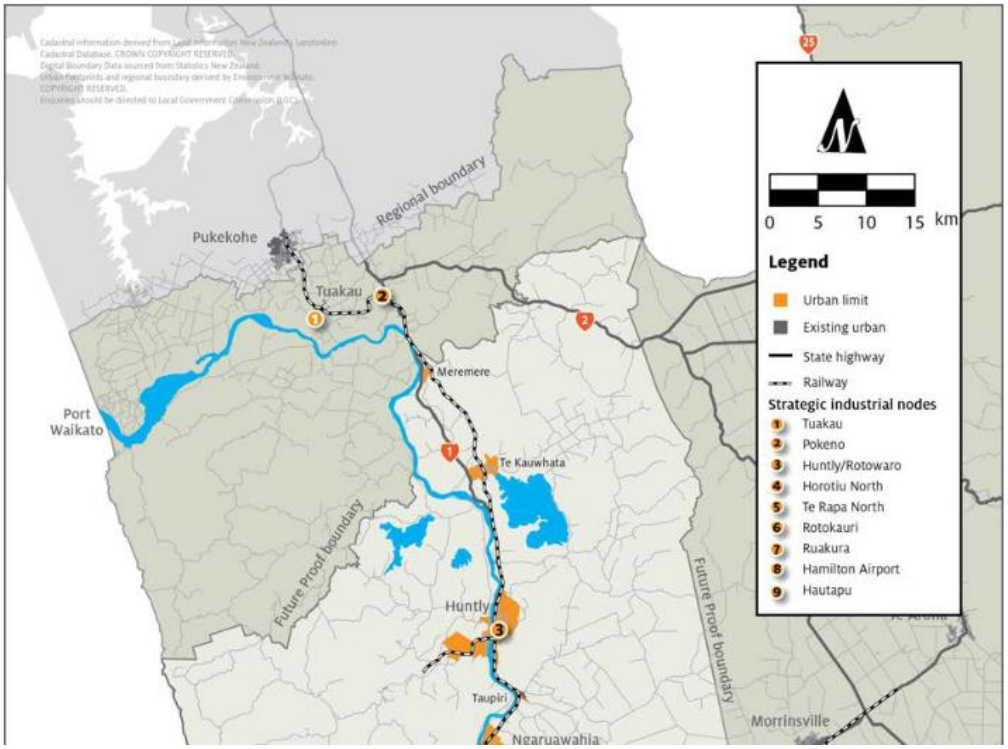


Figure 2 Future Proof Map showing Location of Pokeno Strategic Industrial Node (identified with a 2)

It is also relevant to note that the development principles in section 6A make specific mention of the need for urban intensification and redevelopment as this minimizes the need for urban development in greenfield areas. This proposal is considered to be consistent with that principle.

	The Framework Report highlights the need to assess a proposed zone against Implementation Method 6.1.8 in the WRPS. This assessment is undertaken in Appendix 5 of this evidence. <u>Growth Strategies</u> There are two growth strategies that have been prepared to manage growth in the Waikato region. These strategies do not have the same status as the WRPS as they are not RMA documents. As such, they are documents that must be “had regard to”, rather than be “given effect to”.

The first strategy is the Future Proof Strategy which was approved in 2017, this strategy seeks to ensure that urban development within the Waikato region has compact form of development. To achieve this, the Future Proof Strategy contains a plan showing the expected settlement pattern, an extract from this plan is contained in Figure 3 below:

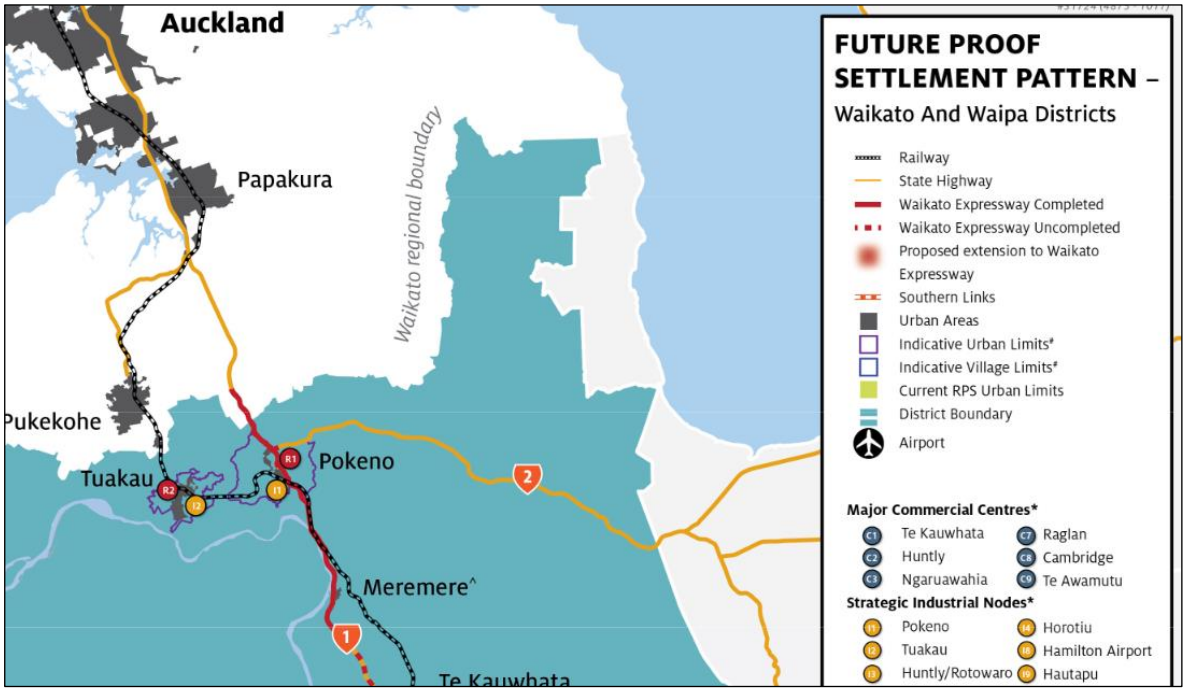


Figure 3 Future Proof Settlement Pattern 2017

The yellow circle on the plan above identifies Pokeno as being a Strategic Industrial Node. We consider that this proposal is consistent with the above plan as it provides a small amount of additional industrial land in a Strategic Industrial Growth Node.

	The second growth strategy is Waikato 2070. This plan also seeks a compact form of development but focuses on the Waikato District rather than being region wide like the Future Proof Strategy. Waikato 2070 includes a series of Development Plans, one of which relates to Pokeno and is set out below:

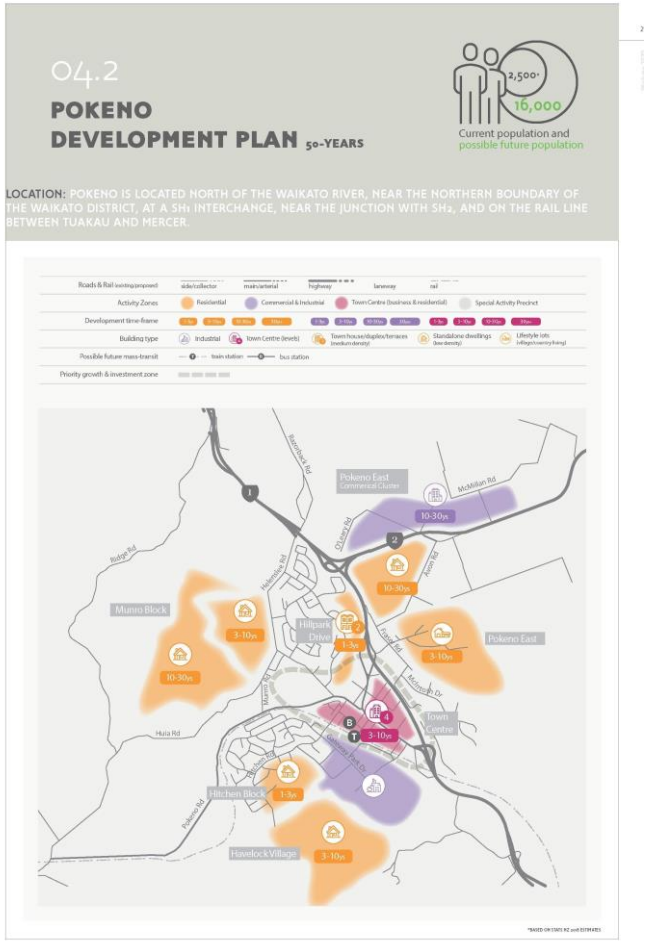


Figure 4 Pokeno Development Plan Waikato 2070

	Again the proposal is consistent with the above plan as it provides for industrial activity in the purple Industrial Area located at the end of Gateway Park Drive. Overall, the proposal is considered to be consistent with the higher order documents as the proposal: • Will give effect to the objectives and policies in the WRPS seeking to provide for and facilitate the growth of regionally significant industry and channel such growth into strategic industrial growth nodes; • Has regard to the relevant growth strategies given that the proposal will increase the amount of industrial land in a location specifically identified for that purpose; and • Will contribute to meeting the 150-220ha of employment land that the Framework Report identifies should be provided for in the PWDP. <u>Change to anticipated outcomes</u> The Subject Site is zoned Aggregate Extraction and Processing (**AEP**) in the OWDP. Therefore, Pokeno residents will have (or at least should have) a long-established expectation that the subject site will be quarried and the aggregate processed. The proposed Heavy Industrial zone to be located on the lower portion of the Subject Site will be less impactful on surrounding residents than the activities that could take place under the operative AEP zone, given the extensive noise and dust generated by aggregate extraction and processing and as quarrying the upper hill slopes would have had negative visual effects on the rural landscape (especially when compared with the proposed regeneration/sculpture project). The lighting, noise, traffic, stormwater, visual and infrastructure experts have also provided evidence/reports to confirm that the proposed Heavy Industrial zone (and the development that it entails) will not have significant adverse effects on the amenity and character of surrounding sites. This is primarily due to the limited extent and scale of the land to be rezoned relative to the existing Hynds operation and other industrial sites such as Synlait.

	Section 6 There are two Significant Natural Areas (**SNAs**) located on the Subject Site. The SNA on the lower portion of the land (the land to be zoned Heavy Industrial) has been investigated by Ecology NZ and found to not meet the criteria for a SNA and therefore has be recommended to be removed in the evidence presented on behalf of Hynds to Hearing 21a – SNA. This recommendation is supported by the Council reporting officer. The SNA on the upper portion of land is recommended to be retained in the evidence on behalf of Hynds and of the Council reporting officer. This proposal will have positive effects on this SNA as it is proposed to be enhanced as part of the revegetation project. Transport The transport impacts of the proposal to rezone the lower portion of the Subject Site have been assessed by Todd Langwell of Traffic Planning Consultants. Mr Langwell concludes: "Overall, I consider that the traffic effects of Hynds' proposed Heavy Industrial zoning extension can be accommodated on the road network without compromising its function, capacity or safety". Infrastructure The Surveying Company has prepared and Infrastructure feasibility report in relation to the proposed Heavy Industrial zone. This report concludes that: "based on the desktop analysis described in this report and information available at the time, it is our opinion that the Expansion Land can be feasible serviced by stormwater, wastewater, water and private road".

	Future Development The Subject Site is surrounded by Rural land in both the PWDP and the OWDP. Therefore, large scale development on surrounding land is not provided for or anticipated. It is acknowledged that Waikato 2070 does indicate that land on the upper hillslopes could be used for residential development by the owner of that land, Havelock Village Limited (despite its rural zoning in the PWDP and OWDP). The merits of the Havelock Village proposal, and whether residential zoning is appropriate in this location are yet to be debated and decided upon. Evidence will be prepared on behalf of Hynds later in this process addressing this issue. In summary, in our opinion the operative and proposed rural zoning should be retained on these upper hillslopes, as residential zoning is not appropriate or good planning practice on this elevated land overlooking an existing heavy industrial operation like the Hynds Factory Site. However, in the event residential development was provided for in the PWDP in this location, in our opinion the zoning of a small portion of the Subject Site for heavy industrial uses is not likely to be impactful on any future residents given its location on the lower portion of the site and its limited scale and extent. Overall, it is considered that the proposal to zone the lower portion of the site Heavy Industrial will not have significant effects on surrounding land, primarily due to the fact that the land to be rezoned is limited in its size and as it is located adjoining an existing large scale industrial activity. Furthermore, it is considered that any effects that do arise will be far less impactful than those which could have occurred under the AEP zone applied to the site under the OWDP.
Other reasonably practicable options to achieve the objectives (alternative options)	Do Nothing: Retain the proposed Rural Zone
	Alternative 1: Rezone the lower portion of the site to Heavy Industrial
	Alternative 2: Rezone the entire site to Heavy Industrial

Table 2: Benefits and Costs Analysis of the Zoning Proposal

Zoning Proposal: Retain the Proposed Rural Zone		
	Benefits	**Costs**
General	The benefit of retaining the Rural zone over the whole site is that it will retain its rural character.	Retaining the Rural zone over the whole site is likely to perpetuate the status quo where the land has been fallow over an extended period and as a result has been infested by weeds. This is an inefficient use of land because it is not really used for any purpose and for the reasons outlined below it is not really suitable for a productive rural use. Furthermore, there will also be a lost opportunity in that retaining the Rural zone over the whole site will preclude the economic use of the lower portion of the site and consequently the revegetation / sculpture park on the upper portion of the site will also not occur.
Environmental	There is no real environmental benefit to retaining the land in its current form as this will just enable the land to be progressively more infested with weeds. It is also noted that the evidence of Ms de Lambert concludes that zoning this land Heavy Industrial will not detract from the rural landscape given the small	Retaining the Rural zone over the whole site is likely to result in the site continuing to lie fallow. Invasive weeds and pest plants and land slips will continue to be issues for the Subject Site. These are not positive environmental outcomes. It is also likely to preclude the regeneration / sculpture project on the upper portion of the Subject Site as this project is reliant on the development on the lower portion of the site for its funding.

	size of the land and as it will be viewed alongside the existing industrial operation.	
Social	There is no real social benefit to retaining the Rural zone over the whole site.	There is no real social cost to retaining the Rural Zone over the whole site.
Economic - General	The use of the site for a rural activity could generate a small economic return if a productive use for the land could be found.	The site does not currently generate an economic return and is unlikely to do so given its limited size, the steep topography and the lack of high class soil.
Economic Growth	There is unlikely to be economic growth benefits from retaining the Rural zone over the whole site given its limited ability to generate an economic return.	The Subject Site is unlikely to contribute to economic growth given its limited ability to generate an economic return. Zoning the entire site for rural uses precludes the very real opportunities the lower portion of the site presents for economic growth in the district
Employment	There could be a small employment benefit if a farm worker was required.	The Subject Site is unlikely to be a significant employment generator if it is zoned rural in its entirety, given that it is not currently a productive unit and is unlikely to be in the future due to the limited size of the site, the steep topography and the lack of high class soils.
Cultural	The preliminary discussions that have been held with Iwi in relation to the subject site have highlighted that there is cultural value in the ensuring that the upper hill slopes of the Subject	If the whole site retains the Rural zone, there could be a cost to Iwi as this zone will preclude the development on the lower portion of the site and therefore the regeneration project on the upper portion of the site will also not occur.

	Site remain undeveloped. The Rural zone would facilitate this outcome.	

Zoning Proposal: Rezone the whole site Heavy Industrial		
	Benefits	**Costs**
General	Zoning the whole site Heavy Industrial would have the benefit of opening up the full 27ha for industrial development. In theory this would significantly increase the supply of industrial land but in reality it would be a more limited contribution as the steep topography of the upper portion of the site is not ideally suited to industrial use. Zoning the whole site Heavy Industrial will enable an expansion of the existing operation onto the lower portion of the land. This will be of benefit to the current Hynds operation and will help to ensure that Hynds does not have to move all or part of its operation to a new location.	Applying the Heavy Industrial over the whole site could result in the upper portion of the site being developed. This is not ideal from a visual perspective as the upper hill slopes have been identified in the Pokeno Structure Plan as being significant as a backdrop for Pokeno. Applying the Heavy Industrial zone is unlikely to promote or align with the regeneration / sculpture park project on the upper portion of the site. Applying the Heavy Industrial zone over the whole site will give the community an expectation that the upper hill slopes will be used for this purpose which is not the intention.

	There is no more Heavy Industrial land in Pokeno, therefore the proposed increase in zoned Heavy Industrial land is important and will help reinforce the role of Pokeno as the premier industrial hub in the northern Waikato. Hynds already owns this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use. Pokeno needs employers like Hynds to act as an "anchor point" for the town. Enabling an expansion of the existing operation will help ensure that Hynds continues to be an "anchor point" for the town. Applying the Heavy Industrial zone to the whole site would provide significantly flexibility and scope to Hynds (as landowner) for its future use.	
Environmental	There is unlikely to be any environmental benefit from applying the Heavy Industrial zone over the whole	Applying the Heavy Industrial zone over the whole site may impact upon the SNA located on the upper portion of the site. It could also

	site as it will enable development over the full extent of the site (other than on the SNA located on the upper portion of the site).	impact on landscape values in that the upper hill slopes could be developed.
Social	There is no real social benefit to applying the Heavy Industrial zone over the whole site.	There is no real social cost to applying the Heavy Industrial zone over the whole site.
Economic - General	Zoning the whole site Heavy Industrial will be of economic benefit to Hynds given that it will (in theory) enable development over the full extent of the site. This will allow expansion of the existing operation which will have economic benefits for Hynds, Pokeno and the wider Waikato region.	There is unlikely to be an economic cost to zoning the entire site Heavy Industrial.
Economic Growth	Zoning the full extent of the site Heavy Industrial will enable Hynds to generate the maximum economic return from the land which in turn will contribute to the Strategic Industrial Growth node at Pokeno and the economy of the Waikato region in general.	There is unlikely to be a cost to economic growth from zoning the entire site Heavy Industrial.
Employment	Being able to utilise the whole site for industrial activity could result in increased employment on the site.	There is unlikely to be an employment cost to zoning the whole site Heavy Industrial as such a zoning would most likely increase the number of people employed on the site rather than decrease it.

Cultural	Based on the preliminary discussions that have been held with Iwi there is unlikely to be a benefit to cultural values in applying the Heavy Industrial zone over the whole site.	The preliminary discussions that have been held to date indicate that applying the Heavy Industrial zone over the whole site is likely to result in a cost to Iwi due to development being able to occur over the important upper hill slopes of the Subject Site.

Zoning Proposal: Rezone the lower portion of the site Heavy Industrial		
	Benefits	**Costs**
General	Zoning the lower portion of the site Heavy Industrial will enable this portion of the land to be put to an economic use. This will enable an expansion of the existing Hynds operation which will have economic benefits for not only Hynds but also Pokeno and the wider Waikato region. It will also help to ensure that Hynds does not have to move all or part of its operation to a new location. There is no more Heavy Industrial land in Pokeno, therefore the proposed increase in zoned Heavy Industrial land is important and will help reinforce the role of Pokeno as the premier industrial hub in the northern Waikato.	The lower portion of the land will no longer be able to be used for a rural purpose – although it is not actually used for a rural purpose currently. There will be an increased amount of land being used for Heavy Industrial purposes. Surrounding residents may view this as a cost.

	Hynds already owns this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use. Pokeno needs employers like Hynds to act as an "anchor point" for the town. Enabling an expansion of the existing operation will help ensure that Hynds continues to be an "anchor point" for the town. This will be an efficient use of the land as compared to the currently situation where it lies fallow and infested with weeds. Limiting development to the lower portion of the site will protect the upper hill slopes from development. These hill slopes will also be enhanced by the regeneration/sculpture project.	
Environmental	The development facilitated by zoning the lower portion will be offset by the enhancement of the upper	The lower portion of the land will be developed. Whilst this land has been evaluated as having low ecological values it could still be viewed as a cost.

	portion of the site through a regeneration/ sculpture park project.	
Social	There is no real social benefit to applying the Heavy Industrial zone to the lower portion of the site.	There is no real social cost to applying the Heavy Industrial zone to the lower portion of the site.
Economic - General	Zoning the land Heavy Industrial will result in an economic gain for Hynds as the existing activity will be able to expand onto the land to be rezoned. The evidence of Adrian Hynds highlights the difficulty in finding land which is of an appropriate size and location in which to undertake large scale industrial activities such as the current Hynds operation. This proposal helps to solve that problem.	There is an economic cost from limiting the land to be rezoned to the lower portion of the site although this is moderated by the fact that the steep topography of the upper portion of the site means that it is not ideally suited for built development.
Economic Growth	Enabling an expansion of the Hynds operation will result in economic growth not just for Hynds but also for the Strategic Industrial Growth Node at Pokeno and the Waikato in general. The evidence of Adrian Hynds highlights the difficulty in finding land which is of an appropriate size and location in which to undertake large scale industrial	There is an economic cost from limiting the land to be rezoned to the lower portion of the site although this is moderated by the fact that the steep topography of the upper portion of the site means that it is not ideally suited for built development. In theory this cost could limit the contribution of Hynds to economic growth.

	activities such as the current Hynds operation. This proposal helps to solve that problem.	
Employment	The rezoned land will provide for an expansion of the existing Hynds operation. This is likely to result in an increase in the number of people employed.	There is unlikely to be a cost to employment as a result of the land being rezoned Heavy Industrial.
Cultural	Limiting the development on the site to the lower portion of the land means that the upper hill slopes will be protected from development. From the preliminary discussions that have been held with Iwi we understand this to be of cultural benefit.	Zoning the lower portion of the site to Heavy Industrial will enable development of this land. While we are not aware of any specific cultural values in this area we are aware that Iwi will be keen to ensure that the works result in positive environmental outcomes.

Table 3: Evaluation of the Proposal

Reasons for the selection of the preferred option	The preferred option is to rezone the lower portion of the site Heavy Industrial. This option enables the efficient and effective use of the lower portion of the site which will in turn generate positive economic and employment outcomes not only for Hynds but also for Pokeno and the Waikato region generally. Enabling an expansion is important for Hynds as it will ensure that the operation can evolve and continue to compete in the marketplace. It is also helps to ensure that Hynds will not "outgrow" the site and need to move all or part of its operation away from Pokeno. Zoning the lower portion of the land Heavy Industrial will also facilitate a positive environmental outcome in that the development on the lower portion of the site will fund the regeneration project on the upper portion of the site. Limiting the development to the lower portion will preserve the upper hill slopes from development which is important from a rural amenity, landscape and cultural perspective. The above outcome is preferable to retaining the Rural zone over the whole site as such a zoning will preclude the positive economic and employment outcomes. It would also preclude the enhancement works on the upper portion of the site as these works are contingent on the development on the lower portion of the site for their funding. The above outcome is also preferable to zoning the whole site Heavy Industrial as such a zoning may not protect the upper hill slopes from urban development. These hill slopes have been identified as having important landscape values.

Extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of the RMA.	The objectives which would apply to the Subject Site are the Industrial zone objectives, those relating to the urban environment and the objectives contained within the Strategic Directions. These objectives achieve the purpose of the Resource Management Act 1991 as they enable land to be used and developed in a way which will provide for the economic wellbeing of the community whilst also contributing to the protection and enhancement of the amenity values of the environment.
Assessment of the risk of acting or not acting if there is uncertain information about the subject matter of the provisions.	Given that Hynds are already operating an extensive operation at Pokeno there is no real risk in the proposal to rezone the lower portion Heavy Industrial. The only unknown information is the exact detail as to how the land will be used, but this is not considered significant as this is the case for the vast majority of land to be rezoned and the development standards contained within the Heavy Industrial zone will serve to manage any adverse effects.
Conclusion	Overall, this proposal represents a balanced planning approach which promotes a number of positive planning outcomes: (a) This proposal takes land which is currently lying fallow and not really suitable for a rural use and gives it an economic purpose by enabling the expansion of a regionally significant industrial operation; (b) Enabling an expansion of the Hynds operation will recognize the substantial investment that has been made in the Hynds Factory Site to date and will allow

	the manufacturing plant to grow and evolve. This will not only help to ensure that the operation remains competitive but will likely avoid the need for all or part of the operation to move to a new location; (c) There is no more undeveloped Heavy Industrial land in Pokeno, therefore the increase in Heavy Industrial zoned land resulting from this proposal is important and will help reinforce the role of Pokeno as the premier industrial hub in the northern Waikato; (d) Hynds already own this land and have thought about how it could be used to expand the existing operation. It is far more effective to apply the Heavy Industrial zone in this circumstance than it is to apply the zone to land which may not be owned for this purpose or earmarked for immediate use; (e) The various specialists that have reviewed the proposal on behalf of Hynds have confirmed that the proposal will not be impactful on the surrounding environment given the limited scale and extent of the land to be zoned Heavy Industry and as the expansion will likely be consumed into the wider Hynds Factory Site when viewed or experienced from surrounding land; (f) The upper hillslopes of the Subject Site are protected from large scale development and quarrying and, in fact, will be significantly enhanced by the revegetation / sculpture park project; and

	(g) Planning is about making places and it is clear that Pokeno needs activities and employers like Hynds as an “anchor point” for the town. Enabling an expansion of the existing operation will help ensure that Hynds continues to be an “anchor point” for the town. This balance of outcomes means that sustainable management can be achieved.

APPENDIX 5 – IMPLEMENTATION METHODS WRPS

Information required by Implementation Method 6.1.8	**Assessment**
The type and location of land uses (including residential, industrial, commercial and recreational land uses, and community facilities where these can be anticipated) that will be permitted or provided for, and the density, staging and trigger requirements.	The 4.27ha to be zoned Heavy Industrial will enable the expansion of the existing Hynds operation. Therefore, the land will be used for the manufacturing and/or storage of Hynds products. In general terms, the Heavy Industrial zone provides for Industrial Activity as a Permitted Activity. The definition of Industrial Activity includes production, processing and bulk storage activities.
The location, type, scale, funding and staging of infrastructure required to service the area.	As identified above, the Subject Site adjoins the Hynds Factory Site and can therefore be serviced by connecting into the infrastructure for the existing operation.
Multi-modal transport links and connectivity, both within the area of new urban development, and to neighbouring areas and existing transport infrastructure; and how the safe and efficient functioning of existing and planned transport and other regionally significant infrastructure will be protected and enhanced.	Access to the Subject Site will be provided through the adjoining Hynds Factory Site and will therefore utilise the same transport links as the existing operation. The proximity and ease of access to State Highway 1 was a key attractor for Hynds when developing the Hynds Factory Site and the proposed rezoning will serve to make even more efficient use of these good transport links.
How existing values, and valued features of the area (including amenity, landscape, natural character, ecological and heritage values, water bodies, high class soils and significant view catchments) will be managed.	As identified above, the proposed rezoning protects landscape character values by limiting the area of Heavy Industrial to the lower portion of the site. Amenity values will be protected because the extent of Heavy Industrial land is limited compared to the scale of the Subject Site, and together with its low lying location, industrial activities carried out will have low/negligible effects on surrounding sites. This conclusion is supported by the other evidence on

Information required by Implementation Method 6.1.8	Assessment
	behalf of Hynds, including Ms de Lambert's landscape evidence, Craig Fitzgerald's noise evidence and Laurie Cook's lighting evidence. There are no High Class soils on the Subject Site. The SNA identified on the lower portion of the site has been evaluated by Ecology NZ (Hynds' consultant experts) and found to have little ecological value. This was set out in evidence at the SNA hearing. The evidence presented to the SNA hearing on behalf of the Council also sought that the SNA be removed.
Potential natural hazards and how the related risks will be managed.	Stormwater can be managed as part of the detailed design of the site at the resource consent stage to mitigate flood risk. This is confirmed in Campbell McGregor's evidence on behalf of Hynds. A geotechnical report which identifies that the site is generally suitable for development is appended to this evidence in Appendix 2.
Potential issues arising from the storage, use, disposal and transport of hazardous substances in the area and any contaminated sites and describes how related risks will be managed.	Any hazardous substances to be used on the Subject Site will be managed in the same way as on the adjoining Hynds Factory Site.
How stormwater will be managed having regard to a total catchment management approach and low impact design methods.	Given that Hynds own the adjoining site(s) at 9 McDonald Road and 10 Bluff Road, they are very aware of the stormwater catchment and its need to be managed. This will be factored into the detailed design of any future development on the Subject Site. Mr McGregor's evidence confirms that the stormwater effects can be effectively managed.
Any significant mineral resources (as identified through Method 6.8.1) in the area and any provisions (such as	Whilst the Subject Site has been identified for aggregate extraction in the past, this activity has never come to fruition.

Information required by Implementation Method 6.1.8	Assessment
development staging) to allow their extraction where appropriate.	
How the relationship of tāngata whenua and their culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taonga has been recognised and provided for.	Preliminary discussions have been held with Iwi groups. These discussions with tangata whenua will continue as part of the detailed design process to gain a further understanding of the cultural values associated with the Subject Site and/or Pokeno generally. These discussions could also include how the Te Aranga principles could be given effect to on the upper portion (Rural zone) of the Subject Site.
Anticipated water requirements necessary to support development and ensure the availability of volumes required, which may include identifying the available sources of water for water supply.	The water supply demands will be determined through the detailed design process which will be undertaken at a later date. Notwithstanding, the Infrastructure Feasibility Report by The Surveying Company (attached as Appendix 1 of this evidence) has not identified any significant impediments to water supply. This is supported by Mr McGregor's evidence on behalf Hynds.
How the design will achieve the efficient use of water.	The efficient use of water on the Subject Site will be factored into the detailed design of future development.
How any locations identified as likely renewable energy generation sites will be managed.	The Subject Site is not a location identified for a renewable energy generation site.
The location of existing and planned renewable energy generation and consider how these areas and existing and planned urban development will be managed in relation to one another.	This method is not relevant as the Subject Site will be connected to the existing infrastructure servicing the adjoining Hynds Factory Site.
The location of any existing or planned electricity transmission network or national grid corridor and how development will be managed in relation to that network or corridor,	There are no existing or planned electricity corridors on the Subject Site.

Information required by Implementation Method 6.1.8	Assessment
including how sensitive activities will be avoided in the national grid corridor.	