

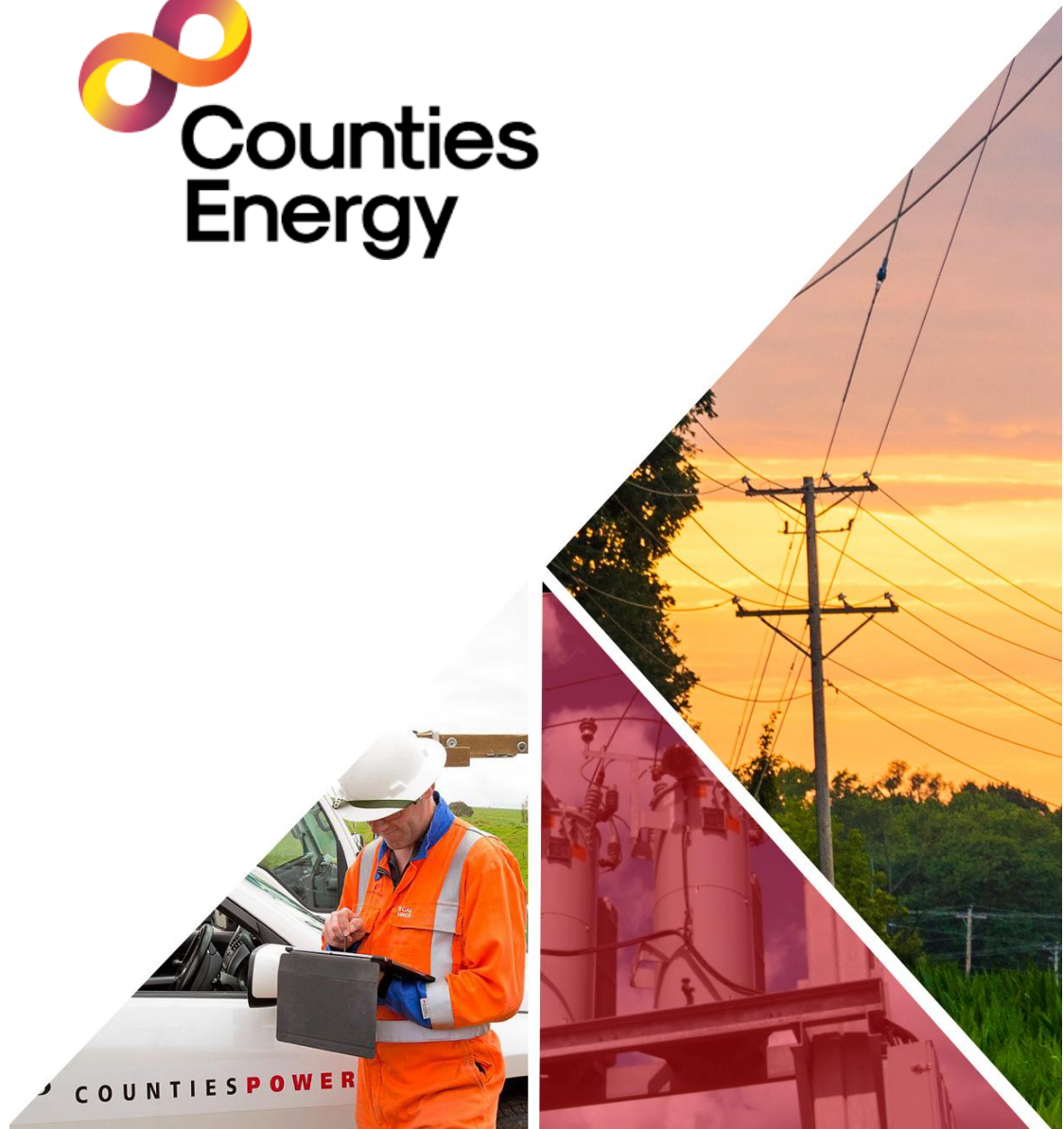


CONNECTING PEOPLE, PLACES,
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Notice of Requirement for Substation at 8 Whangapouri Road, Karaka



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Quality Control Sheet

Proposal:	To designate part of the site at 8 Whangapouri Road for the purpose of 'Electricity Substation'.
Applicant:	Counties Power Ltd (now trading as Counties Energy)
Site Address & Legal Description	8 Whangapouri Road, at the corner of Paparata Road (SH22) and Whangapouri Road, Karaka Lot 2 DP 473807
Certificate of Title:	648577
Site Area:	Approximately 6,800m ² of the existing 1.0724 ha property is being designated
Relevant Planning Document(s):	Auckland Unitary Plan Operative in Part (AUP OP)
Auckland Unitary Plan Zoning:	Rural – Mixed Rural Zone
Precinct	N/A
File Reference:	COUNT046
Special Features/Overlays:	<p>Overlays Natural Resources: High-Use Aquifer Management Areas Overlay [rp] - Pukekohe Kaawa Aquifer</p> <p>Controls Controls: Macroinvertebrate Community Index - Rural</p> <p>Designations Designations: Designations - 6705, State Highway 22: Karaka to Pukekohe - Road widening, Designations, New Zealand Transport Agency</p>

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Document Limitations

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1. Introduction

Counties Energy

- 1.1. Counties Energy owns, manages, and operates an electricity distribution network in southern Auckland, Waikato, and Hauraki District areas with a system length of 3,200km covering an area of approximately 2,250km². The Auckland Council portion of their network covers 830km² and makes up 37% of the Counties Energy network. In the Auckland Region, this includes urban centres such as Pukekohe, Waiuku and Southern Papakura; rural residential areas like Hunua; and rural areas with very low customer density. It includes the area subject to proposed Plan Changes 61 (Waipupuke), PC 51 (Drury 2 Centre Precinct), PC 50 (Waihoehoe), PC 49 (Drury East) and PC 48 (Drury Centre Precinct). The company also provides telecommunications and smart metering services.
- 1.2. Counties Energy are proposing a new substation at 8 Whangapouri Road, Karaka, on a section of land on the corner of Whangapouri Road and Karaka Road (SH22).
- 1.3. Counties Energy requires land for a new 110/22kV substation to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North.
- 1.4. The property at 8 Whangapouri Rd meets Counties Energy's primary land use requirements for substations (large flat area free of flood risks with proximity to road corridors).
- 1.5. Counties Energy requires a designation to enable the construction of a new switch room, and ancillary equipment on a south-western portion of rural land in Karaka. Agreement has been reached to purchase a parcel of land from the rural block specifically for utility services. This will require a future subdivision, under E39.6.2.2. in the Rural Subdivision rules after the Designation is confirmed. As such, the designation will be over the area of land as defined by the Land Requirement Plan shown in **Appendix A**.

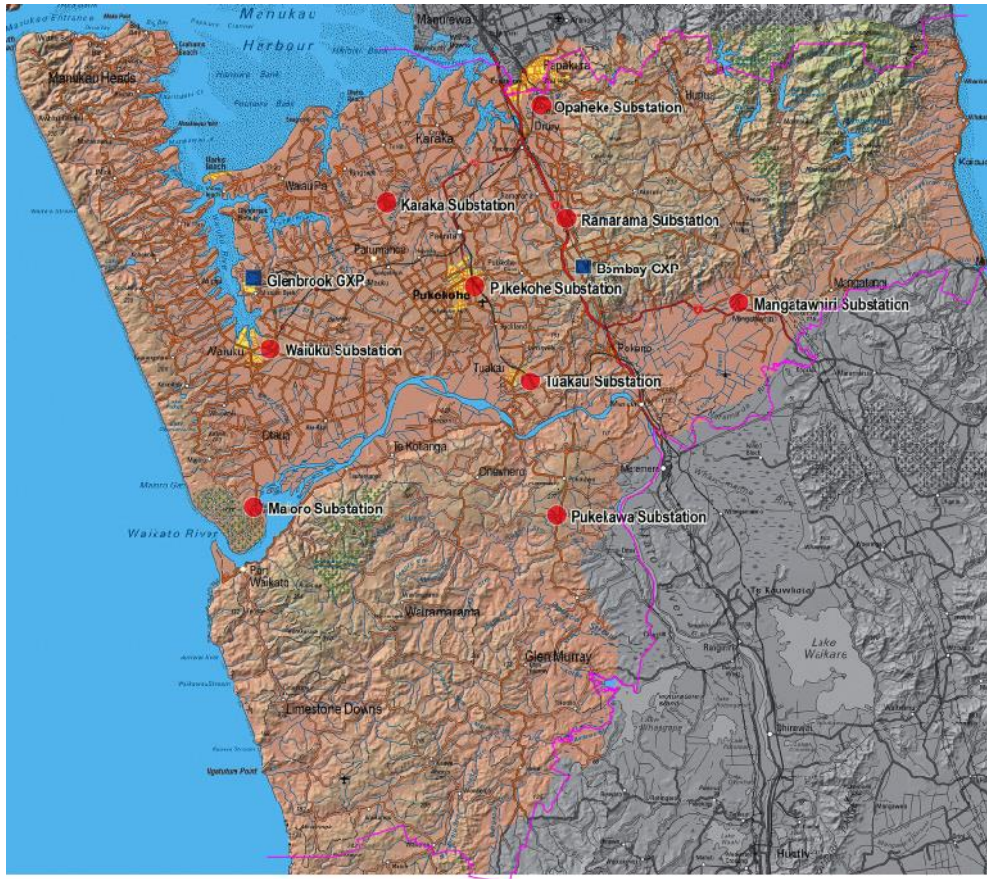


Figure 1: Extent of the Counties Energy network

Purpose

- 1.6. The following assessment provides background to the requirement, describes the nature of the proposed works, and specifically addresses the matters set out in Section 171 (1A) of the Resource Management Act. Section 171 outlines the Council's jurisdiction for assessing the Notice of Requirement. Subject to Part 2 of the Act, this document assesses the actual and potential environmental effects and proposed mitigation measures, assesses the designation against any relevant provisions of relevant policy statements and plans, and outlines the alternatives considered, why the designation is reasonably necessary, and the consultation undertaken.

2. Site Description

Location

- 2.1. The site adjoins State Highway 22 south of Karaka, approximately 3km west of the State Highway 1 turnoff to SH22. The site is approximately 8.5 kilometres north of Pukekohe. The Rural-Urban Boundary and Future Urban Zone is located approximately 600m to the east and 5km to the south-west the development area is Paerata Rise.

- 2.2. The landscape surrounding the site is characterised by open pasture scattered with lifestyle sections through the rural landscape. To the West there is a slight increase in the prominence of residential sections and the nearby Karaka School is located approximately 500m to the West of the site at the intersection of SH22 and Blackbridge Road. The location of the designation site in the context of to the AUP zoning is identified in **Figure 2** below.

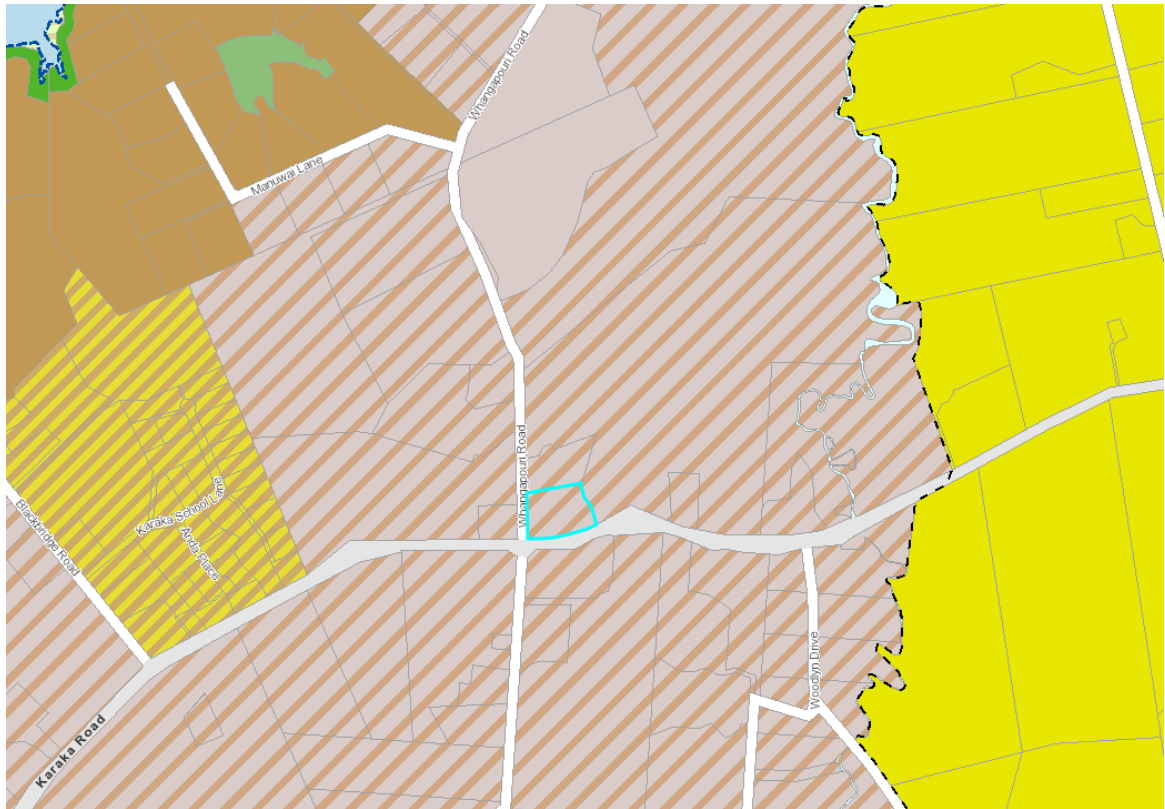


Figure 1: AUP zoning Map

Existing site

- 2.3. The proposed site is currently a residential lifestyle block containing a residential dwelling, a minor household unit, garaging, several accessory buildings, and a greenhouse. The landform slopes evenly across the site, falling gently towards the north. The site is in lawn/pasture and includes a grouping of mature trees in the southeast corner of the site, and small magnolia trees surrounding the minor dwelling near the centre of the site.
- 2.4. The underlying parcel of land has an area of 1.0724 ha. The site will be subdivided in due course to allow for the substation and retain the residential property on the eastern side of site. The subdivision will create a 0.68ha lot for the substation on the western side of the site, and the residual 0.39ha balance on the eastern side of the site retained for the existing residence. A right of way for access and utilities will be created at the north side of the site for the residential lot.



Figure 2: Map showing existing property boundary and the Waka Kotahi designation

Source: Auckland Council Geomaps



Figure 3: Map showing proposed boundary of Notice of Requirement

- 2.5. The site is zoned Mixed Rural Zone in the AUP(OP) and is subject to the Natural Resources: High-Use Aquifer Management Areas Overlay [rp] - Pukekohe Kaawa Aquifer Overlay.

Surrounding Land use

- 2.6. The adjoining land to the north includes a Buddhist temple within a conventional dwelling footprint at 14 Whangapouri Road. Across the road to the east of the site is a residential dwelling that has been tenanted until recently. We understand from the current owner of the subject site that there are plans to develop that property for non-residential activities. The wider area is a mixture of rural lifestyle properties, and rural production land.
- 2.7. Based on the GIS Viewer it appears the eastern extent of the Rural and Coastal Settlement Zone to the west has recently been subdivided into smaller residential lots. A fuller description of the surrounding landscape context is set out in the Landscape Visual Impact Assessment in **Appendix D**.

3. Nature of proposed designation

Activity outline

- 3.1. Counties Power, as the requiring authority, is seeking to designate the western two thirds of the 1.07ha site the site identified as Lot 2 DP 473807.

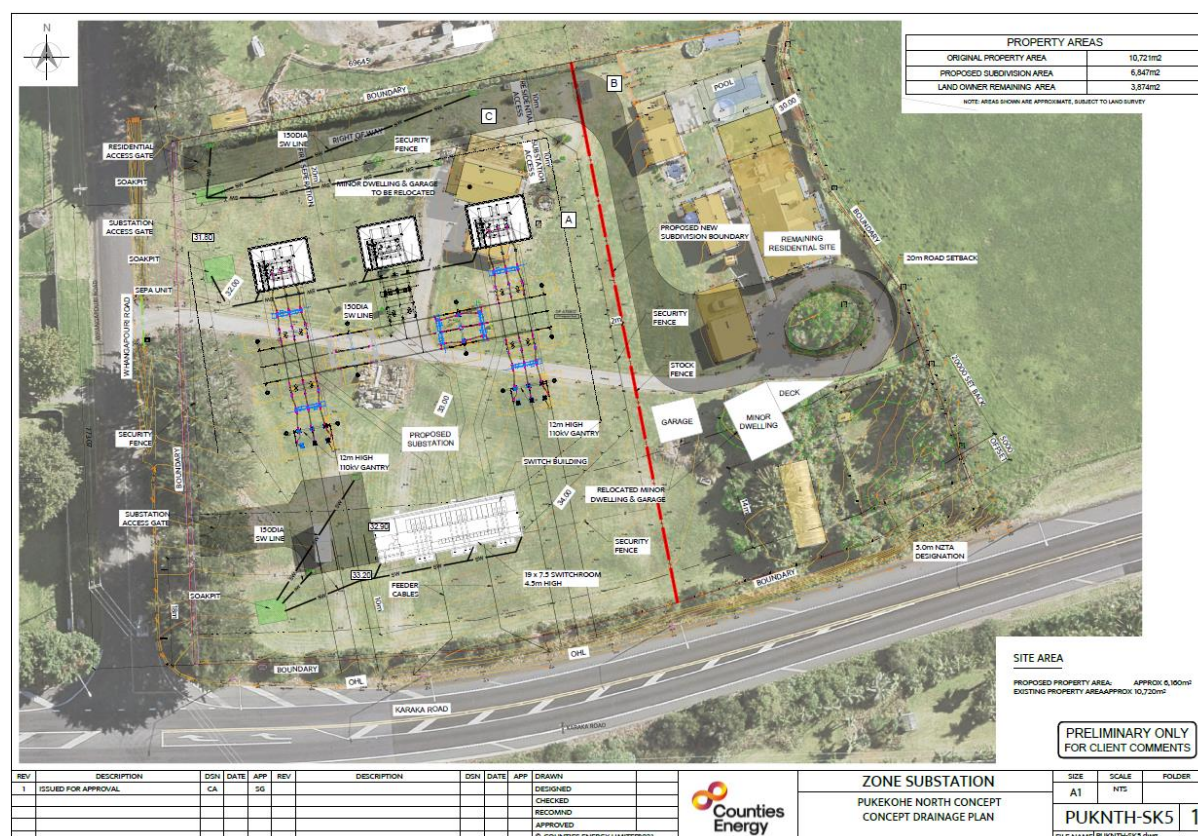


Figure 4: Pukekohe North Proposed Concept Substation Layout

- 3.2. The related enabling activities (being dealt with through separate applications) include the following:
- Subdivision of 8 Whangapouri Road of the 1.07ha site, into 0.68ha and 0.38ha lots for the substation and residential sites respectively. This will be undertaken as a separate (permitted activity) subdivision consenting process once the designation is confirmed.
 - Relocation of the minor dwelling to the south-eastern corner of the site so that it can be retained by the existing owner on the balance of the site. newly developed residential lot. This is the subject of a separate land-use consent application due to a resulting infringement of the required front yard setback from arterial roads.
- 3.3. Specific construction works proposed for the site (following the NoR and subsequent Outline Plan of Works) include:

- Approximately 2000m³ of earthworks over an area of approximately 5000m², predominantly to form a level platform for the substation yard.
 - Construction of concrete foundation pads and steel stands for the outdoor 110kV equipment and transformers.
 - Construction of a 22kV switchroom building.
 - Civil site works such as earthworks, stormwater drainage, wastewater drainage and driveways.
 - Fencing of the full site
- 3.4. In terms of the sequencing, the proposed subdivision would occur after confirmation of the designation. As noted, Counties Energy is also in the process of preparing a separate land use consent for the relocation of the minor dwelling.
- 3.5. Pursuant to section 184(1) the designation will be for 'Electricity supply purposes' and will lapse on the expiry of 10 years after the date which it is included in the district plan unless given effect to within that period.

Site development timing

- 3.6. The development of the switch room and transformers is expected to begin within the next 10 years in readiness for anticipated increased load as a result of residential development taking place Paerata Rise and Pukekohe North.

Building and Location

- 3.7. Concept plans for the layout of the switch room and transformers are provided in **Appendix B** and are shown in Figure 4.
- 3.8. A concept substation design has been developed for feasibility purposes, demonstrating the suitability of the site in terms of infrastructure and planning constraints. The concept will be subject to change and will be determined at later stage. The supporting Infrastructure Design Report is included in **Appendix C**.
- 3.9. In summary, the concept development includes:
- A 19m long by 7.5m wide, 4.5m high, concrete switchroom building along the front southern boundary.
 - 12-15m high gantries placed in the middle of the site for the incoming 110kV lines.
 - 8-10m high busbar works and equipment structures in the middle of the site, on concrete foundations.
 - 2-3 110kV transformers at the rear of the site on concrete foundations, with fire and bund walls.

- 110kV cabling or overhead lines coming into or distributed from the site are not dealt with in this report.

3.10. A landscape and visual impact assessment has been undertaken by Align Limited for the proposal and is attached in **Appendix D**.

Likely Final Contours

3.11. The proposed earth works at the site will be related to site clearance, construction of level yard platform, excavation for driveways, foundations, and buildings. The location of proposed earthworks is identified in Figure 5 below, with cut & fill shown in green, cut to waste in aqua blue and cut to fill in blue. The suitability of the site for a substation in terms of land stability as been examined in the Geotechnical Investigation Report attached as **Appendix E**.

3.12. The proposed earthworks are:

- Area of earthworks - 5750m²
- Cut to waste - 2000m³
- Cut to fill – 550m³
- Imported fill – 700m³

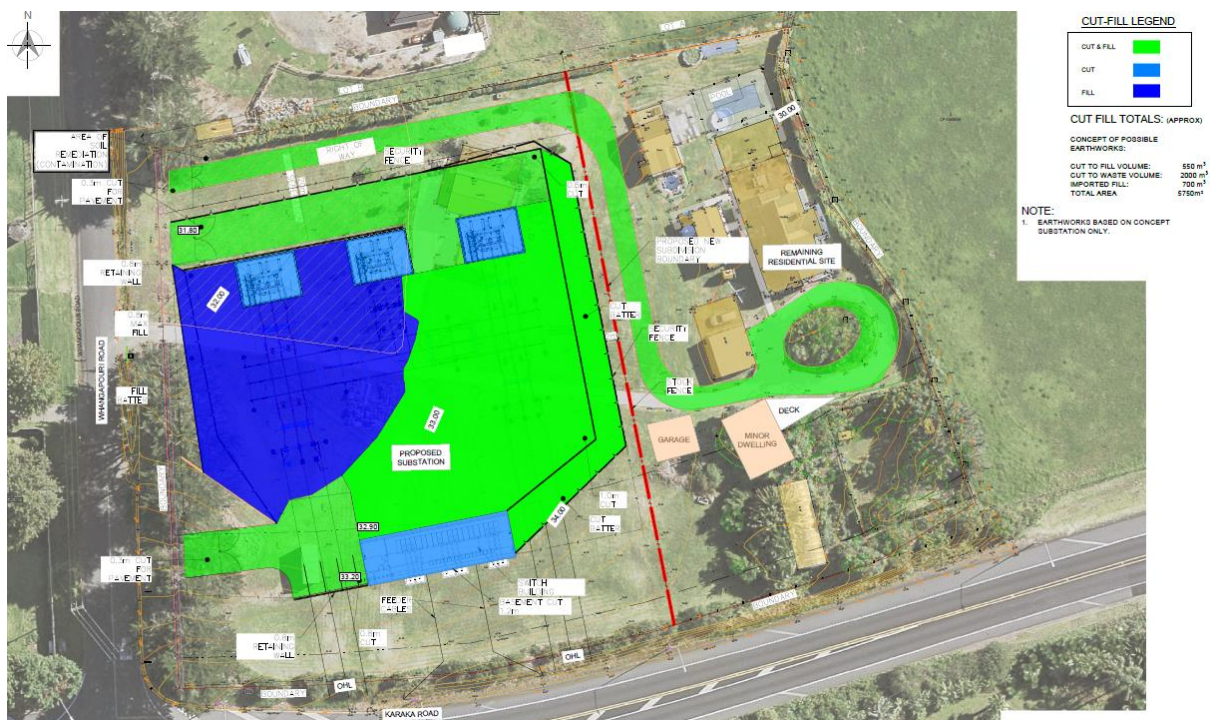


Figure 5: Indicative area of proposed earth works

Vehicle access/parking

- 3.13. The existing single access way from Whangapouri Road will be removed as part of the site development and three new crossings will be installed.
- 3.14. A vehicle crossing will be installed to the northwest side of the site, for access to the two household units to the east side of the site. The vehicle crossing is to meet Auckland Transport GD020B-1B for rural crossings, with gates set back 13m from the edge of road. The substation itself is not likely to generate many vehicle movements, so the volume of traffic for the crossing is not likely to be significantly different to the present uses on the site.
- 3.15. A crossing will be installed 18-25m from the intersection with SH22 and provide the main access to the substation. The vehicle crossing is to meet Auckland Transport GD020B-1B for rural crossings, with gates set back 13m from the edge of road. During operation of the substation the crossing will only see 2-4 vehicles per week. A Crossing will be installed at the middle of the site for maintenance access. The crossing will be installed for intermittent access for maintenance and will need to be sized to allow for large vehicles. The vehicle crossing will only be used in infrequently.
- 3.16. A 3.5m wide asphalt driveway will be installed along the northern boundary of the site for the access to the residential lot and the main substation access will be a sealed pavement area and parking for four maintenance vehicles. It is considered proposed driveway is adequately from proposed transformers and will not give rise to any safety issues.
- 3.17. Generally, the site development will see a negligible increase in traffic volumes to Whangapouri Road.

Landscaping/fencing

- 3.18. A Landscape Planting Plan has been prepared and includes different types of planting and screening along the western, eastern, and northern boundaries. The planting schedule is outlined within the Planting Plan. The landscaping which is proposed on the site to the west; east and north will mitigate the visual impact on the neighbouring properties, particularly the property to the west, and will soften the view of the building and substation.

Stormwater treatment and oil management

- 3.19. No proposed stormwater treatment is proposed for the sites. The stormwater will be 'detained' as part of the soakage systems and there is not expected to be any increased stormwater flows from the site. No stormwater treatment system is proposed for the driveways or carpark areas. The site will have very little traffic, with likely traffic count of 4 vehicles a week for the substation.
- 3.20. The transformers on the site will each contain approximately 27,000-30,000 litres of oil. It is proposed to provide bunding around the transformers which will provide emergency containment of the volume of oil, plus either 10% extra oil or a contingency for rain or fire-fighting water. The rainwater from the transformer bunded area will be reticulated through a proprietary oil plate separator during normal operation.

4. Applications for Resource Consents

- 4.1. In addition to the designation and the information provided above, Counties Energy will seek land use consent under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESC) if necessary, subdivision and any regional consents required potentially including but not limited to earthworks and stormwater discharge from Auckland Council.
- 4.2. The proposed earthworks volumes are indicative and will likely require regional consent. Counties Energy will apply for any necessary consent at the time of detailed design in conjunction with the Outline Plan of Works.

5. Consideration of alternatives

Alternative sites

- 5.1. Counties Energy has spent more than a year looking at alternative substation sites within the Pukekohe North supply area. After shortlisting 12 potential properties, each potential site was examined in terms of size, location, contour, environmental constraints, zoning, property values, and serviceability.
- 5.2. After evaluating all these factors, the subject site was identified as the most suitable location, so Counties Energy entered into a sale and purchase agreement to acquire part of the land identified in **Appendix A**. Consequently, they have a sufficient interest in the land to undertake the works.
- 5.3. As the proposed works will not have significant adverse effect on the environment, in terms of s171(b)(ii) of the Resource Management Act, consideration does not need to be given by Auckland Council whether adequate consideration has been given to alternative sites, routes or methods of undertaking the works.
- 5.4. Because the final design of the substation has yet to be determined, the designation process is more appropriate than the resource consent process in terms of providing for essential infrastructure.

Reasons for designation

- 5.5. When considering a requirement, a territorial authority must have particular regard to:

whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought.
- 5.6. Counties Energy requires land for a new 110/22kV substation to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North. The property at 8 Whangapouri Road meets Counties Energy's primary land use

requirements for substations (large flat area free of flood risks with proximity to road corridors).

- 5.7. Therefore, the work and designation are deemed necessary to meet the existing and future demand for electricity that is anticipated for the communities in the Pukekohe North area.

6. Requiring Authority's Objectives

- 6.1. Section 171(1)(c) of the RMA requires regard to be had to "whether the work and designation are reasonably necessary for achieving the objectives of the requiring authority for which the designation is sought". The necessity for the works, and the designation as a planning tool are required to be 'tested' against the objective(s) by the consenting authority in making a recommendation on whether to confirm the designation under section 171 of the RMA.
- 6.2. The designation will be for 'Electricity supply purposes' and will facilitate the construction of a new substations and other electrical equipment required to achieve resilience of electricity supply throughout the Counties Energy network.

7. Section 171 matters

Trade competition

- 7.1. Section 171(1A) states that when considering a requirement and any submissions received, a territorial authority must not have regard to trade competition or the effects of trade competition. Issues and effects of trade competition are not relevant to this Notice of Requirement.

8. Assessment of Environmental effects

Relevant Considerations

- 8.1. Section 171(1) states that when considering a requirement and any submissions received, a territorial authority must, subject to Part 2, consider the effects on the environment of allowing the requirement, having particular regard to relevant statutory plans and statements (which are outlined below), any alternative sites, routes or methods, the necessity of the works, and any other matter the TA considers reasonable. Positive effects may also be taken into account in the assessment.
- 8.2. Potential effects on the environment from the establishment of the proposed substation on the site are considered below.

Network utility provision

- 8.3. The benefits of this new substation far outweigh any potential adverse effects on the environment as it is required in order to ensure secure supply of

electricity to the planned residential, rural and industrial activities provided for in the AUP. Counties Energy requires land for a new 110/22kV substation to meet the forecast electrical demand growth for the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North. The property at 8 Whangapouri Rd meets Counties Energy's primary land use requirements for substations (large flat area free of flood risks with proximity to road corridors).

- 8.4. This is the primary positive effect and will enable the operation of the substation through long term provision of the site through the designation to manage any potential reverse sensitivity from adjoining landowners.

Permitted Development Standards

- 8.5. The establishment of the substation will change the site visually from what is currently on the site. The proposed scale of the new building to accommodate the switch gear is not out of keeping for what could reasonably expected in either the existing rural setting or anticipated buildings associated with permitted activities within the Rural - Mixed Rural Zone. As noted in Table 1 (page 18) non-residential activities may reach a height of 15m in the rural zone provided they comply with yard setbacks of 20m where building is fronting an arterial road and 12m for side and rear yards.
- 8.6. In terms of land use, AUP (OP) Chapter E26 Infrastructure provides for electricity substations within new buildings as permitted activities in the Rural – Mixed Rural Zone. As permitted activities, **Substations within new buildings** need only comply with the standards set out in the Infrastructure Chapter of the Plan. The maximum above ground Building Area and maximum Height for structures (Rule E26.2.5.2) excludes electricity support structures and substations. The permitted activity maximum height standard for support structures for electricity lines is 25m.
- 8.7. As a restricted discretionary activity ("RDA"), an **Outdoor Substation** will be subject to the notification tests under the Resource Management Act 1991 ("RMA"). In determining whether the effects are more than minor, and whether any person is affected, the Council will have regard to the standards for any permitted activity ("PA") on the site. The relevant bulk and location standards required for permitted activities in the Mixed Rural Zone are:

H19.10.2 – Building Height – 15m

H19.10.3 – Minimum yard setbacks:

- Front – 20m (Karaka Road is identified as an Arterial Road)
- Side – 12m

Table 1: Permitted Baseline Assessment for substations and overhead lines in the AUP Mixed Rural Zone

Activity	Table E26.2.3.1 Activity table - Network utilities and electricity generation – All zones and roads Activity Status	Development Standards for Infrastructure	Permitted Standard Mixed Rural Zone – applicable for enclosed substations
Substations within new buildings	A18 - Permitted	<p>Development Standards</p> <p>(2) Building area:</p> <p>(a) the maximum aboveground building area for structures, excluding electricity and telecommunication support structures:</p> <p>(i) in residential zones is 20m²;</p> <p>(ii) in all other zones is 30m²;</p> <p>(b) Standard E26.2.5.2(2)(a)(i) and (ii) excludes:</p> <p>(i) structures in industrial zones; and (ii) substations or telephone exchanges incorporated within a building complying with the rules for the relevant zone which are provided for as a separate activity.</p> <p>(3) Height:</p> <p>(a) the maximum height for structures, excluding electricity and telecommunication support</p>	<p>H19.10.2. Building height Purpose: to manage the bulk and scale of buildings to ensure they are in keeping with rural landscape, character and amenity.</p> <p>(1) Dwellings and buildings accessory to dwellings – buildings must not exceed a height of 9m.</p> <p>(2) Other buildings – buildings must not exceed a height of 15m.</p> <p>Table H19.10.3.1 Minimum yards setback requirement</p> <p>Front yard –</p> <p>Front yard of sites adjoining arterial roads as shown on the planning map (unless otherwise specified) – 20m</p> <p>Side or rear yard for buildings other than dwellings and their accessory buildings (unless otherwise specified) – 12m</p>

		<p>structures, telecommunication devices, earth peaks, lightning rods, smart meters and GPS antennas, is 2.5m. Excludes: ... (ii) substations and telephone exchanges incorporated within a building complying with the rules for the relevant zone or otherwise approved; ...</p> <p>(b) the maximum height for support structures for electricity lines and telecommunications is 25m.</p>	Building size or area – no rule standards applicable to substations
Unenclosed Substations	A21 – Restricted Discretionary	As per permitted standards.	As per permitted standards.
Overhead electricity lines up to and including 110kV * within areas of the Road, Unformed Road and Strategic Transport Corridor this activity shall have the same status as the adjacent zone;	A24 - Permitted	<p>(3) Height: ... (b) the maximum height for support structures for electricity lines, telecommunication lines, telecommunication equipment/devices, including telecommunication equipment/devices is 25m.</p>	

Landscape and visual

- 8.8. The LVIA in **Appendix D**. A range of viewpoints were assessed that were representative of the site's potential viewing audiences. The viewpoints represented both close and distant locations from the site, and the effect of potential mitigation planting measures as they establish over 0-5 year and 5-10-year timeframes. [Refer to Appendix D for large format images].



Figure 6: Site Photo locations and viewpoints.

- 8.9. An example of the view that has the highest degree of change is shown below from viewpoint 1 ('VP01'). The top portion of the switchroom building will be visible from this viewpoint. The proposal is a direct view of passers-by, with a discernible change to the character to the site. Views from this vantagepoint will be fleeting in this 80km/h stretch of State Highway, so the change is rated Low in the LVIA.



Figure 7: VP01 Before Image, viewpoint from oncoming traffic on Bycroft Road opposite the site.



Figure 8: VP01 After Image, 0-5 years planting maturity surrounding the proposal.



Figure 9: VP01 After Image, 5-10 years planting maturity screening views of the substation from SH22.

- 8.10. The following figures show the impact of the proposal from viewpoint 4 ('VP04'). Viewpoint 4 is representative of a clearer view than those experienced from Paparata Road, with change in the foreground of the view, resulting in a Moderate – Low rating according to the LVIA. Although a new substation is being proposed, the proposed landscaping screens the base of the pylons and most of the substation.



Figure 10: VP04 Before Image, 560m from the site, taken from Karaka School Lane.



Figure 11: VP04 After (0-5 years)



Figure 12: VP04 After (5-10 years)

- 8.11. The LVIA includes further before and after images of the development from viewpoints 2, 3 and 5. The LVIA Concludes:

“To assess the impact of the proposal, photo montages were prepared for viewpoints (VP01-05) representative of residences potentially impacted by the site. The viewpoints represented the site from close and distance locations, and the mitigation established over 0-5 year and 5–10-year timeframes. A conclusion of the assessment is that mature mitigation planting is highly relied upon for reducing visual impacts and enhancing amenity for the site. In addition, it was found that the scale of the proposal integrates with the features of the wider landscape, such as the surrounding vegetation and existing buildings and infrastructure. Modelling of the proposal does not appear to stand out within a wider landscape context however, modelling should be treated as indicative only at this stage, as the site-specific design is not yet confirmed for designation.”

The visual assessment in Section 6.1 considered the overall effects of the proposal to be **Low to Moderate**. Close-up perspectives illustrate greater visual impact of the proposal on the immediate environment and the neighbouring properties. Broader landscape views absorbed the proposal within the existing features of the landscape. Mitigation planting around the perimeter will lessen the visual impact and enhance amenity of the site over a timeframe exceeding 5 years.

Overall, the magnitude of effects resulting from the proposal are considered acceptable for the site, which is not considered highly valued rural land.

- 8.12. A Landscape Planting Plan has been prepared as part of the LVIA. As shown in Figure 15 below, it includes different type of planting and screening along the western, eastern, and northern boundaries. The indicative planting schedule is outlined within Section 4 of the LVIA. This plan illustrates that appropriate mitigation will minimise the nature and scale of the site development proposed in this Notice of Requirement. A detailed landscaping plan that achieves the outcomes sought from this indicative plan is offered as a condition to be carried out as part of the Outline Plan of Works.

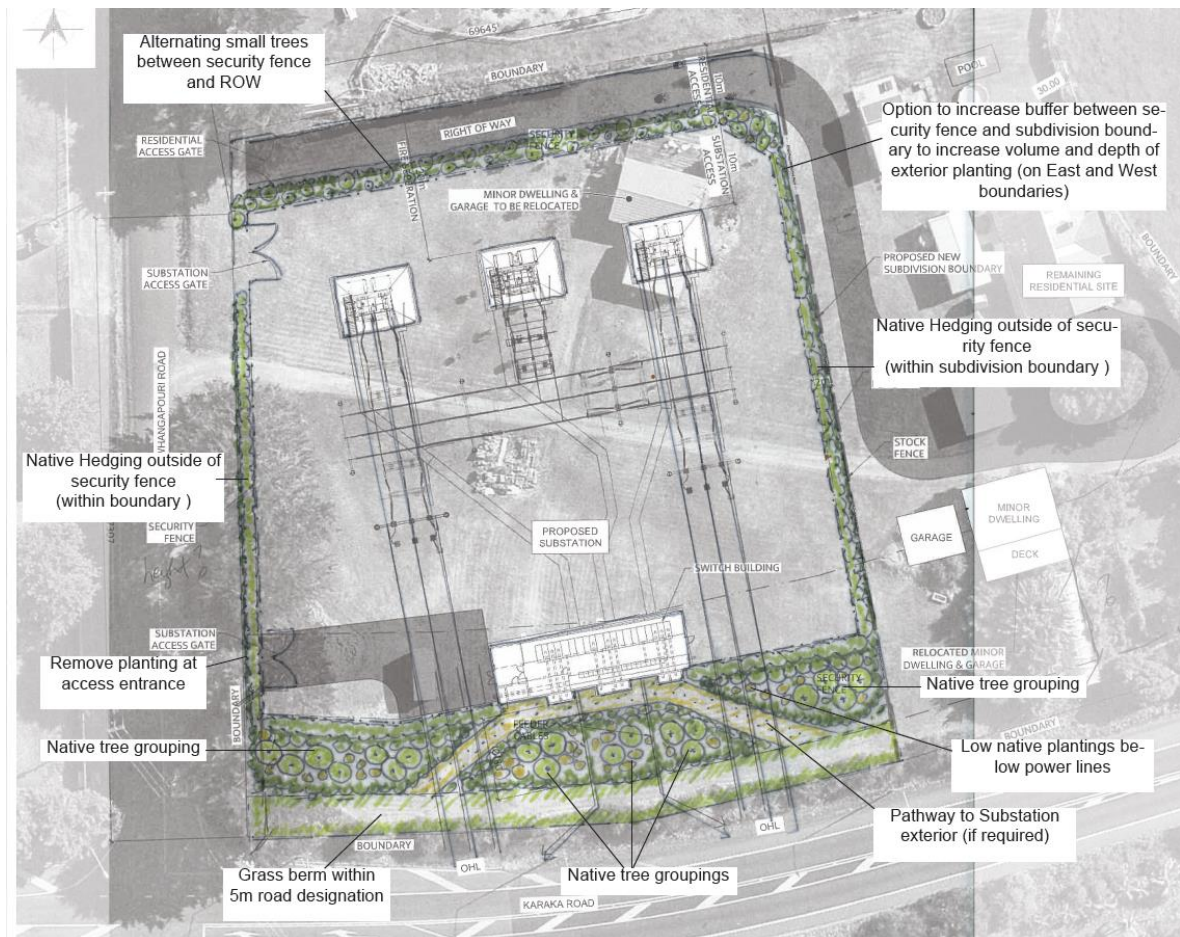


Figure 13; Proposed Planting Plan.

- 8.13. Based on this LVIA, it is concluded that the proposal will result in no adverse landscape and visual amenity on the character of the rural environment and residential neighbours to the west.

Noise

- 8.14. Because the design and layout of the substation has yet to be confirmed, an acoustic assessment for the site has not been undertaken. The transformers will be placed approximately 30m from the neighbouring road behind and 20m to the existing residential house on the site.
- 8.15. A baseline assessment has been supplied by Ergo Limited to provide an indication of the likely noise effects from the equipment likely to be located on the site. This assessment relies on relevant data from the Counties Energy substation at Barber Road, Bombay which is similar in scale and design. The technical specification of the likely equipment on the site is attached in **Appendix J**. The transformer power sound output is expected to be 67.5dB, but this can be confirmed at the detailed design stage as part of the Outline Plan of Works.
- 8.16. The distance to the closest boundary is 21m to the north. At this distance, it is expected the noise level to be less than the 45dB limit set out in the AUP. The existing residential house to the east is 24m away from the transformer and 15m from the boundary. The 45dB limit is able to be met at the house (using the notional boundary approach).
- 8.17. The design can further mitigate the noise output with positioning the transformers further away from the boundaries, or the use of acoustic walls between the transformer on the eastern side, between it and the existing dwelling on the site. Based on the experience of the design engineers, we are satisfied that the noise standards set out in the AUP can be complied with and would accept a designation condition to this effect.

Traffic/Vehicle Access

- 8.18. The construction works would be carried out during normal construction hours (lower noise limits apply outside the hours of 7.30am to 6.00pm). Further information on construction hours will be provided as part of Outline Plan of works approval process and a specific condition limiting construction hours is proposed.
- 8.19. The traffic that will arise during the construction of the substation would be comparable to any similarly scaled project. There will be heavy vehicle movement during this period for construction materials and for the delivery and installation of the transformers and switchgear.
- 8.20. Once the construction has been completed, the frequency of traffic movements will be very limited as the substation will not have an office or any full-time staff. The only traffic into the site will be from maintenance staff from time to time. The site has sufficient frontage to be able to accommodate an entrance in compliance with the engineering standards and access requirements. The specific location will be determined at the time of detailed design.

- 8.21. The site will have security gates fronting the road, these will be placed so that vehicles are able to be completely within the site to be able to open the gates safely.

Silt and Sediment Control

- 8.22. Due to the size of the site and extent of the earthworks likely to be undertaken a specific silt and sediment plan (ESCP) will be required as a condition of the Outline Plan of Works. Due to the conceptual nature of design a specific ESCP will be developed during the future stages of the project.

Site suitability

- 8.23. A Geotechnical investigation (included in **Attachment E**) has been carried out by Coffey Services (NZ) Ltd that included site-specific investigations; ground conditions; design considerations; foundation recommendations; site earthworks; pavement design; stormwater controls; future works; plan review and construction observations. That investigation did not raise any site limitations that would affect the suitability of the land for the proposed use.
- 8.24. A contamination investigation (DSI) for the site has been carried out by Geosciences Ltd (dated 3 August 2021) which is enclosed in **Appendix F** to this report. The investigation has indicated an area with high levels of arsenic, which are at levels that may be hazardous to human health, shown in the figure below.



Figure 14: Area of site requiring soil remediation

- 8.25. A site remediation plan, including additional testing, will be required due to the arsenic found on site. A resource consent for earthworks, under the National Environmental Standards (NES), will be required for the works prior to any soil disturbance. The relocation of the existing septic tank will require that the soil around the tank be tested and likely disposed of at managed landfill site.

Flooding effects

- 8.26. Auckland Council GIS maps do not indicate any flooding risk at the site, but a minor overland flow path (OLFP) is shown exiting the site from the northwest corner of the site towards the roadside watertable.
- 8.27. A walk over assessment of the site has been carried out by a civil engineer and it was determined that there is little risk of global or local flooding. The overland flowpath indicated on the northwest side of the site will not impact the proposed substation site. The installation of a driveway along the northern boundary will likely direct the overland flowpath away from the neighbouring property and onto Whangapouri Road, which will have no negative effects on the downstream receiving environment.

Infrastructure

- 8.28. The site is rural with no public wastewater system, so onsite disposal systems will be installed if required. In terms of the residential site, the existing Biolytix wastewater system that currently serves the minor household unit will be relocated to the southeast corner. The existing discharge trench (approximately 100m long) will be replicated within the new site boundaries for the house units. It is expected there will be sufficient space on both resulting sites to accommodate the respective wastewater systems where required.

Potential contamination from Oil

- 8.29. Due to there being oil contained within the transformers there is potential for oil spills or fires/explosions which can result in soil contamination and the adverse health and safety effects. In order to mitigate these potential effects, the following mitigation is proposed:
- Oil will not be contained within the transformers when they are being installed;
 - The area beneath the transformer will be bunded;
 - The bunded area will contain an isolation valve so that should an oil spill occur from the transformer this will be contained;
 - The transformers are protected from overloading and faults by protection equipment (i.e. circuit breakers) fitted with monitoring devices which will alert Counties Energy of the operating conditions that would lead to a fire or oil spill.

- The substation will be within a locked, fenced area and within a fully enclosed, and locked building; and
 - The substation will be constructed and maintained based upon good industry practice.
- 8.30. Further details regarding the management of risks and mitigation of any potential adverse effects are discussed in the infrastructure report attached in **Appendix C**.

9. Relevant Policies and plans

- 9.1. The effects on the environment of allowing the proposed requirement will be considered having particular regard to relevant provisions of any national policy statements and the AUP(OP), as set out in Section 171(1)(a) of the RMA.

Relevant Policies and Plans

- 9.2. When considering a notice of requirement, a territorial authority must have particular regard to:

Any relevant provisions of -

- i. A national policy statement;
 - ii. A New Zealand coastal policy statement;
 - iii. A regional policy statement or proposed regional policy statement;
 - iv. A plan or proposed plan
- 9.3. The New Zealand Coastal Policy Statement is not applicable to the proposal. The following national policy statement, regional policy statement and plan which are considered relevant in this context are the National Policy Statement on Electricity Transmission, the Auckland Regional Policy Statement and the Auckland Unitary Plan (Operative in Part) (AUP (OP)). These are considered below.

National Policy Statement

- 9.4. The National Policy Statement on Electricity Transmission ("NPSET") applies to the "National Grid" which is defined in the NPSET as meaning, "the assets used or owned by Transpower NZ Limited".
- 9.5. While the substation will not be used or owned by Transpower, Policy 9 of the NPS provides relevant guidance on the consideration of electric and magnetic fields, which states:

Provisions dealing with electric and magnetic fields associated with the electricity transmission network must be based on the International Commission on Non-ionising Radiation Protection Guidelines [ICNIRP] for limiting exposure to time varying electric magnetic fields (up to 300 GHz) (Health Physics, 1998, 74(4): 494-522) and recommendations from the World

Health Organisation monograph Environment Health Criteria (No 238, June 2007) or revisions thereof and any applicable New Zealand standards or national environmental standards.

- 9.6. This policy signals that human exposure to electric and magnetic fields should be addressed and that the ICNIRP guidelines are the appropriate standard for addressing this matter.

The Auckland Regional Policy Statement

- 9.7. The purpose of the Auckland Regional Policy Statement (ARPS) is to set out a policy framework for managing natural and physical resources in an integrated manner across the entire Auckland Region. Chapter B includes the following headings of relevance:
- Infrastructure, transport and energy
 - Urban growth and form
 - Rural Environment
- 9.8. Regard has been given to these issues and is addressed in assessment of the objectives policies and objectives below.
- 9.9. Section B3 of the ARPS Ngā pūnaha hanganga, kawekawe me ngā pūngao - Infrastructure, transport and energy outline the issues, objectives and policies for infrastructure in the Auckland region. The issues directly relating to this proposal that are addressed in section B3.1 are B3.1 (1) efficiency in developing, operating, maintaining and upgrading infrastructure, (2) integrating the provision of infrastructure with urban growth, (3) potential effects of incompatible land uses close to infrastructure, (5) security of energy supply and (6) resilience of infrastructure, including fuel and electricity supplies, to natural hazards.

Objectives

- 9.10. The objectives relating to infrastructure in the ARPS are in B3.2.1 and are assessed below:
- (1) *Infrastructure is resilient, efficient and effective*
- 9.11. This designation will provide for a new substation which will be state of the art with all new components and equipment. Because of this it will be able to be more resilient and efficient than others of the same size.
- (2) *The benefits of infrastructure are recognised, including:*
- (a) *providing essential services for the functioning of communities, businesses and industries within and beyond Auckland;*
 - (b) *enabling economic growth;*
 - (c) *contributing to the economy of Auckland and New Zealand;*

- (d) *providing for public health, safety and the well-being of people and communities;*
- (e) *protecting the quality of the natural environment; and*
- (f) *enabling interaction and communication, including national and international links for trade and tourism.*

9.12. The new substation will provide for the needs of the new developments that are currently occurring in the area, both residential and rural. This will in turn, contribute to the economy by allowing these homes to have a secure and reliable connection to the electricity network. Without the new substation the new development will be left without a reliable electricity supply.

- (3) *Development, operation, maintenance, and upgrading of infrastructure is enabled, while managing adverse effects on:*
 - (a) *the quality of the environment and, in particular, natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character;*
 - (b) *the health and safety of communities and amenity values.*

9.13. The High-Use Aquifer Management Areas Overlay - Pukekohe Kaawa Aquifer is identified on the site. The proposed works do not involve any abstraction of groundwater.

9.14. There are no other identified natural heritage, Mana Whenua, natural resources, historic heritage or special character areas identified on the site in the AUP (OP). The effects on the health and safety of communities and amenity values have been considered for this substation as the substation will not be situated in a densely populated area and will be sufficiently fenced off and bunded to avoid any health and safety issues. The amenity values have also been considered as the substation will be fully enclosed and the external appearance of the building will be designed so that it is in keeping with buildings typical of the area. There will also be a range of landscaping and amenity planting incorporated into the design of the facility to soften the impact of the new building as shown on the Landscape Plan prepared by Align Ltd.

- (4) *The functional and operational needs of infrastructure are recognised.*

9.15. All components of the facility as described in section 3.0 of this report are functionally dependent on each other and are necessary for the purpose of providing electricity to the wider area.

- (5) *Infrastructure planning and land use planning are integrated to service growth efficiently.*

9.16. The purpose of the substation is to improve the resilience in the existing electricity network to support rural and residential growth in the Pukekohe

North area, including residential developments in Paerata Rise, Wesley, and Karaka North.

- 9.17. For this to happen, the substation will need to be commissioned by within the next 10 years. There has been a significant amount of planning around the timing of construction and commissioning of the substation to avoid delays and issues with existing and future supply in the Pukekohe North area.

(6) *Infrastructure is protected from reverse sensitivity effects caused by incompatible subdivision, use and development.*

- 9.18. The surrounding area that the substation will be situated in is primarily rural and will be compatible with the intended future uses of the area. This will protect the site from any potential reverse sensitivity effects in the future.

(8) *The adverse effects of infrastructure are avoided, remedied or mitigated.*

- 9.19. As noted above the substation is to be situated within a Rural Zone and will be generally compatible with the surrounding land uses of the area. Mitigation is proposed through extensive landscaping on all boundaries of the designation. Furthermore, the LVIA concludes that the effects are low.

Policies

- 9.20. The policies relating to this proposal in the ARPS and in B3.2.2 and are assessed below:

- (1) *Enable the efficient development, operation, maintenance and upgrading of infrastructure.*
- (2) *Recognise the value of investment in existing infrastructure.*
- (3) *Provide for the locational requirements of infrastructure by recognising that it can have a functional or operational need to be located in areas with natural and physical resources that have been scheduled in the Unitary Plan in relation to natural heritage, Mana Whenua, natural resources, coastal environment, historic heritage and special character.*

- 9.21. The proposal is in general accordance with the policies above as there is a locational requirement for the substation to supply electricity to the rural and residential customers in Pukekohe North and wider areas.

- (4) *Avoid where practicable, or otherwise remedy or mitigate, adverse effects of subdivision, use and development on infrastructure.*
- (5) *Ensure subdivision, use and development do not occur in a location or form that constrains the development, operation, maintenance and upgrading of existing and planned infrastructure.*

- 9.22. The new enclosed substation will be constructed to facilitate rural and residential development in Pukekohe North and wider area. It will be

constructed in a location and be of a design which will be in keeping with the existing and anticipated surrounding rural character.

- 9.23. Section B2 Tāhuhu whakaruruhau ā-taone - Urban growth and form outline the issues, objectives and policies for urban environments in Auckland. The issues directly relating to this proposal that are addressed in section B2.1 are (1) enhances the quality of life for individuals and communities; (2) supports integrated planning of land use, infrastructure and development; (5) enables provision and use of infrastructure in a way that is efficient, effective and timely; (6) maintains and enhances the quality of the environment, both natural and built; (7) maintains opportunities for rural production; and (8) enables Mana Whenua to participate and their culture and values to be recognised and provided for.
- 9.24. The objectives relating to infrastructure in the ARPS are in B2.2.1 and are assessed below:

Objectives

B2.2. Urban growth and form B2.2.1. Objectives

- (1) *A quality compact urban form that enables all of the following:*
- (a) *a higher-quality urban environment;*
 - (b) *greater productivity and economic growth;*
 - (c) *better use of existing infrastructure and efficient provision of new infrastructure;*
 - (d) *improved and more effective public transport;*
 - (e) *greater social and cultural vitality;*
 - (f) *better maintenance of rural character and rural productivity; and*
 - (g) *reduced adverse environmental effects.*
- ...
- (5) *The development of land within the Rural Urban Boundary, towns, and rural and coastal towns and villages is integrated with the provision of appropriate infrastructure.*

- 9.25. As noted, the purpose of the substation is to improve the resilience in the existing electricity network to support rural and residential growth in the Pukekohe North area, including residential developments in Paerata Rise, Wesley, and Karaka North. It will be constructed in a location and be of a design which will be in keeping with the existing and anticipated surrounding rural character.

9.26. Section B9 of the ARP Toitū te tuawhenua Rural Environment outline the issues, objectives and policies for rural environments in Auckland. The issues directly relating to this proposal that are addressed in section B9 are:

- protecting the finite resource of elite quality soils from urban expansion;
- managing subdivision to prevent undue fragmentation of large sites in ways that restrict rural production activities;
- addressing reverse sensitivity effects which rural-residential development can have on rural production activities; and
- managing the opportunities for countryside living in rural areas in ways that provide for rural-residential development in close proximity to urban areas and the larger rural and coastal towns and villages while minimising the loss of rural production land.

B9.2.1. Objectives

- (2) *Areas of land containing elite soil are protected for the purpose of food supply from inappropriate subdivision, urban use and development.*
- (3) *Rural production and other activities that support rural communities are enabled while the character, amenity, landscape and biodiversity values of rural areas, including within the coastal environment, are maintained.*
- (4) *Auckland's rural areas outside the Rural Urban Boundary and rural and coastal towns and villages are protected from inappropriate subdivision, urban use and development.*

9.27. Councils GEOMAPS shows the site has a LUC classification of 3 Arable – moderate limitations. While this area is classified as an arable land class, it is noted that the site takes up only a small portion of the rural parcel of land and is not located in areas in the more productive LUC 1 and 2.

9.28. There will be limited buildings on the site, apart from the switch room. This and the transformers are proposed to be located well back from the roads, such that they will not be very visible from the surrounding road networks. The site will also be fenced off, with buffer landscaping proposed. With only small buildings proposed it is considered that the use will not be incompatible with the surrounding land uses.

9.29. As noted above the development of the switch room, transformers and ancillary equipment is an important piece of key infrastructure to service this and the wider area.

Policies

9.30. The policies relating to this proposal in the Section B9.2.2 of the ARPS are assessed below:

B9.2.2. Policies

- (1) *Enable a diverse range of activities while avoiding significant adverse effects on and urbanisation of rural areas, including within the coastal environment, and avoiding, remedying, or mitigating other adverse effects on rural character, amenity, landscape and biodiversity values.*
- 9.31. As noted above the development of the switch room, transformers and ancillary equipment is an important piece of key infrastructure to service this and the wider area
- (2) *Minimise the potential for reverse sensitivity effects by:*
- (a) *preventing sensitive activities (such as countryside living) from establishing in areas where rural production activities could be adversely affected; or*
 - (b) *requiring sensitive activities (such as new countryside living) to adopt onsite methods to avoid reverse sensitivity effects on rural production activities; and (c) avoiding subdivision and development that would result in incompatible uses or sensitive activities (such as countryside living) being introduced into areas containing mineral resources for future extraction*
- 9.32. There will be limited buildings on the site, apart from the switch room. This and the transformers are proposed to be located well back from the roads, such that they will not be very visible from the surrounding road networks. The site will also be fenced off, with buffer landscaping proposed. With extensive landscape mitigation proposed it is considered that the use will not be incompatible with the surrounding land uses.

B9.4. Rural subdivision

- (2) *Enable subdivision for the following purposes*
- (b) *the establishment and operation of infrastructure;*
- 9.33. A separate application will be made for land use subdivision. However, it noted that overall site works, including the development of the switch room, transformers ancillary equipment and subdivision is necessary to provide an important piece of key infrastructure to service this and the wider area

Auckland Unitary Plan (Operative in Part)

- 9.34. The objectives and policies of the Infrastructure Section of the AUP (OP) largely mirror the objectives and policies relating to infrastructure in the ARPS and have been addressed in Table 1 above.
- 9.35. The objectives and policies of the Rural Zone in Chapter H19 are also relevant with the specific zoning of this site being Rural - Mixed Rural Zoned Land. The following applicable objectives and policies are assessed below:

H19.2.1 Objectives – general rural

- (1) *Rural areas are where people work, live and recreate and where a range of activities and services are enabled to support these functions*

...

- (3) *Elite soil is protected, and prime soil is managed for potential rural production.*

H19.2.2 Policies – General Rural

- (2) *Require rural production activities to contain and manage their adverse environmental effects on-site to the fullest extent practicable.*
- (3) *Enable rural production activities on elite and prime soil and avoid land-use activities and development not based on, or related to, rural production from locating on elite soil and avoid where practicable such activities and development from locating on prime soil.*
- (5) *Enable a range of rural production activities and a limited range of other activities in rural areas by: (a) separating potentially incompatible activities such as rural production and rural lifestyle living into different zones;*
- (6) *Recognise that a range of buildings and structures accessory to farming and forestry, and other operational structures for rural production activities are an integral part of rural character and amenity values.*

9.36. As noted above, the site has a LUC classification of 3 Arable – moderate limitations. While this area is classified as an arable land class, it is noted that the site takes up only a small portion of the rural parcel of land and is not located in the more productive LUC 1 and 2. It will not significantly reduce the ability of the wider Pukekohe North area be utilised as productive land/for rural production purposes.

9.37. The transformers are proposed to be located well back from the roads, such that they will not be very visible from the surrounding road networks. The site will also be fenced off, with buffer landscaping proposed. With only small buildings proposed it is considered that the use will not be incompatible with the surrounding land uses.

9.38. As noted above the development of the switch room, transformers and ancillary equipment is an important piece of key infrastructure to service this and the wider area.

H19.4.2. Objectives

- (1) *The existing subdivision pattern is used by a range of rural production activities and non-residential activities that support them.*
- (2) *The continuation of rural production and associated non-residential activities in the zone is not adversely affected by inappropriate rural lifestyle activity.*

- (3) *Rural character and amenity values of the zone are maintained while anticipating a mix of rural production, non-residential and rural lifestyle activities.*

H19.4.3. Policies

- (1) *Enable rural production, rural industries and rural commercial services that are compatible with the existing subdivision pattern and recognise that these activities are significant elements of, and primary contributors to, rural character and amenity values.*
- (2) *Manage reverse sensitivity effects by:*
- (a) *limiting the size, scale and type of non-rural production activities;*
 - (b) *retaining the larger site sizes within this zone;*
 - (c) *limiting further subdivision for new rural lifestyle sites; and*
 - (d) *acknowledging a level of amenity that reflects the presence of:*
 - (i) *rural production and processing activities that generate rural odours, noise from stock and the use of machinery, and the movement of commercial vehicles on the local road network; and*
 - (ii) *non-residential activities which may generate noise, light and traffic levels greater than those normally found in areas set aside for rural lifestyle activities. al road network; and*

9.39. For similar reasons to above, the use of the land for utility purposes is appropriate, with very little built form proposed, and taking up only a small portion of land that will otherwise remain as rural lifestyle or production.

10. Part 2 matters

- 10.1. Section 171 of the Act requires territorial authority consideration of a Notice of Requirement subject to Part 2 of the Act (purposes and principles).
- 10.2. Section 5 of the Act imposes a duty to promote the sustainable management of natural and physical resources while endeavouring to avoid, remedy or mitigate adverse effects of activities on the environment.
- 10.3. The proposed Notice of Requirement will provide for the future energy needs of the existing and future development in the Karaka area.
- 10.4. The relevant Part 2 matters are identified and assessed below:

Section 5

- 10.5. Section 5(2): The distribution of electricity to the Pukekohe-North area will clearly enable people and communities to provide for their social, economic, and cultural well-being and their health and safety in all areas of their lives.

- 10.6. Section 5(2)(a): The distribution of electricity will help to sustain the potential of natural and physical resources to meet the reasonably foreseeable needs of future generations, in particular the existing distribution network in Bombay.
- 10.7. Section 5(2)(b): The mitigation measures and the proposed designation conditions detailed in the consideration of environmental effects will safeguard the life supporting capacity of ecosystems and soil.
- 10.8. Section 5(2)(c): Taking into account the mitigation measures and proposed designation conditions, the consideration of environmental effects concludes that the work will be conducted in a manner that effectively avoids, remedies and mitigates any adverse effects on the environment.
- 10.9. The provision of electricity to the Pukekohe North area is required to enable people and communities to provide for their social, economic, and cultural wellbeing and their health and safety to meet the foreseeable needs of future generations. The avoidance, mitigation and remediation measures associated with the proposal will safeguard the life-supporting capacity of air, water, soil, and ecosystems (section 5(2)).

Section 6

- 10.10. Section 6(e) – The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, wahi tapu, and other taonga.
- 10.11. The site is subject to a Ngati Tamaoho Statutory Acknowledgement Area and is an area of interest for Te Ahiwaru Waiohū, Ngāti Tamaoho, Ngāi Tai ki Tāmaki, Te Ahiwaru Waiohū, Ngāti Te Ata Waiohū, Ngāti Maru Waikato-Tainui. We have contacted all the groups on the Council's list to ascertain interest in this site.
- 10.12. Ngati Tamaoho provided a response as detailed in Section 12 of this report. A response was also received Kowhai Olsen on behalf of Te Ahiwaru Waiohū confirming their support for Counties Energy's continued engagement with Ngati Tamaoho directly along with any recommendations their Whanaunga deem necessary. No other responses were received.
- 10.13. The feedback is attached in **Appendix G**. As such it is considered that the proposal will meet the requirements of section 6(e).

Section 7

- 10.14. Section 7(b) – The efficient use and development of natural and physical resources: It is considered that the proposal will result in the efficient use and development of natural and physical resources. The proposal is the development of a zone substation which will facilitate the distribution of electricity.
- 10.15. Section 7(c) – The maintenance and enhancement of amenity values: The substation equipment will be built into the ground with landscape mitigation on all sides the designation site boundaries to give particular regard to the

surrounding environment. Noise emissions and visual amenity have been addressed by this design and as such it is considered that the proposal will meet the requirements of section 7(c).

- 10.16. Section 7(f) – Maintenance and enhancement of the quality of the environment: The proposal will enhance the security of the electricity supply to the Pukekohe North. The mitigation measures and proposed designation conditions will avoid, remedy, and mitigate any adverse effects on the environment. Therefore, it is considered that the proposal will meet the requirements of section 7(f).

11. Notification

- 11.1. Section 169 of the RMA is the relevant section with regard to the notification of a NOR and outlines that a territorial authority must decide whether or not to notify the NOR. This section of the Report provides discussion on whether the NOR needs to be notified in accordance with Section 169(1) of the RMA. Section 169(1) states:

- (1) *If a territorial authority is given notice of a requirement under section 168, the territorial authority must, within 10 working days, decide whether to notify the notice under—*
- (a) *subsection (1A); or*
 - (b) *sections 149ZCB(1) to (4), 149ZCC(1) to (4), 149ZCE, and 149ZCF, which apply with all necessary modifications and as if—*
 - (i) *a reference to an application or notice were a reference to the notice of requirement; and*
 - (ii) *a reference to an applicant were a reference to the requiring authority; and*
 - (iii) *a reference to the Minister or the EPA were a reference to the territorial authority; and*
 - (iv) *a reference to an activity were a reference to the designation.*

Public Notification

- 11.2. Section 149ZCB relates to public notification of a Notice of Requirement, as follows:
- (1) *The [territorial authority] may in [its] discretion... decide whether to... publicly notify an application or a notice.*
 - (2) *Despite subsection (1), the [territorial authority] must publicly notify an application or a notice if –*

- (a) *The [territorial authority] decides (under section 149ZCE) that the activity that is the subject of the application or notice will have, or is likely to have, adverse effects on the environment that are more than minor; or*
 - (b) *The applicant requests public notification of the application or notice; or*
 - (c) *A rule or national environmental standard requires public notification of the application or notice.*
- (3) *Despite subsections (1) and (2)(a), the [territorial authority] must not publicly notify the application or notice if—*
- (a) *a rule or national environmental standard precludes public notification of the application or notice; and*
 - (b) *subsection (2)(b) does not apply.*
- (4) *Despite subsection (3), the [territorial authority] may publicly notify an application or a notice if the [territorial authority] decides that special circumstances exist in relation to the application or notice.*

11.3. Public notification of this NOR is not required because:

- Clause (2)(a) applies. The proposed designation over the site to provide for the future use; ongoing operation, maintenance, upgrade, development and protection of the substation, will not have, nor is it likely to have, adverse effects on the environment that are more than minor (for the reasons outlined in Section 8).
- Clause (2)(b) does not apply as Counties Energy does not request public notification of the NOR.
- Clause (2)(c) and (3) do not apply as there are no relevant rules or national environmental standards that require public notification of the NOR, nor are there rules or national environmental standards that preclude public notification of the NOR.
- Clause (4) does not apply as there are no special circumstances which would warrant public notification of this NOR.

11.4. Accordingly, the territorial authority need not publicly notify this application.

Limited Notification

11.5. Where the territorial authority accepts that public notification is not required, it must determine if limited notification is required under Section 149ZCC as follows:

- (1) *If the [territorial authority] decides not to... publicly notify an application or a notice, the [territorial authority] must, in relation to the activity, —*
 - (a) *decide if there is any affected person (under section 149ZCF); and*

- (b) identify any affected protected customary rights group or affected customary marine title group.*
- (2) The [territorial authority] must give limited notification of the application or notice to any affected person unless a rule or national environmental standard precludes limited notification of the application or notice.*
- (3) The [territorial authority] must give limited notification of the application or notice to an affected protected customary rights group or affected customary marine title group even if a rule or national environmental standard precludes public or limited notification of the application or notice.*
- (4) In subsections (1) and (3), the requirements relating to an affected customary marine title group apply only in the case of applications for accommodated activities.*

11.6. Limited notification of this NOR is not required because there are no affected persons or affected groups for the reasons set out in Section 8.3 below.

Affected Persons

11.7. With regard to affected persons, Section 149ZCF states:

- (1) The [territorial authority] must decide that a person is an affected person, in relation to an activity, if the adverse effects of the activity on the person are minor or more than minor (but are not less than minor).*
- (2) The [territorial authority], in making [its] decision, —*
 - (a) may disregard an adverse effect of the activity on the person if a rule or national environmental standard permits an activity with that effect; and*
 - (b) in the case of a controlled activity or a restricted discretionary activity, must disregard an adverse effect of the activity on the person if the activity does not relate to a matter for which a rule or national environmental standard reserves control or restricts discretion; and*
 - (c) must have regard to every relevant statutory acknowledgement made in accordance with an Act specified in Schedule 11.*
- (3) Despite anything else in this section, the [territorial authority] must decide that a person is not an affected person if—*
 - (a) the person has given, and not withdrawn, approval for the activity in a written notice received by the authority before the authority has decided whether there are any affected persons; or*
 - (b) it is unreasonable in the circumstances to seek the person's written approval.*

11.8. There are no adversely affected persons who are affected to an extent that is minor or more than minor and whom must be notified of this NOR, because:

- Waka Kotahi have provided their written approval for the front yard setback infringement that is the subject of a separate land use consent application. They advised at that time that their approval as a requiring authority was not required as there are no works proposed within the designated area.
- The proposed conditions for managing construction and operational traffic will ensure that adverse effects are less minor. Accordingly, Auckland Transport are not considered an affected party.
- The potential adverse effects of construction traffic will be managed through proposed conditions. In terms of operational traffic, traffic effects once operational should not be expected to adversely affect the operation of the road network.
- The works that would occur under the designation purpose would be restricted to the constraints of the property boundary and the designated area, and the proposed conditions to be applied to the designation (discussed further below).
- Future necessary maintenance, redevelopment, and potential upgrade works within the designated area of the site would remain consistent with the nature and scale of the existing infrastructure and would be screened by the existing and proposed vegetation along the northern, western and eastern boundaries of the site, and the existing shelterbelts on the opposite road boundary to the south.
- The property owners of 8 Whangapouri Road are willing to subdivide the land and sell the subject site to Counties Energy for the purpose of designation. Residential amenity effects have been disregarded for their existing property; however, mitigation planting will be implemented around the entire perimeter fence which will provide screening for all neighbours.
- The existing dwelling at 364 Karaka Road to the east will be setback approximately 240m from the substation and will be screened by the existing dwellings on 8 Whangapouri Road. The LVIA assessment concludes that the visual effects are low on these persons.
- There is an existing dwelling on 383 Karaka Road located to the south across Karaka Road and is surrounded by vegetation and located approximately 70m from the substation. The LVIA assessment concludes that the visual effects are low on these persons.
- There is an existing dwelling on 21 Whangapouri Road to the north-east and is surrounded by vegetation and located approximately 260m from the substation. The LVIA assessment concludes that the visual effects are low on these persons.
- There is an existing dwelling on 10 Bycroft Road to the south-west and is surrounded by vegetation and located approximately 260m from the substation. The LVIA assessment concludes that the visual effects are low on these persons.
- The existing building to the north on 14 Whangapouri Road operates as a Buddhist Temple and is not considered to be a sensitive receptor. The

LVIA assessment notes the proposal will have initial adverse effects on amenity for visitors approaching the temple from SH22 as it contrasts the open character of the site. There are existing mitigation measures in place, including the 4-metre-high hedge on the northern boundary, which restricts views from the temple and will screen the switch room, the lower portion of the gantry structures, security fences and any regular activity on site. The gantry structures will be setback approximately 40-50 metres from the north boundary and will only be partially visible above the hedge line. As the temple is not occupied as a residence full time it is not considered a highly sensitive receptor.

- The existing dwelling on Lot 3 DP 472268 to the west is located approximately 450m from the substation equipment. The LVIA assessment concludes that the visual effects are low on these persons.
- Any views to the site from the residential properties to the west of the site are very limited as the substation equipment is located at least 55 metres from the residential dwelling on 5 Whangapouri Road and separated by the proposed vegetation and finished ground levels. The LVIA assessment concluded that the visual effects are low.
- The baseline Noise assessment provided indicates AUP 45dB noise limit will be met at the boundaries. A full noise will be prepared the detailed design stage and design can further mitigate the noise output with positioning the transformers further away from the boundaries, or the use of acoustic walls between the transformer on the eastern side, between it and the existing dwelling on the site.
- The potential adverse effects of the activities that would occur at the Site under the proposed designation, are proposed to be mitigated through conditions to be imposed on the designation, which include an accidental discovery protocol, the management of vibration, construction and maintenance noise, compliance with hazardous substances, radio frequency and earth potential rise design standards and guidelines, and standards for maximum lighting spill, electric and magnetic fields operational noise, and maintenance of vegetation along the western boundary.
- There is a Ngati Tamaoho statutory acknowledgement on or near the site that the territorial authority must have regard to. Counties Energy is undertaking ongoing consultation with Ngati Tamaoho and has received a Cultural Values Assessment with recommendations and noting that Ngati Tamaoho are not opposed to the proposal. Counties Energy will address these recommendations by incorporating Ngati Tamaoho design input into the detailed design of the substation.

11.9. Accordingly, it is considered that the territorial authority need not give notice of this proposal to any person.

Conclusion of Notification Assessment

11.10. Pursuant to Section 169 of the RMA, this NOR can be processed without public notification and without limited notification to any person or group because:

- None of the requirements under 149ZCB are made out requiring the territorial authority to publicly notify the application, and
- None of the requirements under 149ZCC are made out requiring the territorial authority to give limited notification.

Summary

- 11.11. In summary the effects of the future development of the site at 8 Whangapouri Road for the purpose of a substation are likely to be less than minor and can be adequately avoided, remedied, or mitigated through the proposed designation conditions.
- 11.12. The proposal is not contrary to the provisions of the ARPS or the AUP (OP).
- 11.13. The proposed work and designation is reasonably necessary for the future development of the surrounding area and is also consistent with Part 2 of the Act. On this basis we request that Council recommend confirmation of the requirement without modification.

12. Consultation

Waka Kotahi

- 12.1. On-going consultation has been undertaken with Waka Kotahi regarding the proposed designation. A copy of the affected persons form is attached in **Appendix H**.

Mana Whenua – Ngāti Tamaoho

- 12.2. On-going consultation has been going on with Ngāti Tamaoho regarding the proposed designation, specifically Lucie Rutherford, Edith Tuhimata and Zach Rutherford-Sirett. A copy of email correspondence is attached in **Appendix H**.
- 12.3. We have consulted with Ngāti Tamaoho via email followed by an on-site meeting on 28 July 2021, in relation to the Notice of Requirement along with the separate subdivision and land use consent applications. The meeting was attended by Zac Rutherford and Lucie Rutherford from Ngāti Tamaoho Trust. Ngāti Tamaoho have provided a Cultural Values Assessment. A copy of the CVA is provided in **Appendix I**.
- 12.4. The CVA conclude on page 23s:

“Recommendations for appropriate measures for the avoidance, remediation, or mitigation of any of these effects, which should be reflected in the conditions.

After review and assessment of the project information we can ascertain that proposed overall development through this area, is large and will alter the cultural landscape. The Drury/ Karaka/Paerata landscape is being altered at a staggering rate in all forms of development - from industrial subdivisions to the Housing Projects in large scale precincts - suburbs not only motorway - connector roading project, but bus stations, railway stations, four tracking of

railway lines high enough for electrification and no less than three malls proposed. We must be consistent in the way we recommend outcomes for our cultural landscapes, consisting of our heritage sites, waterways, waahi tapu, ancestral lands, sustainability and best practice outcomes in planning and consents. The cultural landscape as it stands will be minimally impacted as this proposed project and their associated amenities and maintenance facility for the proposed substation are built. But we cannot account for what's beneath the ground this is where our insistence on monitoring sits.

If we minimise discharge impact on the waterways and upper catchment area of Drury daylight and fence. It will have less impact on the Karaka - Paerata to the lower catchment of Drury. We are not opposed to this project and look to have an ongoing relationship with Counties Power into the future."

12.5. Ngāti Tamaoho have provided recommendations as part of the CVA:

- *ongoing meaningful engagement and the availability to be able to add an addendum to this CIA if any issues with concept design or agreed outcomes are not met.*
- *the clothing of papatuanuku in a native palette, the banks of the waterways daylighted are important for water quality and sustain the flora and fauna in the waterways.*
- *any proposed new wetlands as treatment devices, to have forbays for maintenance, a small portion be apportioned off for treatment if it is consented as per say.*
- *treatment train approach to all discharge and runoff as stated in our CIA.*
- *habitat retention and improvement of the Whangapouri stream corridor preferred remediation area.*
- *Cultural Induction and Cultural Monitoring when pre-earthworks meetings happens and first scrape back of the land including implementation of silt fences.*
- *Weed and Pest management Strategy.*
- *Avoidance and restoration of all wetlands where possible.*
- *Fish Management Plan if applicable.*
- *Discovery Protocols to be adhered as there are portions of this development that haven't been developed before, the project is on top of a hill 360 degrees views, along a ridgeline sitting higher into the interior looking down to the Manukanuka o Hoturoa. It is surrounded by tributaries and main awa of the area.*
- *Cultural Input into Design form.*
- *Higher standard than the minimum requirements advocated by the council.*

12.6. In terms of addressing these recommendations, Counties Energy proposes that between designation approval and commencement of detailed design,

Ngāti Tamaoho in involved the discussion around the design of the switchroom buildings regarding their suggestions about colour and finish.

Residential Neighbours

- 12.7. Consultation has not been undertaken with the neighbouring sites as the above assessment indicates that adverse effects will be less than minor as discussed in section 8 above.

Auckland Council

- 12.8. An online meeting was held with the Team Leader, Central South Plans and Places/Chief Planning Office and his team on 7 July 2021. The Team Leader supported a soft lodgement of the Notice of Requirement to enable Council to provide any feedback. A second online meeting with Council staff was held on 27 August 2021. Council advised that they would be able to begin processing application once lodged despite Counties Energy still awaiting receipt of a Cultural Values Assessment from Ngāti Tamaoho and s95 and S178 approvals from Waka Kotahi.
- 12.9. Written comments were also provided by Auckland Transport (AT) on the draft application documents submitted to Auckland Council. AT generally had no issues with the proposal and agrees with the assessment that the traffic effects once operational should not present issues and the proposed conditions should address other issues from construction. Accordingly, AT does not consider that further traffic assessments are necessary.
- 12.10. AT is not concerned by the additional driveway and notes the design can be picked up as part of OPW. There is the option to "hardwire in" some of the AUP requirements, including that:
- any access is ten metres at least beyond ultimate boundary (18 metres shown -even if 5 metres taken by Waka Kotahi)
 - a 2 metres separation between new residential driveway and substation access (tight but achievable).
- 12.11. AT also recommended condition that no future vehicle access be via SH22 (Karaka Road) noting:
- "Whilst this is currently state highway and may have (check title) limited access road restriction, the intent is that at some point it may revert to AT and as such AT wouldn't want any restrictions inadvertently "lost "through any transfer process."*
- 12.12. Counties Energy is willing to accept a condition restricting future vehicle access via Karaka Road.

13. Conclusion

- 13.1. Counties Energy proposes to designate the land at Whangapouri Road, Karaka as shown on the land requirement plan (Appendix B) in the AUP(OP)

for its purpose as “electricity transmission – Whangapouri Road electricity substation”. The designation at the site for this purpose would provide Counties Energy with certainty and flexibility required for the future use, operation, maintenance, development, and potential upgrade of the substation infrastructure to ensure a resilient electricity supply and connection to the local distribution network.

- 13.2. This NOR has been prepared in accordance with the requirements of the Resource Management Act 1991 (RMA), and in particular, the requirements of Form 18, section 168, and Section 171.
- 13.3. A consideration of alternative sites, routes, and methods of undertaking the project has not been undertaken as Counties Energy have a sale and purchase agreement with the landowner.
- 13.4. The Project is consistent with the relevant provisions of the National Policy Statement on Electricity Transmission, the Auckland Regional Policy Statement, and the Auckland Unitary Plan:
 - The proposal is consistent with the directives of the NPSET. The designation will facilitate planning for the development, operation, and maintenance of electricity transmission infrastructure, and will have benefits in terms of providing a secure, electricity supply and connection to the local distribution network.
 - The proposal is consistent with the policy direction contained in the Auckland RPS for Infrastructure (contained in Section B3.2). The designation will contribute to the resilient, efficient, and effective operation, maintenance, development and upgrading of the local Grid, and recognise its functional and operational needs.
 - For similar reasons as those relating to the RPS, the proposal is also consistent with the policy direction provided in the AUP(OP) (Section E26.2 Infrastructure), as the designation will:
 - recognise the benefits of and value of investment in infrastructure and the significance of electricity distribution.
 - improve the resilience of infrastructure and enable continuity of service in the Bombay area through enabling the effective and efficient development, operation, maintenance, repairs and upgrading of the new Counties Energy substation; and
 - avoid, remedy, and mitigate all potential adverse effects on the environment to the fullest extent possible, through the mitigation measures proposed and associated conditions.
- 13.5. The Project promotes the sustainable management purpose of the RMA –
 - It will sustain the potential of the electricity distribution to meet the reasonably foreseeable needs of future generations which enables community wellbeing. The safe, efficient, and effective transmission of

electricity is vital to the wellbeing of the community in terms of providing electricity for homes and rural activities.

- It will avoid, remedy, or mitigate all potential adverse effects on the environment to the fullest extent possible through the mitigation measures proposed and associated conditions.

13.6. Accordingly, Auckland Council is able to recommend confirming the designation in the AUP(OP), subject to appropriate conditions, as per the information contained in **Appendix G** of this NOR.

13.7. Counties Energy Limited requests Auckland Council proceed to process this Notice of Requirement pursuant to section 169 of the RMA and anticipates Council's recommendation in due course as per section 171(2) and (3). The NoR application addresses all relevant matters under section 171 of the RMA and it is therefore requested the designation be confirmed without modification.

Appendix A – Land Requirement Plan



Appendix B – Concept Plan



Appendix C – Infrastructure Design Report



Appendix D – Landscape & Visual Impact Assessment



Appendix E – Geotechnical Investigation Report

Appendix F – Detailed Site Investigation (NESCO)

Appendix G – Proposed Conditions

XXXX Counties Energy Whangapouri Road Substation

Designation Number	XXXX
Requiring Authority	Counties Energy Limited
Location	Whangapouri Road, Karaka
Lapse Date	10 years from date of inclusion in the Auckland Unitary Plan

Purpose

'Electricity supply purposes'

Conditions

General

1. The designation shall lapse 10 years from the date of inclusion in the Auckland Unitary Plan in accordance with section 184(1)(c) of the Resource Management Act 1991 (RMA).
2. Any additional matters requiring regional consents or approvals (such as National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) must be obtained prior to works commencing.

Outline Plan(s)

3. Prior to commencement of construction, the requiring authority must submit an Outline Plan to the territorial authority in accordance with section 176A of the RMA to allow the territorial authority to request changes before construction commences. The Outline Plan will include:
 - a. The height, shape, and bulk of the public work, project, or work; and
 - b. The location on the site of the public work, project, or work; and
 - c. The likely finished contour of the site; and
 - d. The vehicular access, circulation, and the provision for parking; and
 - e. The landscaping proposed; and
 - f. Any other matters to avoid, remedy, or mitigate any adverse effects on the environment.

Consultation with Waka Kotahi

4. Counties Energy shall liaise with Waka Kotahi during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed works are integrated and managed in a manner suitable to both parties.

Consultation with Ngati Tamaoho

5. Counties Energy shall consult with Ngati Tamaoho during the detailed design and subsequent construction processes prior to undertaking any work pursuant to this designation to ensure that the proposed design addresses their suggestions about switch room colour and finish.
6. The outcome of such consultation shall be provided to the Council as part of any Outline Plan of Works required by section 176A of the Resource Management Act 1991.

Construction Environmental Management Plan (CEMP)

7. A Construction Environmental Plan shall be prepared by a suitably qualified person and submitted to Auckland Council Resource Consents department for certification at least one month prior to the initial construction commencement date.
8. The purpose of the CEMP is to avoid, remedy or mitigate adverse effects associated with the construction works associated with the Project. The CEMP must contain the following:
 - a. Where access points are to be located and procedures for managing construction vehicle ingress and egress to construction support and storage areas;
 - b. Methods for managing and monitoring dust as a nuisance, including methods for minimising dust emissions, monitoring procedures and contingency procedures in the event of a dust nuisance event;
 - c. Measures to be adopted to keep the construction areas in a tidy condition in terms of disposal / storage of rubbish and storage, unloading construction materials (including equipment). All storage of materials and equipment associated with the construction works must take place within the boundaries of the designation;

- d. The location of any temporary buildings (including workers' offices and portaloos) and vehicle parking (which should be located in the construction area and not on adjacent streets);
 - e. Information on designated staff parking areas for construction workers; and
 - f. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
 - g. Environmental incident and emergency management procedures (excluding spills); and
 - h. An outline of the construction programme of the work, including construction hours of operation, indicating linkages to the other management plans which address the management of adverse effects during construction.
9. All construction and maintenance work shall be designed, managed and conducted to ensure that construction and maintenance noise from the site does not exceed the limits in NZS 6803:1999 Construction Noise at locations set out in section 6.2 of that standard.
10. In accordance with NZS 6803:1999 Construction Noise, construction activities are to occur between 7.30am and 6.00pm Monday to Saturday, with no construction to occur on Sundays or public holidays unless otherwise authorised through the CNVMP.
11. The noise limits set out in Condition 9 above shall not apply to emergency work required to re-establish continuity of supply, work urgently required to prevent loss of life or other personal injury, or commissioning works at the substation site, but all practicable steps shall be undertaken to control noise and to avoid adverse noise effect

Site access

12. The site must be safe and secure from unauthorised public access at all times during construction and operation.

Accidental Discovery Protocols

13. If any archaeological sites, urupa, traditional sites, taonga (significant artefacts), or koiwi (human remains) are exposed during site works, then the following procedures shall apply:
- a. Works in the immediate vicinity of the site that has been exposed shall cease;
 - b. The site supervisor shall immediately secure the area in a way that ensures that any remains or artefacts are untouched;

- c. The site supervisor shall notify representatives of relevant tangata whenua, the Heritage New Zealand Pouhere Taonga, the Auckland Council and, in the case of human remains, the New Zealand Police; and
- d. The notification in (c) above shall allow such persons being given a reasonable time to record and recover archaeological features discovered before work may recommence on the exposed site.
- e. Works shall not commence in the immediate vicinity of the archaeological site until any approval required from the Heritage New Zealand Pouhere Taonga is obtained.

Landscaping and visual

- 14. A detailed Landscape Plan generally in accordance with the landscape concept plan set out in the LVIA prepared by Align Ltd shall be prepared by a suitably qualified person and submitted in conjunction with the Outline Plan of Works to Auckland Council Resource Consents department for approval.
- 15. All landscaping and planting shall be maintained in good condition for the term of the designation, and any plantings that clearly fail to thrive in the first three years after establishment or which fail to mature thereafter shall be replaced no later than the next planting season.
- 16. The substation switchroom is required to have exterior cladding and colours that are recessive, such as grey or earthy tones, so that it modulates its form and surfaces. The purpose of this condition is to ensure that the substation building does not appear excessively mono-textural and/or monolithic.

Electric Magnetic Fields (EMF)

- 17. The operation of the substation shall at all times comply with the International Commission on Non-ionising Radiation Protection Guidelines (ICNIRP) for limiting exposure to time varying electric and magnetic fields (1Hz – 100kHz) (Health Physics, 2010, 99(6); 818-836) and recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, June 2007).

Electrical Interference

- 18. The Requiring Authority must make every reasonable effort to ensure that the substation is operated, managed and controlled so that there is no electrical interference with television or radio reception at any adjacent property including complying with the requirements of the Radio Communications Regulations 2001, the Ministry of Economic Development's Radio Spectrum Management "Compliance Guide" (November 2004), NZ Standard for Radiofrequency Fields Part 1 (1999) and relevant Gazetted Notices.

Lighting

19. All exterior on-site lighting must be positioned and aimed within the site, away from adjacent properties so as to minimise the level of light spill and glare.

Surface water

20. The Requiring Authority must maintain and regularly clean all stormwater catch pits, channels, grates, pipes and other stormwater collection systems to ensure they operate in an effective manner.

Hazardous Substances Environmental Management Plan (HSEMP)

21. The purpose of the HSEMP is to outline the methodologies and processes that will be adopted to ensure that the risks of storing and using hazardous substances within the subject site will be appropriately managed by the Requiring Authority for the duration of the operation of the electrical substation. The HSEMP shall be submitted to Council prior for approval to operation and contain the following:
 - a. The appropriate hazardous substance methodologies for:
 - Storage;
 - Handling;
 - Transport; and
 - Disposal.
 - b. Provide information to regulatory authorities to demonstrate that the possible risks as a result of storage and use of hazardous substances have been considered and will be appropriately managed by the Requiring Authority;
 - c. Methods to ensure prevention and mitigation of adverse effects associated with the storage, use, disposal, or transportation of hazardous substances;
 - d. Training requirements for employees, sub-contractor and visitors on construction procedures, environmental management and monitoring;
 - e. The document management system for administering the HSEMP, including review and Requiring Authority / constructor / council requirements;
 - f. Environmental incident and emergency management procedures (including spills);
 - g. Environmental complaint management procedures;
 - h. Methods to provide for the safety of the general public.
22. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are banded. Each band must be of sufficient capacity to contain

the total volume of oil contained within each transformer plus an allowance for rainwater.

Vehicle Crossing

23. The vehicle crossing for the sub-station must be designed and formed in accordance with either the GD020A Rural Vehicle Crossing standard set out in Auckland Transport's Code of Practice (ATCOP) or VX0303 Rural Crossing Standards set out in Auckland Transport's Transport Design Manual (TDM), whichever is operative at the time of construction.
24. Prior to operation of the substation, the berm must be re-instated to Auckland Council's "Code of Practice for Working in the Road" (<https://at.govt.nz/about-us/working-on-the-road>).

Construction Traffic Management Plan

25. The Requiring Authority must prepare a detailed Construction Traffic Management Plan (CTMP) for the project by a suitably qualified person to be submitted as part of the Construction Environmental Management Plan (CEMP) to Auckland Council for approval, in conjunction with Auckland Transport.

Advice note: The Requiring Authority will need to submit details on the vehicle crossing for approval by Auckland Transport prior to construction.

Erosion and Sediment Control Management Plan (ESCMP)

26. The Erosion and Sediment Control Management Plan (ESCMP) 10. The purpose of the ESCMP is to describe the methods and practices to be implemented to minimise the effects of sediment generation and yield on the receiving environment associated with the construction phase. The ESCMP shall be prepared in accordance with the council's Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region Guideline Document 2016/005 (GD05) and any subsequent updates. The requiring authority must undertake construction in accordance with ESCMP and must contain the following;
 - a. Specific erosion and sediment control works for each stage (location, dimensions, capacity) in accordance with industry best practice as well as GD05;
 - b. Supporting calculations and design drawings;
 - c. Details of construction methods; Auckland Unitary Plan Operative in Part
 - d. Monitoring and maintenance requirements;
 - e. Catchment boundaries and contour information; and
 - f. Details relating to the management of exposed areas (e.g. grassing, mulch).

27. The Requiring Authority must ensure that all transformers containing more than 1000L of oil are bunded. Each bund must be of sufficient capacity to contain the total volume of oil contained within each transformer plus an allowance for rainwater.
28. No earthworks activity on the subject site shall commence until confirmation from the council is provided that the ESCMP satisfactorily meets the requirements of GD05, and the erosion and sediment control measures referred to in that plan have been constructed or certified.

Advice note: For the purpose of compliance with this condition, "the council" refers to the council's monitoring inspector unless otherwise specified. Please contact the Team Leader Monitoring South at monitoring@aucklandcouncil.govt.nz to identify your allocated officer.

29. The operational effectiveness and efficiency of all erosion and sediment control measures specifically required as a condition of this Notice of Requirement or by a certified ESCMP are to be maintained throughout the duration of earthworks activity, or until the site is permanently stabilised against erosion.
30. There must be no deposition of earth, mud, dirt or other debris on any public road or footpath outside the construction site resulting from earthworks activity on the project route.
31. In the event that such deposition does occur, it is to be removed immediately. In no instance are roads and/or footpaths to be washed down with water without appropriate erosion and sediment control measures in place to prevent contamination of the public stormwater drainage system, watercourses and/or receiving waters.
32. The sediment and erosion controls at the site of the works are to be inspected on a regular basis and within 24 hours of each rainstorm event that is likely to impair the function or performance of the erosion and sediment controls. A record is to be maintained of the date, time and any maintenance undertaken in association with this condition which is to be forwarded to the council on request.
33. All earthworks must occur between the hours of 7.30am and 6.00pm Monday to Saturday.

Advice note: Given the proximity of the works to the stream, regional earthworks consents may be required for the works in addition to other regional consents. If required these will need to be obtained prior to works commencing on the site.

Appendix H – Correspondence with Mana Whenua



Appendix I – Ngati Tamaoho Cultural Impact Assessment



Appendix J – Transformer Sound Output Characteristics



SPT ENGINEERING DESIGN

Date of issue:
26-01-21

SPT - PGTR
Page 3 of 19

Project: VN1842+VN1843
Rev: A

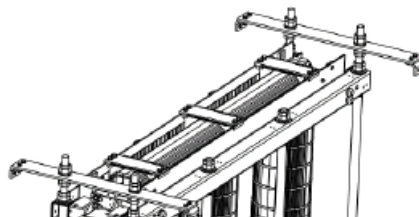
BARBER ROAD, COUNTIES POWER, ONAN/ONAF, 30/40MVA, 110+8/-12x1.25%/22(11)kV, YNyn6(d11)

Core Details Summary

Characteristics	Core details
No of Limbs	3
Core Diameter (mm)	500
Core Leg Area (cm ²)	1818.2
Core Yoke Area (cm ²)	1818.2
Material	FE-SI
Thickness	0.2 mm
Grade	20D068
manufacturer	Nippon steel
Core Mass (kg)	15857.1(excl. clamps)
Flux Density at 100% Excitation (Tesla)	1.436
Flux Density at 110% Excitation (Tesla)	1.58
Specific Loss at 1.7 Tesla (W/kg)	<=0.75
Core Joint Type	Mitred Step Lapped
The core hot-spot temperature rise above top oil temp. at 100% Excitation (°C)	18
The core hot-spot temperature rise above top oil temp. at 105% Excitation (°C)	20
Core hot-spot temperature at 100% Excitation (°C) at 35 (°C) ambient	102
Core surface hot-spot temperature rise above top oil temp. at 100% Excitation (°C)	24.5
No Load Loss at 100% Excitation (kW)	8.45
No Load Loss at 105% Excitation (kW)	9.4
No Load Loss at 110% Excitation (kW)	10.5
Guaranteed No Load Loss at 100% Excitation (kW)	8.5

NOISE LEVEL (dBA)

No Load Sound Power Level at 100 % Excitation	63.6
Total Cooling Equipment Sound Power Level (Delta connected fan)	58.5
Load Sound Power Level at 40MVA (Principal tap)	64.1
Load Sound Power Level at 40MVA (Tap 1) Maximum losses	67.5
No Load + Cooling Sound Power Level at 100% Excitation	64.9
No Load + Cooling + Load Sound Power Level at 40MVA, 100% Excitation, Principal tap	67.5
No Load + Cooling + Load Sound Power Level at 40MVA, tap 1	69.8
<hr/>	
Guaranteed No Load Power Level at 100% Excitation	70
Guaranteed No Load + Cooling + Load Sound Power Level at 40MVA	70



Appendix K – Record of Title