

**Adam Haycock**

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**From:** Nola Smart <Nola.Smart@beca.com>  
**Sent:** Thursday, 29 September 2022 8:30 am  
**To:** Unitary Plan  
**Subject:** PC 78 - 80 submission: Fire and Emergency New Zealand  
**Attachments:** Submission - Auckland Council - Proposed Plan Change 78-80 - 29.09.2022.pdf

Kia ora,

Please find attached a submission on Plan Changes 78 – 80 on behalf of Fire and Emergency New Zealand.

Ngā mihi

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# Submission on notified Plan Changes 78-80 to Auckland Unitary Plan

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## *Intensification Streamlined Planning Process (ISPP)*

**To:** Auckland Council

**Submission from:** Fire and Emergency New Zealand

**This is a combined submission on behalf of Fire and Emergency New Zealand (Fire and Emergency) to Auckland Council (AC) on Proposed Plan Changes 78-80.**

### 1.1 Context

The primary objective of Fire and Emergency is to reduce the incidence of unwanted fire and the associated risk to life and property. Fire and Emergency seek to:

- protect and preserve life
- prevent or limit injury
- prevent or limit damage to property and land, and
- prevent or limit damage to the environment<sup>1</sup>.

Fire and Emergency's main functions<sup>2</sup> are—

- (a) to promote fire safety, including providing guidance on the safe use of fire as a land management tool; and
- (b) to provide fire prevention, response, and suppression services; and
- (c) to stabilise or render safe incidents that involve hazardous substances; and
- (d) to provide for the safety of persons and property endangered by incidents involving hazardous substances; and
- (e) to rescue persons who are trapped as a result of transport accidents or other incidents; and
- (f) to provide urban search and rescue services.

Fire and Emergency also has secondary functions to assist in matters to the extent that Fire and Emergency has the capability and capacity to do so and the capability to perform their main functions efficiently and effectively. These secondary functions<sup>3</sup> are:

- (a) responding to medical emergencies; and
- (b) responding to maritime incidents; and

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<sup>1</sup> Fire and Emergency New Zealand Act 2017 section 10(a)(b)

<sup>2</sup> Fire and Emergency New Zealand Act 2017 section 11(2)

<sup>3</sup> Fire and Emergency New Zealand Act 2017 section 12(3)

- (c) performing rescues, including high angle line rescues, rescues from collapsed buildings, rescues from confined spaces, rescues from unrespirable and explosive atmospheres, swift water rescues, and animal rescues; and
- (d) providing assistance at transport accidents (for example, crash scene cordoning and traffic control); and
- (e) responding to severe weather-related events, natural hazard events, and disasters; and
- (f) responding to incidents in which a substance other than a hazardous substance presents a risk to people, property, or the environment; and
- (g) promoting safe handling, labelling, signage, storage, and transportation of hazardous substances; and
- (h) responding to any other situation, if Fire and Emergency has the capability to assist; and
- (i) any other function conferred on Fire and Emergency as an additional function by the Minister in accordance with section 112 of the Crown Entities Act 2004.

Through a memorandum of understanding with St John, Fire and Emergency attends all life threatening and life critical events.

With the wider mandate and changing nature of Fire and Emergency response, the volume of incidents that Fire and Emergency responds to has grown, as has the range of incident types.<sup>4</sup>

On average, Fire and Emergency attend 23,503<sup>5</sup> incidents annually across Auckland. This includes an average of:

- 4,380 fires
- 3,920 medical emergencies
- 2,008 vehicle accidents
- 1,814 rescues and public assists<sup>6</sup>
- 863 HAZMAT/Heat/Pressure/Electrical hazard

Fire and Emergency also faces broad challenges, such as the increasing frequency and severity of extreme weather events associated with climate change, increasing intensification of urban areas, and competing access to resources such as water and transport infrastructure. These challenges make the environment Fire and Emergency operates in more complex and puts greater demands on Fire and Emergency as an organisation.

Territorial authorities have a role in ensuring that emergency service providers, such as Fire and Emergency, can continue to operate effectively and efficiently in a changing urban environment. This includes consideration and management of the actual and potential implications on emergency services when giving effect to the National Policy Statement on Urban Development 2020 (NPS-UD), and other regulatory reforms, such as the Resource Management (Enabling Housing Supply and Other Matters) Act 2021 (Enabling Act).

Fire and Emergency note that Policy 1 of the NPS-UD seeks planning decisions contribute to well-functioning urban environments, which includes urban environments that, as a minimum, have good accessibility and are resilient to the likely current and future effects of climate change. Further, the management of significant

<sup>4</sup> There is an increasing need to respond to a wide range of non-fire emergencies, where Fire and Emergency often coordinate with and assist other emergency services. These include responding to motor vehicle accidents, medical call-outs, technical rescues, hazardous substance incidents such as gas or chemical leaks, and accidents and other incidents at sea. In 2016/17, Fire and Emergency attended more medical emergencies than structure and vegetation fires combined. (Source: NZ Fire Service Annual Report 2016/17)

<sup>5</sup> Average 2017-2021

<sup>6</sup> Average 2017-2021. Fire and Emergency note the impact of COVID-19 on the number of incidents over the 2020/2021 period. In some urban environments, Fire and Emergency observed a reduction in fires and traffic accidents over this period. It is suspected this may have been due to people being home more during the pandemic and perhaps making them more vigilant around fires and reduction of unwanted fire, and fewer people in the public domain thereby reducing the likelihood of unwanted fires at beaches and parks.

risks for natural hazards is a matter of national importance under section 6 of the Resource Management Act 1991 (RMA) and is included in the definition of a Qualifying Matter in the Enabling Act.

This submission seeks to enable Fire and Emergency to carry out its primary objective and functions under the Fire and Emergency New Zealand Act 2017 to provide protection of people, property and the environment in the event of an emergency.

Fire and Emergency appreciates the engagement to date with Auckland Council on intensification. This submission further addresses the matters relating to activities required to be undertaken to enable effective emergency response and to provide for the health and safety of people and communities in Auckland. Issues of particular interest and relevance to Fire and Emergency broadly include:

- ensuring emergency services appliances and Fire and Emergency personnel can adequately access both built and natural environments across Auckland in the event of an emergency, and
- ensuring new development, including infill development, is adequately serviced by firefighting water supply,
- maintaining and developing Fire and Emergency's property estate (e.g. fire stations) in strategic locations and at appropriate times to enable Fire and Emergency to continue to meet the demands and expectations of communities as they grow and change.

In particular, Fire and Emergency have been noting the following concerns in recent intensification across Auckland that will be elaborated on in this submission:

- Development inaccessible by emergency vehicle or personnel; exceeding 70m hose length or unworkable for use of other equipment such as ladders due to driveway/pedestrian pathway widths, lack of hardstand etc.
- Distances to fire hydrants calculated as the crow flies as opposed to actual lengths to and around the site
- Inadequate reticulated water supply with insufficient pressure for firefighting to serve development
- Where alternative water supply proposed, it is not of a size/scale appropriate to serve the development or there is inadequate access to reach the alternative water supply source

Given the interrelated topics for Fire and Emergency from Plan Changes 78-80, these have been responded to in the one submission for concision.

## 1.2 Emergency services access

Fire and Emergency requires adequate access to new developments, associated structures and the natural environment to ensure that they can respond in emergencies. This includes access in the event of fire, natural hazard, hazardous substances, medical or a rescue or assist.

Within the urban environment, the NPS-UD encourages higher residential densities, more varied housing typologies such as larger multi-unit development as well as a more compact urban form generally. While a more compact urban form focused on walkability and intensification around public transport (and subsequent mode shift) can reduce congestion and subsequently emergency response times, intensification and infill housing in Auckland are challenging traditional access to properties for fire and other emergencies. This includes both vehicle access to the source as well as physical access by Fire and Emergency personnel to perform rescues and duties, where obstructions and site layout inhibit the use of lifesaving appliances such as ladders, hoses and stretchers.

The changes consequential to the NPS-UD will create new challenges for emergency services. Fire and Emergency consider it is vital for the health, safety and wellbeing of communities that the needs of emergency services are taken into account as new urban development is being planned. It is also important that future development areas are designed to be well-functioning and resilient to ensure that communities / residents are able to evacuate in the event of an emergency. If emergency responders cannot access people

in the event of an emergency, this will not enable and provide for well-functioning and resilient communities and will not achieve Policy 1 of the NPS-UD.

With regard to this, Fire and Emergency support the qualifying matter relating to transport constraints that has been proposed for Beachlands.

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Some of the implications of these aspects are set out in the following sections.

### 1.2.1 Pedestrian only developments

Fire and Emergency note that as a result of the NPS-UD, the requirement for onsite parking in all residential developments has been removed, increasing the number of developments that provide only pedestrian access.

Attached as **Appendix B** are built examples of pedestrian only access developments that Fire and Emergency are aware of which, should a fire or other emergency occur have the potential to give rise to many significant operational issues Fire and Emergency are encountering with new developments. Also included are Fire and Emergency operational requirements for manoeuvring equipment which demonstrates their need to have appropriate physical manoeuvrability around buildings and structures.

Fire and Emergency acknowledge that the New Zealand Building Code (NZBC) C5 specifies access and safety requirements for firefighting operations, where certain buildings must be designed and constructed so that there is a low probability of firefighters or other emergency services personnel being delayed in or impeded from assisting in rescue operations and performing firefighting operations. Buildings must also be designed and constructed so that there is a low probability of illness or injury to firefighters or other emergency services personnel during rescue and firefighting operations.

Of particular note, a performance requirement of C5 is that buildings must be provided with access for fire service vehicles to a hard-standing from which there is an unobstructed path to the building within 20m of the firefighter access into the building and the inlets to automatic fire sprinkler systems or fire hydrant systems, where these are installed (among other requirements). These performance requirements however do not apply to detached dwellings, within household units in multi-unit dwellings, or to outbuildings, and ancillary buildings.

Given the shortfalls with the NZBC (C5) and the lack of clarity/consistency in the interpretation/application of the NZBC and the RMA, Fire and Emergency are concerned that the requirements of PC79 for pedestrian only access developments (particularly Standard 27.6.6) are not adequate for responders to efficiently access properties in event of a fire or emergency or to use tools and equipment effectively if required. This has the potential to significantly increase the risk to life and property.

With the Auckland Unitary Plan allowing for pedestrian only developments, this means that many developments will be unable to comply with the NZBC Fire and Emergency vehicular access requirements and subsequently emergency responder access is not provided. This is a significant concern for Fire and Emergency.

In the interim period while the NZBC catches up with the changing urban environment, Fire and Emergency consider that the RMA needs to address this matter up front in order to manage the use, development and protection of natural and physical resources which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety in accordance with Section 5 of the RMA.

To support effective and efficient access and manoeuvring of crew and equipment for firefighting, medical, rescue and other emergency response to pedestrian only access developments across Auckland, Fire and Emergency recommend:

- pedestrian accessways are clear, unobstructed and well-lit,

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- wayfinding for different properties on a development are clear in day and night,
- developments give effect to the guidance provided in the Firefighting Operations Emergency Vehicle Access Guide,
- pedestrian accessways have a minimum width of:
  - 3m on a straight accessway.
  - 6.2m on a curved or cornered accessway
  - 4.5m space to position the ladder and perform operational tasks.

At a minimum, it is recommended that Auckland Council cross reference the NZBC requirements for firefighter access. Where resource consent is required for sites with no vehicle access, matters of discretion should include consideration of the extent to which access for emergency response is provided for. Urban design guidelines should also consider and reflect good practice examples that, where no vehicle access is provided to a lot/site, that an unobstructed path must be provided either, between buildings on the same site or between buildings and the property boundary to provide for sufficient firefighter access to the site/buildings. This can then be assessed on a case-by-case basis and councils' urban design guides could assist in this regard.

### 1.2.2 Emergency vehicle access

Adequate fire appliance access to both the source of a fire (or other emergency) and a firefighting water supply is essential to the efficient operation of Fire and Emergency. The requirements for firefighting access are set out in the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 (SNZ PAS 4509:2008)<sup>7</sup>, are further detailed in Fire and Emergency's 'Designer's guide' to firefighting operations Emergency vehicle access' (December 2021)<sup>8</sup> and prescribed in Acceptable Solutions Part 6 of C/AS1 and C/AS2.

These requirements are necessary for Fire and Emergency to be able to operate pumping appliances from a hard standing. Often, this can be done from the public road, and this is how Fire and Emergency prefers to operate where possible. Pumping appliances are vehicles used to pump water for firefighting (refer Appendix A of the Fire and Emergency's 'Designers' guide). They carry a relatively small amount of water (1,350–2,000 litres) and have a limited length of hose. Accordingly, Fire and Emergency must have access to a water supply and must also be able to base operations near the fire source, so firefighters can reach the fire with water.

There are however a number of limitations and subsequent concerns Fire and Emergency have in relation to the requirements of the NZBC:

- Performance requirements in clauses C5.3 to C5.8 do not apply to detached dwellings, within household units in multi-unit dwellings, or to outbuildings and ancillary buildings and therefore there is a significant shortfall in access requirements for emergency response access to these particular buildings in the urban environment.
- For buildings to which C5 vehicle access requirements apply, Fire and Emergency observe significant dispensations given to developments at the time of building consent and therefore compliance with the NZBC is not achieved in many cases. In many cases Fire and Emergency have been informed that dispensations have been granted in recognition that a resource consent for the development has been obtained.

Fire and Emergency has strong concerns that even in situations where the NZBC applies, many recent developments are not compliance with the performance criteria of C5 and therefore do not comply with the NZBC (in particular 20m access to the building for firefighting or 75m hose length to the furthest point). In

<sup>7</sup> The New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 can be found here: <https://fireandemergency.nz/assets/Documents/Files/N5a-SNZPAS-4509-2008-NZFS-Firefighting-water-supplies-Code-of-practice.pdf>

<sup>8</sup> The Fire and Emergency Designers Guide to Firefighting Operations for emergency vehicle access provides help to ensure building designs comply with the NZBC C5 and can be found here: <https://www.fireandemergency.nz/assets/Documents/Business-and-Landlords/Building-and-designing-for-fire-safety/F5-02-GD-FFO-emergency-vehicle-access.pdf>

addition, there have been recent examples of residential applications that have provided on-site alternative water supply for firefighting to respond to insufficient reticulated supply, but inadequate emergency access meaning that a fire appliance would not be able to reach the firefighting water supply.

For these reasons, AC need to carefully consider how emergency vehicle access will be provided for new residential developments.

Given the apparent gap in the NZBC, significant consideration needs to be given to new rules and a related policy framework to enable adequate access to detached residential dwellings by emergency vehicles and personnel (i.e. SH risk group buildings not covered by the NZBC). It is requested that these requirements align with those of the NZBC so as to not be inconsistent.

For all other developments to which C5 applies, Fire and Emergency request that, where not already provided for, the AUP introduce rules that 'duplicate' the requirements of the Part 6: firefighting of C/AS1 and C/AS2. Fire and Emergency consider that this approach would prevent resource consents being issued that could not be implemented because the layout does not demonstrate compliance with the performance requirements and need to be redesigned to provide sufficient firefighter access. This could mitigate some risks, especially when activities that currently require resource consent move to permitted.

Without these measures, emergency responder access often indirectly relies on the provisions relating to rubbish disposal that are not fit for this alternative purpose. Waste disposal provisions are an example of another issue that is addressed in detail in both the Building Code and Unitary Plan. Fire and Emergency consider that this dependence on waste disposal provisions does not reflect:

- the importance of Fire and Emergency's operations in preventing or limiting loss of life, injury or damage;
- Section 5 of the RMA in providing for people and communities health and safety; and
- Well-functioning urban environments as per the NPS-UD

Further, Fire and Emergency seek the provision of adequate access through voluntary measures such as 'best practice' recommendations in the urban design manual or similar. These proposed measures would encourage developments to consider early in their design the requirements of emergency services. Fire and Emergency recommends developments give effect to the guidance provided in the Firefighting Operations Emergency Vehicle Access Guide. The PC79 Section 32 report recommends a practice note be developed and distributed to Planners and Transport Engineers that outlines the requirements of the Building Code. Fire and Emergency request that AC engage with Fire and Emergency on the writing of the Note and that the scope of the Note is widened to reference the Firefighting Operations Emergency Vehicle Access Guide.

Adequate provision for emergency responder access will enable Fire and Emergency to:

- Get into the building and to move freely around their vehicles.
- Gain access to rear dwellings on long sites where hose run lengths become an issue.
- Ensure the safety of firefighters and enable firefighters to deal quickly to smaller undeveloped fires before they develop and endanger members of the public and the firefighters who may need to assist them in either rescues and/or firefighting.

In addition, Fire and Emergency support the PC79 Section 32 report non-statutory recommendation that Auckland Council continues to advocate to central government for changes to the Building Code with relation to emergency service providers.

### 1.2.3 Carparking

Fire and Emergency is already encountering new development where emergency vehicle access along the roading corridor has been challenging. While removal of carparking (and cars) should mean fewer obstructions, Fire and Emergency have been finding issues with emergency vehicle access in these locations from narrow roads / laneways, higher density typologies and a lack of off-street parking available

resulting in cars parking along both sides of already narrow residential streets. Implications for emergency services include on-road obstructions, meaning emergency vehicles have difficulty or are unable to manoeuvre, as well as an inability to access buildings and locate fire hydrants in an emergency. Inadequate parking lengths along frontages also have been encountered generally from vehicles parking over footpaths in driveways, blocking access.

Fire and Emergency acknowledges that, where no off-street parking is required, there may also be no requirement to provide for vehicular access to a property. In these situations, emergency service staff would need to enter a property on foot and/or remove fences and other structures to provide access. Regardless, there needs to be sufficient clearance to access properties with heavy emergency equipment.

Despite Policy 11 and clause 3.38 of the NPS-UD, consent authorities can continue to consider the effects of car parking supply and demand in resource consent applications. Given that section 104(1) requires a consent authority to have regard to 'any actual and potential effects on the environment of allowing [an] activity', an adverse effect of a particular activity could include adverse traffic effects on the local or wider road network.

Section 108AA of the RMA relates to requirements for conditions of resource consents. Section 108AA(1)(b) provides that a condition must not be included in a resource consent for an activity unless the condition is directly connected to one or both of: an adverse effect of the activity on the environment and/or an applicable rule, or a national environmental standard.

Fire and Emergency request that AC retain a policy framework that would enable such conditions to be imposed on a case-by-case basis, having regard to the effects of a particular activity. This could include, for example, matters of discretion relating to the safety of pedestrians and cyclists, surrounding car parking supply, and on and off-street amenity effects.

This will see that AC and the community are still able to consider any positive or adverse effects, and ensure any adverse effects can be avoided, remedied and mitigated. This would likely be most appropriate for large development applications with a significant under-provision of parking for the type and location of the activity. Consideration should also be given to the requirements of a transportation assessment to determine the impact of development of the roading network. It could also be necessary to use a condition of consent to tie a development application to preparing or updating a comprehensive parking management plan.

#### 1.2.4 Reduced setbacks

The minimum building setbacks from boundaries and between buildings in the Medium Density Residential Standards to 1m on side boundaries from buildings on all sides increase the risk of fire spreading and can inhibit Fire and Emergency personnel from getting to the fire source. The difficulty of access may also increase the time for fire to burn, thereby increasing the heat radiation in a confined area. Refer to obstructed access examples in **Appendix B**.

The C3 of the NZBC is relevant here whereby buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a relevant boundary. Achieving this functional requirement is however limited the mechanisms by which this is achieved (i.e. Acceptable Solutions) and buildings of which such requirements apply.

It is therefore vital that the NZBC is enforced and complied with to reduce the risk of fire spread in the intensified urban areas. This includes careful consideration of requirements to use non-combustible building materials to slow the vertical and horizontal spread of fire.

Fire and Emergency encourage AC to consider integrating these considerations into the urban design guides to align with the NZBC and prompt developments to consider fire risk mitigations early on in design. This should also be included as an advice note with the relevant front, side and rear boundary setback rules within PC78.



### 1.3 Firefighting water supply

The primary objective of Fire and Emergency is to reduce the incidence of unwanted fire and the associated risk to life and property. To achieve this objective Fire and Emergency requires adequate water supply be available for firefighting activities.

It is critical for Fire and Emergency that water supply infrastructure is in place prior to any development commencing and that this water supply has adequate capacity and pressures available to service the future growth. Fire appliances carry a limited amount of water; therefore, it is necessary that adequate water capacity and pressure be available to Fire and Emergency to control or extinguish a fire. In the urban areas of Auckland, water is sourced from the reticulated water supply network however where reticulation is not available or limited (i.e. trickle fed), alternative water sources will be required. This may be in the form of dedicated water tanks or ponds for firefighting. Adequate physical access to this water supply for new development (whether reticulated or non-reticulated) is also essential.

Adequate capacity and pressure for each development can be determined through the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008<sup>9</sup>. The Code of Practice is a non-mandatory New Zealand Standard that sets out the minimum requirements for firefighting water and access in order for Fire and Emergency to operate effectively and efficiently in an emergency. It is incorporated by reference in the Auckland Unitary Plan. Fire and Emergency acknowledge that Te Ture ā-Rohe Whakaroto Wai me te Pae Kōtuitui Wai Para 2015 Water Supply and Wastewater Network Bylaw 2015 (the Bylaw) has a purpose to assist in the provision of reliable, safe, and efficient water supply and wastewater services. Under this bylaw Watercare may refuse an approval for a connection to the water supply if the connection may detrimentally affect its ability to supply water at the volume and/ or pressure required for firefighting. SNZ PAS 4509:2008 is referenced in the Bylaw as a code that may be enforced.

This should be included as an advice note to prompt developers to consider requirements for water early in design.

Fire and Emergency consider it essential that urban development does not occur out of sequence with the delivery of key strategic infrastructure (network extensions or upgrades), or development is not enabled where there is potential or known infrastructure capacity constraints in relation to the Three Waters, in particular the water supply network. Given this, Fire and Emergency strongly support Auckland Council's approach of including water supply constraints as a qualifying matter.

For the continued applicability of the Infrastructure – Water and/or Wastewater Constraints Control, Fire and Emergency consider that Auckland will need to maintain sophisticated water network models. This will assist AC in identifying areas across Auckland where there is potential or known infrastructure capacity constraints and will enable Council to manage the cumulative impacts of urban infill on the water supply network. Fire and Emergency request that this is considered ongoing so that when and where needed further areas can be included under the water supply constraint control.

Fire and Emergency considers that all subdivision and development should be subject to development standards within the AUP requiring all applicants to demonstrate by way of providing evidence (i.e. hydrant flow testing) that their development can be adequately serviced for firefighting water supply in accordance with the Code of Practice across all zones. If this does not become part of the consenting regime, there will likely be development with inadequate firefighting water supply with potentially serious consequences for life and property. Particular consideration should be given to high rise buildings and the network's capacity to maintain pressures.

Fire and Emergency further encourage AC to consider bringing forward Long Term Plan investments to upgrade the water supply in residential areas in order to be able to provide the required capacity.

<sup>9</sup> The New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008 can be found here: <https://fireandemergency.nz/assets/Documents/Files/N5a-SNZPAS-4509-2008-NZFS-Firefighting-water-supplies-Code-of-practice.pdf>

## 1.4 Demand on emergency services

Fire and Emergency has a Statement of Performance Expectations<sup>10</sup> which sets out targets to delivering timely and effective fire response and suppression services as well as other services<sup>11</sup>.

Community need for Fire and Emergency services has been increasing, thereby increasing Fire and Emergency's presence on the roads and need for fast and efficient access to incidents across Auckland.

Urban growth and intensification coupled with the increasing rate of extreme weather events and risk from natural hazards as a result of climate change and other environmental and demographic changes across communities is likely to result in a greater demand on emergency services and consequently can affect response times if not managed. Given this, Fire and Emergency support Plan Change 80 in so far as it makes reference to the need for well-functioning urban environments and improved resilience to the effects of climate change.

Fire and Emergency's response time commitments to the government and community are key determinants for the location of new, or expansion of existing fire stations. Fire stations therefore need to be strategically located within and throughout communities to maximise their coverage and maintain appropriate response times and efficiently provide for the health and safety of people and communities.

As urban areas develop and intensify, the ability to construct and operate fire stations in locations which will enable reasonable response times to fire and other emergencies is critical for the health, safety and wellbeing of people in the community. In this regard it is noted that Fire and Emergency is not a requiring authority under section 166 of the RMA and therefore does not have the ability to designate land for the purposes of fire stations.

Provisions within the rules of the AUP therefore may be the best way to facilitate the development of any new emergency service facilities as the city grows. Ongoing, and more frequent engagement with Fire and Emergency in terms of growth projections and demographic changes will assist us in understanding where we may need new emergency service facilities in the future. This will be particularly important during plan review and plan changes that seek to re-zone large portions of land to facilitate development.

### **Fire and Emergency seeks the following decision from the local authority:**

Alongside general support for PC80, Appendix A details the specific amendments sought by Fire and Emergency to provisions in PC78 and PC79, and the reasons for these amendments.

Fire and Emergency would welcome any questions or further engagement on matters raised in the submission within.

Fire and Emergency may wish to be heard in support of its submission depending upon the proposed amendments to the Plan Change provisions as notified.

<sup>10</sup> Statement of Performance Expectations 2021/2022 can be found here: <https://www.fireandemergency.nz/assets/Documents/About-FENZ/Key-documents/FENZ-Statement-of-Performance-Expectations-2021-2022.pdf>

<sup>11</sup> Fire and Emergency Act 2017 sections 10-12



Signature of person authorised to sign on behalf of Fire and Emergency

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## Appendix A

The following table sets out the specific position and any amendments sought by Fire and Emergency. Where specific amendments to provisions of the Auckland Unitary Plan are sought, these amendments are shown as red underline (for new text sought) and ~~word~~ (for deletion).

ID	Provision	Support / oppose	Submission	Requested amendment
<b>Chapter E Auckland-wide</b>				
<b>E27 Transport</b>				
PC79: 1	Objective E27.2.(5A) <i>(5A) Safe and direct on site access for pedestrian and other users is provided to dwellings, in residential zones.</i>	<b>Support</b>	Fire and Emergency support the provision in so far that they consider that 'pedestrian and other users' include emergency responders.	No amendments sought
PC79: 2	Policy E27.3.(20A) <i>(20A) Require vehicle accesses to be designed and located to provide for low speed environments and for the safety of pedestrians and other users, and require pedestrian access that is adjacent to a vehicle access to be designed and located to provide for safe and direct movement, minimising potential conflicts between pedestrians and other users.</i>	<b>Support in part</b>	Fire and Emergency seek recognition of the need for access to include access for emergency responders.	<i>(20A) Require vehicle accesses to be designed and located to provide for low speed environments, <u>for emergency responders</u> and for the safety of pedestrians and other users, and require pedestrian access that is adjacent to a vehicle access to be designed and located to provide for safe and direct movement, minimising potential conflicts between pedestrians and other users.</i>
PC79: 3	Policy E27.3.(20B) <i>(20B) Require pedestrian access that is the sole means of access between residential zoned dwellings and the public road, to be designed and located to provide for safe and direct movement, minimising potential conflicts between pedestrians and other users.</i>	<b>Oppose in part</b>	As highlighted in the submission, Fire and Emergency are concerned that pedestrian-only access developments will not have sufficient access for emergency responders.	<i>(20B) Require pedestrian access that is the sole means of access between residential zoned dwellings and the public road, to be designed and located to provide for <u>emergency responder access</u>, safe and direct movement, minimising potential conflicts between pedestrians and other users.</i>
PC79: 4	Standard E27.6.1 Trip generation	<b>Support</b>	Fire and Emergency support the reduction in new development trip generation thresholds. Fire and Emergency consider that this is necessary to manage the cumulative impacts of greater intensification on the transport network which would impact emergency responses.	No amendments sought.
PC79: 5	Standard E27.6.3.5 Vertical Clearance	<b>Oppose in part</b>	Fire appliances require a 4m height clearance.	<i>(1) To ensure vehicles can pass safely under overhead structures to access any parking and loading spaces, the minimum clearance between the formed surface and the structure must be <u>at least 4m</u>:  <del>(a) 2.1m where access and/or parking for cars is provided for residential activities;</del>  <del>(b) 2.3m where access and/or parking for cars is provided for all other activities;</del>  <del>(c) 2.5m where access and/or accessible parking for people with disabilities is provided and/or required; or</del></i>

ID	Provision	Support / oppose	Submission	Requested amendment
				<p><del>(ca) 2.8m where loading is required for residential activities denoted with an asterisk (*) in Table E27.6.2.7; or</del></p> <p><del>(d) 3.8m where loading is required for all other activities.</del></p>
PC79: 6	Standard E27.6.4.3 Width of vehicle access, queuing and speed management requirements	<b>Support in part</b>	<p>Fire and Emergency support that reference is made to consideration of fire emergency vehicle access. Bringing these controls to the attention of plan users (i.e. developers) early on in the resource consent process means they can incorporate the NZBC requirements early on in their design.</p> <p>However, as detailed in the submission, the NZBC requirements have gaps. As such, Fire and Emergency request that the provisions included in the AUP provide for emergency responder access. Fire and Emergency require at minimum a 4m width for emergency vehicles to be able to access sites. The proposed width of 2.75m would significantly impact the ability of emergency responders to provide effective and efficient assistance.</p> <p>Without the changes recommended above, assessment of non-compliance with this standard against matter of discretions is challenging as the permitted baseline is already insufficient.</p>	<p>Table E27.6.4.3.2 Vehicle crossing and vehicle access widths</p> <p>Minimum formed access width:</p> <p>5.5m (providing for two-way movements) The formed width is permitted to be narrowed to <u>4m</u> <del>2.75m</del> if there are clear sight lines along the entire access and passing bays at 50m intervals are provided.</p> <p>...</p> <p>Where vehicle accessways are provided, consideration of fire emergency vehicle access is required by the New Zealand Building Code Clause C6. <u>Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</u></p>
PC79: 7	Standard E27.6.6 Design and location of pedestrian access in residential zones	<b>Oppose in part</b>	<p>The submission above notes Fire and Emergency's concerns with pedestrian-only access developments not providing for emergency responder access. The proposed design standards are not adequate for emergency responders to undertake operational activities including movement of ladders.</p>	<p>(1) Any pedestrian access, in residential zones, serving two or more dwellings, where there is no vehicle access must:</p> <p>(a) have a minimum formed access width of <del>4.8m</del> <u>3m on a straight accessway and 6.2m on a curved or cornered accessway;</u></p> <p>(b) provide passing bays in accordance with Table E27.6.6.1;</p> <p>(c) meet the maximum gradient, in accordance with Table E27.6.6.2;</p> <p>(d) provide artificial lighting in accordance with Standard E24.6.2;</p> <p>(e) have a surface treatment which is firm, stable and slip resistant in any weather conditions;</p> <p>(f) provide direct access to the dwellings from a public footpath;</p> <p>(g) be unobstructed for its full length; and</p> <p>(h) where the pedestrian access includes steps, provide a step-free option as specified in NZS 4121:2001 Design for access and mobility: Buildings and associated facilities.</p> <p><u>Advice note:</u></p>

ID	Provision	Support / oppose	Submission	Requested amendment
				<p><u>Emergency responder access requirements are further controlled by the Building Code. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</u></p> <p><u>The Designer's Guide' to Firefighting Operations Emergency Vehicle Access provides additional guidance.</u></p>
PC79: 8	Matters of discretion E27.8.1 (9)	<b>Support in part</b>	Fire and Emergency support the matters of discretion for infringements of access design standards. Fire and Emergency request explicit reference to the provision of emergency responder access as a matter of discretion.	<p>(9) any activity or development which infringes the standards for design of parking and loading areas or access under Standards E27.6.3, E27.6.4.2, E27.6.4.3, E27.6.4.3A E27.6.4.4 and E27.6.6:</p> <p>(a) adequacy for the site and the proposal;</p> <p>(aa) site limitations;</p> <p><u>(aaa) adequacy of emergency responder access</u></p> <p>(b) design of parking, loading and access;</p> <p>(ba) effects on pedestrian safety and accessibility;</p>
PC79: 9	Assessment criteria E27.8.2 (3)	<b>Support in part</b>		<p>(3) any activity or subdivision which exceeds the trip generation thresholds under Standard E27.6.:</p> <p>a) the effects on the function and the safe and efficient operation of the transport network with consideration of all modes of transport, <u>including emergency responders</u>, particularly at peak times;</p>
PC79: 10	Assessment criteria E27.8.2 (8)	<b>Support in part</b>	Fire and Emergency request explicit reference to the provision of emergency responder access as an assessment criteria.	<p>Add to E27.8.2(8):</p> <p><u>(e) the safety and practicality of emergency responder access.</u></p>
<b>E28 Subdivision Urban</b>				
PC78: 1	E38.2 Objectives (10)(d) & E38.3 Policy (31)	<b>Support</b>	Fire and Emergency support the inclusion of objectives and policies which seeks to ensure that subdivision is provided where sites can be serviced by water supply infrastructure with sufficient capacity. Fire and Emergency interprets this to include adequate water supply for firefighting responses.	No amendments sought
PC78: 2	E38.2 Objective (10)(e) & E38.3 Policy (32)	<b>Support</b>	Fire and Emergency support the avoidance of subdivision in areas subject to transport infrastructure constraints that does not comply with minimum site sizes. This will assist in avoiding emergency response delays.	No amendments sought

837.2

837.3

ID	Provision	Support / oppose	Submission	Requested amendment	
PC79: 11	E38.8.1.2 Access to rear sites	<b>Oppose in part</b>	<p>Fire and Emergency support that reference is made to consideration of fire emergency vehicle access. Bringing these controls to the attention of plan users (i.e. developers) early on in the resource consent process means they can incorporate the NZBC requirements early on in their design.</p> <p>However, given the gaps within the Building Code, Fire and Emergency request that the AUP provides adequate standards for emergency responses.</p> <p>To respond to emergencies, Fire and Emergency must be able to access rear sites. The proposed minimum formed widths, minimum vertical clearance and maximum gradient do not provide for this.</p>	<p>Amend minimum formed width for 1 rear site and 2-5 rear sites to 4.0m.</p> <p>Amend maximum gradient across all number of rear sites to 1 in 6.</p> <p>Amend minimum vertical clearance from buildings or structures to 4.0m.</p> <p>Make reference to the Firefighting Operations Emergency Vehicle Access Guide in Note 1.</p>	
PC78: 3	<p>Standards – Restricted Discretionary Activities</p> <p><b>E38.8.2.8 Subdivision of sites in areas identified on the planning maps as being subject to the Infrastructure – Combined Wastewater Network Control or the Infrastructure – Water and/or Wastewater Constraints Control.</b></p> <p>(1) Applications must be accompanied by a technical report prepared by a suitably qualified and experienced person.</p> <p>(2) The technical report must demonstrate that infrastructure and servicing can be achieved.</p>	<b>Support in part</b>	<p>Fire and Emergency strongly support the provisions relating to the Infrastructure - Water Constraints Control. The Control recognises the limitations of Council's existing and planned infrastructure capacity. Technical assessments that demonstrate suitability of the development should show how firefighting water supply (either through reticulation or an alternative supply) accords with the Firefighting Water Supplies Code of Practice.</p>	<p>(2) <i>The technical report must demonstrate that infrastructure and servicing can be achieved.</i></p> <p><i>Note: For sites subject to the infrastructure – Water Constraints Control this includes demonstrating sufficient water supply and pressure for firefighting in accordance with SNZ 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice.</i></p> <p><i>Adequate water for firefighting is included in Te Ture ā-Rohe Whakaroto Wai me te Pae Kōtuitui Wai Para 2015 Water Supply and Wastewater Network Bylaw 2015. The bylaw provides for Watercare to refuse a connection to the water supply if the connection may detrimentally affect its ability to supply water at the volume and/or pressure needed for firefighting.</i></p>	837.4 837.5
PC78: 4	<p>Assessment criteria – All controlled activities in Table E38.4.2</p> <p>E38.11.2 (2)(c)</p> <p>(c) whether there is appropriate provision made for infrastructure including;</p> <p>(ii) whether provision is made for infrastructure including creation of common areas over parts of the parent site that require access by more than one site within the subdivision; and</p> <p>(iii) Whether appropriate management of effects of stormwater has been provided;</p> <p>(iv) refer to Policies E38.3(1), (6), (19) to (23).</p>	<b>Support in part</b>	<p>Fire and Emergency support subdivision being supported by suitable infrastructure. This includes the infrastructure associated with Fire and Emergency operations.</p>	<p>(c) <i>whether there is appropriate provision made for infrastructure including;</i></p> <p>(ii) <i>whether provision is made for infrastructure including adequate water for firefighting, emergency responder access, and creation of common areas over parts of the parent site that require access by more than one site within the subdivision; and</i></p> <p><i>Note: For sites subject to the infrastructure – Water Constraints Control this includes demonstrating sufficient water supply and pressure for firefighting in accordance with SNZ 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice.</i></p> <p><i>Adequate water for firefighting is included in Te Ture ā-Rohe Whakaroto Wai me te Pae Kōtuitui Wai Para 2015 Water Supply and Wastewater Network Bylaw 2015. The bylaw provides for Watercare to refuse a connection to the water supply if the connection may detrimentally affect its</i></p>	837.6

ID	Provision	Support / oppose	Submission	Requested amendment	
				<p><u>ability to supply water at the volume and/or pressure needed for firefighting.</u></p> <p>(iii) Whether appropriate management of effects of stormwater has been provided;</p> <p>(iv) refer to Policies E38.3(1), (6), (19) to (23).</p>	
PC78: 5	<p>Matters of discretion &amp; assessment criteria – restricted discretionary activities</p> <p>E38.12.1(11) &amp; E38.12.2(11)</p>	<b>Support</b>	<p>Fire and Emergency strongly support the Water Supplies Code of Practice being an assessment criterion for subdivision in areas identified as being subject to the Infrastructure – Water Constraints Control. Fire and Emergency consider that ‘sufficient water supply and access to water supplies’ includes the supply and pressure as well as emergency responder access. Where alternative water supplies are provided on site this reinforces the need for amendments to the transport provisions to provide for emergency access.</p>		837.7
<b>Chapter H Zones</b>					
<b>H3A Residential – Low Density Residential Zone Chapter</b>					
PC78: 6	<p>Low Density Residential Zone Objective and Policy framework (H3A.2 and H3A.3)</p>	<b>Support in part</b>	<p>Overall, Fire and Emergency support the objective and policy framework.</p> <p>Fire and Emergency recognise that A1 incorporates the objectives in clause 6 of Schedule 3A of the RMA. Fire and Emergency support this objective insofar that it requires Council to provide for a well-functioning urban environment that meets the day-to-day needs of residents and enables all people and communities to provide for their health and safety, now and into the future. This would include provision of an adequate firefighting water supply and adequate emergency access and egress in the event of an emergency.</p> <p>In addition, the reference to avoiding natural hazards supports Fire and Emergency's function insofar that it helps avoid emergency situations.</p> <p>Fire and Emergency request that references to ‘drinking water’ are expanded to also consider firefighting water supply requirements to reflect the importance of firefighting water for the health and safety of residents.</p>	<p>H3A.3.(12)</p> <p>Require dwellings to be provided with access to safe and reliable drinking water, <u>adequate water for firefighting</u>, wastewater and stormwater disposal services.</p>	837.8 837.9
PC78: 7	<p>Activity table – H3A</p> <p>Emergency services adjoining an arterial road: Discretionary</p>	<b>Support in part</b>	<p>Fire and Emergency support an activity for emergency service facilities being listed as an activity in zones. New fire stations may be necessary in order to continue to achieve emergency response time commitments in situations where development occurs, and populations change. In this regard it is noted that Fire and Emergency is not a requiring authority under section 166 of the RMA, and therefore does not have the ability to designate land for the purposes of fire stations. Provisions within the rules of the district plan are therefore the best way to facilitate the development of any new fire stations within the district as urban development progresses.</p> <p>Fire and Emergency request that emergency service facilities are included as a permitted activity. In addition, fire stations have specific requirements with relation to setback distances and vehicle crossings. Fire and Emergency request that emergency service facilities are exempt from these standards.</p>	<p>Amend emergency services to be a permitted activity exempt from standards including yards, vehicle crossings etc.</p>	837.10



ID	Provision	Support / oppose	Submission	Requested amendment	
PC78: 8	H3A.6.14 Outdoor living space	<b>Support in part</b>	<p>Fire and Emergency support the provision of an outdoor living space on the premise that while not directly intended, may provide access for emergency services and space for emergency egress.</p> <p>As above, Fire and Emergency acknowledge that firefighting access requirements are managed through the NZBC however consider it important that these controls are brought to the attention of plan users (i.e. developers) in the resource consent process so that they can incorporate the NZBC requirements early on in their building design. The NZBC requirements will have an influence over how a site is designed and consequential site layout therefore Fire and Emergency consider it important that developers incorporate these requirements into their site layout at resource consent so that Council are able to assess this design to ensure compliance with the RMA.</p> <p>Fire and Emergency therefore request that, as a minimum, an advice note is included with H3A.6.14 directing plan users to the requirements of the NZBC.</p>	<p><u>Advice note:</u></p> <p><u>Site layout requirements are further controlled by the Building Code. This includes the provision for firefighter access to buildings and egress from buildings. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</u></p>	837.11
PC78: 9	H3A.6.17 Rainwater tanks	<b>Support</b>	<p>Fire and Emergency support the enablement of rainwater tank installation as this can assist in reducing demand on the reticulated water supply and provide local resilience in droughts.</p>	No amendments sought.	837.12
PC78: 10	H3A.8.2 Assessment criteria (9) for two or more dwellings on a site	<b>Support in part</b>	<p>Fire and Emergency support H3A.8.2(9) insofar that it provides Council the ability to assess whether a development provides clear, convenient and safe access links for all modes of transport within a site.</p> <p>Fire and Emergency request that a matter of discretion is included to consider the ability for emergency services to access a site.</p>	<p>(e) whether buildings <u>and site design</u> <del>create positive frontages that contribute positively</del> to the visual amenity and safety of public streets, public open spaces, and private vehicle and pedestrian accessways by:</p> <p>i. having clearly defined fronts that provide passive surveillance from windows and balconies whilst not impacting on privacy.</p> <p>ii. maximising doors, windows and balconies over all levels on the front façades.</p> <p>iii. maximising the number of dwellings that directly front, align and orientate to public streets and private accessways (vehicle and pedestrian).</p> <p>iv. ground level dwellings closest to the street to each have direct and clearly defined pedestrian access from the street in preference to a single building entrance.</p> <p><u>v. Providing efficient and effective access for emergency responders.</u></p>	837.13
PC78: 11	H3A.8.12 (10)	<b>Support</b>	<p>Fire and Emergency strongly support the Water Supplies Code of Practice being an assessment criterion for developments containing more than one dwelling per site in areas identified as being subject to the Infrastructure – Water Constraints Control. Fire and Emergency consider that 'sufficient water supply and access to water supplies' includes the supply and pressure as well as emergency responder access. Where alternative water supplies are provided on site this reinforces the need for amendments to the transport provisions to provide for emergency access.</p>	No amendments sought	837.14
PC78: 11	H3A.8.12 (10)	<b>Support</b>	<p>Fire and Emergency strongly support the Water Supplies Code of Practice being an assessment criterion for developments containing more than one dwelling per site in areas identified as being subject to the Infrastructure – Water Constraints Control. Fire and Emergency consider that 'sufficient water supply and access to water supplies' includes the supply and pressure as well as emergency responder access. Where alternative water supplies are provided on site this reinforces the need for amendments to the transport provisions to provide for emergency access.</p>	No amendments sought	837.15

ID	Provision	Support / oppose	Submission	Requested amendment	
<b>H5 Residential – Mixed Housing Urban Zone</b>					
PC78: 12	H5.2. Objectives and H5.3 Policies	<b>Support in part</b>	<p>In general, Fire and Emergency support the objectives and policies framework.</p> <p>Fire and Emergency recognise that A1 incorporates the objectives in clause 6 of Schedule 3A of the RMA. Fire and Emergency support this objective insofar that it requires Council to provide for a well-functioning urban environment that meets the day-to-day needs of residents and enables all people and communities to provide for their health and safety, now and into the future. This would include provision of an adequate firefighting water supply and adequate emergency access and egress in the event of an emergency.</p> <p>The framework also seeks to enable density where there is capacity within existing and planned infrastructure. This is important in ensuring resilient communities are provided for.</p> <p>Fire and Emergency request that references to 'drinking water' are expanded to also consider firefighting water supply requirements to reflect the importance of firefighting water for the health and safety of residents.</p>	H5.3 (12) Require dwellings to be provided with access to safe and reliable drinking water, <u>adequate water for firefighting</u> , wastewater and stormwater disposal services.	837.16 837.17
PC78: 13	H5.4.1 Activity Table (A23) Emergency services adjoining an arterial road: Discretionary	<b>Support in part</b>	<p>Fire and Emergency support an activity for emergency service facilities being listed as an activity in zones. New fire stations may be necessary in order to continue to achieve emergency response time commitments in situations where development occurs, and populations change. In this regard it is noted that Fire and Emergency is not a requiring authority under section 166 of the RMA, and therefore does not have the ability to designate land for the purposes of fire stations. Provisions within the rules of the district plan are therefore the best way to facilitate the development of any new fire stations within the district as urban development progresses.</p> <p>Fire and Emergency request that emergency service facilities are included as a permitted activity. In addition, fire stations have specific requirements with relation to setback distances and vehicle crossings. Fire and Emergency request that emergency service facilities are exempt from these standards.</p>	Amend emergency services to be a permitted activity exempt from standards including yards, vehicle crossings etc.	837.18
PC78: 14	H5.6.8 Yards	<b>Support in part</b>	<p>As set out in section 1.2.4 of this submission, Fire and Emergency have concerns around the increased risk of fire spreading as a result of reduced boundary setbacks. Reduced setbacks can inhibit Fire and Emergency personnel from getting to the fire source or other emergency. The difficulty of access may also increase the time for fire to burn, thereby increasing the heat radiation in a confined area.</p> <p>Fire and Emergency acknowledge that firefighting access requirements and building setback controls are managed through the New Zealand Building Code (NZBC) however consider it important that these controls are brought to the attention of plan users (i.e. developers) early on in the resource consent process so that they can incorporate the NZBC requirements early on in their building design. Fire and Emergency therefore request that, as a minimum, an advice note is included with Rule 14G.2.4 directing plan users to the requirements of the NZBC.</p>	<p><u>Advice note:</u></p> <p><u>Building setback requirements are further controlled by the Building Code. This includes the provision for firefighter access to buildings and egress from buildings. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</u></p>	837.19

ID	Provision	Support / oppose	Submission	Requested amendment
PC78: 15	H5.6.14 Outdoor living space	<b>Support in part</b>	<p>Fire and Emergency support the provision of an outdoor living space on the premise that while not directly intended, may provide access for emergency services and space for emergency egress.</p> <p>As above, Fire and Emergency acknowledge that firefighting access requirements are managed through the NZBC however consider it important that these controls are brought to the attention of plan users (i.e. developers) in the resource consent process so that they can incorporate the NZBC requirements early on in their building design. The NZBC requirements will have an influence over how a site is deigned and consequential site layout therefore Fire and Emergency consider it important that developers incorporate these requirements into their site layout at resource consent so that Council are able to assess this design to ensure compliance with the RMA.</p> <p>Fire and Emergency therefore request that, as a minimum, an advice note is included with H3A.6.14 directing plan users to the requirements of the NZBC.</p>	<p><u>Advice note:</u></p> <p><u>Site layout requirements are further controlled by the Building Code. This includes the provision for firefighter access to buildings and egress from buildings. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</u></p>
PC78: 16	H5.6.20 Safety and privacy buffer from private pedestrian and vehicle accessways	<b>Support</b>	<p>Fire and Emergency support the provision of buffers for pedestrian and vehicle accessways. While not directly intended to, they can act to provide a buffer between potential fire sources and emergency responder accessways.</p>	<p>No amendments sought.</p>
PC78: 17	H5.8.2 (1) Assessment criteria	<b>Support in part</b>	<p>Fire and Emergency request explicit reference to emergency responder access needs and firefighting water supply.</p>	<p>(a) infrastructure and servicing:</p> <p>(i) Whether there is adequate capacity in the existing stormwater and public reticulated water supply and wastewater network to service the proposed development, <u>including for firefighting.</u></p> <p>(ii) Where adequate network capacity is not available, whether adequate mitigation is proposed.</p> <p>(b) building intensity, scale, location, form and appearance:</p> <p>(i) whether the intensity and scale of the activity, the building location, form and appearance is of a high-quality and compatible with the character and residential amenity provided for within the zone and compatible with the surrounding residential area.</p> <p>(c) traffic:</p> <p>(i) whether the activity avoids or mitigates high levels of additional nonresidential traffic on local roads.</p> <p>(d) location and design of parking and access (including pedestrian <u>and emergency</u> access) and parking (if provided):</p> <p>(i) whether adequate parking and access is provided or required.</p>

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ID	Provision	Support / oppose	Submission	Requested amendment	
				<p>(ii) whether car parking and accessways are integrated into the overall design of the development</p> <p>(iii) whether parking is located away from street frontages and screened from the street by buildings or landscaping</p> <p>(iv) Whether safe, well-lit pedestrian access is provided</p> <p><i>Note: see SNZ 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice for information on alternative firefighting water supplies.</i></p> <p><i>Adequate water for firefighting is included in Te Ture ā-Rohe Whakaroto Wai me te Pae Kōtuitui Wai Para 2015 Water Supply and Wastewater Network Bylaw 2015. The bylaw provides for Watercare to refuse a connection to the water supply if the connection may detrimentally affect its ability to supply water at the volume and/or pressure needed for firefighting.</i></p>	837.24
PC78: 18	H5.8.2 (4) Assessment criteria – height infringements	<b>Support in part</b>	In higher buildings, specific attention needs to be placed on maintaining water pressure. Fire and Emergency seek that this is included as a new matter for discretion where relevant when the maximum height is exceeded.	<i>(ea) the provision of effective and efficient emergency response servicing</i>	837.25
PC78: 19	H5.8.2 (21)	<b>Support</b>	Fire and Emergency strongly support the Water Supplies Code of Practice being an assessment criterion for developments containing more than one dwelling per site in areas identified as being subject to the Infrastructure – Water Constraints Control. Fire and Emergency consider that ‘sufficient water supply and access to water supplies’ includes the supply and pressure as well as emergency responder access. Where alternative water supplies are provided on site this reinforces the need for amendments to the transport provisions to provide for emergency access.	No amendments sought	837.26
<b>H6 Residential – Terrace Housing and Apartment Buildings Zone</b>					
PC78: 20	H6.2 and H6.3 Objectives and policies framework	<b>Support in part</b>	<p>In general, Fire and Emergency support the objectives and policies framework.</p> <p>Fire and Emergency recognise that A1 incorporates the objectives in clause 6 of Schedule 3A of the RMA. Fire and Emergency support this objective insofar that it requires Council to provide for a well-functioning urban environment that meets the day-to-day needs of residents and enables all people and communities to provide for their health and safety, now and into the future. This would include provision of an adequate firefighting water supply and adequate emergency access and egress in the event of an emergency.</p> <p>The framework also seeks to enable density where there is capacity within existing and planned infrastructure. This is important in ensuring resilient communities are provided for. In addition, there is also reference to development contributing to an environment that is resilient to the effects of climate change.</p>	<p>H6.3 (12) Require dwellings to be provided with access to safe and reliable drinking water, <i>adequate water for firefighting</i>, wastewater and stormwater disposal services.</p>	837.27
					837.28

ID	Provision	Support / oppose	Submission	Requested amendment	
			Fire and Emergency request that references to 'drinking water' are expanded to also consider firefighting water supply requirements to reflect the importance of firefighting water for the health and safety of residents.		
PC78: 21	Activity Table A24 Emergency services adjoining an arterial road: Discretionary	<b>Support in part</b>	<p>Fire and Emergency support an activity for emergency service facilities being listed as an activity in zones. New fire stations may be necessary in order to continue to achieve emergency response time commitments in situations where development occurs, and populations change. In this regard it is noted that Fire and Emergency is not a requiring authority under section 166 of the RMA, and therefore does not have the ability to designate land for the purposes of fire stations. Provisions within the rules of the district plan are therefore the best way to facilitate the development of any new fire stations within the district as urban development progresses.</p> <p>Fire and Emergency request that emergency service facilities are included as a permitted activity. In addition, fire stations have specific requirements with relation to setback distances and vehicle crossings. Fire and Emergency request that emergency service facilities are exempt from these standards.</p>	Amend emergency services to be a permitted activity exempt from standards including yards, vehicle crossings etc.	837.29
PC78: 22	Standard H6.6.9 Yards	<b>Support in part</b>	<p>As set out in section 1.2.4 of this submission, Fire and Emergency have concerns around the increased risk of fire spreading as a result of reduced boundary setbacks. Reduced setbacks can inhibit Fire and Emergency personnel from getting to the fire source or other emergency. The difficulty of access may also increase the time for fire to burn, thereby increasing the heat radiation in a confined area.</p> <p>Fire and Emergency acknowledge that firefighting access requirements and building setback controls are managed through the New Zealand Building Code (NZBC) however consider it important that these controls are brought to the attention of plan users (i.e. developers) early on in the resource consent process so that they can incorporate the NZBC requirements early on in their building design. Fire and Emergency therefore request that, as a minimum, an advice note is included with Rule 14G.2.4 directing plan users to the requirements of the NZBC.</p>	<p><u><i>Advice note:</i></u></p> <p><u><i>Site layout requirements including building setbacks are further controlled by the Building Code. This includes the provision for firefighter access to buildings and egress from buildings. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</i></u></p>	837.30
PC78: 23	Standard H6.6.15 Outdoor living space	<b>Support in part</b>	<p>Fire and Emergency support the provision of an outdoor living space on the premise that while not directly intended, it may provide access for emergency services and space for emergency egress.</p> <p>As above, Fire and Emergency acknowledge that firefighting access requirements are managed through the NZBC however consider it important that these controls are brought to the attention of plan users (i.e. developers) in the resource consent process so that they can incorporate the NZBC requirements early on in their building design. The NZBC requirements will have an influence over how a site is deigned and consequential site layout therefore Fire and Emergency consider it important that developers incorporate these requirements into their site layout at resource consent so that Council are able to assess this design to ensure compliance with the RMA.</p>	<p><u><i>Advice note:</i></u></p> <p><u><i>Site layout requirements are further controlled by the Building Code. This includes the provision for firefighter access to buildings and egress from buildings. Plan users should refer to the applicable controls within the Building Code to ensure compliance can be achieved at the building consent stage. Issuance of a resource consent does not imply that waivers of Building Code requirements will be considered/granted.</i></u></p>	837.31

ID	Provision	Support / oppose	Submission	Requested amendment	
			Fire and Emergency therefore request that, as a minimum, an advice note is included with H3A.6.14 directing plan users to the requirements of the NZBC.		
PC78: 24	H6.6.18 Rainwater tanks	<b>Support</b>	Fire and Emergency support the enablement of rainwater tank installation as this can assist in reducing demand on the reticulated water supply and provide local resilience to droughts.	No amendments sought.	837.32
PC78: 25	H6.6.21 Safety and privacy buffer to private pedestrian and vehicle accessways	<b>Support</b>	Fire and Emergency support the provision of buffers for pedestrian and vehicle accessways. While not directly intended to, they can act to provide a buffer between potential fire sources and emergency responder accessways.	No amendments sought.	837.33
PC78: 26	H6.8 Assessment – restricted discretionary activities H6.8.1 (2) Matters of discretion (four or more dwellings)	<b>Support in part</b>	It is essential that matters of discretion where four or more dwellings are proposed per site include Fire and Emergency matters given these intensification proposals are at higher risk.	(2) (ib) the extent to which the functional, day to day needs of residents are provided for in terms of:  A. the size and dimensions of living areas relative to the likely occupancy levels of the dwellings;  B. internal storage;  C. residential waste management, including the kerbside and/or on-site capacity for residential waste management.  <i>D. provision for emergency response services on site</i>	837.34
PC78: 27	H6.8.1 (3) Matters of discretion (integrated residential development)	<b>Support in part</b>	Fire and Emergency request explicit reference to emergency responder access needs.	(3) (iii) location and design of parking and access (including pedestrian <i>and emergency responder</i> access) and parking (if provided); and	837.35
PC78: 28	H6.8.2 (1) Assessment criteria	<b>Support in part</b>	Fire and Emergency request explicit reference to emergency responder access needs and firefighting water supply requirements.	(a) infrastructure and servicing  (i) Whether there is adequate capacity in the existing stormwater and public reticulated water supply and wastewater network to service the proposed development, <i>including adequate water for firefighting.</i>  (ii) Where adequate network capacity is not available, whether adequate mitigation is proposed.  <i>Note: see SNZ 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice for information on alternative firefighting water supplies.</i>  ...  (d) location and design of parking and access (including pedestrian <i>and emergency responder access</i> ) and parking (if provided):  (i) whether adequate parking and access is provided or required.	837.36  837.37  837.38

ID	Provision	Support / oppose	Submission	Requested amendment	
				<p>(ii) whether car parking and accessways are integrated into the overall design of the development</p> <p>(iii) whether parking is located away from street frontages and screened from the street by buildings or landscaping</p> <p>(iv) Whether safe, well-lit pedestrian access is provided</p>	
PC78: 29	H6.8.2 (2) Assessment criteria		It is essential that assessment criteria where four or more dwellings are proposed per site include Fire and Emergency matters given these intensification proposals are at higher risk.	<p>(j) infrastructure and servicing</p> <p>(i) Whether there is adequate capacity in the existing stormwater and public reticulated water supply and wastewater network to service the proposed development, <u>including adequate water for firefighting.</u></p> <p>(ii) Where adequate network capacity is not available, whether adequate mitigation is proposed.</p> <p><u>Note: see SNZ 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice for information on alternative firefighting water supplies.</u></p> <p><u>Adequate water for firefighting is included in Te Ture ā-Rohe Whakaroto Wai me te Pae Kōtuitui Wai Para 2015 Water Supply and Wastewater Network Bylaw 2015. The bylaw provides for Watercare to refuse a connection to the water supply if the connection may detrimentally affect its ability to supply water at the volume and/or pressure needed for firefighting.</u></p>	837.39  837.40
PC78: 30	H6.8.2 (21) Assessment criteria	<b>Support</b>	Fire and Emergency strongly support the Water Supplies Code of Practice being an assessment criterion for developments containing more than one dwelling per site in areas identified as being subject to the Infrastructure – Water Constraints Control. Fire and Emergency consider that ‘sufficient water supply and access to water supplies’ includes the supply and pressure as well as emergency responder access. Where alternative water supplies are provided on site this reinforces the need for amendments to the transport provisions to provide for emergency access.	No amendments sought	837.41
<b>H8 Business – City Centre Zone</b>					
PC78: 31	Standard H8.6.34 Through-site links	<b>Support</b>	Fire and Emergency support the intention of through-site links for their indirect benefit for on-site emergency responder access.	No amendments sought	837.42
PC78: 32	H8.8.1 (6) Matters of discretion	<b>Support in part</b>	As detailed in the submission, infringements with relation to height and setbacks can have implications on emergency servicing. Fire and Emergency seek that this is included as a new matter for discretion.	<p>(6) infringement of general building height, building in relation to boundary, streetscape improvement and landscaping, maximum tower dimension, setback from the street and tower separation in special height area, and building setback from boundaries standards:</p> <p>(a) effects of additional building bulk and scale on neighbouring sites, streets and public open spaces</p>	

ID	Provision	Support / oppose	Submission	Requested amendment
				<p><i>(sunlight and daylight access, dominance, visual amenity, and landscape character);</i></p> <p><i>(b) consistency with the existing and planned built future form and character of the area/zone; including enabling well-designed buildings which have a human scale podium and slender towers above to maximise sunlight, daylight and outlook, or where towers are not possible, buildings should be well-designed and complement the streetscape and skyline; and</i></p> <p><i>(c) site specific characteristics;</i></p> <p><u><i>(d) the provision of effective and efficient emergency responder servicing</i></u></p>

837.43



Appendix B – Access issues and manoeuvrability requirements

# Access issues and maneuverability requirements

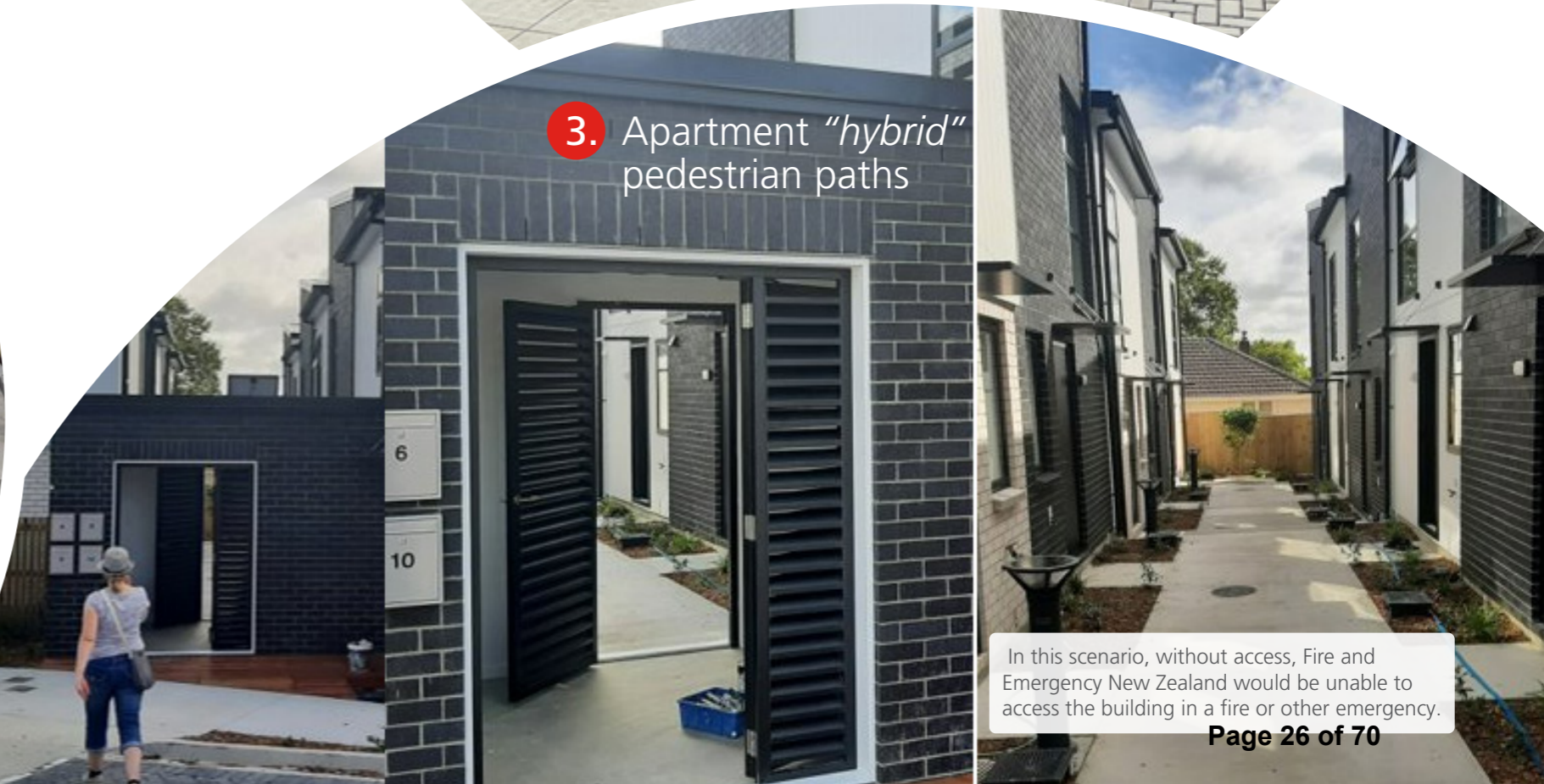
During an emergency, Fire and Emergency New Zealand is most efficient and effective when fire appliances and firefighting personnel have fast and clear access. Delays accessing and dealing with a fire may risk the safety of people and their property. Clear dwelling/unit numbering and lighting is critical to responders being able to quickly identify the affected property. Firefighters and emergency responders are at greater risk of injury and need to move more cautiously when they are operating on uneven ground, kerbs, stairs and other obstructions. Clear, unobstructed and well-lit access ways help to ensure the safety of responders and those they are assisting. The photographs below have been provided by Auckland Council to Fire and Emergency New Zealand showing recently constructed new developments and associated accessways. These private pedestrian accessways illustrate the long, narrow pedestrian only accesses and various obstructions that adversely impact Fire and Emergency's ability to respond efficiently and effectively in an emergency. Further, some of the attached images, although granted resource consent are likely to be in conflict to the New Zealand Building Code (in particular 20m access to the building for firefighting or 75m hose length to the further point). This demonstrates that exemptions are often given at the building consent stage.



2. Shared pedestrian and vehicle access



1. Private pedestrian access



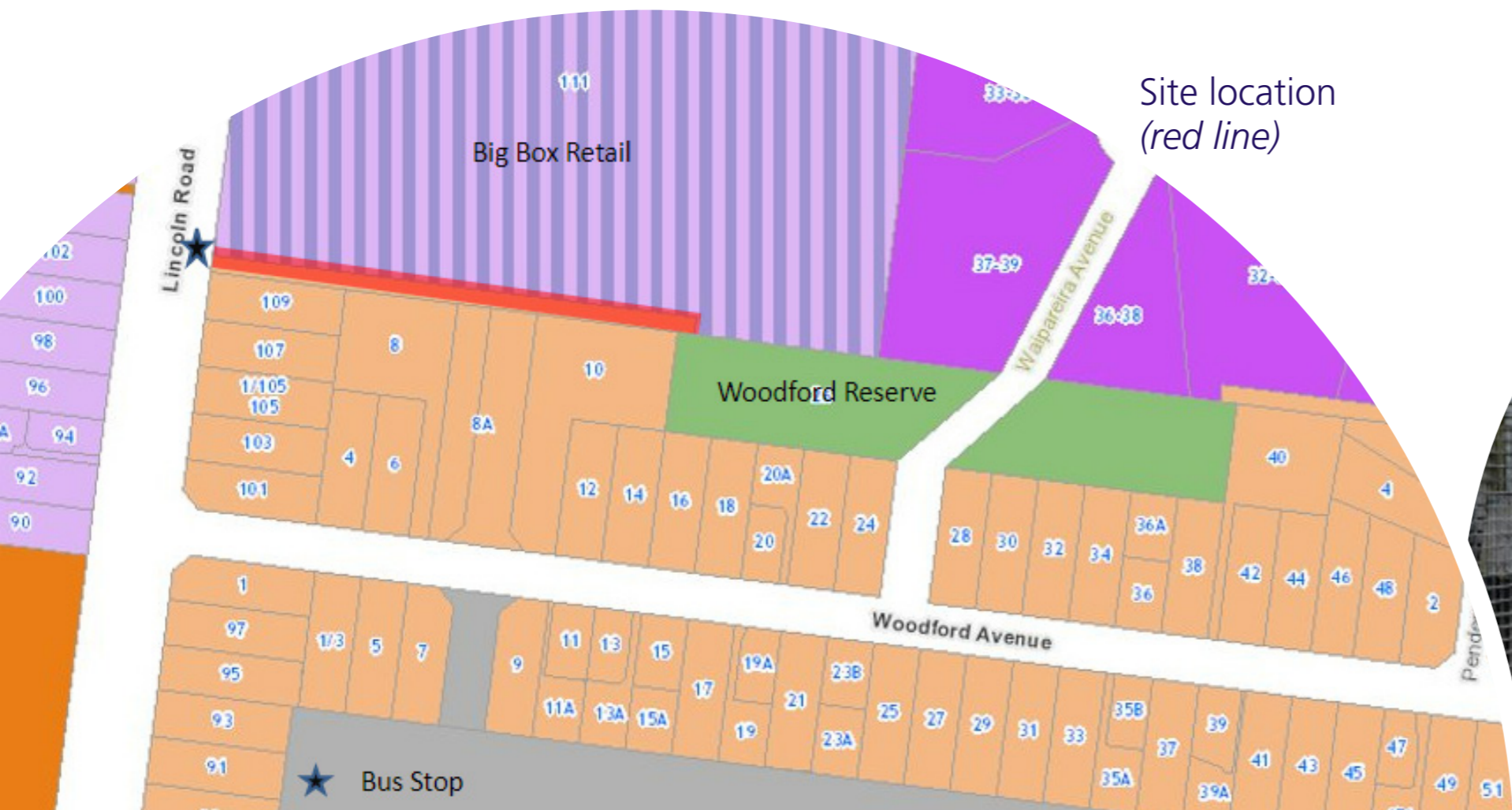
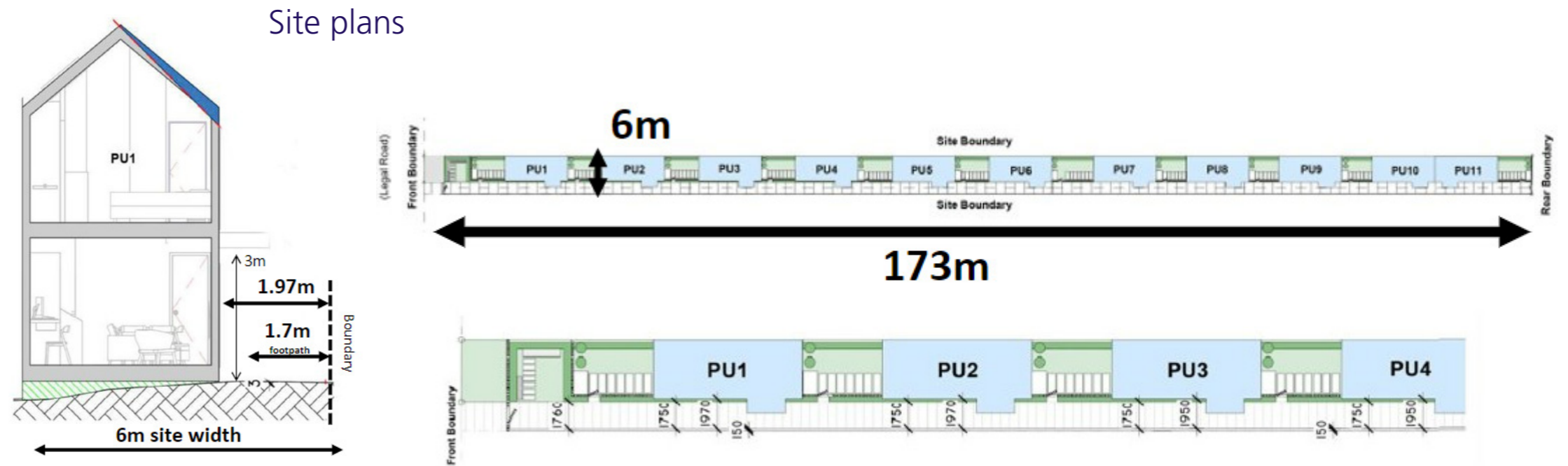
3. Apartment "hybrid" pedestrian paths

In this scenario, without access, Fire and Emergency New Zealand would be unable to access the building in a fire or other emergency.

4. Case Study - Lincoln Road, Henderson

Identified issues:

- 11 one-bedroom units
- Pedestrian path 1.73m wide within maximum overall width of 1.9m
- No stopping on Lincoln Rd and bus stop immediately outside site
- Pedestrian only access is 173m, exceeding maximum hose run distances of 75m from the nearest hydrant.



**George Bramer**

---

**From:** Unitary Plan  
**Sent:** Wednesday, 28 September 2022 1:16 pm  
**To:** Unitary Plan  
**Subject:** Unitary Plan Publicly Notified Submission - Plan Change 78 - Fire and Emergency New Zealand  
**Attachments:** 960 Whangaparaoa Road - PC78 Submission.pdf; Appendix 1 - Infrastructure Report.pdf

The following customer has submitted a Unitary Plan online submission.

**Contact details**

Full name of submitter: Fire and Emergency New Zealand

Organisation name:

Agent's full name: Holly McGrouther

Email address: hmcgrouther@propertygroup.co.nz

Contact phone number: 0277740989

Postal address:  
PO Box 104  
Shortland Street  
Auckland  
Auckland 1140

**Submission details**

**This is a submission to:**

Plan change number: Plan Change 78

Plan change name: PC 78: Intensification

**My submission relates to**

Rule or rules:  
Refer to attached document.

Property address: 960 Whangaparaoa Road, Manly

Map or maps:

Other provisions:  
Refer to attached document.

Do you support or oppose the provisions you have specified? I or we oppose the specific provisions identified

Do you wish to have the provisions you have identified above amended? Yes

The reason for my or our views are:  
Refer to attached documents.

I or we seek the following decision by council: Approve the plan change with the amendments I requested

Details of amendments: Refer to attached documents,

Submission date: 28 September 2022

Supporting documents

960 Whangaparaoa Road - PC78 Submission.pdf

Appendix 1 - Infrastructure Report.pdf

## **Attend a hearing**

Do you wish to be heard in support of your submission? Yes

Would you consider presenting a joint case at a hearing if others have made a similar submission? No

## **Declaration**

Could you gain an advantage in trade competition through this submission? No

Are you directly affected by an effect of the subject matter of this submission that:

- Adversely affects the environment; and
- Does not relate to trade competition or the effects of trade competition.

No

I accept by taking part in this public submission process that my submission (including personal details, names and addresses) will be made public.



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# Proposed Plan Change 78 Submission

**The Property Group Limited**

Auckland Office  
PO Box 104, Auckland 1140  
Level 14, 55 Shortland Street  
Auckland 1010

**To** Auckland Council  
**From** Holly McGrouther – Senior Planner, The Property Group Limited  
**Date** 28 September 2022

**SUBMISSIONS ON PROPOSED PLAN CHANGE 78 – AUCKLAND COUNCIL  
Under Clause 6 of the First Schedule, Resource Management Act 1991**

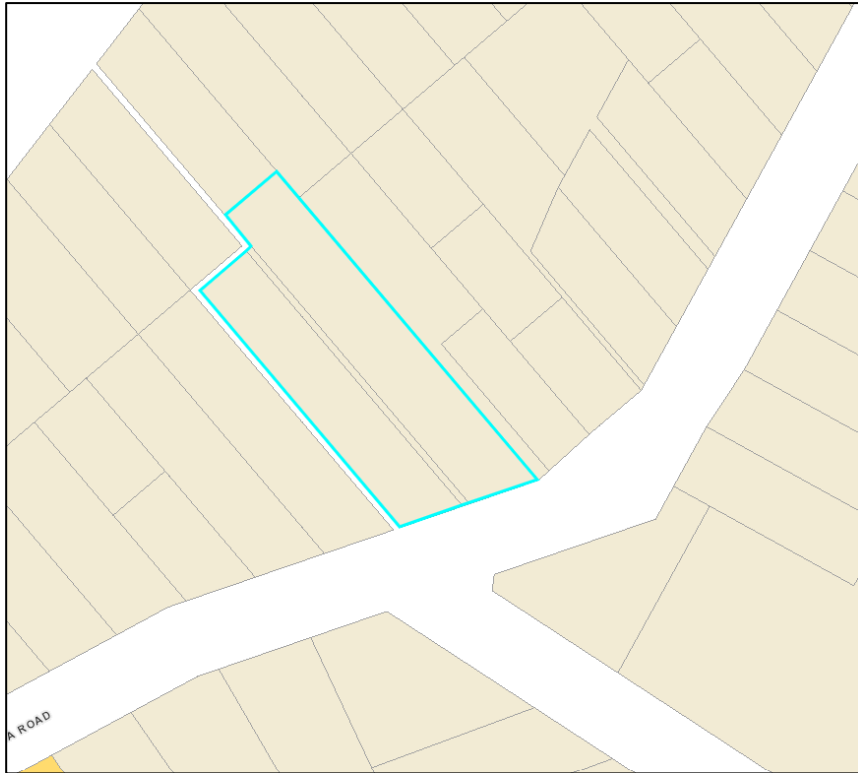
To Auckland Council  
Private Bag 92300  
Victoria Street West  
Auckland 1142

## 1. Introduction

- 1.1 This submission is made on behalf of Fire and Emergency New Zealand on Auckland Council's Proposed Plan Change 78.
- 1.2 The address to which this submission relates to is 960 Whangaparaoa Road, Manly (Pt Lot 582 DP 17816, Lot 1 DP 67002, Allot 614 Psh Of Waiwera SO 44498).

## 2. Submission

- 2.1 The site is currently within the Residential – Single House Zone under the Auckland Unitary Plan: Operative in Part. The site is only subject to the Macroinvertebrate Community Index (Urban) Control. No other notations are listed on the site.
- 2.2 Auckland Council's Proposed Plan Change 78 seeks to rezone the site to Residential – Mixed Housing Urban Zone.
- 2.3 The is subject to one Qualifying Matters under Proposed Plan Change 78:
  - Water and/or Wastewater Constraints Control.



**Figure 1:** Image showing the site's zoning (Residential – Single House Zone) under the Auckland Unitary Plan: Operative in Part.



**Figure 2:** Image showing the site's proposed zoning (Residential – Mixed Housing Urban Zone) under Proposed Plan Change 78.

2.4 Fire and Emergency New Zealand **supports** the proposed Residential – Mixed Housing Urban Zoning of the site under Proposed Plan Change 78.

2.5 Fire and Emergency New Zealand **opposes** the proposed Qualifying Matter in relation to Water and/or Wastewater Constraints Control under proposed Plan Change 78. Instead, Fire and Emergency New Zealand submits that this proposed Qualifying Matter should be removed from the site.

### 3. Reasons for the Submission

3.1 The site is currently contained within the Residential – Single House (SH) Zone. However, under Proposed Plan Change 78 it has been rezoned to Residential – Mixed Housing Urban (MHU) Zone.

3.2 Fire and Emergency New Zealand submits that this proposed zoning is appropriate for the site as it will allow for higher intensity development than what was previously provided for under the SH Zone, which is consistent with Auckland Council's initiative of more development throughout the city.

3.3 The site is located near many amenities such as Manly Beach, Manly Park, and the Manly Town Centre. The close proximity of such amenities illustrate that the proposed MHU zoning of the site is appropriate. In addition, the proposed MHU zoning will be consistent with the surrounding properties, which are also proposed to change from SH zone to MHU zone under Proposed Plan Change 78.

3.4 With regards to the Qualifying Matter in relation to Water and/or Wastewater Constraints, it is noted that there are wastewater connections available near the rear boundary of the site, and it is likely that the existing fire station on the site is connected to this wastewater line. Two water mains are located on Whangaparaoa Road, directly outside the site. As such, there is no need for this qualifying matter as it will restrict the development potential of the site.

3.5 Please refer to the attached Infrastructure Report for more information on site servicing (it is noted that this infrastructure report was completed to support Resource Consent BUN60380553 that was granted on 28 October 2021).

### 4. Amendment Sought

4.1 Fire and Emergency New Zealand requests that the Water and/or Wastewater Constraints Control Qualifying Matter is removed from the site under Proposed Plan Change 78, to ensure the efficient use of land in accordance with Part 2, Section 7(b) of the Act.

### 5. Procedural Matters

5.1 Fire and Emergency New Zealand wishes to be heard in support of this submission.

5.2 Fire and Emergency New Zealand does not seek or gain advantage in trade competition through this submission.



Infrastructure Report  
Allot 614 Parish of Waiwera,  
Lot 1 DP 67002 & Pt Lot 582 DP 17816  
960 Whangaparaoa Road, Manly  
for Fire & Emergency New Zealand



Jackson Clapperton & Partners Ltd  
Consulting Engineers & Registered Surveyors  
16A SAUNDERS PLACE, AVONDALE  
PO BOX 71.065, ROSEBANK ROAD  
PHONE (09) 8200 131 FAX (09) 8200 133  
email - jcp.ltd@xtra.co.nz

# Jackson Clapperton & Partners Ltd

RC 78 Sub #837

Chartered Engineers

Geomechanics Laboratory

Registered Surveyors

16a Saunders Place, Avondale, Auckland 1026

PO Box 71065 Rosebank Road, Auckland 1348

e-mail: jcp.ltd@xtra.co.nz

Ph: (09) 820 0131

(09) 820 0132

(09) 820 0133

FENZ

Ref: 2020/366

C/o The Property Group

PO Box 104

Shortland Street

AUCKLAND 1140

10 May 2021

Attention: Raymond Huang

Dear Sir,

**RE: UPDATED INFRASTRUCTURE APPRAISAL  
FOR POTENTIAL DEVELOPMENT OF MANLY FIRE STATION  
960 WHANGAPARAOA ROAD, WHANGAPARAOA**

## INTRODUCTION:

Fire & Emergency New Zealand are proposing a re-development of the Fire Station at 960 Whangaparaoa Road, which includes subdividing the property to create two new residential lots at the rear of the fire station.

This practice has been engaged to undertake an infrastructure appraisal for the proposed development, to assess feasibility, based on the concept plans by Black Box Architects Ltd, attached.

## SITE DESCRIPTION:

The property lies to the north of Whangaparaoa Road, opposite the junction with Walbrook Road and is presently occupied by the Manly Fire Station. Ground levels fall from the road to the rear of the property at a grade of approximately 15%. The land behind the fire station is grassed and a pedestrian walkway follows the western and northern boundary to link with Beach Road to the north.

## STORMWATER:

An investigation of the existing public stormwater system confirms the GIS data. A catchpit, alongside the footpath at the top of the steps to Beach Road, discharges into a manhole (2000131822) to the north of No. 17 Beach Road. This in turn flows to a catchpit on the southern side of Beach Road, (2000290915), a catchpit on the northern side of Beach Road (2000803102) and SW manhole (2000929327).

An extension to the public SW system will be required to serve the proposed subdivision. Due to the location of SWMH 2000131822 it is not practical to directional drill to the manhole and the proposal is to place a new manhole over the 525mm diameter line running down Beach Road and to trench/directional drill across the road and under the existing walkway to provide a public connection to the proposed new lots and the existing fire station. This was proposed, and accepted as a reasonable solution, at the

Partners: A.W. (Tony) Smith BE, C.M.Eng.NZ., Int. P.E.  
M.S. Dittmer BSc, BE, G.M.Eng.NZ.

T.W. Stanbury Dip LSSc, RICS, NZCE

Members of the Association of Consulting Engineers (ACENZ) and the New Zealand Institute of Surveyors

pre-application meeting. Further information from that meeting has resolved that stormwater treatment will not be required for the proposed subdivision as it is not a requirement of the "Small Brownfield development". However, calculations have shown that the existing public stormwater system, into which we are connecting, is under capacity and detention tanks will be required for future development of the property. These tanks will be sized based on the proposed impermeable coverage and will be required at Building Consent stage.

The Council GIS plans do not identify any overland flow path or flooding issues within the property.

The proposed stormwater lines are shown on the scheme plan, and long section attached, together with the stormwater calculations.

#### **WASTEWATER:**

Council GIS plans show a 150mm AC public wastewater line crossing the property near the rear boundary, with two, 100mm diam. existing connections that would be available for the proposed residential lots. It is likely that the existing station is connected to one of these connections.

As each lot is required to have a separate connection, a new public manhole is to be installed over this line and the existing public system extended to provide a public wastewater connection to the fire station.

#### **WATER SUPPLY:**

Council GIS plans show a 110 PE watermain on the northern side of Whangaparaoa Road with a fire hydrant at the south eastern corner of the subject property. A 250 PE watermain is on the southern side of Whangaparaoa Road.

The existing fire hydrant provides adequate cover for the proposed residential development and new connections can be provided to supply the proposed lots.

#### **SERVICES:**

The services plans attached show the underground power, gas and telephone services in the road berm adjacent to the property.

#### **CONCLUSION:**

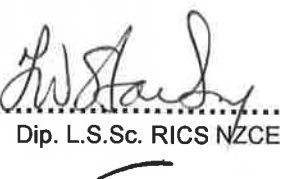
On the basis of our "in office" appraisal of Council and Services plans, we consider that the infrastructure services for sanitary sewer, water supply, power, gas and communications are all available and can be extended to serve the proposed development.

An extension to the public stormwater system in Beach Road is proposed, and the public wastewater line is to be extended to provide a public connection to the fire station.

An assessment of the capacity of the downstream stormwater system has shown that the system is under capacity for the maximum potential development allowing for climate change and stormwater detention will be required, at building stage, for the development.

Yours faithfully  
**Jackson Clapperton & Partners Limited**

T. W. Stanbury.....  
Dip. L.S.Sc. RICS NZCE



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PO Box 71 065, Rosebank, Auckland 1348  
Ph: (09) 820 0131  
email - jcp.ltd@xtra.co.nz

Ref: 2020/366

Project: FENZ Manly - 960 Whangaparaoa Road

Date: 05.05.21

## Stormwater Calculations

Capacity check on existing 525mm Ø SW line 2000594899 between manholes 2000929327 and 2000675107

Catchment Area = 48,382m<sup>2</sup> (refer plan attached)

Allowing for maximum potential development and climate change

Assume 60% of catchment is Impervious area and 40% of catchment is Pervious area  
ie. 29,029 m<sup>2</sup> @ CN 98 and 19,353m<sup>2</sup> @ CN 74

From TP 108 worksheets 1 & 2

Peak Flow Rate = 1.24m<sup>3</sup>/s

From our survey and Council GIS manhole levels (2000675107 could not be located)  
the capacity of the 525mm RC pipe at 6.36% = 0.94m<sup>3</sup>/s

The line is therefore under capacity and detention tanks will be required for any future development.

### NEW PUBLIC SW LINES

From TP 108 WS1 & WS2

Catchment to SWMH 4 - 2130m<sup>2</sup>

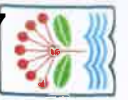
Peak flow = 54 l/s - 225 Ø @ 15.88% - capacity = 143 l/s

Catchment to SWMH 2/3 - 3157m<sup>2</sup>

Peak flow = 90 l/s - 220 Ø @ 18.10% - capacity = 146 l/s

Catchment to SWMH1 - 5627m<sup>2</sup>

Peak flow = 144 l/s - 300 Ø @ 4.94% - capacity = 172 l/s



**Auckland Council**  
The Authority for Auckland's Future



**CATCHMENT AREA**  
**48,382m<sup>2</sup>**

0 25 50 75  
Meters

Scale @ A3  
= 1:2,500

Date Printed:  
5/05/2021

**FENZ Manly catchment**

MAPPER

This map is illustrative only and all information should be independently verified on site before taking any action. Copyright Auckland Council. Land Parcel Boundary information from LTRZ (Open Space/Recreation Reserve). While due care has been taken, Auckland Council gives no warranty as to the accuracy and completeness of any information on this map/print and accepts no liability for any error, omission or loss of the information. Project status: Approved 1948.

**Worksheet 1: Runoff Parameters and Time of Concentration**

Project                      Subdivision                      By TWS Date 05.05.21

Location 960 Whangaparaoa Rd Checked                      Date                     

Circle one: Present  **Developed**

**1. Runoff Curve Number (CN) and Initial Abstraction (Ia)**

Soil name and classification	Cover description (cover type, treatment, and hydrologic condition)	Curve Number CN*	Area m <sup>2</sup>	Product of CN × area
Group C	Road, roof & driveway	98	29,029	2,844,842
	Pervious area	74	19,353	1,432,122
* from Appendix B			Totals =	
			48,382	4,276,964

$$CN \text{ (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{4,276,964}{48,382} = \underline{88.40}$$

$$Ia \text{ (weighted)} = \frac{5 \times \text{pervious area}}{\text{total area}} = \frac{5 \times 19,353}{48,382} = \underline{2.00} \text{ mm}$$

**2. Time of Concentration**

Channelisation factor ..... C =                      (from Table 4.2)

Catchment length ..... L =                      km (along drainage path)

Catchment slope ..... S<sub>c</sub> =                      m/m (by equal area method)

$$\text{Runoff factor, } \frac{CN}{200 - CN} = \frac{CN}{200 - CN} = \underline{                    }$$

$$t_c = 0.14 C L^{0.66} \left( \frac{CN}{200 - CN} \right)^{-0.55} S_c^{-0.30}$$

$$= 0.14 \times \underline{                    } \times \underline{                    }^{0.66} \times \underline{                    }^{-0.55} \times \underline{                    }^{-0.30} = \underline{0.17} \text{ hrs}$$

SCS Lag for HEC-HMS... t<sub>p</sub> = 2/3 t<sub>c</sub> =                      hrs

**Worksheet 2: Graphical Peak Flow Rate**

Project Subdivision By TWS Date 05.05.21

Location 960 WHangaparaoa Rd Checked \_\_\_\_\_ Date \_\_\_\_\_

Circle one: Present  **Developed**

1. Data

Catchment area ..... A = 0.048382 km<sup>2</sup>

Runoff curve number ..... CN = 88.40 (from Worksheet 1)

Initial abstraction ..... Ia = 2.00 mm (from Worksheet 1)

Time of concentration ..... t<sub>c</sub> = 0.17 hrs (from Worksheet

1)

2. Calculate storage,  $S = \left(\frac{1000}{CN} - 10\right) 25.4 = \underline{33.33}$  mm

3. Average recurrence interval, ARI (yr)

4. 24 hour rainfall depth, P<sub>24</sub> (mm)

5. Compute  $c^* = \frac{P_{24} - 2Ia}{P_{24} - 2Ia + 2S}$

6. Specific peak flow rate, q\* (from figure 5.1)

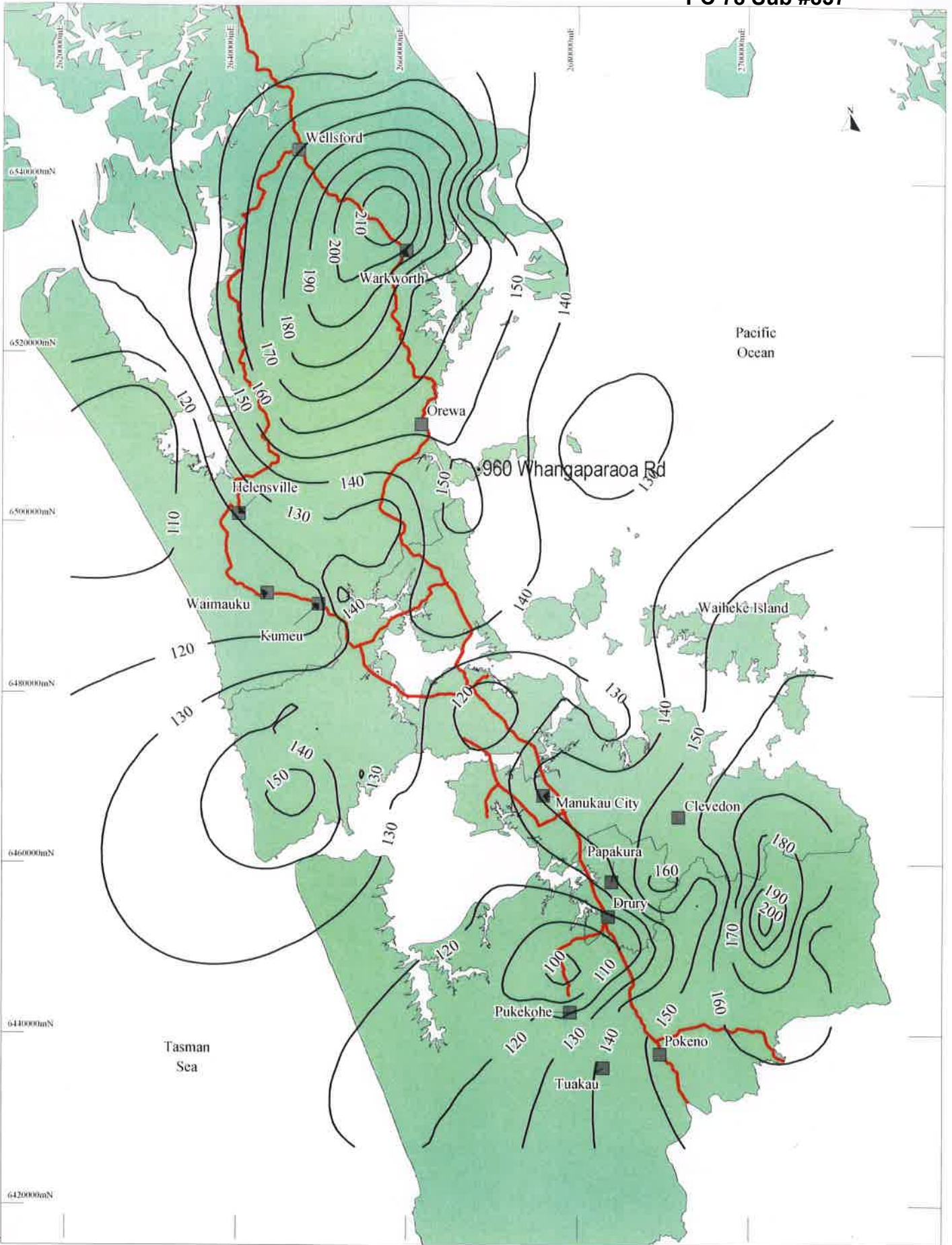
7. Peak flow rate, q<sub>p</sub> = q\* A P<sub>24</sub> (m<sup>3</sup>/s)

8. Runoff depth,  $Q_{24} = \frac{(P_{24} - Ia)^2}{(P_{24} - Ia) + S}$  (mm)

9. Runoff volume, V<sub>24</sub> = 1000×Q<sub>24</sub>A (m<sup>3</sup>)

Storm #1	Storm #2	Storm #3
10yr		
168.7	149 + 13.2% climate change	
0.71		
0.152		
1.24		
138.9		
6720		





Workspace: N:\civil\252507757\gis\mapinfo\wor\10yrari wor Date: 25/08/1999

**A**



Auckland Regional Council

**Legend:** — 90 — Rainfall Contour (mm)  
 — State Highways

**Figure A.3**  
**10 Year ARI**  
**Daily Rainfall Depth**

Scale: 1:600,000 (at A4)

Revised 25/08/1999

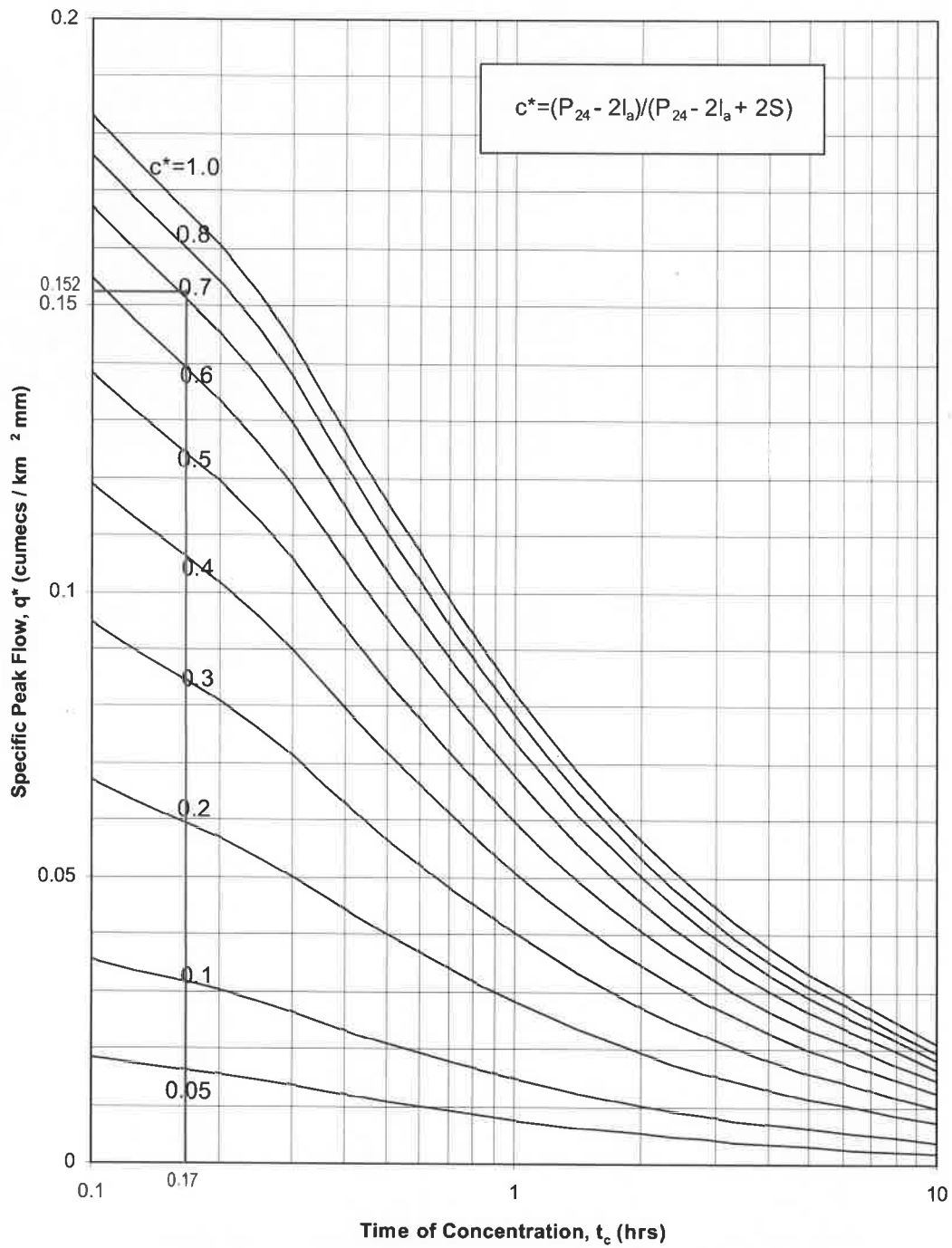


Figure 5.1 - Specific Peak Flow Rate

**Worksheet 1: Runoff Parameters and Time of Concentration**

Project                      Subdivision                      By TWS Date 05.05.21

Location 960 Whangaparaoa Rd Checked                      Date                     

Circle one: Present  **Developed**  Proposed new lines

**1. Runoff Curve Number (CN) and Initial Abstraction (Ia)**

Soil name and classification	Cover description (cover type, treatment, and hydrologic condition)	Curve Number CN*	Area m <sup>2</sup>	Product of CN × area
Group C	Roof & Driveway (60%)	98	3376	330,848
	Pervious Area (40%)	74	2251	166,574
Totals =			5,627	497,422

\* from Appendix B

$$CN \text{ (weighted)} = \frac{\text{total product}}{\text{total area}} = \frac{497422}{5627} = 88.40$$

$$Ia \text{ (weighted)} = \frac{5 \times \text{pervious area}}{\text{total area}} = \frac{5 \times 2251}{5627} = 2.00 \text{ mm}$$

**2. Time of Concentration**

Channelisation factor ..... C =                      (from Table 4.2)

Catchment length ..... L =                      km (along drainage path)

Catchment slope ..... S<sub>c</sub> =                      m/m (by equal area method)

$$\text{Runoff factor, } \frac{CN}{200 - CN} = \frac{88.40}{200 - 88.40} = 0.44$$

$$t_c = 0.14 C L^{0.66} \left( \frac{CN}{200 - CN} \right)^{-0.55} S_c^{-0.30}$$

$$= 0.14 \times 1 \times 0.66 \times 0.44^{-0.55} \times 0.30^{-0.30} = 0.17 \text{ hrs}$$

SCS Lag for HEC-HMS... t<sub>p</sub> = 2/3 t<sub>c</sub> = 0.17 hrs

**Worksheet 2: Graphical Peak Flow Rate**

**Project**                      **Subdivision**                      **By** TWS **Date** 05.05.21

**Location** 960 Whangaparaoa Rd **Checked**                      **Date**                     

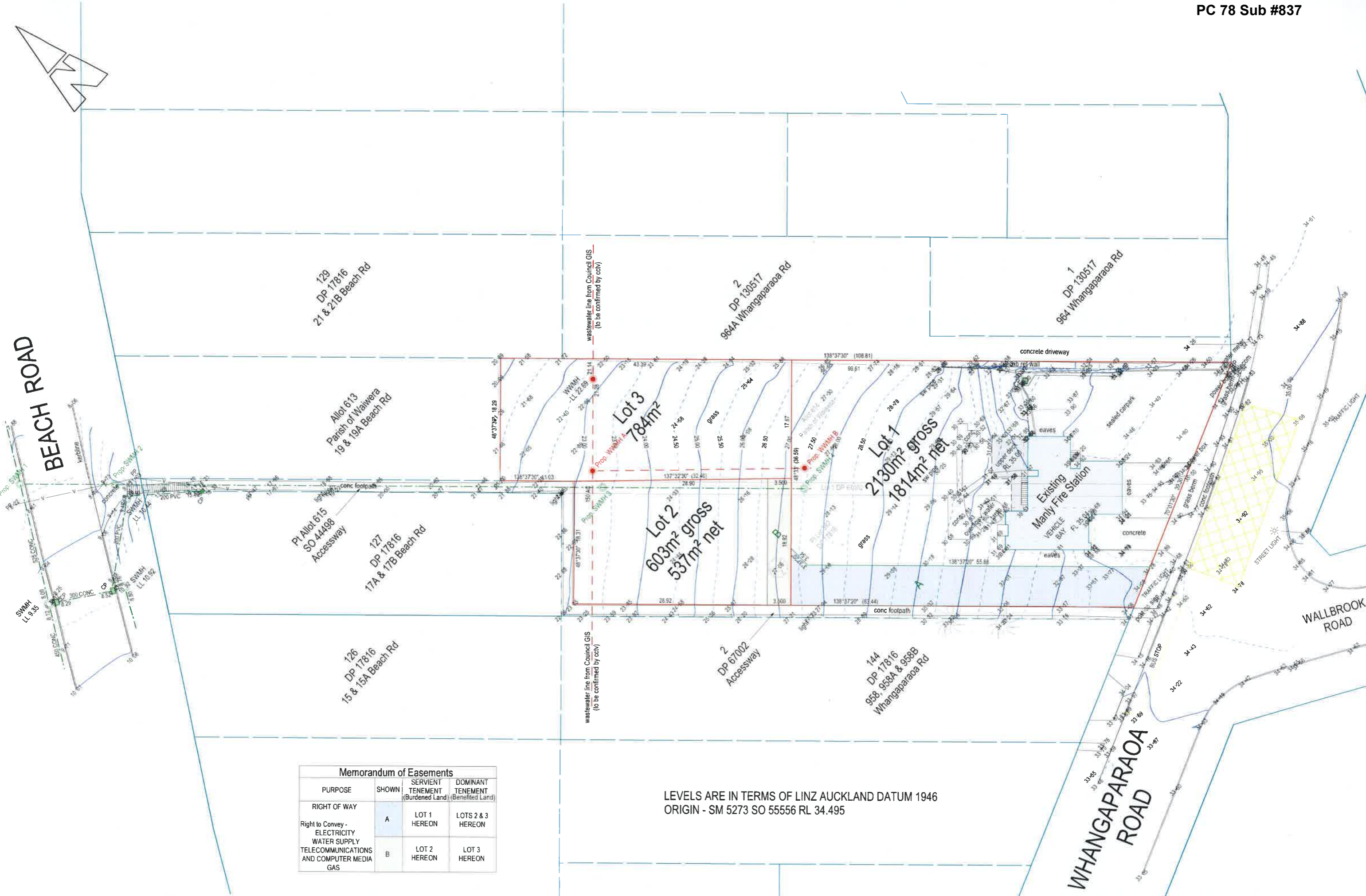
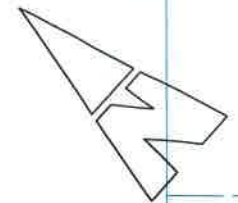
**Circle one:** **Present**  **Developed**  **New SW lines**

1. Data
- 0.002130 to SWMH 4  
0.003157 to SWMH 2 & 3  
0.005627 to SWMH 1
- Catchment area ..... A =                      km<sup>2</sup>
- Runoff curve number ..... CN = 88.40 (from Worksheet 1)
- Initial abstraction ..... Ia = 2.00 mm (from Worksheet 1)
- Time of concentration ..... t<sub>c</sub> = 0.17 hrs (from Worksheet

1)

2. Calculate storage,  $S = \left( \frac{1000}{CN} - 10 \right) 25.4 = \underline{33.33}$  mm

	to MH 4	to MH 2/3	to MH 1
3. Average recurrence interval, ARI (yr)	<b>Storm #1</b> 10	<b>Storm #2</b> 10	<b>Storm #3</b> 10
4. 24 hour rainfall depth, P <sub>24</sub> (mm)	168.7	168.7	168.7
5. Compute $c^* = \frac{P_{24} - 2Ia}{P_{24} - 2Ia + 2S}$	0.71	0.71	0.71
6. Specific peak flow rate, q* (from figure 5.1)	0.152	0.152	0.152
7. Peak flow rate, q <sub>p</sub> = q* A P <sub>24</sub> (m <sup>3</sup> /s)	0.054	0.090	0.144
8. Runoff depth, $Q_{24} = \frac{(P_{24} - Ia)^2}{(P_{24} - Ia) + S}$ (mm)	138.9	138.9	138.9
9. Runoff volume, V <sub>24</sub> = 1000×Q <sub>24</sub> A (m <sup>3</sup> )	296	488	782



Memorandum of Easements			
PURPOSE	SHOWN	SERVIENT TENEMENT (Burdened Land)	DOMINANT TENEMENT (Benefitted Land)
RIGHT OF WAY	A	LOT 1 HEREON	LOTS 2 & 3 HEREON
Right to Convey - ELECTRICITY WATER SUPPLY TELECOMMUNICATIONS AND COMPUTER MEDIA GAS	B	LOT 2 HEREON	LOT 3 HEREON

LEVELS ARE IN TERMS OF LINZ AUCKLAND DATUM 1946  
ORIGIN - SM 5273 SO 55556 RL 34.495

Revision	Description	Date	Sign

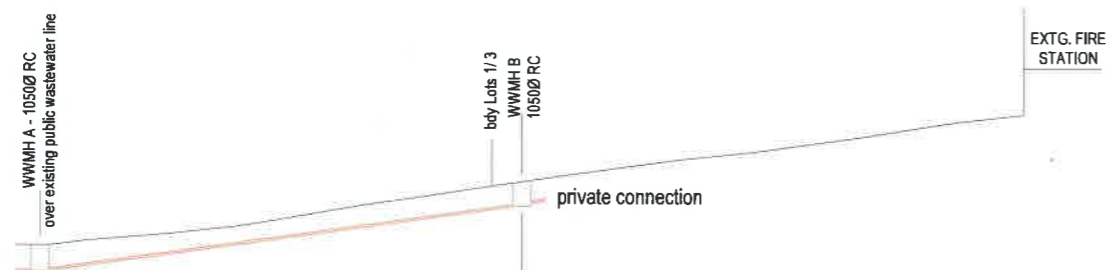
Proposed Subdivision of Allot 614 Parish of Waiwera, Lot 1 DP 67002 & Pt Lot 582 DP 17816  
960 Whangaparaoa Road, Manly - FENZ MANLY



Jackson Clapperton & Partners Ltd  
Consulting Engineers & Registered Surveyors  
16A SAUNDERS PLACE, AVONDALE  
PO BOX 71 065, ROSEBANK ROAD  
PHONE (09) 8200 131 FAX (09) 8200 133  
email - jcp.ltd@xtra.co.nz

Ref: 2020/366  
Date: 10.05.21  
Page 45 of 70  
1:250 @ A1

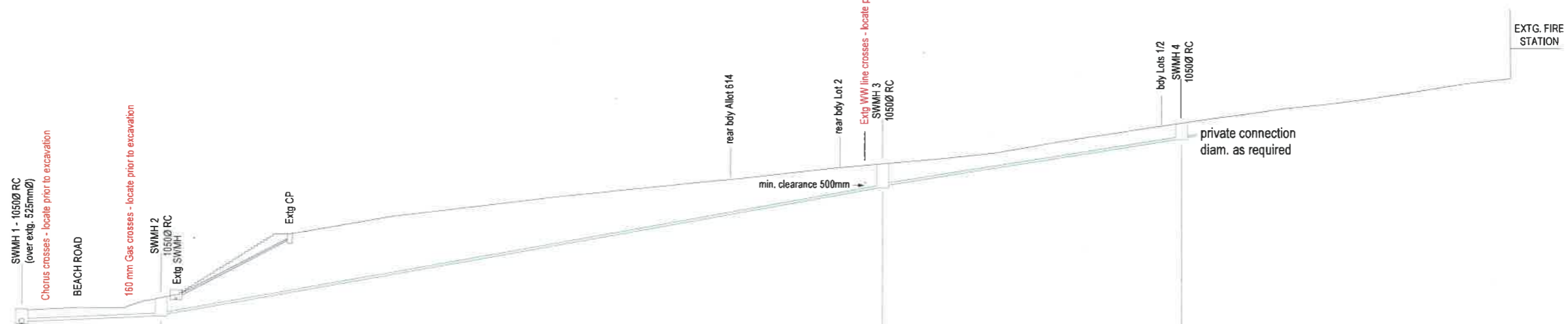
SHEET  
**1**



HAD 10.00

150 Ø uPVC SN16 RRJ

Cut to Invert	1.75	1.52	1.30
Ground Level	23.20	27.40	
Invert Level	21.45	25.88	26.10
Distance	00.00	(31.87)	
Manhole No/ Grade	WW A	13.63%	SW 4



HAD 0.00

Cut to Invert	1.16	1.86	1.64	2.45	2.14	1.64	1.42
Ground Level	8.39	9.65		23.39		27.52	
Invert Level	6.93	7.15	7.79	8.01	20.94	21.25	25.88
Distance	00.00	(14.00)		(72.50)	86.50	(30.20)	116.70
Manhole No/ Grade	SW 1	4.94%	SW 2	18.10%	SW 3	15.88%	SW 4

Revision	Description	Date	Sign

## Proposed Public Stormwater & Wastewater Extension - FENZ Manly

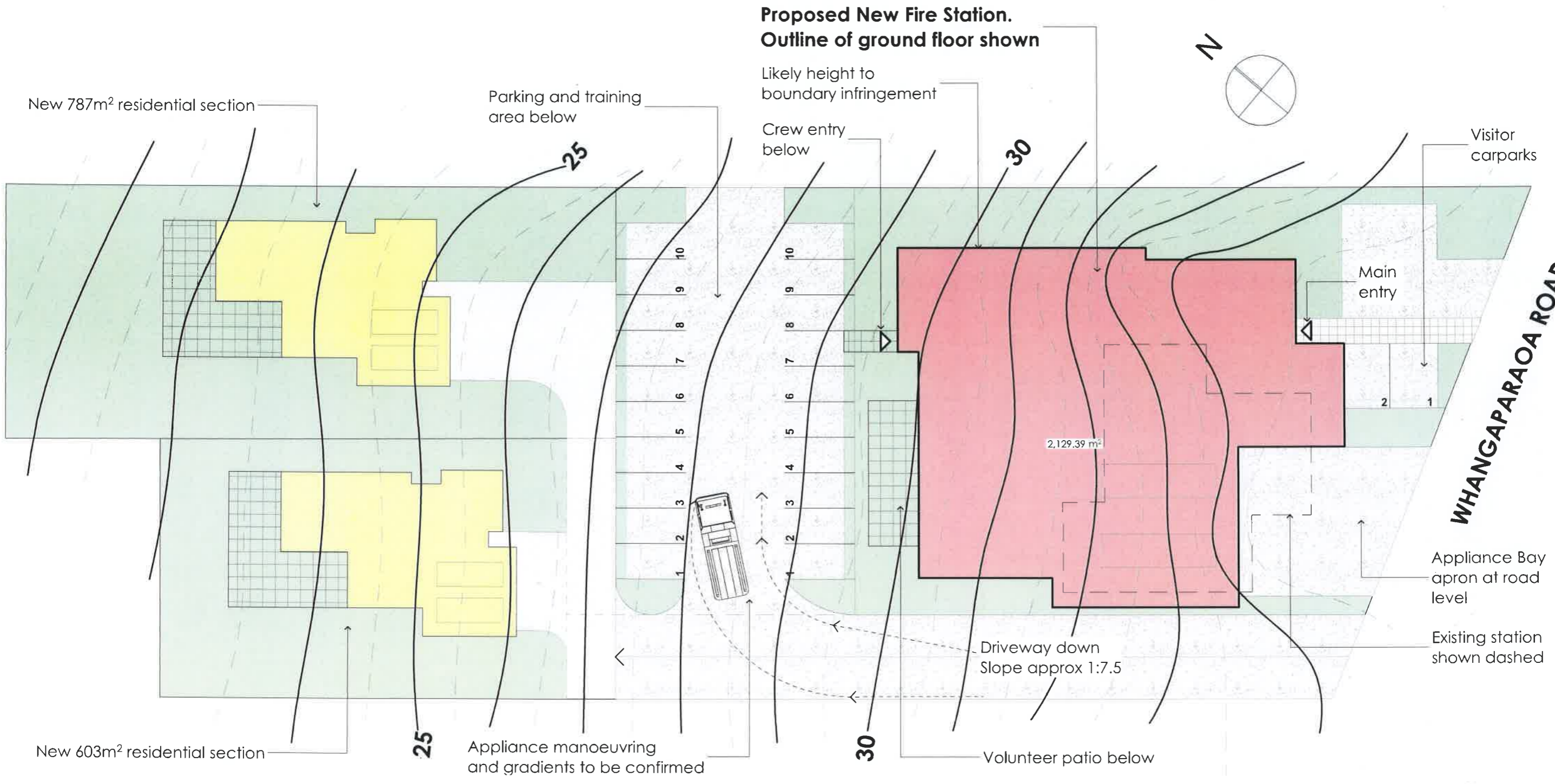
### 960 Whangaparaoa Road, Manly



**Jackson Clapperton & Partners Ltd**  
 Consulting Engineers & Registered Surveyors  
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 PO BOX 71 065, ROSEBANK ROAD  
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Ref: 2020/366  
 Date: 10.05.21  
 Scale: 1:250 @ A1  
**Page 46 of 70**

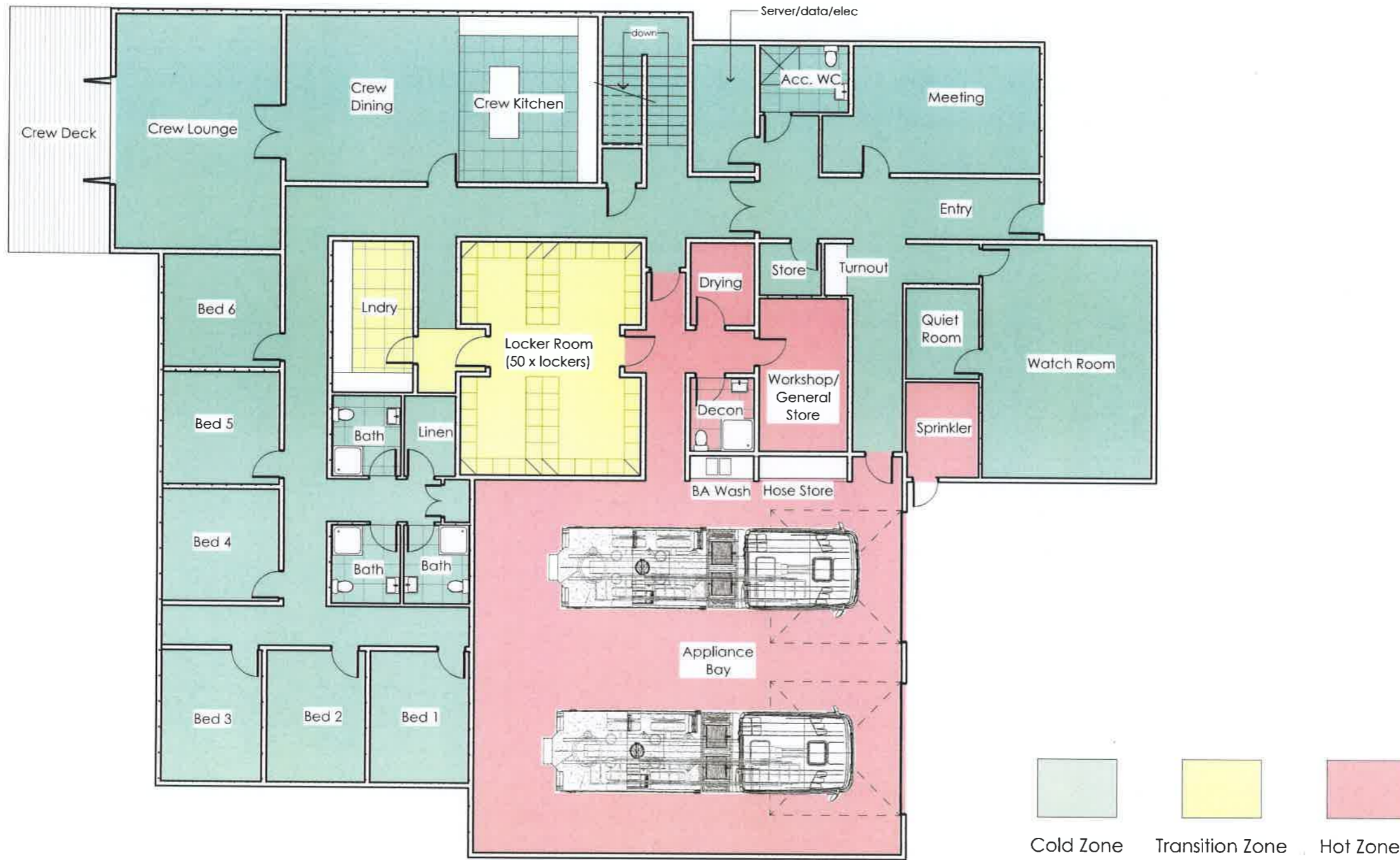
SHEET  
2



**PROPOSED MANLY FIRE STATION**  
**Feasibility Study**

DRAFT





Preliminary Ground Floor Plan  
Floor Area = 654 m<sup>2</sup>

DRAFT

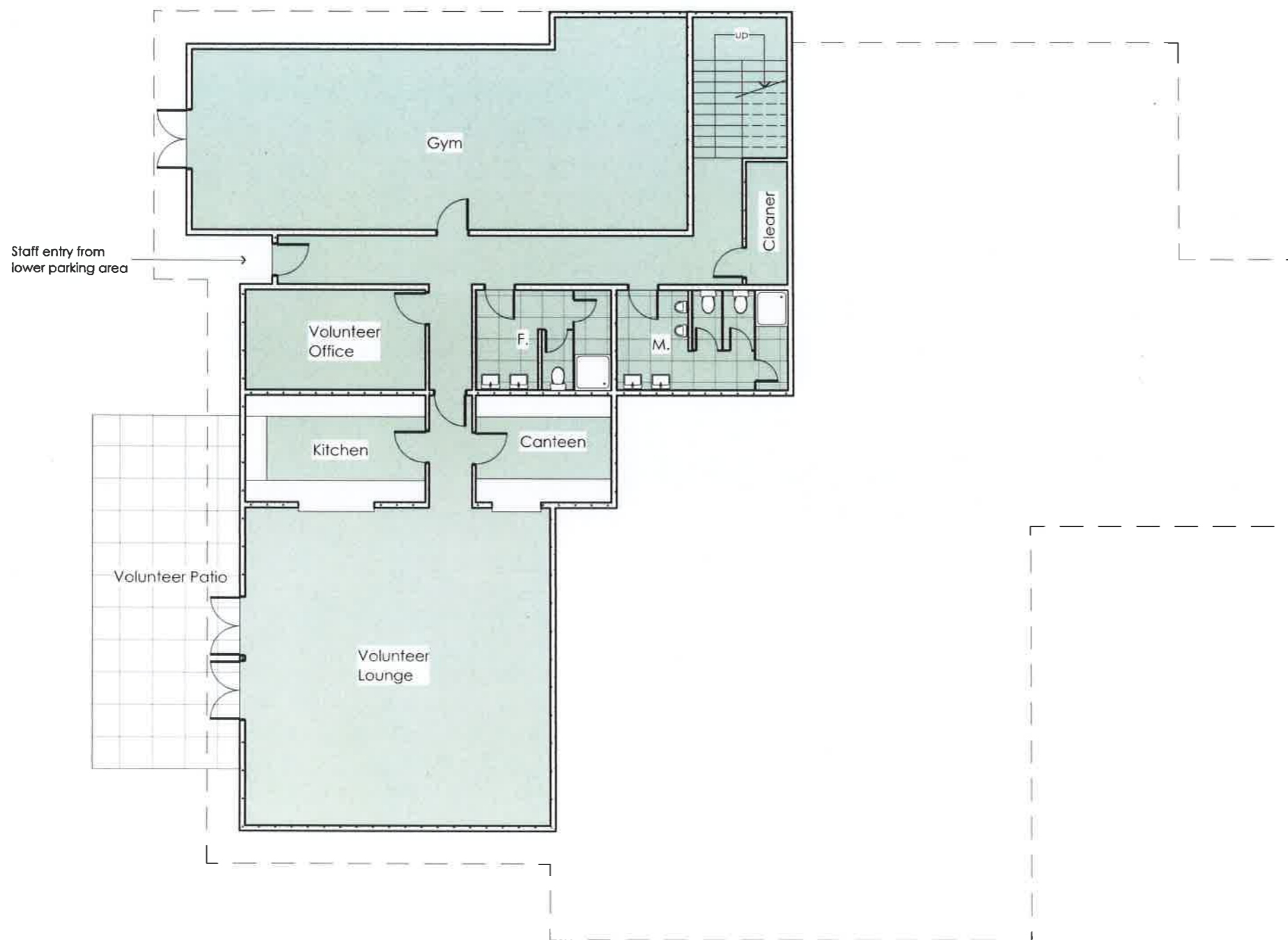


PROPOSED MANLY FIRE STATION  
Feasibility Study



BLACK BOX ARCHITECTS





Preliminary Basement Floor Plan  
Floor Area = 274 m<sup>2</sup>

**PROPOSED MANLY FIRE STATION  
Feasibility Study**



DRAFT



Room	Comments	Area as per Standard (m <sup>2</sup> )	Area as per ConceptPlan (m <sup>2</sup> )
Entry		5-8	8
Public Toilet		5	5
Meeting/debrief Room		20-35	22
Operations Room	6-8m2 per person. Based on 6 people	36	36
Turnout	Located in hallway		
Quiet Room		5	6
Volunteer Office		15	14
Data Cupboard	Combined with electrical	2	7
General Store	As shown		12
Volunteer Lounge		75	75
Volunteer Kitchen		15	15
Volunteer Canteen		10	11
Volunteer amenities		20	24
Crew Kitchen	Single Crew	15	21
Crew Dining	Single Crew	15	23
Crew Lounge	Single Crew	30	36
Gymnasium	Single Crew	70	72
Bedrooms		10-12	12
Washroom pods		5	5
Laundry		10	11
Linen Cupboard		6	4
Level 2 Lockers	50 lockers as shown		
Drying Room	Drying cabinet area	9	5
Decon. Washrooms		5	4.5
Appliance Bay		144	147
BA Wash	Positioned within engine bay	10	1.5
Workshop/Hose Store	Hose racking within appliance bay . Work bench in store		20
Courier pick-up	Not provided	3	
Sprinkler Room		5	5

1

Area Schedule

TOWNPLANNING
<b>Legal Description</b> Pt Lot 582 DP 17816, Lot 1 DP 67002, Allot 614 Psh Of Waiwera SO 44498
<b>Site Area</b> 3518m <sup>2</sup>
<b>Zoning</b> Single House Zone
<b>Building Coverage</b> Fire Station Lot - Site Area = 2130m <sup>2</sup> - Building Coverage = 680m <sup>2</sup> = 31.8% = OK New Rear Lot 1- Site Area = 603m <sup>2</sup> - Building Coverage = 150m <sup>2</sup> = 24.9% = OK New Rear Lot 2- Site Area = 787m <sup>2</sup> - Building Coverage = 150m <sup>2</sup> = 19% = OK
<b>Impervious Surfaces</b> Fire Station Lot - Site Area = 2130m <sup>2</sup> - Total Impervious = 1700m <sup>2</sup> = 79.8% New Rear Lot 1- Site Area = 603m <sup>2</sup> - Total Impervious = 298m <sup>2</sup> = 49.4% = OK New Rear Lot 2- Site Area = 787m <sup>2</sup> - Total Impervious = 308m <sup>2</sup> = 39% = OK

2

Townplanning Schedule



PROPOSED MANLY FIRE STATION  
Feasibility Study

DRAFT



BLACK BOX ARCHITECTS



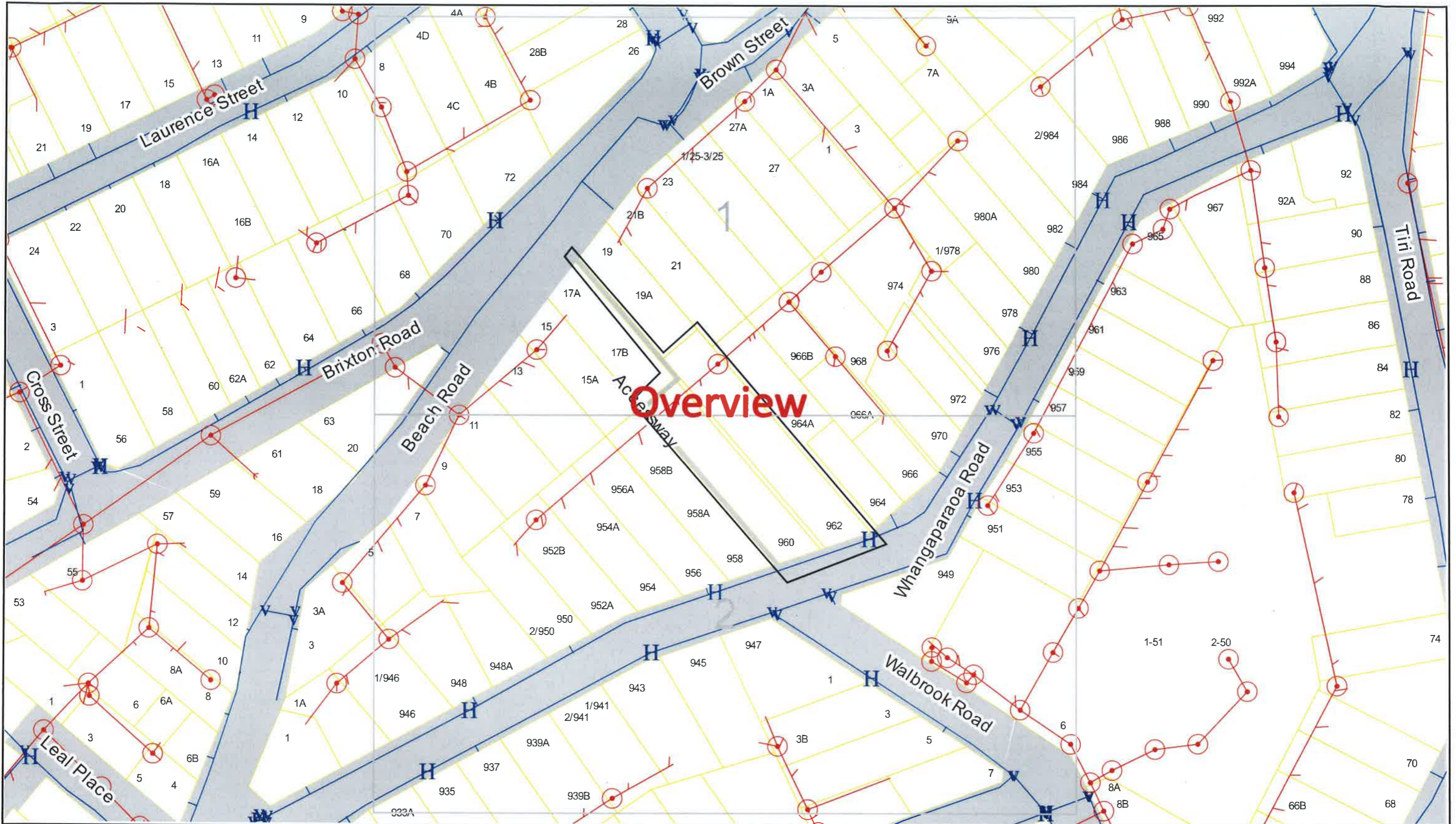
0 4 8 12  
Meters

Scale @ A3  
= 1:500










Date Printed:  
23/09/2020

# 960 Whangaparaoa Road

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Sequence Number: 8765606  
 Address: 960 Whangaparaoa Road  
 Whangaparaoa, Auckland, 0930

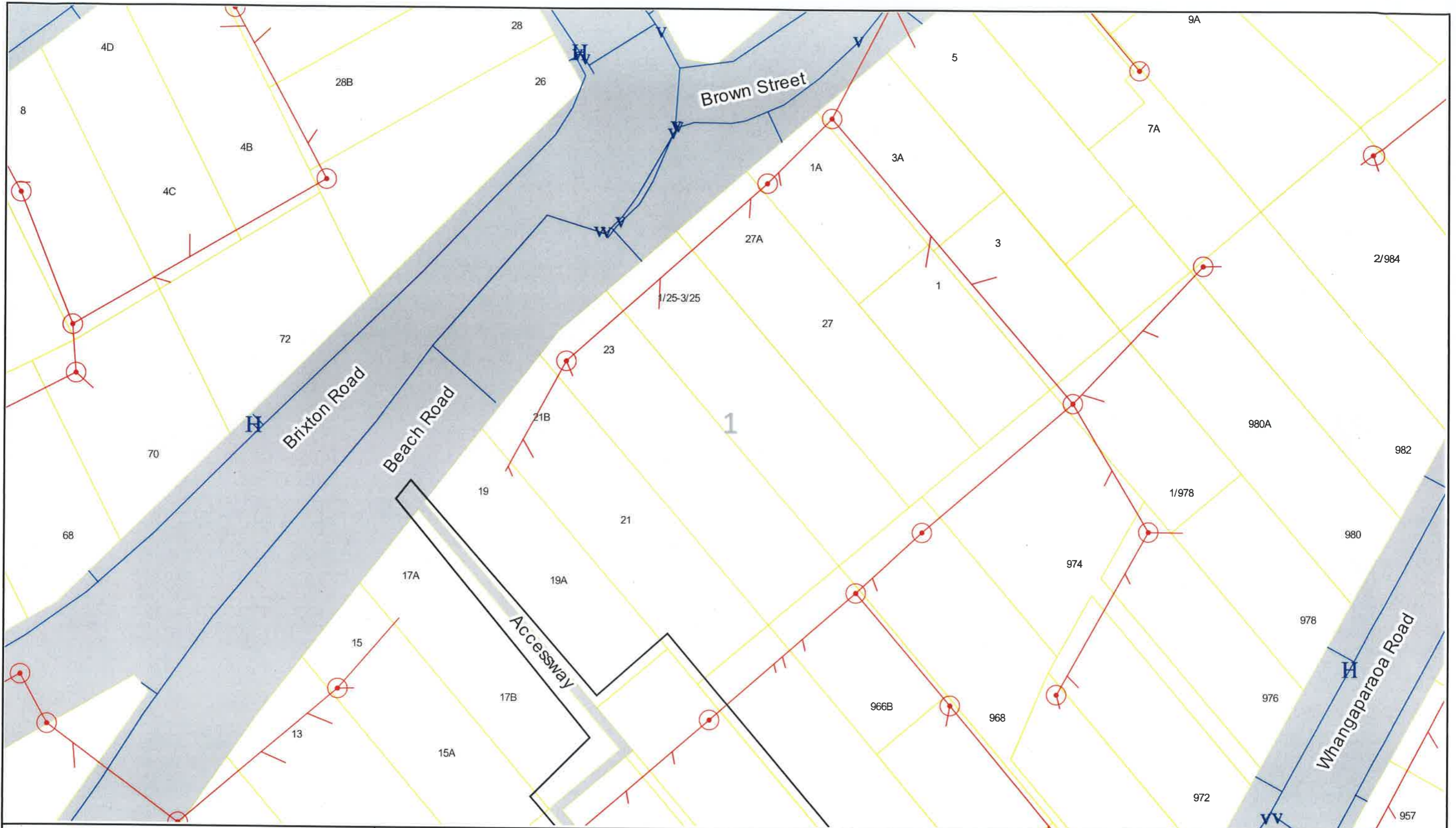
- |  |                                |   |             |
|--|--------------------------------|---|-------------|
|  | Waste Water                    |  | Valve       |
|  | Water                          |  | Hydrant     |
|  | Electrical/Cathodic Protection |  | Water Meter |
|  | Waste Water Proposed           |  | Manhole     |
|  | Water Proposed                 |   |             |

Scale: 1:2050



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OVERVIEW NOT TO SCALE.




**Watercare**  
 An Auckland Council Organisation



Sequence Number: 8765606  
 Address: 960 Whangaparaoa Road  
 Whangaparaoa, Auckland, 0930

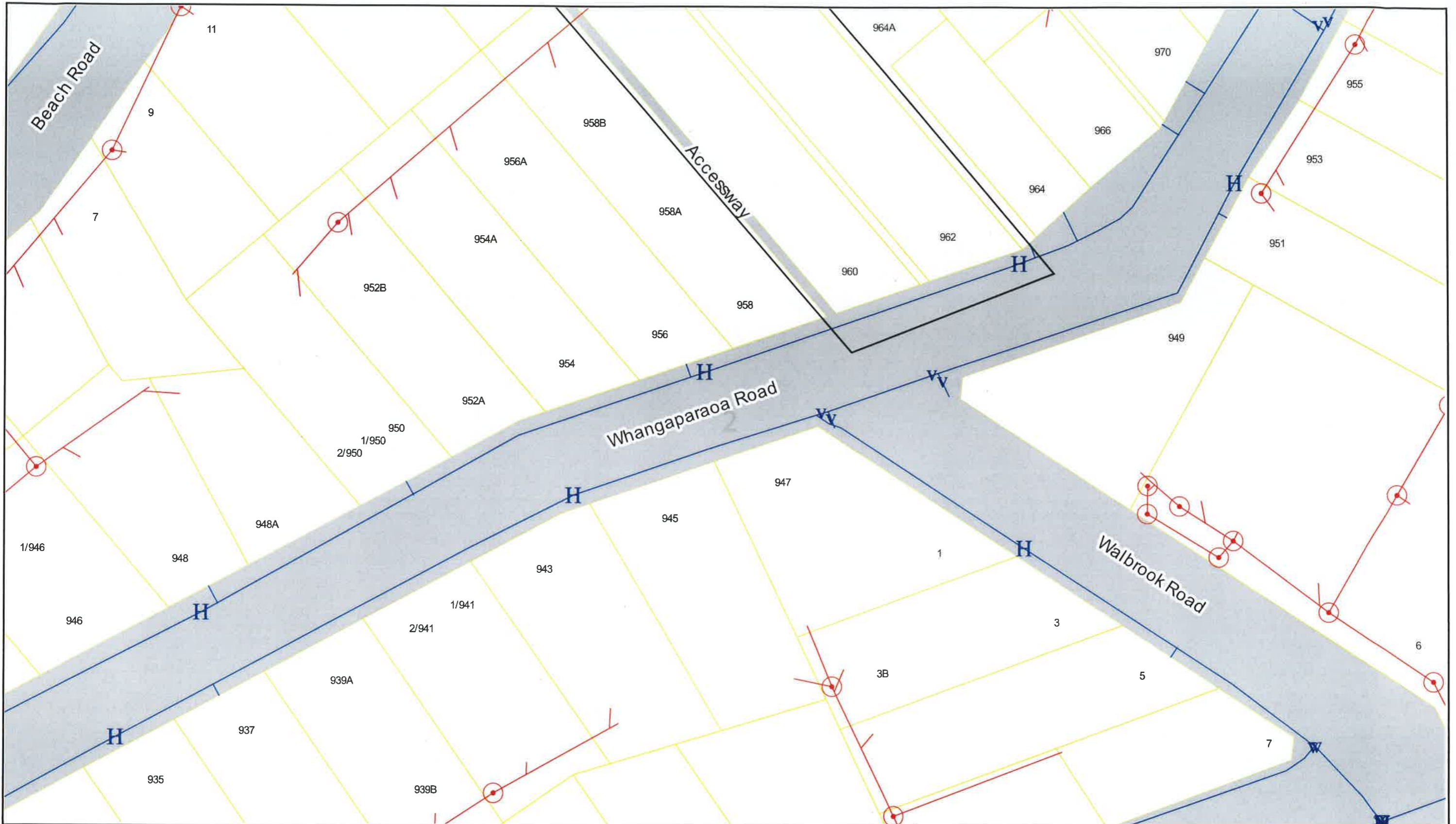
	Waste Water		Valve
	Water		Hydrant
	Electrical/Cathodic Protection		Water Meter
	Waste Water Proposed		Manhole
	Water Proposed		

Scale: 1:1000












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**OVERVIEW NOT TO SCALE.**



**Watercare**   
 An Auckland Council Organisation  
 Sequence Number: 8765606  
 Address: 960 Whangaparaoa Road  
 Whangaparaoa, Auckland, 0930

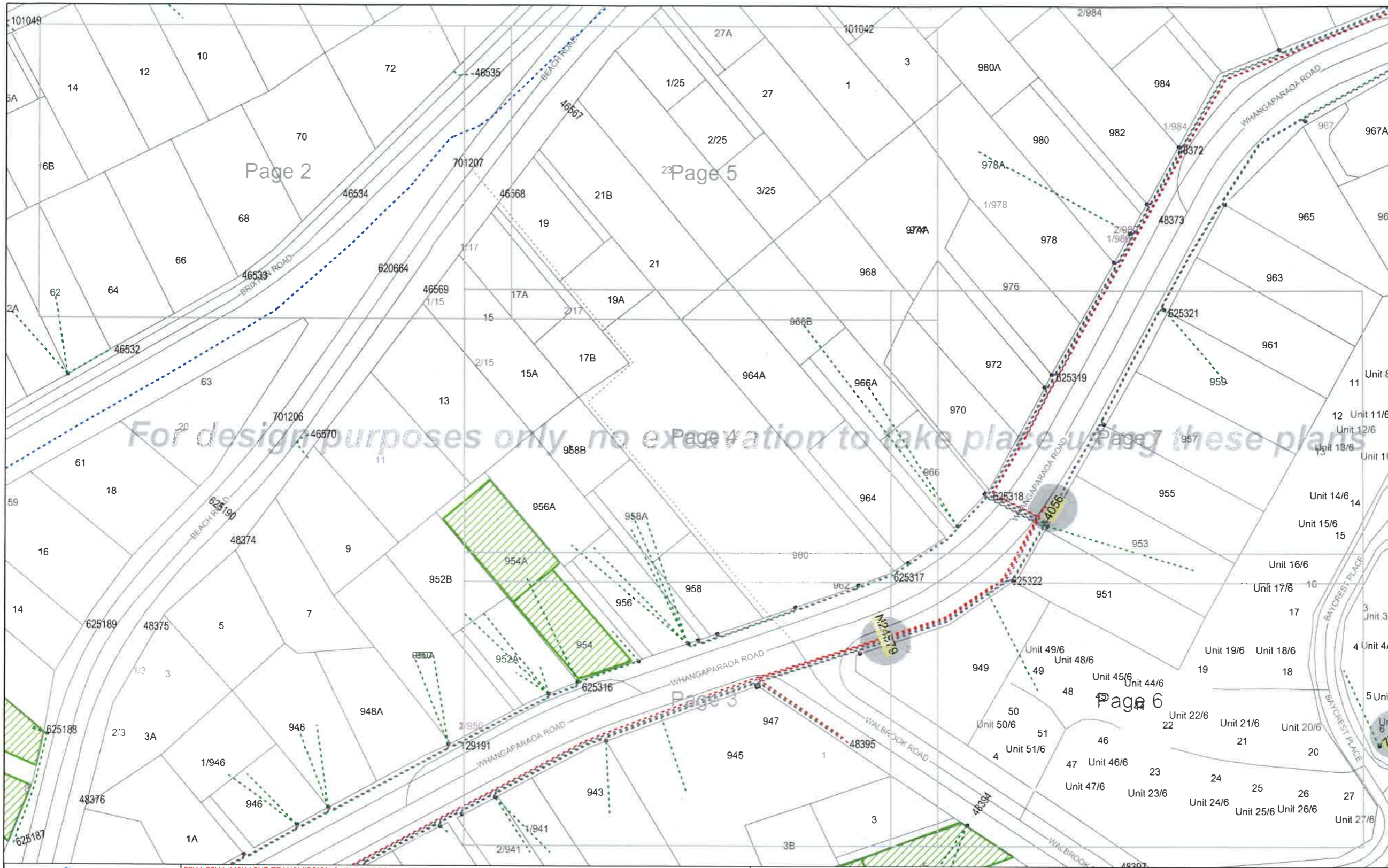
	Waste Water		Valve
	Water		Hydrant
	Electrical/Cathodic Protection		Water Meter
	Waste Water Proposed		Manhole
	Water Proposed		

Scale: 1:1000



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**OVERVIEW NOT TO SCALE.**



**CABLE COLOUR CODE**

**CABLES IN USE**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic

**CABLES NOT IN USE**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic

**JOINTS & SEALING ENDS**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic
- NOT IN USE

**SYMBOL LEGEND**

- TUNNEL
- DUCT BANK
- FIBRE OPTIC DUCT
- TRENCH
- PILLAR
- PIT
- DISTRIBUTION SUBSTATION
- POLES
- LAMP
- CESSPIT
- MANHOLE
- FIRE HYDRANT
- DRAIN
- FIBRE OPTIC PIT
- EARTH-WIRE & ROPE

**DUCT CROSS SECTIONS mm**

- 25, 50, 80, 100, 150
- 200, 250, 300

**WORK MANAGEMENT**

- IN PROGRESS
- ON HOLD
- PLANNED

For design purposes only no excavation to take place using these plans

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**Title:** A3 ELECTRICITY OBSTRUCTION PLAN

**Request Title:**

**Company Name:**

**Usage:** Request ID: 8765607

**Request for:** No excavation within 1m

**Customer Contact:** Printed by: swadmin

**Phone:** Date printed: 23 September 2020

**Client Reference:** Page: 1 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**



CABLE COLOUR CODE	
<b>CABLES IN USE</b>	
	110,000 - 22,000 volt subtransmission
	22,000 volt
	11,000 - 6,600 volt
	400 volt
	Streetlight
	Pilot / Fibre Optic
<b>CABLES NOT IN USE</b>	
	110,000 - 22,000 volt subtransmission
	22,000 volt
	11,000 - 6,600 volt
	400 volt
	Streetlight
	Pilot / Fibre Optic
<b>JOINTS &amp; SEALING ENDS</b>	
	110,000 - 22,000 volt subtransmission
	22,000 volt
	11,000 - 6,600 volt
	400 volt
	Streetlight
	Pilot / Fibre Optic
	NOT IN USE

SYMBOL LEGEND	
	TUNNEL
	DUCT BANK
	FIBRE OPTIC DUCT
	TRENCH
	PILLAR
	PIT
	DISTRIBUTION SUBSTATION
<b>POLES</b>	
	LAMP
	CESSPIT
	MANHOLE
	FIRE HYDRANT
	DRAIN
	FIBRE OPTIC PIT
	EARTHWIRE & RODS

DUCT CROSS SECTIONS mm	
	25
	50
	60
	100
	150
	200
	250
	300
WORK MANAGEMENT	
	IN PROGRESS
	ON HOLD
	PLANNED

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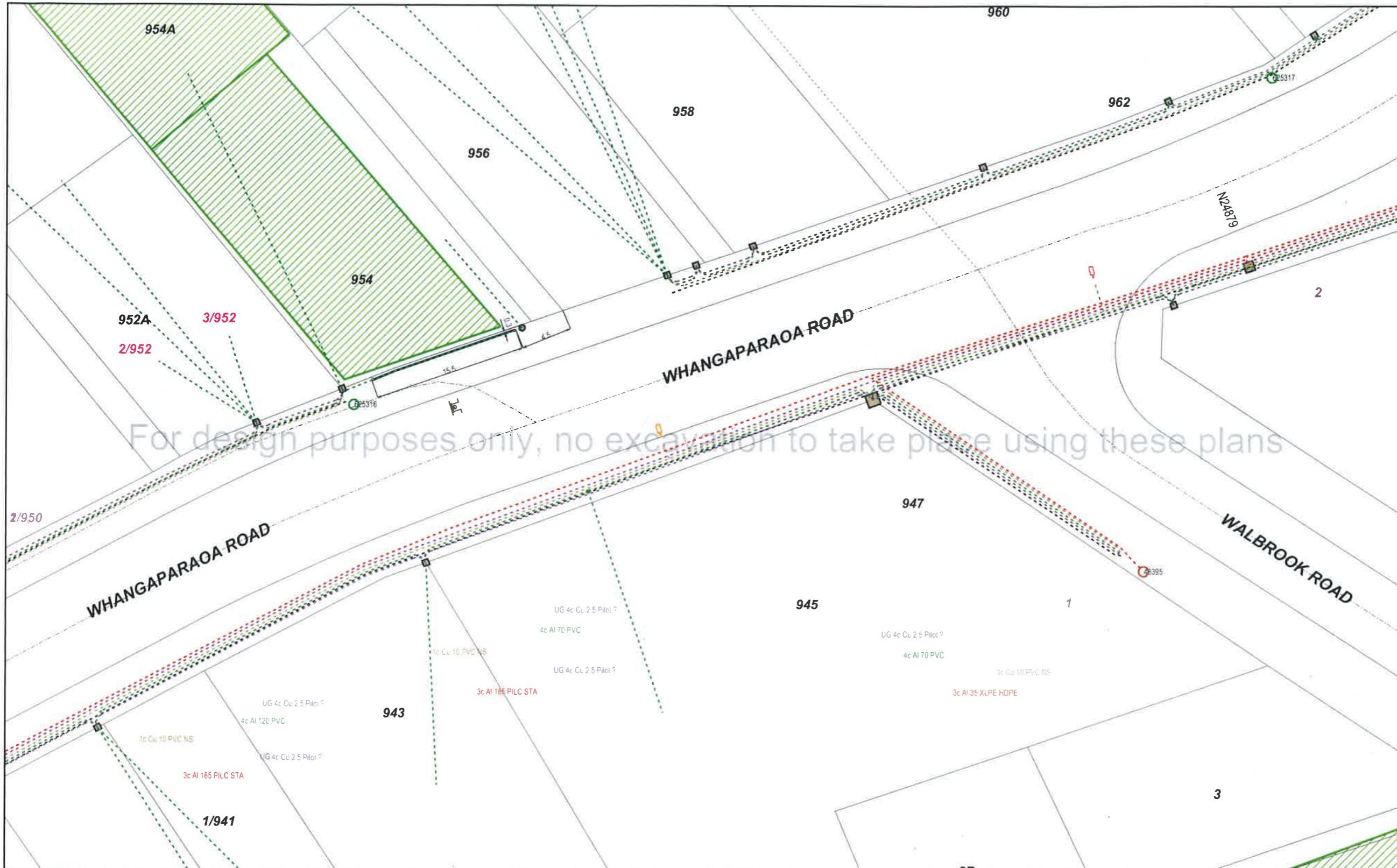
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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765607
Request for:	Scale: 1:400
Customer Contact:	Printed by: swadmin
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 2 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**





**CABLE COLOUR CODE**

**CABLES IN USE**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pirol / Fibre Optic

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- 400 volt
- Streetlight
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**SYMBOL LEGEND**

- TUNNEL
- DUCT BANK
- FIBRE OPTIC DUCT
- TRENCH
- PILLAR
- PIT
- DISTRIBUTION SUBSTATION
- POLES
- LAMP
- CESSPIT
- MANHOLE
- FIRE HYDRANT
- DRAIN
- FIBRE OPTIC PIT
- EARTHWIRE & RODS

**DUCT CROSS SECTIONS mm**

25 50 60 100 150

200 250 300

**WORK MANAGEMENT**

- IN PROGRESS
- ON HOLD
- PLANNED

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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765607
Request for:	Scale: 1:400
Customer Contact:	Printed by: swadmin
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 3 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**



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	22,000 volt
	11,000 - 6,600 volt
	400 volt
	Streetlight
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	400 volt
	Streetlight
	Piact / Fibre Optic
	NOT IN USE

SYMBOL LEGEND	
	TUNNEL
	DUCT BANK
	FIBRE OPTIC DUCT
	TRENCH
	PILLAR
	PIT
	DISTRIBUTION SUBSTATION
	POLES
	LAMP
	CESSPIT
	MANHOLE
	FIRE HYDRANT
	DRAIN
	FIBRE OPTIC PIT
	EARTHWIRE & RODS
<b>DUCT CROSS SECTIONS mm</b>	
	25 50 80 100 150
	200 250 300
<b>WORK MANAGEMENT</b>	
	IN PROGRESS
	ON HOLD
	PLANNED

For design purposes only, no excavation to take place using these plans



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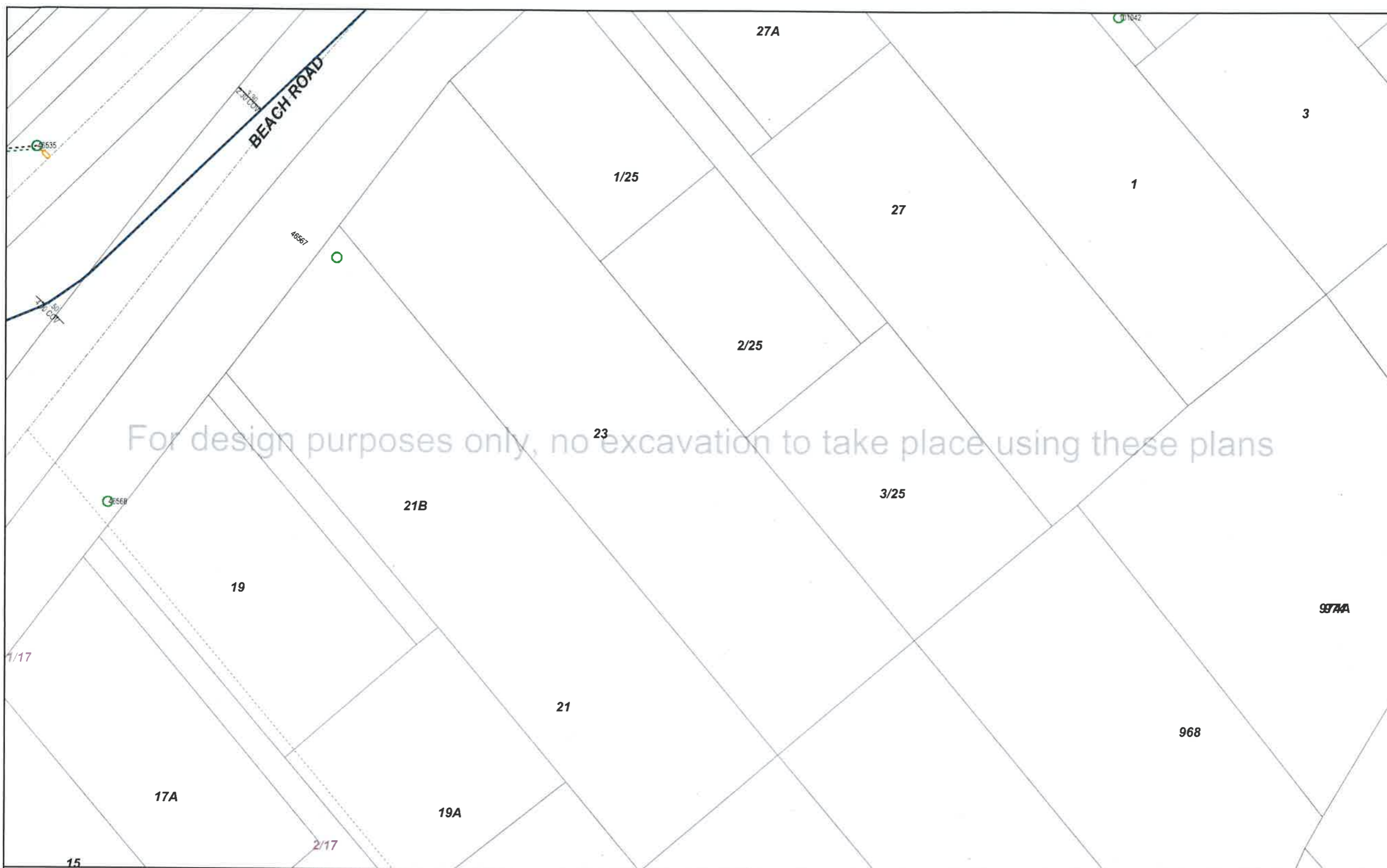
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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765607
Request for:	Scale: 1:400
Customer Contact:	Printed by: swadmin
Phone:	Date printed: 23 September 2020
Client Reference:	Page: 4 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**





**CABLE COLOUR CODE**

**CABLES IN USE**

- 110,000 - 22,000 volt subtransmission (Blue dashed line)
- 22,000 volt (Yellow dashed line)
- 11,000 - 6,600 volt (Red dashed line)
- 400 volt (Green dashed line)
- Streetlight (Brown dashed line)
- Pirol / Fibre Optic (Purple dashed line)

**CABLES NOT IN USE**

- 110,000 - 22,000 volt subtransmission (Blue solid line)
- 22,000 volt (Yellow solid line)
- 11,000 - 6,600 volt (Red solid line)
- 400 volt (Green solid line)
- Streetlight (Brown solid line)
- Pirol / Fibre Optic (Purple solid line)

**JOINTS & SEALING ENDS**

- 110,000 - 22,000 volt subtransmission (Blue circle)
- 22,000 volt (Yellow circle)
- 11,000 - 6,600 volt (Red circle)
- 400 volt (Green circle)
- Streetlight (Brown circle)
- Pirol / Fibre Optic (Purple circle)
- NOT IN USE (Black circle)

**SYMBOL LEGEND**

- TUNNEL (Thick black line)
- DUCT BANK (Black line with circles)
- FIBRE OPTIC DUCT (Black line with squares)
- TRENCH (Dashed black line)
- PILLAR (Green square)
- PIT (Green circle)
- DISTRIBUTION SUBSTATION (Green rectangle)
- POLES (Colored circles: Blue, Red, Green, Yellow, Purple)
- LAMP (Yellow rectangle)
- CESSPIT (Vertical lines)
- MANHOLE (Circle with M)
- FIRE HYDRANT (Square with FH)
- DRAIN (Circle with D)
- FIBRE OPTIC PIT (Square with circle)
- EARTHWIRE & RODS (Black line with dots)

**DUCT CROSS SECTIONS mm**

25 50 60 100 150

200 250 300

**WORK MANAGEMENT**

- IN PROGRESS (Blue hatched box)
- ON HOLD (Red hatched box)
- PLANNED (Orange hatched box)

For design purposes only, no excavation to take place using these plans



**22kV, 33kV, 110kV SUB TRANSMISSION CABLES-SPECIAL CONDITIONS APPLY:**  
 Vector Limited provides a free standover service that requires 2 working days notice. Hand digging is required when excavating within 1 metre of the cable. Replacement trench backfill material must be the same as that removed and it must be replaced to the same level of compaction. Refer to attached covering letter for additional information.

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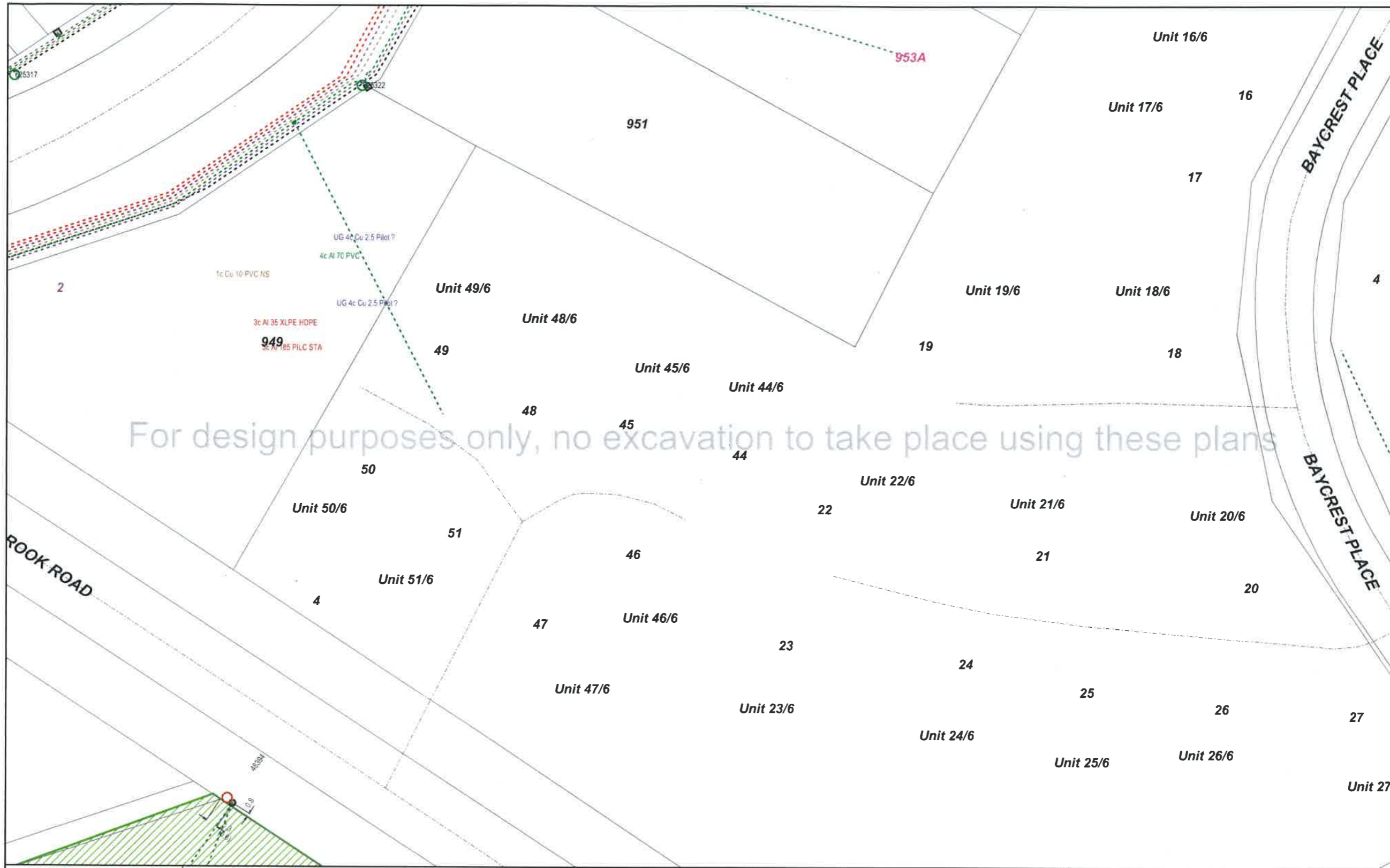
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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765607
Request for:	Scale: 1:400
Customer Contact:	Printed by: swadmin
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 5 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**





For design purposes only, no excavation to take place using these plans

**CABLE COLOUR CODE**

**CABLES IN USE**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic

**CABLES NOT IN USE**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic

**JOINTS & SEALING ENDS**

- 110,000 - 22,000 volt subtransmission
- 22,000 volt
- 11,000 - 6,600 volt
- 400 volt
- Streetlight
- Pilot / Fibre Optic
- NOT IN USE

**SYMBOL LEGEND**

- TUNNEL
- DUCT BANK
- FIBRE OPTIC DUCT
- TRENCH
- PILLAR
- PIT
- DISTRIBUTION SUBSTATION
- POLES
- LAMP
- CESSPIT
- MANHOLE
- FIRE HYDRANT
- DRAIN
- FIBRE OPTIC PIT
- EARTHWIRE & RODS

**DUCT CROSS SECTIONS mm**

25 50 80 100 150

200 250 300

**WORK MANAGEMENT**

- IN PROGRESS
- ON HOLD
- PLANNED

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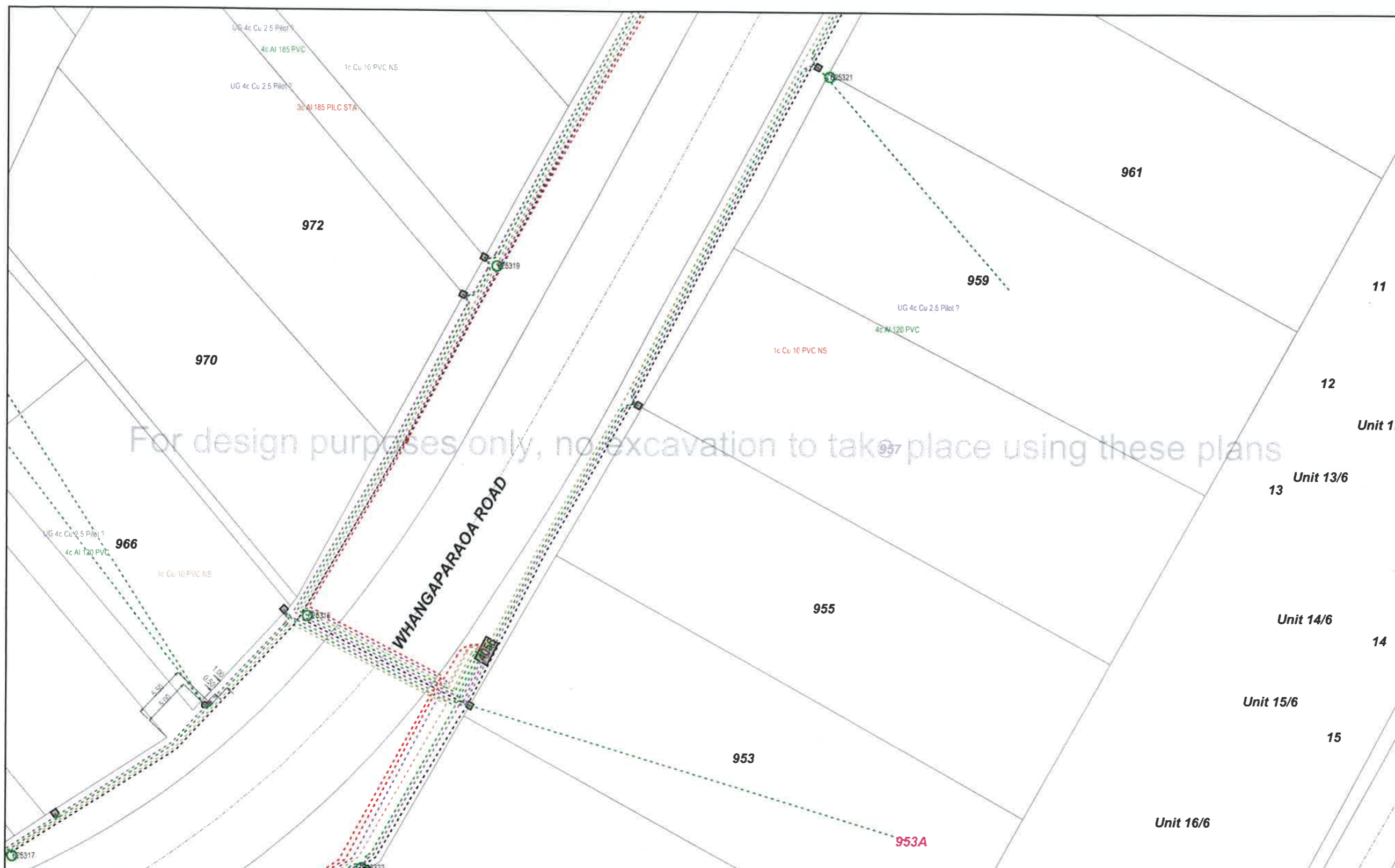
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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765607
Request for:	Scale: 1:400
Customer Contact:	Printed by: swadmin
Phone:	Date printed: 23 September 2020
Client Reference:	Page: 6 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**



**CABLE COLOUR CODE**

**CABLES IN USE**

- 110,000 - 22,000 volt subtransmission (Blue dashed line)
- 22,000 volt (Yellow dashed line)
- 11,000 - 6,600 volt (Red dashed line)
- 400 volt (Green dashed line)
- Streetlight (Brown dashed line)
- Pilot / Fibre Optic (Purple dashed line)

**CABLES NOT IN USE**

- 110,000 - 22,000 volt subtransmission (Blue solid line)
- 22,000 volt (Yellow solid line)
- 11,000 - 6,600 volt (Red solid line)
- 400 volt (Green solid line)
- Streetlight (Brown solid line)
- Pilot / Fibre Optic (Purple solid line)

**JOINTS & SEALING ENDS**

- 110,000 - 22,000 volt subtransmission (Blue circle)
- 22,000 volt (Yellow circle)
- 11,000 - 6,600 volt (Red circle)
- 400 volt (Green circle)
- Streetlight (Brown circle)
- Pilot / Fibre Optic (Purple circle)
- NOT IN USE (Black circle)

**SYMBOL LEGEND**

- TUNNEL (Thick black line)
- DUCT BANK (Thin black line)
- FIBRE OPTIC DUCT (Dashed black line)
- TRENCH (Dotted black line)
- PILLAR (Square symbol)
- PIT (Circle symbol)
- DISTRIBUTION SUBSTATION (Large rectangle symbol)
- POLES (Colored circles)
- LAMP (Yellow rectangle symbol)
- CESSPIT (Rectangular symbol)
- MANHOLE (Circle with 'M' symbol)
- FIRE HYDRANT (Square with 'FH' symbol)
- DRAIN (Circle with 'D' symbol)
- FIBRE OPTIC PIT (Square symbol)
- EARTHWIRE & RODS (Line with dots symbol)

**DUCT CROSS SECTIONS mm**

25 50 80 100 150  
200 250 300

**WORK MANAGEMENT**

- IN PROGRESS (Blue hatched box)
- ON HOLD (Red hatched box)
- PLANNED (Orange hatched box)

**vector**

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**Title:** A3 ELECTRICITY OBSTRUCTION PLAN

**Request Title:**

**Company Name:**

**Usage:** Request ID: 8765607

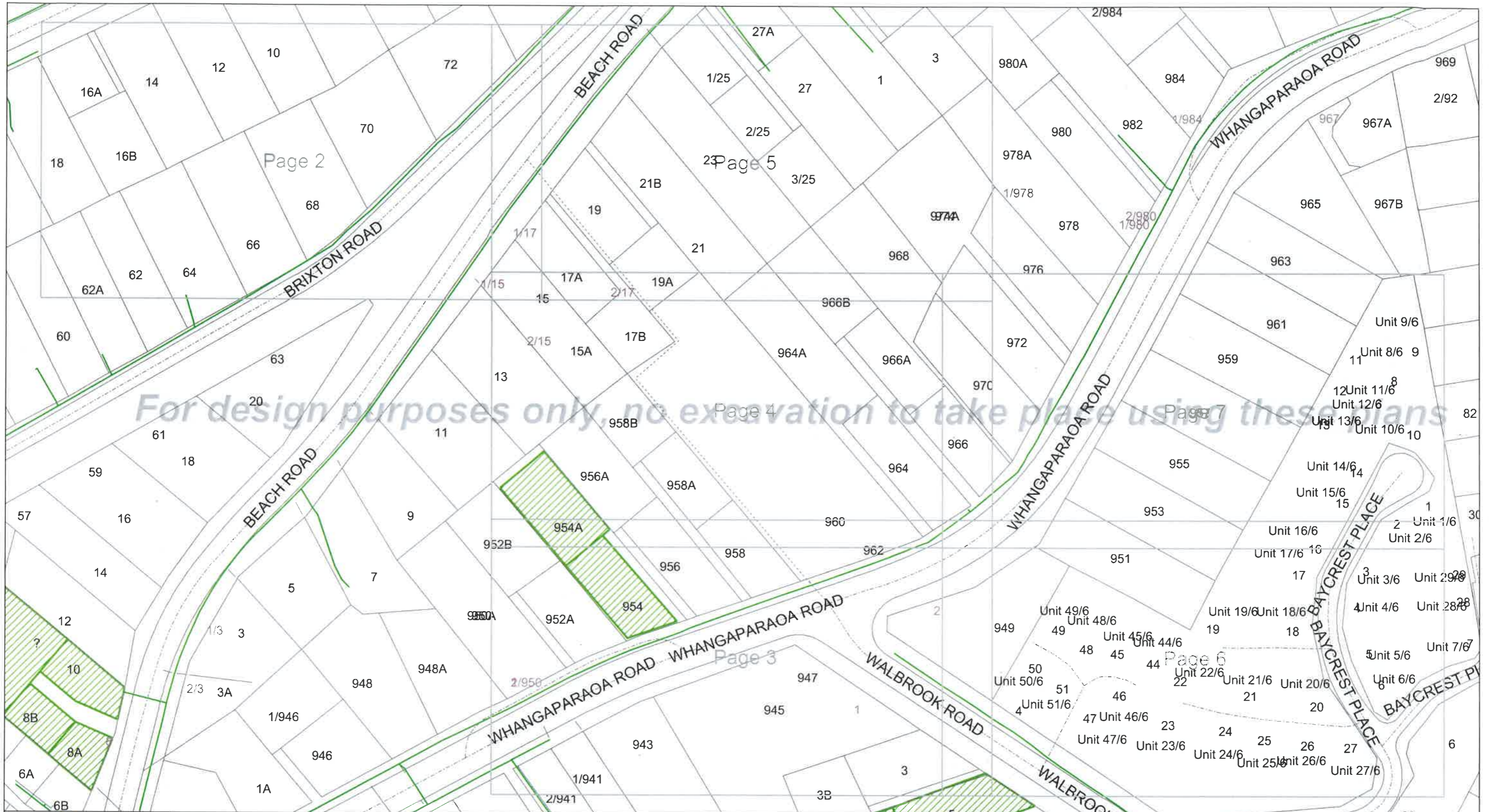
**Request for:** Scale: 1:400

**Customer Contact:** Printed by: swadmin

**Phone:** Date printed: 23. September 2020

**Client Reference:** Page: 7 of 7

**A3 ELECTRICITY OBSTRUCTION PLAN**



For design purposes only, no excavation to take place using these plans



**WARNING!** Special conditions apply for high pressure gas pipelines (HP Pipe, IP20, IP10, MP7)

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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	No associated unit
Customer Contact:	Printed by:
Phone:	Date printed: 23 September 2020
Client Reference:	Page: 1 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING!** Live service within this property.

**WORK MANAGEMENT**

- In Progress
- On Hold
- Planned

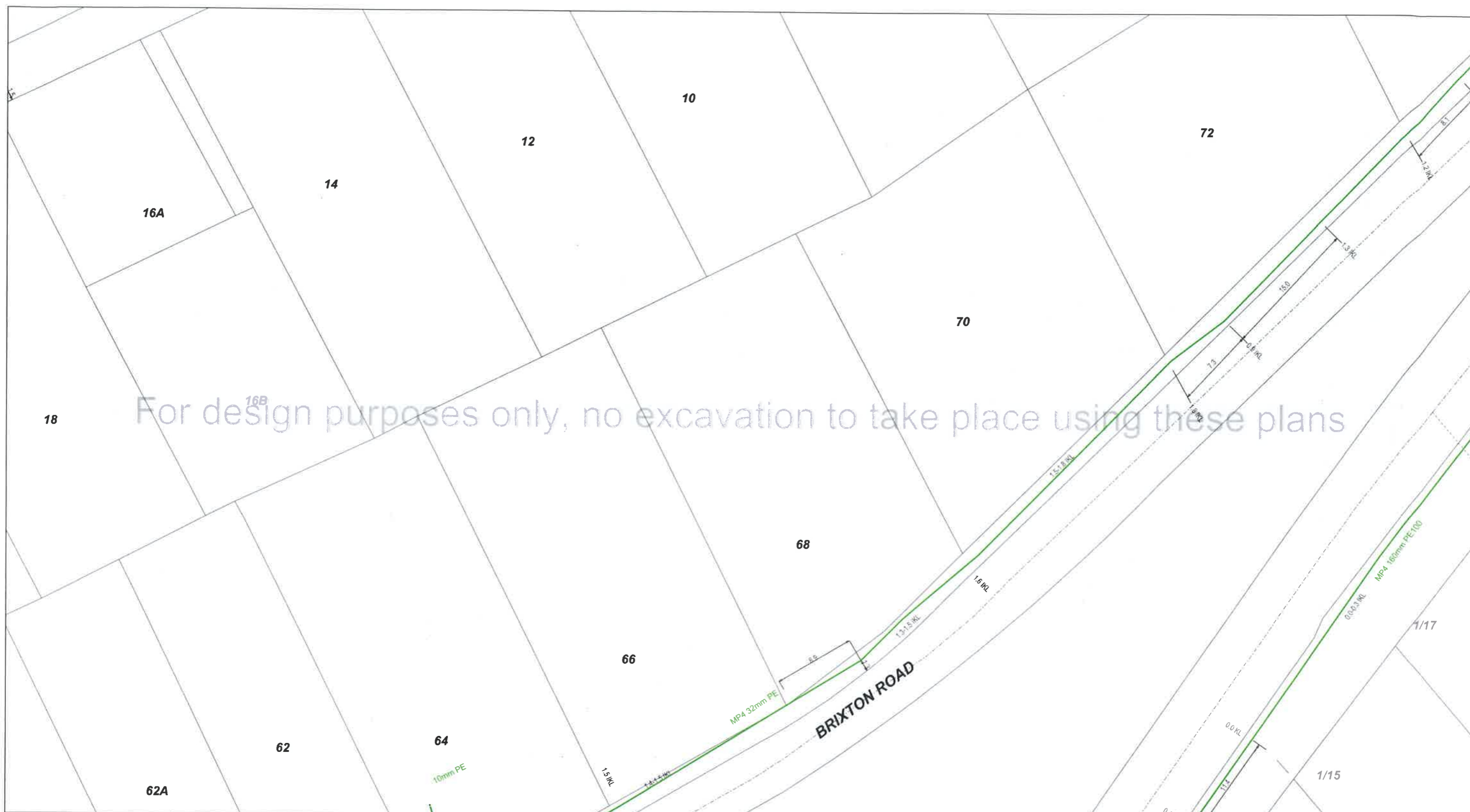
**WARNING!** Indication only additional data is required

Transmission Pipeline (ex - NGC)  
Please contact Vector - New Plymouth on 0800 734 567 for On-Site Location and Work Permits. A minimum of 48 hours notice is required.

**OTHER GAS FEATURES**

- Fibre Optic
- Closed Valve
- Gate
- Riser
- Open Valve
- PRS
- Service Regulator
- Reducer

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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 2 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING! Live service within this property.**

**WORK MANAGEMENT**

- In Progress
- On Hold
- Planned

**WARNING! Indication only additional data is required**  
 Transmission Pipeline (ex - NGC)  
 Please contact Vector - New Plymouth on 0800 734 567 for On-Site Location and Work Permits. A minimum of 48 hours notice is required.

**OTHER GAS FEATURES**

- Fibre Optic
- Gate
- PRS
- Riser
- Service Regulator
- Closed Valve
- Open Valve
- Reducer





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<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 3 of 7

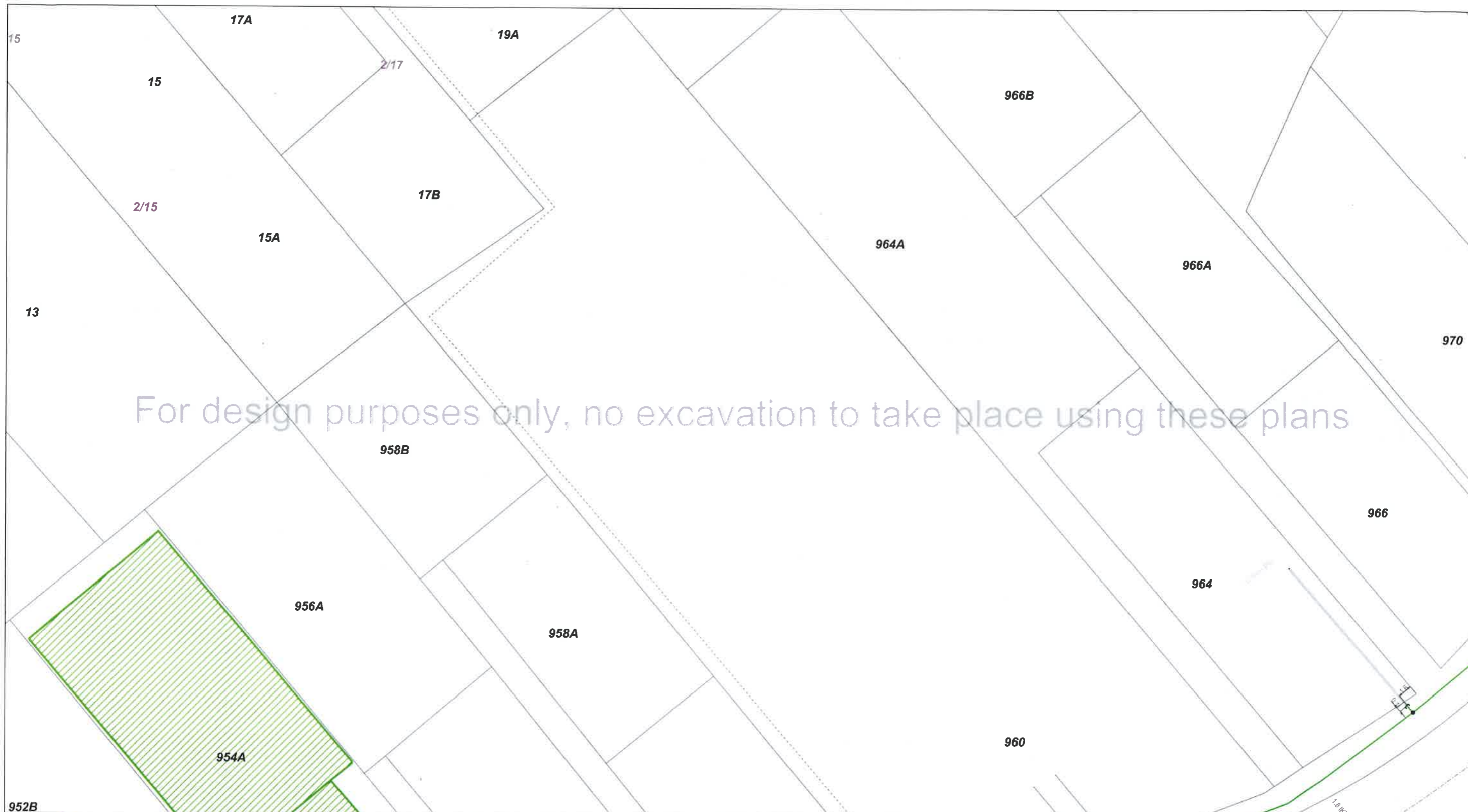
PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

	<b>WARNING!</b> Live service within this property.
	<b>WORK MANAGEMENT</b>
	In Progress
	On Hold
	Planned

<b>WARNING! Indication only additional data is required</b> Transmission Pipeline (ex - NGC) Please contact Vector - New Plymouth on 0800 734 567 for On-Site Location and Work Permits. A minimum of 48 hours notice is required.	
<b>OTHER GAS FEATURES</b>	
	Fibre Optic
	Gale
	PRS
	Riser
	Service Regulator
	Closed Valve
	Open Valve
	Reducer







For design purposes only, no excavation to take place using these plans



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Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 23 September 2020
Client Reference:	Page: 4 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING! Live service within this property.**

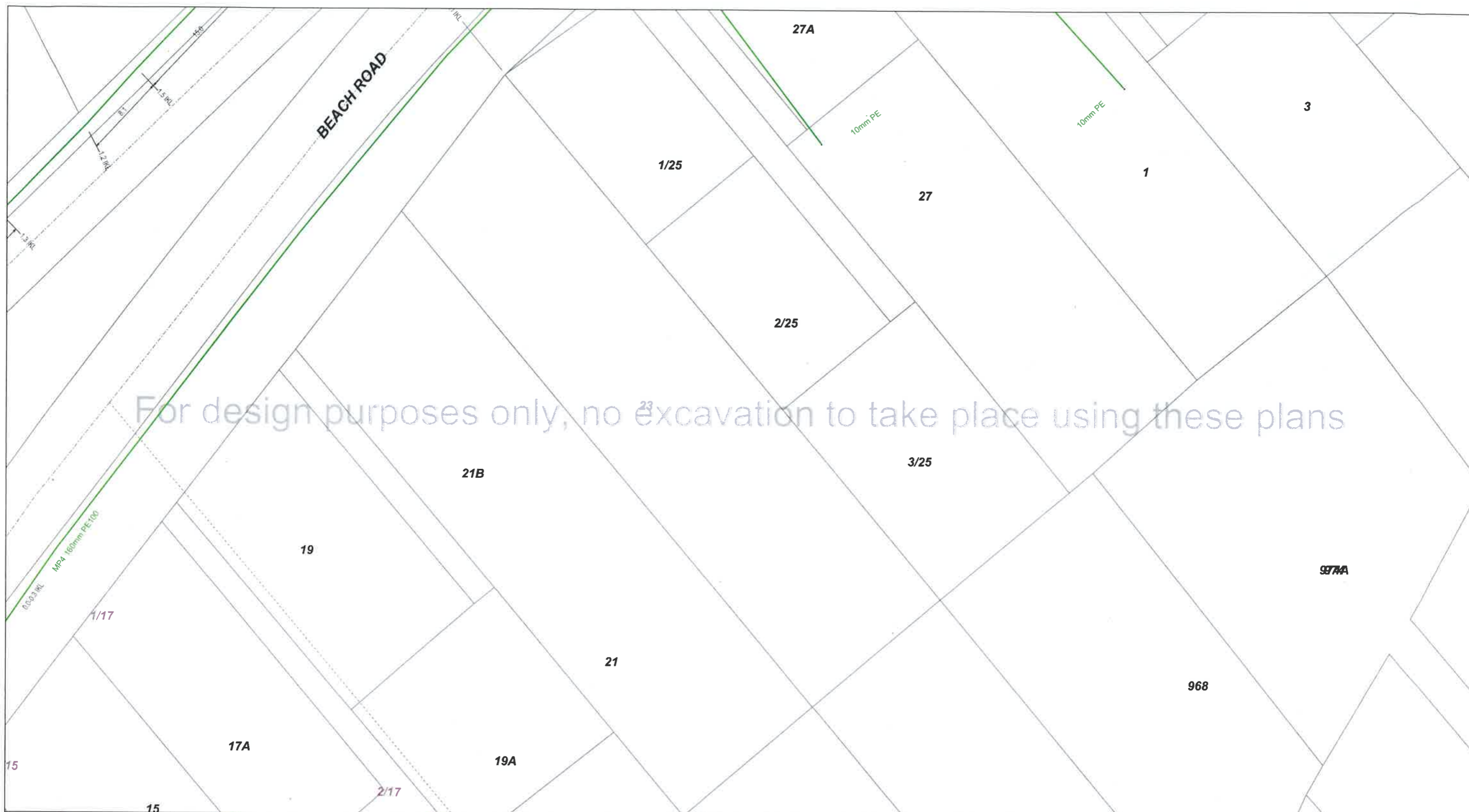
**WORK MANAGEMENT**

- In Progress
- On Hold
- Planned

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**OTHER GAS FEATURES**

- Fibre Optic
- Gate
- Riser
- PRS
- Service Regulator
- Closed Valve
- Open Valve
- Reducer



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Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 5 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING! Live service within this property.**

**WORK MANAGEMENT**

- In Progress
- On Hold
- Planned

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 Transmission Pipeline (ex - NGC)  
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**OTHER GAS FEATURES**

- Fibre Optic
- Gate
- PRS
- Riser
- Service Regulator
- Closed Valve
- Open Valve
- Reducer





For design purposes only, no excavation to take place using these plans



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<b>Title:</b>	
Request Title:	
<b>Company Name:</b>	
<b>Usage:</b>	Request ID: 8765608
<b>Request for:</b>	Scale: 1:400
<b>Customer Contact:</b>	Printed by:
<b>Phone:</b>	Date printed: 23. September 2020
<b>Client Reference:</b>	Page: 6 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING!**  
 Live service within this property.

**WORK MANAGEMENT**

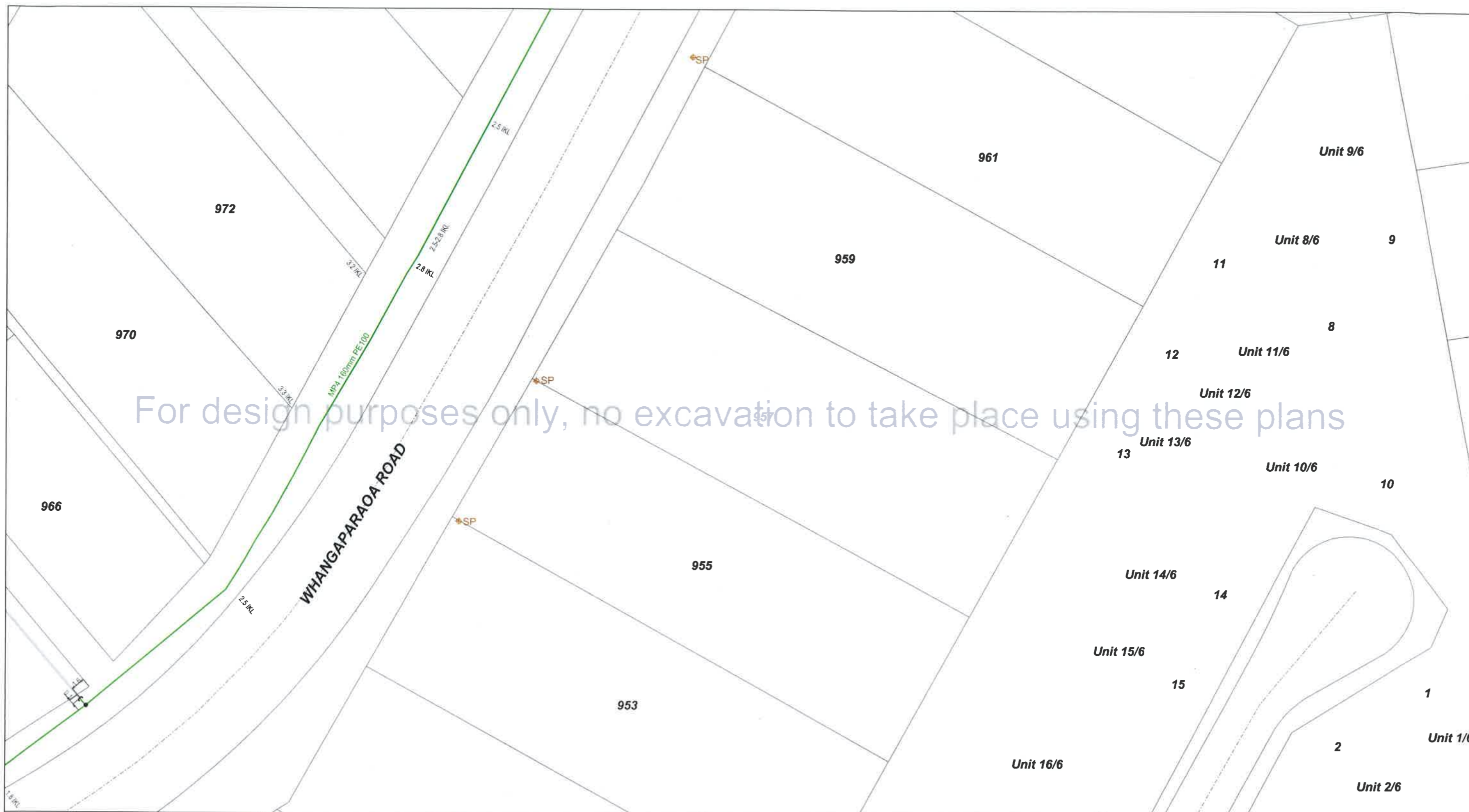
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- Fibre Optic
- Riser
- PRS
- Service Regulator
- Closed Valve
- Open Valve
- Reducer





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 A permit/consent is required for any excavation within 2 metres of this pipeline. A MINIMUM of 3 working days notice is required when applying for a permit/consent. Refer to attached covering letter for additional information.

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**Vector reminds you of your responsibilities under the Health and Safety at Work Act 2015, whereby you must establish the location of underground services before commencing excavation.**

If you hit an electricity cable or overhead line please call us immediately on 0508 VECTOR (0508 632 867). If you hit any gas pipeline call the Fire Service first on 111. If you hit a gas distribution pipe in the Auckland area call us on 0800 764 764. If you hit a gas pipeline in the rest of the North Island call FIRST GAS on 0800 800 393. If you hit a gas transmission pipeline call FIRST GAS on 0800 734 567. If you hit a communications cable (all areas) call us immediately on 0800 826 436 (select option 1).

<b>Title:</b>	
Request Title:	
Company Name:	
Usage:	Request ID: 8765608
Request for:	Scale: 1:400
Customer Contact:	Printed by:
Phone:	Date printed: 23. September 2020
Client Reference:	Page: 7 of 7

PIPE COLOUR BY PRESSURE	
	LP Pipe
	LPG Pipe
	MP1 Pipe
	MP2 Pipe
	MP4 Pipe
	MP7 Pipe
	IP10 Pipe
	IP20 Pipe
	HP Pipe
	0 kPa

**WARNING! Live service within this property.**

**WORK MANAGEMENT**

- In Progress
- On-Hold
- Planned

**WARNING! Indication only additional data is required**  
Transmission Pipeline (ex - NGC)  
 Please contact Vector - New Plymouth on 0800 734 567 for On-Site Location and Work Permits. A minimum of 48 hours notice is required.

**OTHER GAS FEATURES**

- Fibre Optic
- Riser
- Closed Valve
- Open Valve
- PRS
- Service Regulator
- Reducer

WARNING: Buried services are widespread and it should be assumed that they are present until it is proven otherwise.  
Cables should be expected to be found at ANY depth.

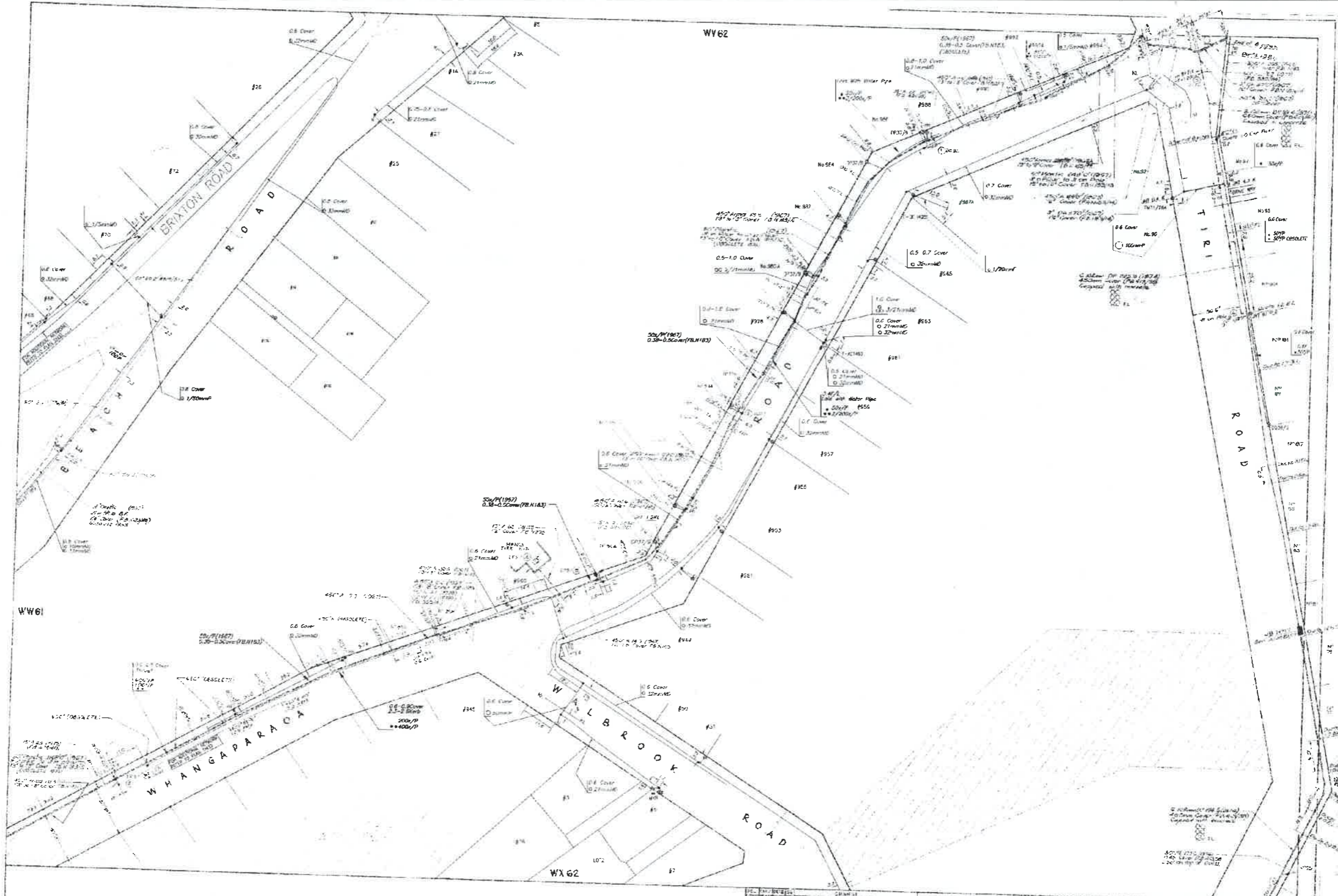
In most instances Chorus plans do NOT show house service feeds on private property.  
Refer to cover letter provided with your request for additional information - use all plans provided in conjunction with each other  
You are responsible for interpreting the information provided and should refer to Worksafe.govt.nz for the 'Guide for safety with underground services'  
For assistance contact Chorus Network Protection on 0800 822 003 or if you suspect damage has occurred contact 0800 463 896 opt 2

Plan Name	WW62
Plan ID	89447
Version	GY
Current at	23/09/2020



WW.62

Re-Orchestrated Filemaster ID



UNREGULATED TELEPHONE CABLE SYSTEM		AN 202	
<b>WHANGAPARAOA</b>		<b>WW.62</b>	
DATE	23/09/2020	SCALE	AS SHOWN
PROJECT NO	89447	APP'D	[Signature]
DESIGNED BY	[Name]	CHECKED BY	[Name]
DRAWN BY	[Name]	DATE	23/09/2020

Report Prepared by



**Holly McGrouther**

Senior Planner

Report Reviewed by



**Lahiru Wijewardhana**

General Manager – Auckland