

Memo

Date 19/12/2022

To: Celia Davison, Manager
 From: Aidan Wackrow - Planner





Subject: **Plan Modification: Clause 20A modification to Auckland Unitary Plan**

Corrections are required to the Auckland Unitary Plan (Operative in Part) 2016 (the AUP).

I seek your approval of this plan modification pursuant to clause 20A, first schedule, Resource Management Act 1991.

You have delegated authority, as a tier four manager, to make a decision to correct an error to an operative plan under clause 20A. Schedule 2A of the Auckland Council Combined Chief Executives Delegation Register authorises all powers, functions, and duties under RMA's first schedule (except clause 17 which cannot be delegated) to tier four positions.

Rule or Section of Unitary Plan	Chapter I Precincts I452 Waihoehoe Precinct
Subject Site (if applicable)	The 'site' is generally bounded by Waihoehoe Road to the south and the North Island Main Trunk Rail line (NIMT) to the west.
Legal Description (if applicable)	N/A
Nature of change	<p>A Clause 20A modification is required to correct a diagram in the I452 Waihoehoe Precinct (PC50) in the AUP.</p> <p>Discussion Corrections are required to the PC50 precinct provisions as precinct plan 1 shown within the consent order was not inserted in the version to be made operative:</p> <p>Attachment A shows the correction to Precinct Plan 1.</p>
Effect of change	<p>The corrections noted above:</p> <ul style="list-style-type: none"> • is to correctly implement the consent order; and • is neutral (it would not affect the rights of some members of the public).
Changes required to be made (text/in-text diagrams)	Amend I452 Waihoehoe Precinct a diagram in the Operative in Part version. As set out in Attachment A .
Changes required to be made (maps)	N/A
Attachments	Attachment A: Corrections to I452 Waihoehoe Precinct

<p>Prepared by: Aidan Wackrow Planner</p>	<p>Text Entered by: Sarah El Karamany Planning Technician</p>
<p>Signature:</p> 	<p>Signature:</p> 
<p>Maps prepared by: N/A Geospatial Analyst</p>	<p>Reviewed by: Craig Cairncross Team Leader</p>
<p>Signature:</p>	<p>Signature:</p> 
<p>Decision: I agree to authorise the Clause 20A modification using my delegated authority</p> <p>Manager Central South Planning</p> <p>Date: 20 December 2022</p>	
<p>Signature:</p> 	

Attachment A:
Corrections to I452
Waihoehoe Precinct

I452. Waihoehoe Precinct

I452.1. Precinct Description

The Waihoehoe Precinct applies to approximately 49 hectares of land in Drury East generally bounded by Waihoehoe Road to the south and North Island Main Trunk Line to the west.

The purpose of the Waihoehoe Precinct is to provide for the development of a new, comprehensively planned residential community in Drury East that supports a quality compact urban form. There are two Sub-precincts in the Waihoehoe Precinct, both relating to impervious coverage. Sub-precinct B provides for a lower impervious area to manage the volume of stormwater runoff.

The precinct emphasises the need for development to create a unique sense of place for Drury, by integrating existing natural features, responding to landform, and respecting Mana Whenua values. In particular there is a network of streams throughout Waihoehoe precinct, including the Waihoihoi stream. The precinct seeks to maintain and enhance these waterways and integrate them with the open space network as a key feature.

The transport network in the wider Drury East area as defined on Precinct Plan 2 will need to be progressively upgraded over time to support development in the wider area. The precinct includes provisions to ensure that the subdivision and development of land for housing and related activities is coordinated with the construction of safe, efficient and effective access to the Drury Central train station and other upgrades necessary to manage adverse effects on the local and wider transport network. The precinct provides for safe and convenient active transport access to and from the Drury Central train station. At the time of the Waihoehoe Precinct provisions being made operative, there is insufficient council family or central government funding available for transport and other infrastructure to support the full build-out of Drury East, which may affect the speed at which land within Drury East can be developed.

The precinct manages and mitigates the adverse effects of traffic generation on the transport network and achieves the integration of land use and transport by:

- (a) Requiring particular transport infrastructure upgrades to be operational by the time a certain level of subdivision and development is reached within the wider Drury East area (see I452.6.2), recognising that the area functions as an integrated transport network;
- (b) Requiring a comprehensive assessment and an Integrated Transport Assessment to be prepared for subdivision and development that does not comply with I452.6.2;
- (c) Requiring safe, legible and direct connection/s to the Drury Central train station to be in place as subdivision and development occurs;

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- (d) Requiring new collector and arterial roads within the precinct generally in the locations shown on Precinct Plan 1, and new local roads to be located to form a high quality and integrated network including to any new schools within the Precinct Plan 2 area;
- (e) Requiring all proposed roads to be designed in accordance with I452.11 Appendix 1, consistent with the functions and elements outlined in the table.

Open spaces in the Waihoehoe precinct other than esplanade reserve may be privately owned, owned by the Crown, or (subject to Council approval) vested in the Council.

Acoustic attenuation provisions are proposed within the Precinct to protect activities sensitive to noise from adverse effects arising from the road traffic noise associated with the operation of Waihoehoe Road and the Opaheke North-South FTN Arterial (shown as future arterial roads on Precinct Plan 1).

An area within the Precinct which may experience vibration levels higher than would normally be expected because of proximity to the rail corridor is identified on Precinct Plan 4.

All relevant overlay, Auckland-wide and zone provisions apply in this precinct unless otherwise specified below.

I452.2. Objectives

- (1) Waihoehoe Precinct is a comprehensively developed residential environment that integrates with the Drury Centre and the natural environment, supports public and active transport use, and respects Mana Whenua values.
- (2) Subdivision and development does not occur in advance of the availability of operational transport infrastructure, including regional and local transport infrastructure.
- (3) Access to and from the precinct occurs in an effective, efficient and safe manner that mitigates adverse effects of traffic generation on the surrounding road network.
- (4) The Waihoehoe precinct develops and functions in a way that:
 - (a) Results in a mode shift to public and active modes of transport; and
 - (b) Provides safe and effective movement between, housing and open spaces, and the Drury Central train station, by active modes.
- (5) Development is coordinated with the supply of sufficient three waters, energy and communications infrastructure.
- (6) Freshwater, sediment quality, and biodiversity is improved.
- (7) Activities sensitive to noise adjacent to the rail corridor and/or arterial roads are designed to protect people's health and residential amenity while they are

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indoors, and in a way which does not unduly constrain the operation of the railway corridor.

I452.3. Policies

- (1) Require collector and arterial roads to be provided generally in the locations shown in I452.10.1 Waihoehoe: Precinct Plan 1 while allowing for variation, where it would achieve a highly connected street layout that integrates with the surrounding and proposed transport network.
- (2) Ensure that development provides a local road network that achieves a highly connected street layout and integrates with the collector and arterial road network within the precinct, and the surrounding transport network, and supports the safety and amenity of the open space and stream network.
- (3) Require the transport network to be attractively designed and appropriately provide for all transport modes in accordance with I452.11 Appendix 1.
- (4) In addition to matters (a)-(c) of Policy E38.3.18, ensure that the location and design of publicly accessible open spaces contributes to a sense of place and a quality network of open spaces for the Waihoehoe Precinct and Drury-Opāheke, including by:
 - (a) incorporating any distinctive site features; and
 - (b) integrating with the stream network to create a green corridor.
- (5) Promote a mode shift to public and active modes of transport by:
 - (a) Requiring active mode connections to the Drury Central train station and Drury Centre for all stages of development;
 - (b) Requiring streets to be designed to provide safe separated access for cyclists on collector roads and arterial roads; and
 - (c) Requiring safe and secure cycle parking for all residential activities.
- (6) Ensure that the adverse effects of traffic generation on the surrounding transport network are mitigated, including by ensuring:
 - (a) Public transport can operate efficiently at all times;
 - (b) The surrounding road network can operate with reasonable efficiency during inter-peak periods;
 - (c) Safe and efficient movement of freight vehicles within and through the Drury South Industrial precinct;
 - (d) Any upgrades to the transport network are safe for pedestrians, cyclists and motorists; and

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- (e) The transport network operates safely at all times.
- (7) Provide for the progressive upgrade of existing roads and key intersections adjoining the Waihoehoe precinct, including the upgrade of road frontages to an urban standard at the time of development or subdivision of adjoining land, to provide for all modes and connect with the existing transport network to the Drury Central train station.
- (8) Require that subdivision and development does not occur in advance of the availability of operational transport infrastructure, including regional and local transport infrastructure.
- (9) Ensure that development in the Waihoehoe Precinct is coordinated with sufficient stormwater, wastewater, water, energy and communications infrastructure.
- (10) Require subdivision and development, as it proceeds, to provide access to safe, direct and legible pedestrian and cycling connections to the Drury Central train station and schools within the Precinct Plan 2 area.
- (11) Contribute to improvements to water quality, habitat and biodiversity, including by providing planting on the riparian margins of permanent and intermittent streams.
- (12) Limit the maximum impervious area within Sub-precinct B to manage the stormwater runoff generated by a development to ensure that adverse flooding effects are avoided or mitigated.
- (13) Provide opportunities to deliver a range of site sizes and densities in the Residential -Terrace Housing and Apartment Buildings zone.
- (14) In addition to the matters in Policy E1.3(8) and E1.3(11)a, manage erosion and associated effects on stream health and values arising from development in the precinct, and enable in- stream works to mitigate any effects.

Stormwater Management

- (15) Require subdivision and development to be consistent with the treatment train approach outlined in the supporting stormwater management plan including:
 - (a) Application of water sensitive design to achieve water quality and hydrology mitigation;
 - (b) Requiring the use of inert building materials to eliminate or minimise the generation and discharge of contaminants;
 - (c) Requiring treatment of runoff from public road carriageways and publicly accessible carparks at or near source by a water quality device designed in accordance with GD01;

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- (d) Requiring runoff from other trafficked impervious surfaces to apply a treatment train approach to treat contaminant generating surfaces, including cumulative effects of lower contaminant generating surfaces;
- (e) Providing planting on the riparian margins of permanent or intermittent streams;
- (f) Ensuring development is coordinated with sufficient stormwater infrastructure.

Natural Hazards

- (16) Ensure development manages flooding effects upstream and downstream of the site and in the Waihoehoe precinct so that the risks to people and property (including infrastructure) are not increased for all flood events, up to a 1% AEP flood event. This includes appropriately designed and sited flood attenuation devices and providing sufficient floodplain storage within the precinct.

Mana Whenua values

- (17) Development responds to Mana Whenua values by:
 - (a) Delivering a green corridor following the stream network;
 - (b) Taking an integrated approach to stormwater management;
 - (c) Ensuring the design of streets and publicly accessible open spaces incorporate Te Aranga design principles.

Activities sensitive to noise adjacent to rail and existing and future arterial road corridors

- (18) Ensure that activities sensitive to noise adjacent to the railway corridor and/or existing and future arterial roads are designed with acoustic attenuation measures to protect people's health and residential amenity while they are indoors and that such activities do not unduly constrain the operation of the railway corridor.

All relevant overlay, Auckland-wide and zone objectives and policies apply in this precinct in addition to those specified above.

I452.4. Activity table

All relevant overlay, Auckland-wide and zone activity tables apply unless the activity is listed in Activity Table I452.4.1 below.

Activity Table I452.4.1 specifies the activity status of district land use activities and development in the Waihoehoe Precinct pursuant to section(s) 9(3) of the Resource Management Act 1991 and the activity status for subdivision pursuant to section 11 of the Resource Management Act 1991.

Table I452.4.1 Activity table

Activity	Activity status
Subdivision and Development	

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(A1)	Subdivision, or new buildings prior to subdivision, including private roads (excluding alterations and additions that are a permitted activity in the underlying zone)	RD
(A2)	Subdivision and/or development that does not comply with Standard I452.6.2 Staging of Subdivision and Development with Transport Upgrades with respect to the following elements of Table I452.6.2.1: <ul style="list-style-type: none"> i. Upgrades in rows (a) and (b) The upgrade in row (c) relating to Drury Central train station	NC
(A3)	Subdivision and/or development that does not comply with Standard I452.6.2 Staging of Subdivision and Development with Transport Upgrades with respect to the following elements of Table I452.6.2.1: <ul style="list-style-type: none"> i. The upgrade in row (c) relating to the Direct connection from State Highway 1 to the Drury Centre Upgrades in rows (d) to (f)	D
(A4)	Subdivision and/or development that does not comply with Standard I452.6.4(1) Road Design	RD
(A5)	Any application to amend an existing resource consent that gives rise to non-compliance with Standard I452.6.2 Staging of Subdivision and Development with Transport Upgrades and Table I452.6.2.1	NC in relation to transport infrastructure upgrades subject to (A2) above D in relation to transport infrastructure upgrades subject to (A3) above

I452.5. Notification

Any application for resource consent for an activity listed in Table I452.4.1 Activity table will be subject to the normal tests for notification under the relevant sections of the Resource Management Act 1991.

When deciding who is an affected person in relation to any activity for the purposes of section 95E of the Resource Management Act 1991 the Council will give specific consideration to those persons listed in Rule C1.13(4).

I452.6. Standards

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- (1) Unless specified in Standard I452.6(2), I452.6(3) or I452.6(4) below, all relevant overlay, Auckland-wide and zone standards apply to the activities listed in Activity Table I452.4.1 above.
- (2) The following Auckland-wide standards do not apply to activities listed in Activity Table I452.4.1 above:
 - (a) E27.6.1 Trip generation
- (3) The following zone standards do not apply within Sub-precinct B:
 - (a) H6.6.10 Maximum impervious area
- (4) In addition to I452.6(1) activities listed in Activity Table I452.4.1 must comply with the following standards I452.6.1 to I452.6.11.

I452.6.1. Building Height

Purpose:

- Enable building height to be maximised close to the Drury Central train station and the frequent transport network;
 - Contribute positively to Drury's sense of place;
 - Manage the effects of building height, including visual dominance.
- (1) Buildings in the Residential - Terrace Housing and Apartment Buildings zone must not exceed the height in metres shown in the Height Variation Control on the planning maps.

I452.6.2. Staging of Subdivision and Development with Transport Upgrades

Purpose:

- Mitigate the adverse effects of traffic generation on the surrounding local and wider road network, consistent with Policy 6.
- Achieve the integration of land use and transport consistent with Policies I452.3(5), (7), (8) and (10).

- (1) Development and subdivision within the area shown on I452.10.2 Precinct Plan 2 must not exceed the thresholds in Table I452.6.2.1 until such time that the identified infrastructure upgrades are constructed and are operational. Applications for resource consent in respect of activities, development or subdivision identified in Column 1 of the Table will be deemed to comply with this standard I452.6.2(1) if the corresponding infrastructure identified in Column 2 of the Table is:

- (a) Constructed and operational prior to lodgement of the resource consent application; or
- (b) Under construction with relevant consents and/or designations being given effect to prior to the lodgement of the resource consent application and

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the application is expressly made on the basis that the relevant infrastructure upgrade(s) will be completed and operational prior to:

- (i) the issue of a section 224(c) RMA certificate in the case of a subdivision consent application; and/or
- (ii) the occupation of any dwellings, commercial, and/or community activities in the case of a land use consent application; or

(c) Proposed to be constructed by the applicant as part of the resource consent application and the application is expressly made on the basis that the relevant infrastructure upgrade(s) will be completed and operational:

- (i) Prior to or in conjunction with the issue of a section 224(c) RMA certificate in the case of a subdivision consent application; and/or
- (ii) Prior to the occupation of any dwellings, commercial, and/or community activities in the case of a land use consent application.

(2) Any application lodged in terms of I452.6.2(1) b) or c) above must confirm the applicant's express agreement in terms of section 108AA(1)(a) of the RMA and on an *Augier* basis to the imposition of consent conditions requiring (as relevant) that:

- (i) no dwellings, retail, commercial and/or community floorspace shall be occupied until the relevant infrastructure upgrades are constructed and operational; and/or
- (ii) no section 224(c) certificate shall be issued and no subdivision survey plan shall be deposited until the relevant infrastructure upgrades are constructed and operational.

Any resource consent(s) granted on one or both of the above bases must be made subject to consent conditions as described in I452.6.2(2)i and/or I452.6.2(2)ii above. Those conditions will continue to apply until appropriate evidence is supplied to Council confirming that the relevant infrastructure upgrades are operational.

(3) For the purpose of this standard:

- (a) 'dwelling' and 'retail/commercial/community floorspace' means buildings for those activities that have a land use consent, or subdivision that has a section 224(c) certificate that creates additional vacant lots;
- (b) 'Occupation' and 'occupied' mean occupation and use for the purposes permitted by the resource consent but not including occupation by personnel engaged in construction, fitting out or decoration; and

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(c) 'Operational' means the relevant upgrade is available for use and open to all traffic (be it road traffic in the case of road upgrades, or rail traffic in the case of the Drury Central train station).

(4) Any proposal for dwellings, retail, commercial or community activities must demonstrate compliance with this rule in accordance with the Special Information Requirements in I452.9(5).

I452.6.2.1. Table I452.6.2.1 Threshold for Subdivision and Development as shown on I452.10.2 Waihoehoe: Precinct Plan 2

Column 1	Column 2
Activities, development or subdivision, enabled by Transport Infrastructure in column 2	Transport infrastructure required to enable activities, development or subdivision in column 1
<p>(a) Up to a maximum of 710 dwellings</p>	<p>Interim upgrade to Great South Road/Waihoehoe Road roundabout to signals in accordance with Appendix 2, including pedestrian connections to existing footpaths; and</p> <p>Interim upgrade of Waihoehoe Road in accordance with Appendix 2, including walking and cycling provisions on the Waihoehoe Road bridge.</p>
<p>(b) Up to a maximum of:</p> <ul style="list-style-type: none"> (i) 1,300 dwellings; and/or (ii) 24,000m² retail GFA; and/or (iii) 6,000m² other commercial GFA; and/or (iv) 800m² community GFA. 	<p>Upgrades in (a) above and State Highway 1 widening – Stage 1, being six lanes between the Papakura interchange and Drury interchange.</p>
<p>(c) Up to a maximum of:</p> <ul style="list-style-type: none"> (i) 1,800 dwellings; and/or (ii) 32,000m² retail GFA; and/or (iii) 8,700m² other commercial GFA; and/or 	<p>Upgrades in (a) and (b) above and: Drury Central train station, including a pedestrian connection to Waihoehoe Road*; and</p>

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	<p>(iv) 1,000m² community GFA.</p>	<p>Direct connection from State Highway 1 to the Drury Centre via a single lane slip lane from SH1 interchange to Creek Road. Creek Road is within the Drury Centre Precinct and is shown on Precinct Plan 2**.</p> <p>Notes:</p> <p>* Refer to I452.4.1(A2) – non-compliance is a non-complying activity</p> <p>** Refer to I452.4.1(A3) – non-compliance is a discretionary activity</p>
(d)	<p>Up to a maximum of:</p> <ul style="list-style-type: none"> (i) 3,300 dwellings; and/or (ii) 56,000m² retail GFA; and/or (iii) 17,900m² other commercial GFA; and/or (iv) 2,000m² community GFA. 	<p>Upgrades in (a)-(c) above and:</p> <p>Ultimate Waihoehoe Road upgrade between Fitzgerald Road and Great South Road in accordance with Appendix 2, including:</p> <ul style="list-style-type: none"> i. Two general traffic lanes and two bus lanes, footpaths and cycleways on both sides, and a new six-lane bridge over the railway corridor; and ii. Signalisation and increased capacity at the Great South Road/Waihoehoe Road intersection, including fully separated active mode facilities and 3-4 approach lanes in each direction.
(e)	<p>Up to a maximum of:</p> <ul style="list-style-type: none"> (i) 3,800 dwellings; and/or (ii) 64,000m² retail GFA; and/or (iii) 21,000m² other commercial GFA; and/or 	<p>Upgrades in (a)-(d) above and:</p> <p>Mill Road southern connection between Fitzgerald Road and State Highway 1, providing four traffic lanes and separated active mode facilities, including</p>

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	(iv) 2,400m ² community GFA.	a new SH1 Interchange at Drury South - the “Drury South interchange”
(f)	Up to a maximum of: (i) 5,800 dwellings; and/or (ii) 97,000m ² retail GFA; and/or (iii) 47,000m ² other commercial GFA; and/or (iv) 10,000m ² community GFA.	Upgrades in (a)-(e) above and: Mill Road northern connection between Fitzgerald Road and Papakura, providing four traffic lanes and separated active modes, including ultimate upgrade of Waihoehoe Road East from Fitzgerald Road to Mill Road and Ultimate Opāheke Northern connection, providing four lanes including bus lanes and active mode facilities between Waihoehoe Road and Opāheke Road in Papakura

I452.6.3. Minimum Bicycle Parking

- (1) In addition to the bicycle parking requirements in standard E27.6.2(6), at least one secure (long stay) bicycle park must be provided for every dwelling.
- (2) For multi-unit development, at least one visitor (short stay) bicycle space must be provided for every 20 dwellings.

I452.6.4. Road Design

Purpose: To ensure that any activity, development and/or subdivision complies with I452.11 Appendix 1: Road Function and Design Elements Table.

- (1) Any activity, development and/or subdivision that includes the construction of new roads, or the upgrade of existing roads, must comply with I452.11 Appendix 1: Road Function and Design Elements Table.

I452.6.5. Riparian Margin

Purpose: Contribute to improvements to water quality, habitat and biodiversity.

- (1) Riparian margins of permanent or intermittent streams must be planted either side to a minimum width of 10m measured from the top of bank of the stream, provided that:
 - (i) This rule shall not apply to road crossings over streams;
 - (ii) Walkways and cycleways must not locate within the riparian planting area;
 - (iii) Any archaeological site identified in a site specific archaeological survey must not be planted;
 - (iv) The riparian planting area is vested in Council or protected and maintained in perpetuity by an appropriate legal mechanism.
- (2) A building, or parts of a building, must be setback at least 20m from the bank of a river or stream measuring 3m or more in width, consistent with the requirements of E38.7.3.2.

I452.6.6. Maximum Impervious Area within Sub-Precinct B

Purpose: To appropriately manage stormwater effects generated within Sub-Precinct B.

- (1) Within Sub-Precinct B the maximum impervious area must not exceed 60 per cent of the site area.
- (2) Within Sub-Precinct B the maximum impervious area within a riparian yard must not exceed 10 per cent of the riparian yard area.

I452.6.7. Stormwater Quality

Purpose: Contribute to improvements to water quality and stream health.

- (1) Stormwater runoff from new, or redevelopment of existing, high contaminant generating carparks, all publicly accessible carparks exposed to rainfall, and all roads must be treated with a stormwater management device(s) meeting the following standards:

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- (a) the device or system must be sized and designed in accordance with 'Guidance Document 2017/001 Stormwater Management Devices in the Auckland Region (GD01)'; or
 - (b) where alternative devices are proposed, the device must demonstrate it is designed to achieve an equivalent level of contaminant or sediment removal performance to that of 'Guidance Document 2017/001 Stormwater Management Devices in the Auckland Region (GD01)'.
 - (c) For all other trafficked impervious surfaces, water quality treatment in accordance with the approved stormwater management plan must be installed.
- (2) New buildings, and additions to buildings must be constructed using inert cladding, roofing and spouting building materials that avoid the use of high contaminant yielding building products which have:
- (a) exposed surface(s) or surface coating of metallic zinc of any alloy containing greater than 10% zinc; or
 - (b) exposed surface(s) or surface coating of metallic copper or any alloy containing greater than 10% copper; or
 - (c) exposed treated timber surface(s) or any roof material with a copper- containing or zinc-containing algaecide.

I452.6.8. Fences adjoining publicly accessible open space

Purpose: Ensure development positively contributes to the visual quality and interest of open spaces.

- (1) Fences, or walls, or a combination of these structures, within a side or rear yard adjoining a publicly accessible open space (excluding roads) must not exceed the heights specified below, measured from the ground level at the boundary:
 - (i) 1.2m in height, or;
 - (ii) 1.8m in height if the fence is at least 50 per cent visually open.

I452.6.9. Activities sensitive to noise within 60m of the rail corridor

Purpose: Ensure Activities sensitive to noise adjacent to the railway corridor are designed to protect people's health and residential amenity while they are indoors and that such activities do not unduly constrain the operation of the railway corridor.

- (1) Any new building or alteration to an existing building that contains an activity sensitive to noise, within 60 metres of the rail corridor, must be designed, constructed and maintained to not exceed 35 dB LAeq (1 hour) for sleeping areas and 40 dB LAeq (1 hour) for all other habitable spaces.

Note Railway noise is assumed to be 70 dB LAeq(1 hour) at a distance of 12 metres from the track and must be deemed to reduce at a rate of 3 dB per doubling of distance up to 40 metres and 6 dB per doubling of distance beyond 40 metres.

- (2) If windows must be closed to achieve the design noise levels in Standard I452.6.9(1), the building must be designed, constructed and maintained with a mechanical ventilation system that meets the requirements of E25.6.10(3)(b) and (d) to (f).
- (3) A report must be submitted by a suitably qualified and experienced person to the council demonstrating compliance with Standard I452.6.9(1) and I452.6.9(2) prior to the construction or alteration of any building containing an activity sensitive to noise located within the areas specified in I452.6.9(1).

I452.6.10. Activities sensitive to noise within 75m of an existing or future Arterial Road shown on Precinct Plan 1

Purpose: Ensure Activities sensitive to noise adjacent to the arterial road are designed to protect people's health and residential amenity while they are indoors.

- (1) Any new buildings or alterations to existing buildings containing an activity sensitive to noise within 75m to the boundary of Waihoehoe Road and/or the Opaheke North-South FTN Arterial (shown as future arterial roads on Precinct Plan 1) must be designed, constructed and maintained so that road traffic noise does not exceed 40 dB LAeq (24 hour) in all noise sensitive spaces.
- (2) If windows must be closed to achieve the design noise levels in Standard I452.6.10(1), the building must be designed, constructed and maintained with a mechanical ventilation system that meets the requirements of E25.6.10(3)(b) and (d) to (f).
- (3) A design report must be submitted by a suitably qualified and experienced person to the council demonstrating that compliance with Standard I452.6.10(1) and I452.6.10(2) can be achieved prior to the construction or alteration of any building containing an activity sensitive to noise located within the areas specified in I452.6.10(1). In the design, road noise for the Auckland Transport designations D2 and D3 (Jesmond to Waihoehoe West Frequent Transit Network Upgrade and Waihoehoe Road East upgrade) and for designation D4 (Opaheke North-South FTN Arterial) is based on:
 - (a) current measured noise levels plus 3 dB, or
 - (b) current modelled noise levels plus 3 dB, or
 - (c) future predicted noise levels,

save that road noise for Opaheke North-South FTN Arterial shall only be based on future predicted noise levels, until that arterial road is completed and operational.

For the purposes of this Standard, future predicted noise levels shall be either based on computer noise modelling undertaken by a suitably qualified and experienced person on behalf of the applicant or those levels modelled as part of the Auckland Transport designations D2, D3 and D4 (Jesmond to Waihoehoe West Frequent Transit Network Upgrade, Waihoehoe Road East upgrade and Opaheke North-South FTN Arterial).

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Should noise modelling undertaken on behalf of the applicant be used for the purposes of the future predicted noise levels under this standard, modelling shall be based on the following inputs:

- (i) An asphaltic concrete surfacing (or equivalent low-noise road surface)
- (ii) 50km/hr speed environment
- (iii) The concept alignment authorised by Auckland Transport designations D2, D3 and D4 (Jesmond to Waihoehoe West Frequent Transit Network Upgrade, Waihoehoe Road East upgrade and Opaheke North-South FTN Arterial) or, if the arterial road upgrade works have been completed in full, as built plans available from Auckland Transport on request
- (iv) The following Waihoehoe Road and Opaheke North-South FTN Arterial Annual Average Daily Traffic (AADT) flow predictions for 2048 and heavy vehicles % for 2048:

Section	2048	
	AADT	HV%
Waihoehoe Road (Great South Road to Fitzgerald Road)	18200	7%
Waihoehoe Road (Fitzgerald Road to Fielding Road)	6700	7%
NS Arterial	10500	9%

- (v) Screening from any buildings that exist or buildings for which building consent has been granted and issued.

Should Auckland Transport's noise modelling be used for the purposes of this standard:

- (i) The future predicted noise levels are those modelled as part of Auckland Transport designations D2, D3 and D4, which are based on an assumed posted speed limit of 50km/h, the use of an asphaltic concrete surfacing (or equivalent low-noise road surfacing) and a traffic design year of 2048.
- (ii) The information and the associated assumptions and parameters in (i) above are available on request from Auckland Transport and on the project website for the Jesmond to Waihoehoe West Frequent Transit Network Upgrade, Waihoehoe Road East Upgrade and Opaheke North-South FTN Arterial.

I452.6.11. Safe operation of the NIMT

Purpose: To ensure the safe operation of the North Island Main Trunk Line by providing for buildings on adjoining sites to be maintained within their site boundaries.

- (1) Buildings must be setback at least 5 metres from any boundary which adjoins the North Island Main Trunk Line.

I452.7. Assessment – controlled activities

There are no controlled activities in this precinct.

I452.8. Assessment – restricted discretionary activities

I452.8.1. Matters of discretion

The Council will reserve its discretion to all of the following matters when assessing a restricted discretionary activity resource consent application, in addition to the matters specified for the relevant restricted discretionary activities in the overlays, Auckland-wide or zones provisions:

- (1) Subdivision, or new buildings prior to subdivision, including private roads:
 - (a) Location and design of the arterial roads, collector roads, local roads and connections with neighbouring sites to achieve an integrated street network, and appropriately provide for all modes;
 - (b) Provision of cycling and pedestrian networks;
 - (c) Location, design and sequencing of connections to the Drury Central train station;
 - (d) Open space and floodplain / drainage network;
 - (e) Design and sequencing of upgrades to the existing road network;
 - (f) Servicing;
 - (g) Stormwater and flooding effects;
 - (h) Matters of discretion I452.8.1(1) (a)- (g) apply in addition to the matters of discretion in E38.12.1; and
 - (i) The imposition of consent conditions of the kind referred to in rule I452.6.1(1) and (2).
- (2) Infringement of standard I452.6.3 Minimum cycle parking:
 - (a) Matters of discretion E27.8.2(7) apply.
- (3) Infringement to standard I452.6.5 Riparian Margins:
 - (a) Effects on water quality, biodiversity and stream erosion.
- (4) Development that does not comply with Standard I452.6.6 Maximum Impervious Area within Sub-precinct B:
 - (a) Matters of discretion in H6.8.1(4) apply.
- (5) Infringements to standard I452.6.7 Stormwater Quality
 - (a) Matters of discretion E9.8.1(1) apply.

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- (6) Infringement of standard I452.6.8 Fences adjoining publicly accessible open space
 - (a) Effects on the amenity and safety of the open space.
- (7) Infringement of standard I452.6.9 – Development within 60m of the rail corridor
 - (a) Effects on human health and residential amenity while people are indoors and effects on the operation of the railway corridor.
- (8) Infringement of standard I452.6.10 – Development within 75m of an existing or future arterial road
 - (a) Effects on human health and residential amenity while people are indoors.
 - (b) The location of buildings.
 - (c) Topographical, building design features or other alternative mitigation that will mitigate potential adverse health and amenity effects relevant to noise.
- (9) Infringement of standard I452.6.11 Safe operation of the NIMT
 - (a) Effects on the safe operation of the North Island Main Trunk Line, by providing for buildings on adjoining sites to be maintained within their site boundaries.
- (10) Infringement to standard I452.6.4 Road Design
 - (a) The design of the road, and associated road reserve and whether it achieves policies I452.3(3), (5), (6) and (7).
 - (b) Design constraints.
 - (c) Interface design treatment at property boundaries, particularly for pedestrians and cyclists.

I452.8.2. Assessment criteria

The Council will consider the relevant assessment criteria below for restricted discretionary activities, in addition to the assessment criteria specified for the relevant restricted discretionary activities in the overlays, Auckland-wide or zones provisions:

- (1) Subdivision, and new building prior to subdivision, including private roads:

Location of roads

- (a) Whether the arterial and collector roads are provided generally in the locations shown on I452.10.1 Waihoehoe: Precinct Plan 1 to achieve a highly connected street layout that integrates with the surrounding transport network. An alternative alignment that provides an equal or better degree of connectivity and amenity within and beyond the precinct may be appropriate, having regard to the following functional matters:
 - (i) Landowner patterns and the presence of natural features, natural hazards or contours or other constraints and how these impact on the placement of roads;

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- (ii) The need to achieve an efficient block structure and layout within the precinct suitable to the proposed activities; and
 - (iii) The constructability of roads and the ability for them to be connected beyond any property boundary.
- (b) Whether a high quality and integrated network of local roads is provided within the precinct that provides a good degree of accessibility and supports a walkable street network.
- (c) Whether roads and pedestrian and cycle paths are aligned to provide visual and physical connections to open spaces, including along the stream network, where the site conditions allow.
- (d) Whether subdivision and development provide for arterial roads, collector roads and local roads to the site boundaries to coordinate with neighbouring sites and support the integrated completion of the network within the precinct over time;

Design of Roads

- (e) Whether the design of new arterial, collector and local roads accords with the road design details in I452.11 Appendix 1.
- (f) Whether the layout of the street network provides a good degree of accessibility and supports a walkable street network. As a general principle, the length of a block should be no greater than 280m, and the perimeter of the block should be no greater than 600m;
- (g) Whether safe and legible pedestrian and cycle connections to the Drury Central train station are provided, via facilities on Waihoehoe Road and Flanagan Road/Drury Boulevard, from the Fitzgerald Rd extension to the Drury Rail Station. Or an alternative is provided that achieves an equal or better degree of connectivity. Where development precedes the upgrade of Waihoehoe Road and connecting roads, interim pedestrian and cycle facilities may be provided.
- (h) Whether a further upgrade to the intersection of State Highway 22 / Great South intersection beyond what is required by the Drury South Precinct (I410.8.2(1)(f)) is necessary, to ensure it can operate safely and efficiently. This will be assessed for development exceeding the level set out in I452.6.2.1(a), but prior to the full upgrade of Waihoehoe Road required by I452.6.2.1(d). If required, the further upgrade will provide an additional right turn lane from Great South Road.
- (i) Whether Waihoehoe Road (East) to the Waihoehoe Precinct boundary and Kath Henry Lane is of a suitable condition to maintain safe traffic movement prior to its upgrade to the required urban standard or whether any shoulder widening, localised widening or safety works and/or interim intersection upgrades or interim active mode connections within the existing road reserve are required having regard to the additional traffic on that road generated by the Waihoehoe Precinct.

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Open space and floodplain / drainage reserve network

- (j) Whether open spaces and floodplain / drainage reserves are provided in the locations generally consistent with the indicative locations shown on I452.10.1 Waihoehoe Precinct Plan 1.
- (k) Neighbourhood and suburb parks should have adequate street frontage to ensure they are visually prominent and safe.

Servicing

- (l) Whether there is sufficient capacity in the existing or proposed utilities network, and public reticulated water supply, wastewater and stormwater network to service the proposed development.
- (m) Where adequate network capacity is not available, whether adequate mitigation or staging is proposed.
- (n) Whether development has considered the presence of the 110kv Counties Power electricity lines and the need to achieve safe distances under existing Codes of Practice, or whether the existing lines can be relocated.

Stormwater and flooding

- (o) Whether development is in accordance with the approved Stormwater Management Plan and policies E1.3(1) – (14);
- (p) Whether the design and efficacy of infrastructure and devices is appropriate with consideration given to the likely effectiveness, ease of access, operation and integration with the surrounding environment.
- (q) Whether the proposal ensures that development manages flooding effects upstream and downstream of the site and the Waihoehoe precinct so that the risks to people and property (including infrastructure) are not increased for all flood events, up to a 1% AEP flood event.
- (r) Whether the location, size, design and management of any flood attenuation devices is appropriate to ensure that development does not increase flooding risks.

Te Aranga Design Principles

- (s) Whether the design of streets and publicly accessible open spaces incorporate Te Aranga design principles.
- (2) Infringement of standard I452.6.3 Minimum cycle parking
- (a) Assessment criteria in E27.8.2(6) apply.
- (3) Infringement to standard I452.6.5 Riparian Planting
- (a) Whether the infringement is consistent with Policy I452.3(8).

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- (4) Development that does not comply with Standard I452.6.6 Maximum Impervious Area within Sub-precinct B:
 - (a) The assessment criteria within H6.8.2(10) apply.
- (5) Infringement to standard I452.6.7 Stormwater Quality
 - (a) Assessment criteria E9.8.2(1) apply.
 - (b) Whether the proposal is in accordance with the approved Stormwater Management Plan and Policies E1.3(1) – (14).
 - (c) Whether a treatment train approach is implemented to treat runoff so that all contaminant generating surfaces are treated, including cumulative effects of lower contaminant generating surfaces.
- (6) Infringement of standard I452.6.8 Fences adjoining publicly accessible open space
 - (a) Whether the proposal positively contributes to the visual quality and interest of the adjoining open space, while providing an adequate degree of privacy and security for the development.
- (7) Infringement of standard I452.6.9 –Activities sensitive to noise within 60m of the rail corridor
 - (a) Whether activities sensitive to noise adjacent to the railway corridor are designed to protect people’s health and amenity while they are indoors, and whether such activities unduly constrain the operation of the railway corridor. This includes:
 - (i) the extent to which building(s) containing activities sensitive to noise have been located and designed with particular regard to proximity to the rail corridor;
 - (ii) the extent of non-compliance with the noise standard and the effects of any non-compliance;
 - (iii) the extent to which topographical features or location of other buildings or structures will mitigate noise effects; and
 - (iv) any noise management implications arising from technical advice from an acoustic rail noise expert and KiwiRail.
- (8) Infringement of standard I452.6.10 – Development within 75m of Waihoehoe Road and/or Opaheke North-South FTN arterial roads
 - (a) Whether activities sensitive to noise adjacent to Waihoehoe Road and/or Opaheke North-South FTN arterial roads are designed to protect people from adverse health and amenity effects while they are indoors.
 - (b) Whether any identified topographical or building design features, or the location of the building or any other existing buildings, will mitigate any potential health and amenity effects.

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- (c) The extent to which the alternative mitigation measures avoid, remedy or mitigate the effects of non-compliance with the noise standards on the health and amenity of potential building occupants.

(9) Infringement of standard I452.6.11 Safe operation of the NIMT

- (a) Whether the proposal ensures that buildings can be maintained within their site boundaries while providing for the safe operation of the North Island Main Trunk Line, including:
 - (i) the size, nature and location of the buildings on the site;
 - (ii) the extent to which the safety and efficiency of railway operations will be adversely affected;
 - (iii) any characteristics of the proposal that avoid or mitigate any effects on the safe operation of the North Island Main Trunk Line; and
 - (iv) any implications arising from advice from KiwiRail.

(10) Infringement to standard I452.6.4 Road Design

- (a) Whether there are constraints or other factors present which make it impractical to comply with the required standards.
- (b) Whether the design of the road and associated road reserve achieves policies I452.3(3), (5), (6) and (7).
- (c) Whether the proposed design and road reserve:
 - (i) incorporates measures to achieve the required design speeds;
 - (ii) can safely accommodate required vehicle movements;
 - (iii) can appropriately accommodate all proposed infrastructure and roading elements including utilities and/or any stormwater treatment;
 - (iv) assesses the feasibility of upgrading any interim design or road reserve to the ultimate required standard.
- (d) Whether there is an appropriate interface design treatment at property boundaries, particularly for pedestrians and cyclists.

I452.9. Special information requirements

(1) Riparian Planting

An application for land modification, development and subdivision which adjoins a permanent or intermittent stream must be accompanied by a riparian planting plan identifying the location, species, planter bag size and density of the plants. Plant species should be native. The riparian planting plan must be prepared in accordance with Appendix 16 - Guideline for native revegetation plantings.

(2) Permanent and intermittent streams and wetlands

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All applications for land modification, development and subdivision must include a plan identifying all permanent and intermittent streams and wetlands on the application site.

(3) Archaeological assessment

An application for land modification within the area shown on I452.10.3 Precinct Plan 3, must be accompanied by an archaeological assessment, including a survey. This also applies to any development providing riparian planting in accordance with I452.6.5. The purpose of this assessment is to evaluate the effects on archaeological values prior to any land disturbance, planting or demolition of a pre-1900 building, and to confirm whether the development will require an Authority to Modify under the Heritage New Zealand Pouhere Taonga Act 2014.

(4) Integrated transport assessment

An application to infringe standard I452.6.2 Staging of Subdivision and Development with Transport Upgrades must be accompanied by an integrated transport assessment prepared by suitably qualified transport planner or traffic engineer prepared in accordance with the Auckland Transport Integrated Transport Assessment Guidelines in force at the time of the application.

The integrated transport assessment must include a register of development and subdivision that has been previously approved under standard I452.6.2 Staging of Subdivision and Development with Transport Upgrades.

Without limiting the scope of the integrated transport assessment, the integrated transport assessment must assess and provide details of the following:

- (a) Whether the proposal is in accordance with Policies I452.3 (2), I452.3 (3), I452.3 (5), I452.3 (6), I452.3 (7), I452.3 (8) and I452.3 (10) in addition to any other relevant AUP policy;
- (b) Whether public transport routes that connect to the Drury Central train station and the Drury Centre can operate effectively and efficiently at all times;
- (c) Whether the Waihoehoe/Great South Road intersection can operate safely and with reasonable efficiency during the inter-peak period, being generally no worse than a Level of Service D for the overall intersection;
- (d) Whether increased use of public transport within the Waihoehoe precinct or the wider area, has provided additional capacity within the transport network including by implementing travel demand management measures;
- (e) Whether the proposal would have a similar or lesser trip generation and similar effects on the surrounding road network to the Subdivision and development mix provided for in the Table I452.6.2.1 Threshold for Development;
- (f) Whether residential development is coordinated with retail and commercial development within the wider Drury East area identified on Precinct Plan 2 to minimise trips outside of the precinct providing additional capacity within the transport network;

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- (g) Whether the actual rate of development in the wider area is slower than anticipated and provides additional capacity in the transport network;
- (h) The effect of the timing and development of any other transport upgrades or transport innovations not anticipated by the Waihoehoe precinct;
- (i) Whether the integrated transport assessment supporting the application documents the outcome of engagement with the road controlling authority;
- (j) Whether the proposal demonstrates methods that promote the increased use of public transport, including details of how those methods would be implemented, monitored and reviewed so as to contribute to a reduction in vehicle trips;
- (k) Whether the intersection of Great South Road / Quarry Road and the Drury South Precinct roads can operate safely and efficiently prior to the full upgrade of Waihoehoe Road between Fitzgerald Road and Great South Road;
- (l) Whether the surrounding transport network can operate safely and efficiently when considering traffic generated by construction activities within the Precinct Plan 2 area.

(5) Monitoring of Rule I452.6.2 Staging of Subdivision and Development with Transport Upgrades

Any proposal for dwellings, retail, commercial or community activities must demonstrate compliance with rule I452.6.2 Staging of Subdivision and Development with Transport Upgrades. Any application must contain details of the maximum number of dwellings or amount of retail, commercial or community GFA proposed to be enabled (as well as anticipated dwellings/GFA for any subdivision proposal involving superlots).

(6) Transport Design Report

Any proposed new road intersection or upgrading of existing road intersections shall be supported by a Transport Design Report and Concept Plans (including forecast transport modelling and land use assumptions), prepared by a suitably qualified transport engineer confirming the location and design of any road and its intersection(s) supports the safe and efficient function of the existing and future (ultimate) transport network and can be accommodated within the proposed or available road reserves. This may be included within a transport assessment supporting land use consent.

In addition, where an interim upgrade is proposed, information must be provided, detailing how the design allows for the ultimate upgrade to be efficiently delivered.

(7) Flood and Stormwater Assessment Report

A flood and stormwater assessment report must accompany a resource consent application for any subdivision or development proposal in the Waihoehoe precinct. The purpose of the assessment is to determine if the development proposal creates or worsens flood extent, frequency or hazard on land or generate adverse effects on infrastructure and land outside the development proposal area.

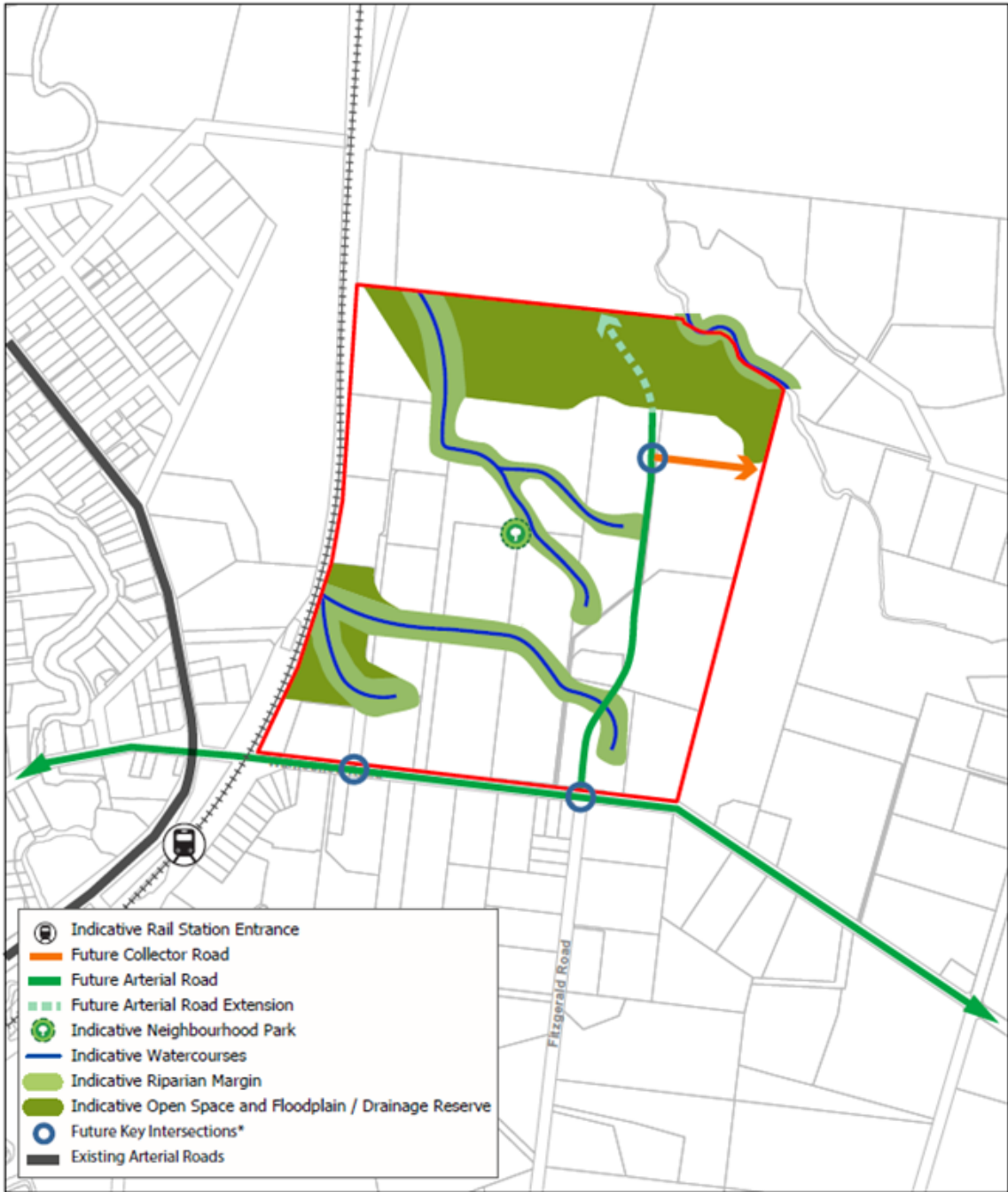
I452 Waihoehoe Precinct

The assessment must:

- (a) Include a detailed hydraulic model to assess:
 - (i) Frequency of flood event using the 5, 10, 50 and 100 ARI Events
 - (ii) Duration of flood event
 - (iii) Extent of flooding and any inundation
 - (iv) Whether any flooding effects will be temporary or permanent
 - (v) If there is any exacerbation of existing natural hazard risks or creation of new hazards, including the impact on floodplain storage in the Slippery Creek catchment
 - (vi) The interaction of the proposed development with nearby infrastructure.
 - (b) Specify mitigation of any flood effects that the development proposal creates including:
 - (i) Hydraulic sizing of any mitigation devices (including attenuation)
 - (ii) Indicative location of any mitigation devices (including attenuation)
 - (iii) The design of any structure or devices or floodplain storage areas
 - (iv) the nature and extent of any off-site stormwater management devices and how these devices are to be delivered if they are on land outside the development site
 - (v) if stormwater management devices are to be located within the modified 1% AEP floodplain, describe how these devices are to be designed to be resilient to flood-related damage while not exacerbating flood risks for upstream or downstream activities.
- (8) Activities sensitive to noise proposed within 60m of the rail corridor which infringe Standard I452.6.9 and/or buildings proposed within 5m from any boundary which adjoins the North Island Main Trunk Line which infringe Standard I452.6.11:
- (a) Evidence of consultation with KiwiRail and its responses to that consultation.

I452.10. Precinct plans

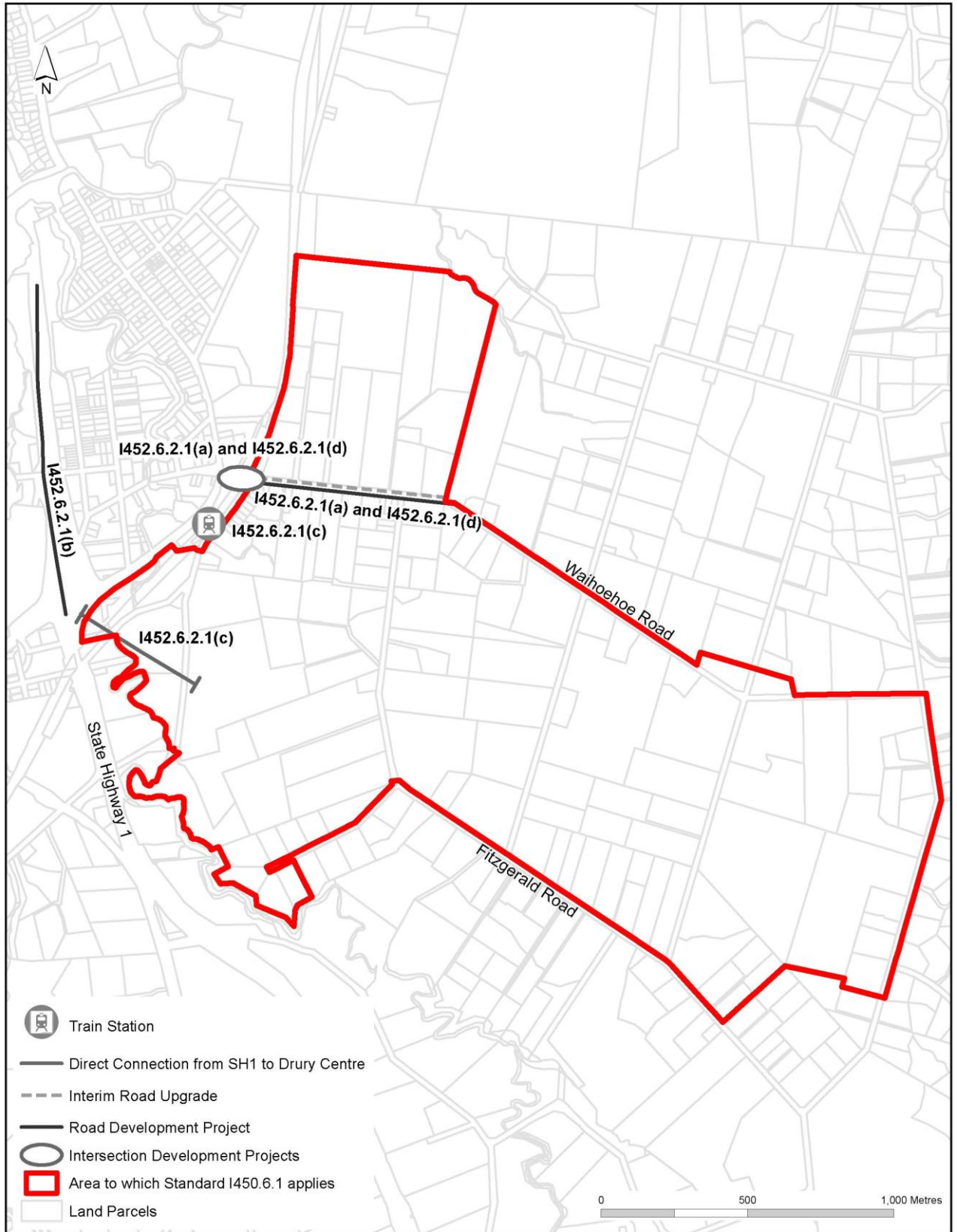
I452.10.1 Waihoehoe: Precinct plan 1 – Indicative Road and Open Space Network



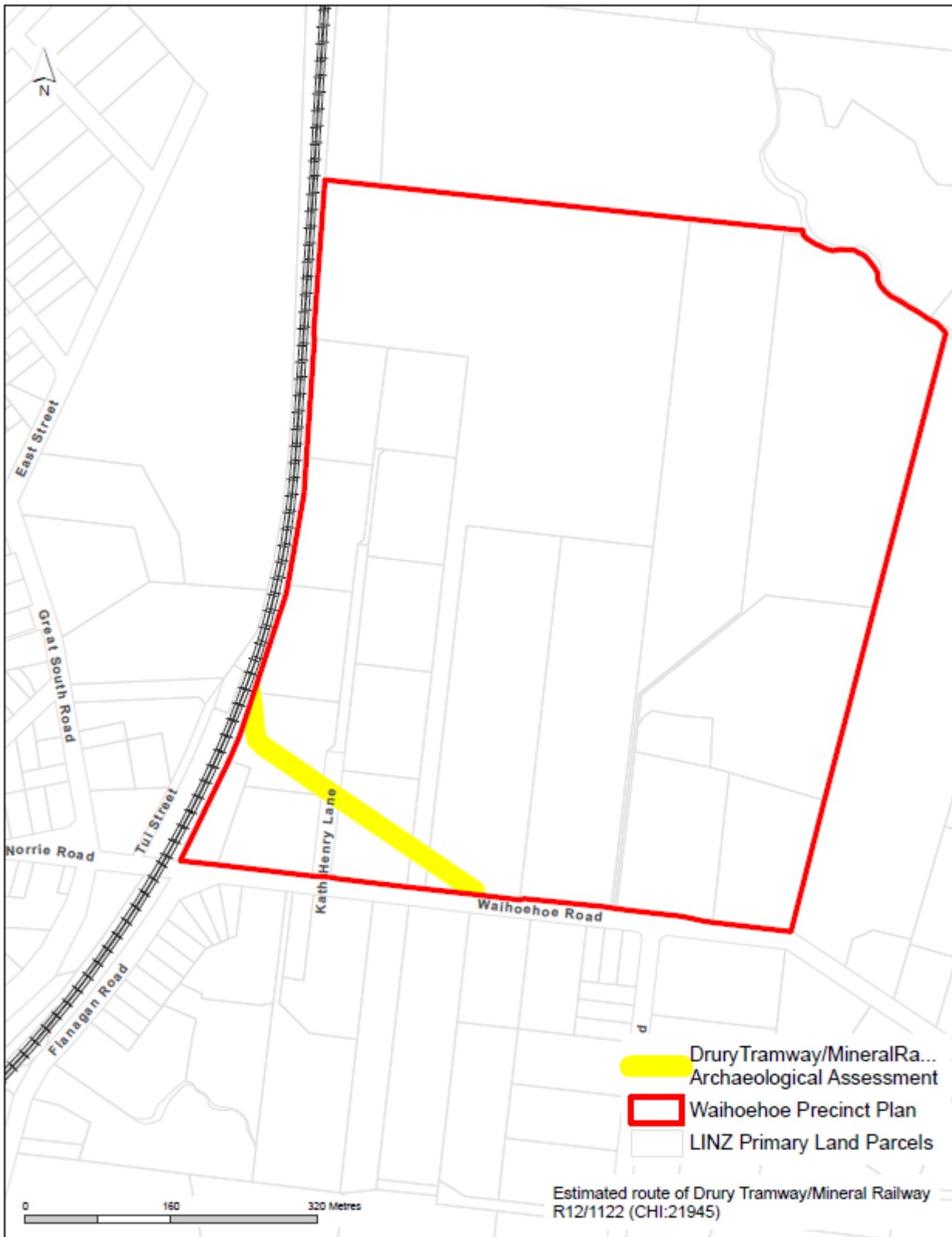
Precinct Plan 1 - Structuring Elements

Note: All elements shown are Indicative only and subject to detailed design and investigation as part of the resource consent process.
 Note: Opaheke North-South Arterial Road designed as Interim collector, future arterial road in long-term.
 *All future key Intersections subject to detailed design and special information requirements.

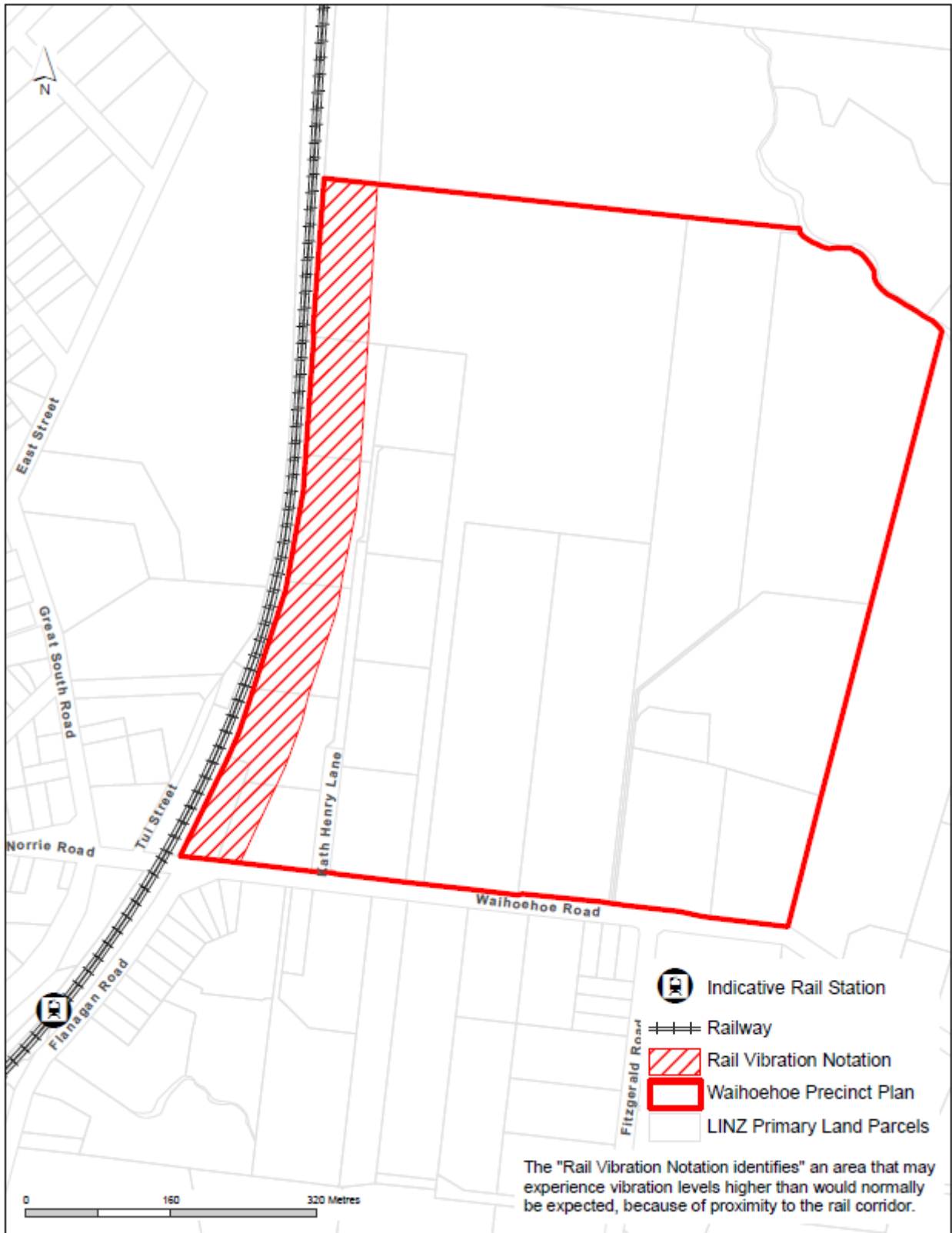
I452.10.2 Waihoehoe: Precinct plan 2 – Transport Staging Boundary



I452.10.3 Waihoehoe: Precinct plan 3 – Drury Tramway/Mineral Railway
Archaeological Assessment



I452.10.4 Waihoehoe: Precinct Plan 4 - Rail Vibration Plan



Appendices

I452.11 Appendix 1: Design Details

I452 Waihoehoe Precinct

Road Function and Required Design Elements Table										
Road Function and Required Design Elements Road Name (refer to Precinct Plan 1)	Proposed Role and Function of Road in Precinct Area	Min. Road Reserve (subject to note 1)	Total number of lanes (subject to note 3)	Speed Limit (Design)	Access Restrictions	Median	Bus Provision (subject to note 2)	On Street Parking	Cycle Provision	Pedestrian Provision
Waihoehoe Road West Ultimate Upgrade (Great South Road to Fitzgerald Road) with separated active transport provisions	Arterial	30m	4	50	Yes	Yes	Yes	No	Yes separated on both sides	Yes both sides
Waihoehoe Road West Interim Upgrade (Great South	Arterial	20m	2 ¹	50	Yes	No	Yes	No	Yes Shared path on one side with safe	Yes Shared path on one side with safe

¹ *Note: an additional bus lane will be provided between the Waihoehoe bridge and the turning lanes at Fitzgerald Road intersection, as shown at Appendix 2.

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Road Function and Required Design Elements Table										
Road Function and Required Design Elements Road Name (refer to Precinct Plan 1)	Proposed Role and Function of Road in Precinct Area	Min. Road Reserve (subject to note 1)	Total number of lanes (subject to note 3)	Speed Limit (Design)	Access Restrictions	Median	Bus Provision (subject to note 2)	On Street Parking	Cycle Provision	Pedestrian Provision
Road to Fitzgerald Road)									crossing points.	crossing points.
North-South Opaheke Road (Ultimate)	Arterial	27m	4	40	Yes	No	Yes	Optional	Yes separated on both sides	Yes both sides
North-South Opahake Road (Interim)	Collector	27m	2	40	Yes	No	Yes	Optional	Yes separated on both sides	Yes both sides
Collector Roads with separated active transport provisions	Collector	23m	2	40	No	No	Yes	Optional	Yes separated on both sides	Yes both sides

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Road Function and Required Design Elements Table										
Road Function and Required Design Elements Road Name (refer to Precinct Plan 1)	Proposed Role and Function of Road in Precinct Area	Min. Road Reserve (subject to note 1)	Total number of lanes (subject to note 3)	Speed Limit (Design)	Access Restrictions	Median	Bus Provision (subject to note 2)	On Street Parking	Cycle Provision	Pedestrian Provision
Local Roads (Residential)	Local	16m	2	30	No	No	No	Optional	No	Yes both sides
Local Roads (Residential Park Edge)	Local	13.5m	2	30	No	No	No	Optional	No	One side NB: provided that a shared path is provided within park outside the road reserve

Note 1: Typical minimum width which may need to be varied in specific locations where required to accommodate network utilities, batters, structures, stormwater treatment, intersection design, significant constraints or other localised design requirements.

Note 2: Carriageway and intersection geometry capable of accommodating buses.

Note 3: Any interim, hybrid, constrained or ultimate upgrades must be designed and constructed to include a new road pavement and be sealed to the appropriate standard in accordance with the Proposed Role and Function of the Road.

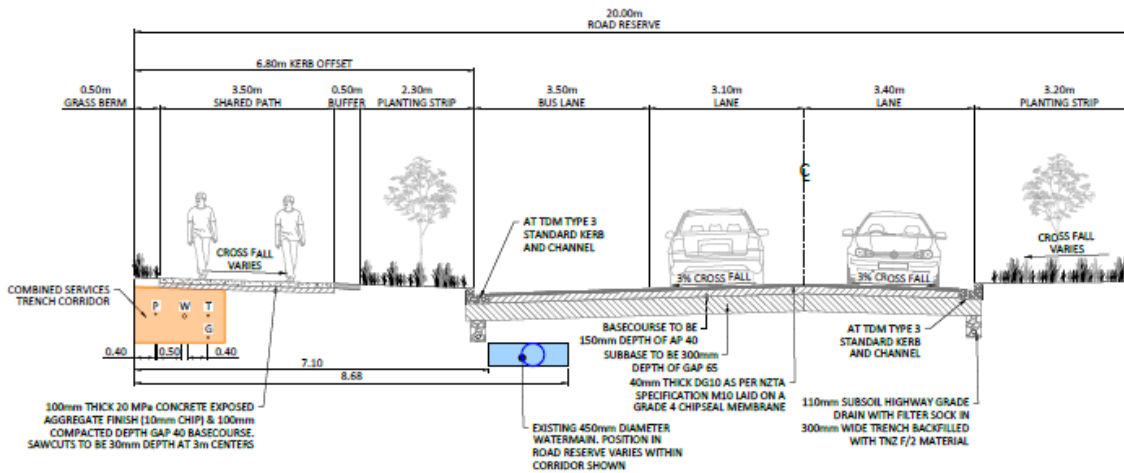
I452.11 Appendix 2: Interim upgrade to Waihoehoe Road

Note: all drawings in this appendix are indicative designs to be refined through the EPA process.

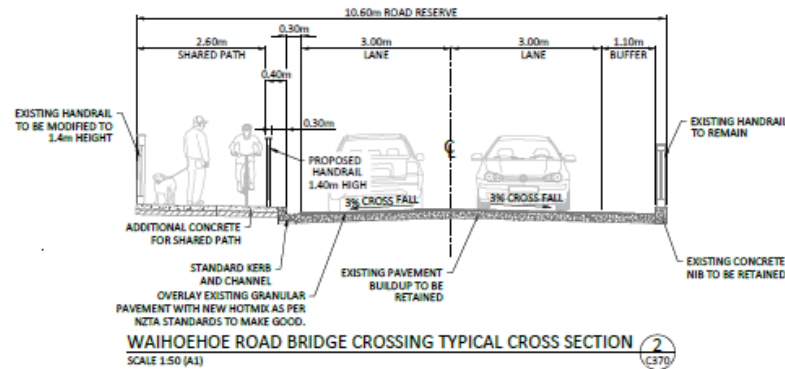
1452 Waihoehoe Precinct



* any upgrade works will need to be integrated with the design of the Ultimate Waihoehoe bridge and station access work.



PROPOSED INTERIM WAIHOEHOE ROAD TYPICAL CROSS SECTION 1
SCALE 1:50 (A1) (C370)



*any upgrade works will need to be integrated with the design of the Ultimate Waihoehoe bridge and station access works

**The Waihoehoe Road (West) Bridge Crossing design is indicative and will be refined through EPA process