NGAWHA INNOVATION AND ENTERPRISE PARK

State Highway 12, Ngawha

Landscape and Visual Amenity Assessment

2 October 2019

18171_02

Far North Holdings Limited

Simon Cocker Landscape Architecture

TABLE OF CONTENTS

1.0 INTRODUCTION

Simon Cocker Landscape Architecture has been engaged by Far North Holdings to undertake a landscape, rural character and visual amenity assessment for resource consent applications to establish an innovation park on land located to the east of Kaikohe. The detail of this application is contained in the application document prepared by Zenith Planning Consultants[1].

Grazing Northland Limited is the property owner. The property comprises eleven lots including: Lot 1 DP 172355 (24.34ha), Lot 1 DP 336520 (4.95ha), Lot 2 DP 196311 (5.96ha), Lot 1 DP 196320 (89.98ha), Pt Orauruwharo 5B1A (1.36ha), Lot 1 DP 190387 (29.74ha), Lot 1 DP 196319 (0.62ha), Orauruwharo 5B2C (1.02ha) and Reiwhatia B1 (24.55ha), Lot 2 DP 185847 (0.87ha) and Section 15S Te Pua Settlement (21.28ha).

This property is referred to here as 'the Site' and comprises approximately 204.7 ha which is currently operated as a dairy farm with a small area of pine plantation which has recently been harvested. The area is zoned Rural Production in the Far North District Plan.

Written approval has been received from a the majority of adjoining landowners. The details of these individuals, and their location is contained in the application document.

It is the opinion of the author that the proposal is appropriate from a landscape and visual perspective.

2.0 ASSESSMENT METHODOLOGY

The assessment has been prepared by a Registered Landscape Architect with reference to the Quality Planning Landscape Guidance Note 1 and its signposts to examples of best practice, which include:

- Best Practice Note 10.1, Landscape Assessment and Sustainable Management, New Zealand Institute of Landscape Architects (2010).
- Guidelines for Landscape and Visual Impact Assessment 3rd Edition, Landscape Institute (UK) and IEMA (2013).
- Information Requirements for the assessment of Landscape and Visual Effects, Auckland Council (2017).

In addition, this report has been prepared in accordance with the NZILA (New Zealand Institute of Landscape Architects) Code of Conduct[2].

Effects Ratings and Definitions

An outline of the effects ratings and definitions used in this assessment is provided in Appendix 1 – Landscape and Visual Assessment Methodology. In summary, the significance of effects identified in this assessment are based on a seven-point scale which includes very low; low; moderate – low; moderate, moderate – high, high, and very high. A rating of moderate to low equates to minor in terms of RMA terminology.

[1] Prepared by Zenith Planning Consultants, dated 23 September 2019

[2] Contained in Appendix 1 of: http://www.nzila.co.nz/media/50906/registered_membership_guide_final.pdf

Desktop study and site visits

Before developing the masterplan for the site, a thorough assessment of the site and its values (including geotechnical, geothermal, ecological, archaeological, and landscape) was undertaken[3]. The resulting technical reports, established a framework for future development of the site – identifying and mapping sensitive, unsuitable areas, and areas / features of significance. The intention has been to facilitate a development that is sensitive to, and responds to its setting, whilst providing for a range of activities.

The landscape component of this preliminary scoping assessment surveyed, mapped, described and evaluated the biophysical (biotic and abiotic), cultural and associative, and sensory and perceptual attributes of the site. Based on the above, a landscape constraints plan was developed (refer to Figure 3) which delineated four character areas within the site and assigned sensitivity ratings to these.

In preparing the masterplan, the designers adopted the following principles:

- Working with the local topography, hydrology and vegetation patterns where possible;
- Creating clustered development separated by landform, vegetation and roads;
- Capitalising on the established surrounding amenity to create local distinctiveness, and clusters of development based on topography, natural features aspect and views;
- Creating legible urban form created by open space and connections within the site and to the wider area;
- Open space that enhances the legibility of urban form;
- Creating a legible network of slow speed roads that respond to topography and support multiple nodes;
- Water sensitive design, starting with on-site features and extending into infrastructure within the public realm;
- Protecting streams, wetlands and waterways, enhancing water quality, and restoring vegetation and habitat, and
- Identification of significant individual trees, or groups of trees (based on their ecological and / or amenity values).

Prior to conducting this assessment, a desktop study was completed which included a review of the relevant information relating to the landscape and visual aspects of the project. This information included:

- Northland Regional Policy Statement (2016);
- The Far North District Plan;
- Application document prepared by Zenith Planning dated 23 September 2019;
- Geotechnical desktop study report, prepared by Cook Costello, dated 20 December 2018;
- Preliminary Geotechnical report, prepared by Cook Costello, dated 20 January 2019
- Masterplan site and infrastructure suitability report, prepared by Cook Costello, dated 26 June 2019;
- Site suitability engineering plans, prepared by Cook Costello, dated 26 June 2019;
- Ultimate development – site infrastructure suitability report (Rev 1), prepared by Cook Costello, dated 14 September 2019;
- Site suitability plans (Rev B), prepared by Cook Costello, dated 12 September 2019;
- Archaeological survey and assessment of effects, prepared by Don Prince, dated February 2019;
- Ecological assessment, prepared by NZ Environmental, dated 5 February 2019
- Plan set, and Architectural Design Statement prepared by Eclipse Architects, dated 9 September 2019;
- Plan set prepared by Wraight + Associates, dated 19 September 2019;

[3] Simon Cocker Landscape Architecture. *Ngawha Innovation and Enterprise Park. Landscape Assessment.* February 2019

- Topographical survey plans, and;
- Aerial photography, Google Earth and Streetview

Schematic cross sections (included as 9, 13, 21, and 27) were generated by Wraight + Associates to provide an indicative illustration of the proposal, and its relationship to the wider landscape. These were based on a LIDAR survey of the site, with contour intervals of 1.0 metres. Vegetation modelled in these images (included as 9, 13, 21, and 27) is illustrated as at 5 years growth.

Site visits were undertaken on 10 January 2019, 2 June 2019, and 30 August 2019..

3.0 THE PROPOSAL

The applicant seeks to undertake various resource consents to enable the establishment of the Ngawha Innovation and Enterprise Park within the site. The location of the site is shown in Figure 1, contained in Appendix 2.

The portions of the site identified for development occupy the lower-lying southern half of the site (principally the 'Undulating heritage character unit') and are referred to as:

- Finger 1 – Horticulture Hub
- Finger 2 – Innovation and Enterprise Hub
- Finger 3 – This eastern-most part of the site is largely set aside for ecological enhancement.

The proposed development is described and illustrated in the Urban Design – Masterplan Strategy Report[4]. The masterplan is included in Appendix 2 as Figure 4. Essentially, the proposal includes the following components:

Horticulture Hub

Accommodating a glass house which will accommodate an organic tomato growing operation covering an area of 93,840m^2, and associated buildings covering a total area of some 600m^2, the Horticulture Hub occupies the western 'finger' of the site. The glass house measures 368.0 metres x 255.0 metres, and 6.0 metres high. The glass houses will be lit during hours of darkness (refer to Figures 5, 6 and 8).

The ancillary plant and packing buildings and parking will be located on the western side of the building. These include a packing shed, cool store, plant room, buffer tank, and wood burner. These buildings are illustrated on Figures 5 and 7. The packing shed and plant room will be some 7.0 metres and 9.0 metres in height respectively. The wood store will be 7.0 metres in height and the buffer tank, 12.0 metres. A flue of a maximum of 20.0 metres in height will vent the wood burner.

At northern end of the glass house, 12 water tanks, each 12.0 metres in height will either provide water for the glasshouses, or will serve for firefighting purposes.

The glass house will be lit to maintain a minimum light level for the growing operation. It is understood that, in winter months, the glass house will be lit internally a maximum of 7 days a week between the hours of 1.00am and 6.00pm.

[4] Wraight + Associates. *Ngawha Innovation and Enterprise Park - Urban Design Masterplan Strategy Report* 11 September 2019

When the glasshouses are illuminated during the hours of darkness, a screen will be closed to prevent upward radiance through the roof.

A reservoir is proposed within the north west corner of Finger 1, close to Wallis Road.

A number of private residences adjoin Finger 1, and landscape buffer planting is proposed to screen views of the proposed development from these neighbouring properties (refer to Figure 5 and Figure 9).

At number 42 Wallis Road (Lot 1 DP 196311 – refer to Figure 2) is surrounded by the subject site on three sides. Mounding and buffer planting is proposed around the three sides adjoining the site, with the mounding sculpted so that it rises gradually from the boundary with the neighbour. Planting undertaken close to the neighbour's boundary will comprise species of a lower height, with the height of planting increasing as the distance from the boundary increases. Thus, the planting will provide the necessary screen, without creating a 'wall' of vegetation which has the potential to shade this neighbouring property.

On the southern edges of Finger 1, landscape buffer planting is proposed to screen views from dwellings within 4 Wallis Road (Lot 2 DP 336520), 5321 State Highway 12 (Lot 1 DP 166131), Lot 3 DP 166131, 5347 State Highway 12 (Lot 1 DP 331070), and 5347A State Highway 12 (Lot 2 DP 331070).

Innovation and Enterprise Hub

The innovation and enterprise hub will occupy Finger 2, a long and narrow portion of the site that extends to the north west from State Highway 12 near its junction with Ngawha Springs Road.

The masterplan has sought to retain existing areas of indigenous vegetation, and individual trees wherever possible. Most notably, this includes a bush remnant close to the State Highway boundary of the site, and this feature will buffer development within the site from the State Highway corridor.

The innovation and enterprise hub includes the following components:

- Buildings and car parking accommodating and serving Carbonscape (carbon production plant)
- Buildings and car parking accommodating and serving Spindle
- Business Hub
- Innovation Hub (accommodating working and training facilities)
- Buildings and car parking accommodating and serving the Honey Manuka Hub

Carbonscape

This element will comprise a building of some 141 metres x 60 metres. The production plant building will be a maximum of 12.0 metres in height, but due to falling contours at its north western corner, the building will be a maximum of 14.238 metres in height measured from existing ground level (refer to Figures 10, 11 and 12).

The production plant building will be set back some 39.50 metres from the eastern boundary of Finger 2, with the intervening space take up by a storage yard / manoeuvring area, and a 11.40 metre wide landscape buffer strip on the eastern boundary.

The sawdust store will be situated 11.40 metres from the eastern boundary to the south east of the production plant

building and will be 23 metres x 14 metres, and 7.0 metres tall.

Spindle

The Spindle production warehouse will be located to the west of the Carbonscape buildings, some 65.0 metres (including the 20.0 metre easement) from the western boundary of Finger 2 (refer to Figure 13). This building will be 80.0 metres x 43.0 metres. The pitched roof will have a maximum height at the ridge of 12.862 metres (refer to Figures 14, 15, 16 and 17). Office accommodation will be located to the south of the main building.

The building will be separated from the western boundary of Finger 2 by a landscape buffer strip. This strip will be 25.0 metres wide, and will extend along the length of the western edge of Finger 2.

Innovation Hub

Located to the south of the Carbonscape buildings, the Innovation Hub will be located on the eastern side of Finger 2 and will be set back in excess of 50.0 metres from the boundary (refer to Figures 18 and 19). The building will be 64.750 metres in length and its two halves will be offset, separated by the building entry. Each half will be 13.0 metres in width and will be a maximum of 6.6 metres in height (refer to Figures 20 and 21).

Honey and manuka

To the south east of the Innovation Hub, the Honey and manuka development will comprise two groups of buildings which together form a cluster, centred on a delivery / manoeuvring area (refer to Figure 22). This component is located on the eastern side of Finger 2, and is separated from the eastern boundary by landscape buffer planting.

The honey building will be 67.50 metres x 25 metres, and a maximum of approximately 8.0 metres high (refer to Figures 23, 24, 25, 26 and 27). The southern group of buildings, including the manuka tea, manuka oil and delivery / waste building will total 72.0 metres in length, x 20.0 metres in width and will be a maximum of 8.0 metres in height. Car parking will be located to the east of the cluster of buildings.

Circulation

The Finger 2 Innovation and Enterprise Hub will be accessed off State Highway 12. Whilst fulfilling the dimensional and sight line requirements for the State Highway, the entrance will be 'low key'. It will be framed by a stone wall (reflecting the materials and characteristic landscape features of the area) with a single sign announcing the Innovation and Enterprise Park.

The road will first cross a pastured area adjoining the State Highway before narrowing in width to 6.0 metres where it passes through the pocket of remnant native bush. The alignment of this section has been carefully detailed to avoid the loss of existing trees where possible. Beyond the bush remnant, the road will increase in width to 7.0 metres with footpaths to either side and will meander northwards through the centre of Finger 2, providing access to the various component buildings[5].

[5] Ibid page 9.

Walk / cycleways will thread through the Finger 2 part of the site and will be separate from the road network[6].

Signage

As described above, the signage will be minimized on the site / State Highway frontage will be limited to the name of the Enterprise and Innovation Park and will be a maximum of some 20m^2. Other signage will be contained within the body of the site and will not be visible from external locations. Internal signage for activities will be limited to a maximum size of 3m^2 for each business.

The design of signage will be unified using constructed from materials that reflect the rural and vernacular character of the area such as stone, timber and corten steel [7] .

Building materiality

The architectural statement described the design controls for the proposal as follows:

- The height of the buildings should be limited to 15m for the Production Hub areas
- Office / training / accommodation buildings to be limited to two storeys maximum
- The form of the new buildings should be compatible the surrounding rural building types. Simple mono pitch or gabled roofs with regular building geometry would be appropriate.
- Materials for sheds & offices should be commonly used rural materials such as profiled steel, board & batten timber, precast concrete or stone.
- Colours for the building materials should be subdued with use of dark, natural tones, rather than bright colours.
- Gravel paths & carparking areas to be used where possible to reduce the amount of hard paved area.
- Signage to proposed buildings & entrances should be controlled.
- Pond edges to be planted & integrated into the natural landscape

Planting strategy

The Urban Design Masterplan Strategy Report describes the key principles of the development and explains how the

"*….design protects and enhances existing natural systems, maximises amenity and aesthetic appeal while rejuvenating former environmental degradation. A network of naturalised wetlands will treat stormwater throughout the site. Providing stormwater retention and water supply for firefighting; the wetland ponds will connect through a series of swales, raingardens and surface sub drains, with pedestrian and cycle route connections linking the wetlands ponds.*

The ponds will provide biodiversity and visual amenity throughout the multi-use business hub. This aids the integration of the industrial footprint into the rural environment providing an enhanced ecology. It is intended that some of the ponds will remain full of water for firefighting while others act as water retention in times of heavy rainfall"

The plant palette will be primarily selected from locally appropriate and occurring species. This applies to both amenity

[6] Ibid page 10.

[7] Ibid pages 15-16.

plantings, including street trees and revegetation / existing feature enhancement plantings[8].

Landscape buffer plantings will utilise fast growing locally appropriate pioneer species such as manuka and kanuka, as well as slower growing canopy species such as puriri and totara. These plantings will be implemented using small grade revegetation stock, planted at 1.4 metre centres.

Potable Water Supply

The Ultimate development – site infrastructure suitability report describes the proposed approach to provide potable water to the development[9] and describes how it is proposed to located 2 x 15.0 metre diameter x 4.0 metres high tanks on the northern slopes within the site. Although the northern part of the site is identified in the Far North District Plan as an Outstanding Landscape Feature, it is understood that these structures will not be located within the overlay.

The tanks will be excavated into the slope and will be screened by a 3.0 metre high bund and native revegetation planting.[10]

4.0 EXISTING ENVIRONMENT

4.1 General geological context of the site

The site is located on the northern side of State Highway 12, some 2 kilometres to the east of the Kaikohe township. The wider landscape is characterised by its volcanic origins, with volcanic cones forming focal features. These also have strong associations with the cultural heritage of the area, conveyed by pa site formations on many of the prominent cones (refer to Figure 28).

Basalt scoria cones and extensive basalt flows and shields have erupted in this area over the last 10 million years. Although the older (pre 2 Ma) cones have disappeared, eroded remnants of the flows now form upstanding plateaux, extending from Okaihau to Kerikeri and north to Whangaroa. Deep, subtropical weathering of these features has produced the rich volcanic soils that nurture Kerikeri's orchards and crops.

In the last half-million years, 12 small basalt volcanoes have erupted in the southern part of the field (Smith et al. 1993), forming a cluster of scoria cones around Kaikohe. The youngest volcano is Tauanui, 10 km south of Kaikohe, which 60,000 years ago produced a high scoria cone and a lava flow that flowed 19 km down the Taheke Valley towards the Hokianga Harbour. The field includes a number of small rhyolite domes (Putahi, 381m, Tarahi, 388m and Haruru, 350m), overlooking Lake Omapere. It is understood that the field is considered dormant, and not extinct.

As is illustrated in Plate 1 below, the Kaikohe volcanic centre is marked by a scoria cone at Memorial Hill that reaches an elevation of 282 m and is approximately 1 km in diameter. The basalt flows associated with the Kaikohe volcanic centre, defined as the Kaikohe Basalt, extend to the south and south-east of the cone splitting into two main lobes. One lobe extends south-west along State Highway 12 and the other extends south along Mangakahia Road to the Punakitere River. These lobes appear to follow pre-existing valleys.

[8] Ibid pages 12 – 14.

[9] Cook Costello Ltd. *Ultimate development – site infrastructure suitability report*. Section 7.

[10] Cook Costello Ltd. Site suitability plans (Rev B), Drawings C325 Rev B, C340 Rev B, C341 Rev B

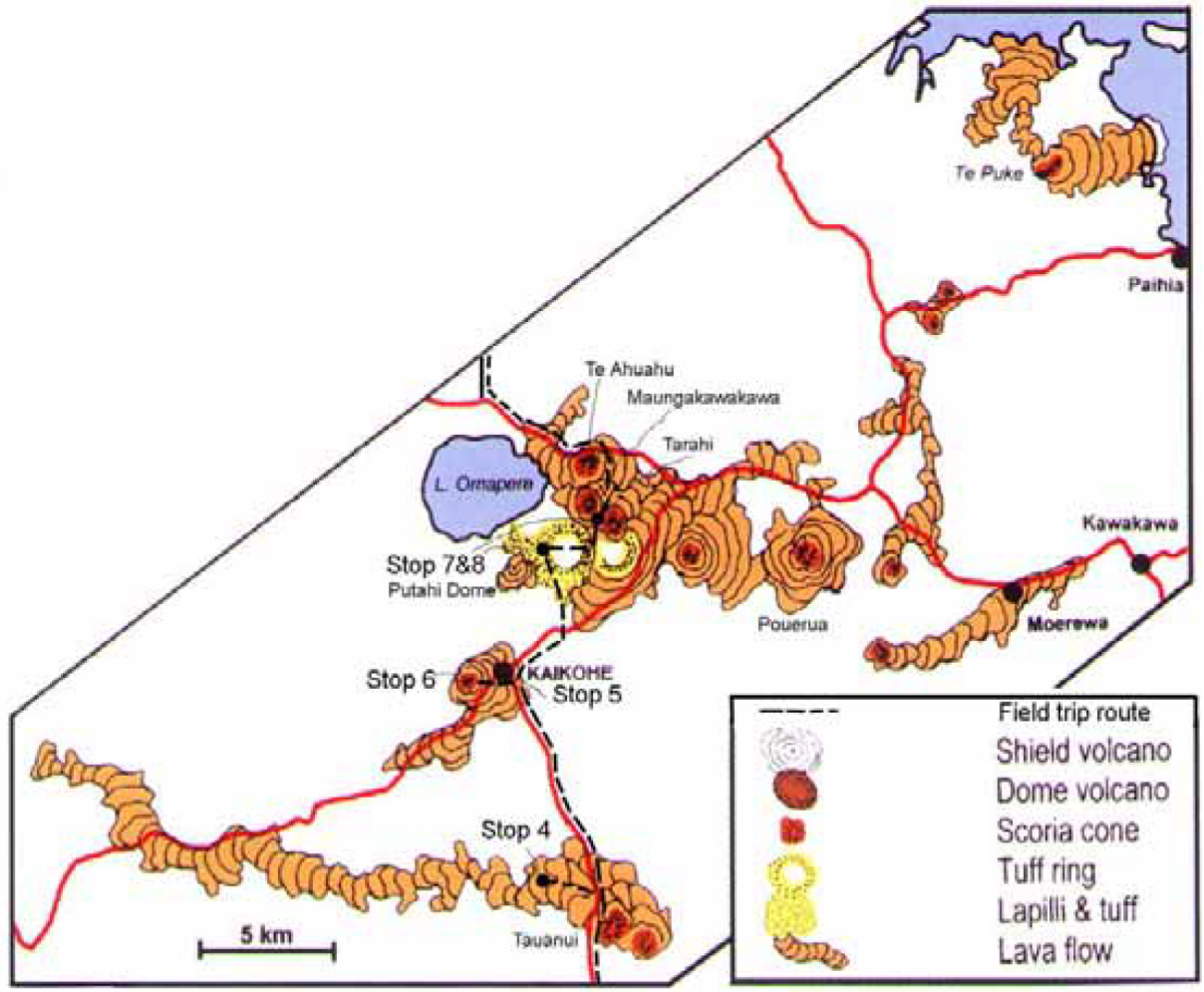


Plate 1: Map of the Kaikohe Basaltic Volcanic Field (Hayward 2002, after Mulheim 1973)

The Kaikohe Basalt slopes from north to south, falling from an elevation of approximately 200m near the base of the scoria cone to 160 m near the southern limit of the basalt. Most of the Kaikohe Basalt ranges between 180m and 160m with steeply sloping edges.

4.2 Topography and geology of the site and its context

Figure 28 illustrates the key landform features which characterize the landscape within the context of the site, identifying the previously mentioned volcanic features, and also highlighting the alignment of the main hydrological catchment boundaries, and secondary ridge lines. The Te Pua Crater lies to the north of the site, and the ridge that defines the site's northern edge forms a part of that feature and is some 360 metres in height and from this feature, secondary ridges extend to the south from the ridge as far as the Kopenui Stream. This watercourse marks the boundary between the steep ridge landform, and a more modest undulating landform of between 250 and 260 metres in height.

Figures 29 and 30 clearly illustrate the transition between these two landform types. The ridge flank landscape is generally under pasture but with scattered native trees which collectively form a fragmented vegetation cover which loosely reflects the underlying drainage pattern. The vegetation cover of the north eastern edge of the site was, until recently vegetated with plantation pine. Now cleared, this portion of the site has a denuded and raw appearance.

The strongly undulating landscape within the centre and eastern part of the site, to the south of the ridge flank forms a transition between the ridge steeper flank and the gently undulating landform within the southern third of the site. Its extent reflects the extent of the lava flows as illustrated in Plate 1.

Adjoining Wallis Road, an area of broken landform lacks the scale of undulation evident within the centre and eastern part of the site. The terrain of this area is strongly influenced by the hydrological pattern, where it is crossed by the Kopenui Stream and its tributary. It is understood that this is an area of geothermal activity and that warm springs are sometimes active.

Within the vicinity of the site, the southerly trending secondary ridge lines on Figure 29 approximate the extent of lava flow. The area overlain by lava is typified by a rolling and undulating character, whilst the landscape to the south (along the State Highway from Kaikohe east to the junction of Ngawha Springs Road is low-lying with only gently rolling contour.

The underlying geology of the site mainly comprises “Basalt lava flows” (Qvb) with the northern area consisting of “basaltic andesite lava” (Pva). The area towards the western corner of the site is defined as “Poorly to moderately consolidated mud, sand, gravel and peat or lignite of alluvial, swamp and estuarine origin” (eQa). An area of the Whangai Formation (Kkw) is located to the south of the site. This consists of Thin-bedded siliceous mudstone, locally with thin glauconitic sandstone interbeds, minor calcareous mudstone and micritic limestone.

The overlying soil types for the Whangaroa-Kaikohe area are underlain by Waiotu friable clay towards the northern side of the site, Whakapai friable clay loam to the south, Ruatangata friable clay towards the west and likely Otaha clay further to the west of the site.

4.3 Hydrology of the site and its context

The majority of the site is contained within the Kopenui Stream catchment. Streams within the northern part of the site and on the ridge associated with the northern part of the site drain south before flowing west to join the Kopenui Stream. This enters the Wairoro Stream and drains south and west to the Punakitere River, Taheke River and ultimately the Waima River which enters the Hokianga Harbour near Rawene.

The south eastern corner of the site is separated from the balance by a low south westerly trending ridge which separates the Kopenui Stream catchment from that of the Ngawha Stream. Near State Highway 12 are two small headwater wetlands which drain east to the Ngawha Stream which flows east to the Waiaruhe River before joining the Waitangi River and entering the Bay of Islands at Haruru Falls.

As previously discussed, the majority of the site is contained within the Kopenui Stream catchment, and the site is bisected by the Kopenui Stream which flows from east to west. The alignment of the stream generally differentiates that portion of the site characterized by the steeply sloping ridge flanks from an area of lower-lying relatively steeply sloping undulating terrain.

4.4 Vegetation of the site and its context

The landscape within the centre, and north east of the site is characterised by groves of mature indigenous vegetation which include totara, puriri and taraire. These bush remnants provide a structure which often reflects the topographical pattern of the landscape, and provides a sense of enclosure, imparting a compartmentalized appeal.

The existing vegetation within the site is described in detail in the ecological report[11] and the general vegetation patterns are illustrated on Figure 31.

There are three broad vegetation types as follows:

- Riparian areas associated with streams. A number of first order tributaries of Kopenui Stream flow south from the elevated ridge flanks before exiting the Site at Wallis Road.
- Forest. Eight small areas of forest scattered across the site, including the part which forms a portion of the Kopenui Stream Remnants PNAP site. In total, these cover an area of some 8.7ha.
- Wetlands. There are a number of areas where drainage is impeded and wetlands , have formed. These are typically associated with the streams at locations where the gradient is low or water movement is otherwise slowed down.

Within the central part of the site, the native vegetation closely corresponds to, and reinforces the landform patterns thereby lending the landscape patterns a west – east grain. Within the northern – ridge flank – part of the site, only scattered trees remain although these are mainly contained within the southerly aligned gullies on that slope. This contrasts with the adjoining property to the west where a greater cover of vegetation has been retained.

Like the northern part of the site, the western portion displays limited vegetation of any real scale, within only scattered larger trees – notably kahikatea which reflect the wet conditions. Here the landscape is dominated by rough grazing, pockets of gorse scrub and areas of wetland.

4.5 Land use of the site and its context

On the flatter southern margins of this area – close to and on the northern side of the State Highway to the east of Kaikohe – the rich soils and gentle contour encouraged horticultural production in the past and this is evidenced by the presence of shelterbelts. These accentuate the compartmentalization of the landscape described above, and impose a rectilinear structure.

To the west of the site, and north west of Kaikohe, the rolling hill country is characterized by a mix of grazing and exotic plantation. The steepness of the land has discouraged clearance of, or encouraged retirement of some steeper parts of the terrain. Where this has occurred, the native vegetation impart an indigenous theme as well as creating elements of interest and variety. Often vegetation patterns relate to the form and patterns of the land thereby increasing the coherence and legibility of the landscape.

[11] NZ Environmental. *Assessment of Ecological Values of land owned by Grazing North Limited at Ngawha to inform a proposed Plan Change*. 5 February 2019.

South and east of the site, the character of the gently rolling landscape differs from that of the more actively rolling and elevated landscape to the north. Whilst much of the land is under grazing, extensive areas of dense manuka shrubland are evident between the Ngawha settlement and Ngawha Prison.

The landscape retains a strongly rural and pastoral character, and settlement throughout the area tends to be focused around the settlements of Kaikohe, Ohaewai, Remuera and Ngawha, with linear clusters along the roading links. Scattered residential development is present along the State Highway 12 corridor, often set back some distance from the highway and integrated with vegetation. In some places, such as in the vicinity of Woodbine Lane and Wallis Road, clusters of small residential lots have established on the road frontage.

To the west of the site, a ribbon of settlement extends northwards along Te Pua Road (State Highway 15) from its junction with the State Highway. Those dwellings at the southern end are located on the Kopenui Stream valley floor and tend to be integrated with vegetation. Dwellings further to the north are more elevated and benefit from long views to the west and east (refer to Figure 1).

Other significant land uses in the area include the Northland Corrections Facility (Ngawha Prison) to the south east of the site, the Kaikohe Golf Course – also to the south east, and the Kaikohe Cemetery located on the opposite side of the State Highway to the south.

A number of activities along the State Highway signal the proximity to the Kaikohe township, including the speedway track and an automotive workshop. Located on Wallis Road is the Cowshed Camping Site.

To the west of the Finger 2 portion of the site, a consent application for Papakianga housing at 5395 State Highway 12 (Oraruwharo 2A) has been lodged with Council. The proposal is described by the application thus:

The proposal is to provide papakāinga housing for shareholders/beneficiaries of the Trust. The intent is to provide housing to those retired or almost retired (kuia / kaumatua) as a reprieve from the high costs of living in Auckland and other urban settlements. Eight houses are being promoted through this resource consent application, with areas set aside for future housing and development opportunities (2 x dwellings and 2 x sheds).

The site plan contained in the application shows a cluster of residences and other buildings set back from the State Highway, and adjoining the eastern boundary of the property (refer to Figure 2).

The subject site is used exclusively for grazing, although the varied terrain influences the quality of pasture. Related to this, a milking shed and associated silage ponds are located within the centre of the site (refer to Figure 7). Individual paddocks appear to be occasionally planted with sweetcorn.

The site also contains three dwellings, also identified on Figure 3.

4.6 Identified landscape values

The subject site is not subject to any landscape overlay within the Northland Regional Policy Statement.

Far North District Landscape Assessment

The Far North District Landscape Assessment (FNDLA) identifies the subject site as being largely contained within the Heritage landscape category. This category covers just one landscape unit; being the Waimate / Okaihau Area (Unit

T23). It ranks the sensitivity of this unit as being 6 (out of a possible 7), which, in the assessment equates to 'outstanding'. The extent of this unit is illustrated on Figure 3.

The assessment describes the Heritage landscape category as having a sense of history conveyed by the landscape of the area as its over-riding characteristic, describing this historical character as follows:

"*Evidence of Maori heritage is conveyed by pa site formations on many of the prominent cones within the unit.*

The most obvious heritage elements of European settlement of the unit are the historic buildings, most graphically represented by the Waimate Mission House and the adjacent church. Other built elements such as stone walls and thorn hedges are widespread throughout the unit."

With regard to vegetation, the assessment states:

"Groves of mature indigenous vegetation are surprisingly prevalent. Totara is the prevalent species within the unit, but large specimens of puriri, complete with perching epiphytes, are also prominent. Exotic species such as oaks, pines, macrocarpa, and Norfolk Island pines are scattered around homesteads, but are considerably less conspicuous than the native vegetation"

The FNLA lists a number of key characteristics which contribute to its landscape values, as follows:

- A pervading natural character
- Historic buildings and associated fences, gardens etc.
- The presence of historic stonewalls and hedgerows.
- Groves of mature native trees.

Notable exotic trees that are associated with historic buildings, particularly specimens of oak and Norfolk Island pines.

Northland Regional Policy Statement (2016)

The landscape values of the wider area are also recognised in the Regional Policy Statement. Although the subject site is not subject to any landscape or natural character overlays, the volcanic cones to the north east and east of the site identified as being part of the Ohaewai area volcanic field Outstanding Natural Landscape, and the more proximate features (Lake Omapere, Putahi Rhyolite Dome with associated Halloysite, Mangakawakawa Scoria Cone, and Waimimiti Scoria Mounds), as Outstanding Natural Features (refer to Figure 28).

The worksheet for the Ohaewai area volcanic field Outstanding Natural Landscape describes the landscape as comprising:

"A field of volcanic cones that are frequently inter-related through lowland elements of volcanic origin such as lava flows, rock outcrops, agricultural stone walls and stonefields"

And:

"The volcanic field is an area of very rich historical activity, with abundant pa sites (including upon 3 of the 4 ONL sites), terraces, stonefields and early European agriculture. That history is graphically portrayed in the contemporary landscape, particularly in the low light levels of early and late in the day. Pouerua pa terracing has lost much of its legibility as the

mountain has been overtaken by weed species from its former pastoral cover. The cones are a significant component of the character of the area around Ohaewai, making it a unique area that is not replicated elsewhere."

Protected Natural Areas Reconnaissance Survey Reports

The ecological values of the Kaikohe Ecological District are described in the Protect Natural Areas report for the Ecological District[12]. A portion of the Level 1 ecological site (Site P05/036 Kopenui Stream Remnants) is located within the Site, with three others nearby (P05/035 Youngs Kahikatea Remnant, P05/037 Ngawha Bush and P05/038 Remuera Settlement Road Remnants). The closest of these (Youngs Kahikatea Remnant) is approximately 725m east of the part of Kopenui Stream Remnants occurring at the Site. Kopenui Stream Remnants is a Level 2 site where the vegetation is an example of volcanic broadleaf forest with frequent puriri (*Vitex lucens*) and occasional kahikatea (*Dacrycarpus dacrydioides*) and taraire (*Beilschmiedia tarairi*). This forest type was once typical of the area east of Lake Omapere, but is now rare (Conning and Miller 2000). Together the three Kopenui Stream Remnants cover 18.6ha and their ecological value is limited by their small size.

The vegetation within the site and surrounding area is typical for the Ecological District which contains a high diversity of vegetation types, including some which are regionally and nationally rare such as gumland, mature podocarp forest, volcanic broadleaf forest, swamp shrubland, and swamp forests. Manuka-kanuka shrubland, broadleaf-podocarp and secondary podocarp forest and are the most common vegetation types within the district.

The Kaikohe Ecological District is located in the centre of the mid-north between the Bay of Islands in the east and the Hokianga Harbour in the west. The district is centred approximately on Lake Omapere and adjoins the Puketi ED to the north, the Hokianga ED to the west and north-west. Kerikeri ED to the east and Tangihua ED to the south. The district extends from the Waima River in the west to Pakaraka in the east and includes the upper catchments of the Waitangi River.

The Kaikohe Ecological District contains several distinct features including:

- Lake Omapere, which is the largest freshwater body in Northland;
- South and east of Lake Omapere, volcanic cones and basalt lava flows have produced some of the best examples of volcanic broadleaf forest in the Northland Region. These forests are seasonally important kukupa (*Hemiphaga novaeseelandiae*) habitat;
- Where water flow has been impeded remnants of swamp forest and wetland sometimes occur;
- The geothermal and gumland heath area of Ngawha Springs is unique in the Northland Region.

Previous site landscape assessment

The previous landscape assessment identified four clearly definable character areas which can be based on a commonality of topographical patterns, hydrology and vegetation patterns. These four character areas are illustrated on Figure 3. Each of the identified character areas is considered to be a sub-set of the Heritage Character Area – as delineated in the Far

[12] Conning, L. and Miller, N. 1999. Natural areas of Kerikeri Ecological District Reconnaissance Survey Report for the Protected Natural Areas Programme. New Zealand Protected Natural Areas Programme 42. Department of Conservation, Northland Conservancy, Whangarei. 254 pp

North Landscape Assessment. Whilst on a regional level, the broad landscape character of the site reflects the attributes of the Heritage Character Area, on a detailed site level, areas of divergent character can be identified

- Elevated hill slope heritage character area. Comprising the steeply sloping south facing flanks of a ridge, this character area ranges in elevation between some 250 and 360 metres. On its southern edge a series of secondary ridges and spurs extend southwards and the edge is approximately defined by the Kopenui Stream.

- Undulating heritage character area. This character unit occupies the mid portion of the site and varies in height between around 240 – 260 metres. Strongly undulating, this landform, and associated native vegetation provides a sense of containment. The vegetation patterns reflect and emphasise the landform, with vegetation occupying steeper slopes and gullies, which the more gentle slopes are under pasture.

- Low-lying heritage character area. Characterised by a gently undulating terrain, this character unit is predominantly under pasture, but is lent structure by groves of native trees and – near the State Highway – exotic shelterbelts. This character unit is open to views from the State Highway and properties adjoining the road.

Valley floor heritage character area. A small landscape character unit on the western edge of the site, this unit is characterised by a mildly undulating landform. Unlike the well maintained areas of pasture within the adjoining landscape unit to the south, the pasture within this unit is interspersed with patches of gorse and scattered native trees. Access into this area appears challenging due to the complexity of its drainage channels and wetlands

In terms of its social associations, the site retains a modest level of legibility which results from the interplay of biophysical elements, patterns and processes. The landform reflects the volcanic and alluvial formative processes that have shaped it, and have resulted in the landscape character described above and the landscape projects an attractive rural ambiance. For many of the limited number of existing residents located within the visual catchment of the site, opportunities to obtain direct views into the site are limited to the Elevated Hill Slope Heritage Character Unit, the Valley Floor Heritage Character Unit and the Low-lying Heritage Character Unit.

As described, the landscape context of the site displays a strong rural character, although the wider landscape is influenced to some degree by the presence of scattered built development which have established along the roading corridors. Within such linear clusters, occupants of dwellings will be aware of the presence of nearby dwellings, albeit in most cases with some degree of separation, or buffering from vegetation. This differs from more sparsely populated rural landscapes, where residents may experience a greater sense of remoteness or isolation from other dwellings.

4.7 Statutory context

This section provides a brief statutory assessment against the matters set out in section 104(1) of the Resource Management Act 1991 (RMA) and other relevant planning documents with regards to the proposed works, including:

- Part 2 of the RMA
- Northland Regional Policy Statement
- Far North District Plan

4.7.1 Resource Management Act 1991

Part 2 of the Act requires that the proposed activity must meet the purpose of the Act as outlined in Section 5 “to promote the sustainable management of natural and physical resources.”

Section 6 of the Act identifies 8 matters of national importance to be had regard to in achieving the purposes of the Act. The following are of relevance to the proposal:

- The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development

Section 7 of the Act identifies 11 other matters to be had regard to in achieving the purposes of the Act. The following are of relevance to the proposal:

- The maintenance and enhancement of amenity values; and
- intrinsic values of ecosystems; and
- the maintenance and enhancement of the quality of the environment.

Comment:

The proposal includes the enhancement of wetlands and the riparian margins of watercourses, and the enhancement of native forest. The assessment in the following section determines that the potential adverse visual amenity effect of the proposal will be low once the mitigation planting is established.

4.7.3 Northland Regional Policy Statement (2016)

No Outstanding landscape features or Outstanding Natural Landscape overlay the subject site.

4.7.4 Far North District Plan

The subject site is located in the Rural Production Zone. In section 8.6, the zone is described thus:

"*….The zone contains environmental and amenity standards which will enable the continuation of the wide range of existing and future activities, compatible with normal farming and forestry activities, and with rural lifestyle and residential uses, while ensuring that the natural and physical resources of the rural area are managed sustainably. Activities that are ancillary to farming or forestry may also have a functional need to be within the rural environment, however, such rural processing and servicing activities may be less compatible in more intensively settled locations. The standards in the Rural Production Zone are also aimed at enabling farming and activities ancillary to rural production whilst maintaining and enhancing amenity values associated with the rural environment, and at minimising the likelihood and risk of incompatible land uses establishing in proximity to each other.*

The provisions of the Rural Production Zone are complemented by the subdivision rules and the general rules relating to protection of environmental matters such as landscapes and indigenous flora and fauna, and having regard to amenity values."

The areas of non-compliance (where they apply to the ambit of this assessment) are as follows:

8.6.5.1.8 BUILDING HEIGHT

The maximum height of any building shall be 12m

Horticultural Hub complies, Innovation and Enterprise hub is non-compliant, with the Carbonscape production plant building exceeding the permitted height by a maximum of 2.238 metres and is thus a Restricted discretionary activity.

8.6.5.1.10 BUILDING COVERAGE

Any new building or alteration/addition to an existing building is a permitted activity if the total Building Coverage of a site does not exceed 12.5% of the gross site area.

Buildings included within the Horticultural Hub include:

- Glass House – 93,840m^2
- Packing shed and staff facilities – 5,000m ^{2}
- Ancillary buildings – 300m^2
- MPI space – 800m^2

Thus, the total area of buildings will be 99,940m^2 or 9.994ha. Allowance based on site area of 56.5214ha and a permitted limit of 12.5% is 7.0651ha and will be breached by this activity. Under this Rule the Horticulture Hub proposal is not Permitted.

8.6.5.2.5 BUILDING COVERAGE

Any new building or alteration/addition to an existing building is a controlled activity if the total Building Coverage of a site does not exceed 15% of the gross site area.

In assessing an application under this provision the Council will restrict the exercise of its discretion to:

(a) the ability to provide adequate landscaping for all activities associated with the site;
(b) the extent to which building(s) are consistent with the character and scale of the existing buildings in the surrounding environment;
(c) the scale and bulk of the building in relation to the site;
(d) the extent to which private open space can be provided for future uses;
(e) the extent to which the cumulative visual effects of all the buildings impact on landscapes, adjacent sites and the surrounding environment;
(f) the extent to which the siting, setback and design of building(s) avoid visual dominance on landscapes, adjacent sites and the surrounding environment;
(g) the extent to which landscaping and other visual mitigation measures may reduce adverse effects;

(h) the extent to which non-compliance affects the privacy, outlook and enjoyment of private open spaces on adjacent sites.

Buildings proposed under this proposal include:

- Glass House – 93,840m^2
- Packing shed and staff facilities – 5,000m ^{2}
- Ancillary buildings – 300m^2
- MPI space – 800m^2

Thus, the total area of buildings will be 99,940m^2 or 9.994ha. Allowance based on site area of 56.5214ha and a permitted limit of 12.5% is 7.0651ha and will be breached by this activity. Under this Rule the Horticulture Hub proposal is not Permitted.

12.3.6.1.1 EXCAVATION AND/OR FILLING, EXCLUDING MINING AND QUARRYING, IN THE RURAL PRODUCTION ZONE OR KAURI CLIFFS ZONE

Excavation and/or filling, excluding mining and quarrying, on any site in the Rural Production Zone or Kauri Cliffs Zone is permitted, provided that:

(l) it does not exceed 5,000m^3 in any 12 month period per site; and

(m) it does not involve a continuous cut or filled face exceeding an average of 1.5m in height over the length of the face i.e. the maximum permitted average cut and fill height may be 3m.

Excavation and filling is proposed within Finger 1 (Horticultural Hub) to create the glasshouse platform, ancillary buildings, and dam, as follows:

- Cut 164,320m^3
- Fill 139,820m^3
- Total 304,140m^3

Proposed excavation does not constitute or fall within an identified exemption. There is also an additional 2250m^3 of excavation associated with the Wallis Road improvements. This is located within the roading corridor and will be disposed of to an approved fill location. It is understood that under this Rule the Horticultural Hub proposal is a discretionary activity.

The Innovation and Enterprise Hub (Finger 2) includes excavation and filling as listed below and excludes any additional works related to the building platforms.

- Cut 49,940m^3
- Fill 43,210m^3
- Total 93,150m^3

The proposed excavation does not constitute an exemption and includes 1800m^3 of cut required to develop the intersection onto State Highway 12. It is understood that under this Rule the Innovation and Enterprise Hub proposal is a discretionary activity.

12.3.6.2.3 EXCAVATION AND FILLING, EXCLUDING MINING AND QUARRYING, IN THE RURAL PRODUCTION ZONE OR KAURI CLIFFS ZONE.

Excavation and/or filling, excluding mining and quarrying, on any site in the Rural Production Zone or Kauri Cliffs Zone is a restricted discretionary activity, provided that it does not exceed 20,000m^3 in any 12 month period per site.

The Council will restrict the exercise of its discretion to:

i. the effects of the area and volume of soils and other materials to be excavated; and
ii. the effects of height and slope of the cut or filled faces; and

iii. the time of the year when the earthworks will be carried out and the duration of the activity; and
iv. the degree to which the activity may cause or exacerbate erosion and/or other natural hazards on the site or in the vicinity of the site, particularly lakes, rivers, wetlands and the coastline; and
v. the extent to which the activity may adversely impact on visual and amenity values; and
vi. the extent to which the activity may adversely affect cultural and spiritual values; and
vii. the extent to which the activity may adversely affect areas of significant indigenous vegetation or significant habitats of indigenous fauna and
viii. the number, trip pattern and type of vehicles associated with the activity; and
ix. the location adequacy and safety of vehicular access and egress; and

x. *the means by which any adverse environmental effects of the activity will be avoided, remedied or mitigated.*

The proposed excavation and filling exceeds 20,000m^3 and It is understood that under this Rule the Horticultural Hub proposal is a discretionary activity.

As described above, it is understood that under this Rule the Innovation and Enterprise Hub proposal is a discretionary activity.

16.6.1.3 MAXIMUM SIGN AREA PER SITE

(a) Freestanding signs and signs attached to or displayed on buildings or other objects located in the following zones/locations are subject to the following requirements.

Rural Production – maximum 3m^2

It is understood that the proposal does not comply with this rule. The combined and individual signage will exceed 3m^2

16.6.1.5 SIGNS TO COMPLY WITH MAXIMUM AREA PER SITE THRESHOLDS

It is understood that the proposal does not comply with this rule. The combined and individual signage will exceed 3m^2

16.6.2.3 CONSOLIDATED SIGNS

Rural Production – maximum 6m^2

It is understood that the proposal does not comply as there will be other signage on the application site

ASSESSMENT CRITERIA

Relevant assessment criteria are included within 11.2, 11.24, 12.3.7, and 16.7.3. These require consideration of effects on Outstanding Landscape Features and Outstanding Natural Features, cumulative adverse effects on the environment arising from the activity, the effectiveness of any proposals to avoid, remedy or mitigate any adverse effects arising from the activity, the degree of visibility of the proposal, potential visual amenity effects, potential visual domination, overshadowing, loss of privacy and loss of access to sunlight, and the potential effect on landscape and rural character

Comment

As described in subsequent sections, the proposal will not adversely affect the values of the Outstanding Landscape Feature. The potential adverse effect on landscape and rural character has been assessed, and it is the opinion of the author that the proposal will generate a less than minor effect once the proposed mitigation planting has become established. The proposal includes the enhancement of wetlands and existing native forest. This will result in positive landscape effects.

Similarly, the assessment concludes that the potential adverse visual amenity effect of the proposal will be less than minor once the proposed mitigation planting has become established. The proposal will not result in shading, visual domination, overshadowing, loss of privacy and loss of access to sunlight.

5.0 ASSESSMENT OF NATURAL CHARACTER, LANDSCAPE AND VISUAL AMENITY EFFECTS

5.1 Background

Preceding sections describe the characteristics of the property and site, its setting and the proposal (including mitigation). The purpose of this section is to define the effects of the application upon the site and setting, to consider how the proposal would impact upon the experience of people viewing the development from outside of the site, and to comment upon the level of landscape, natural character, and visual effects.

Landscape change can, but does not necessarily result in adverse visual effects. Natural and human induced change is a constant within the landscape. The key is to manage this in such a way that any adverse visual effects are avoided, remedied or mitigated.

5.2 Assessment of Effects

The effects covered in this assessment, include those that can occur in relation to physical features, viewing audiences and visual amenity and/or on the site's contribution to the existing landscape character and amenity values, as follows:

- Landscape character and amenity effects derive from changes in the physical landscape, which may give rise to changes in its character and how this is experienced. This may in turn affect the perceived value ascribed to the landscape.
- Visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes, and to the overall effects with respect to visual amenity.

Landscape and visual impacts can result from change in the components, character or quality of the landscape. Usually these are the result of landform or vegetation modification or the introduction of new structures, facilities or activities. All these impacts are assessed to determine their effects on landscape character and quality, rural amenity and on public and private views. In this report, the assessment of potential effects is based on a combination of the landscape's sensitivity and visibility and the nature and scale of the development proposal.

The nature of landscape and visual effects generated by any particular proposal can, therefore, be:

- Positive (beneficial), contributing to the visual character and quality of the environment.
- Negative (adverse), detracting from existing character and quality of environment; or
- Neutral (benign), with essentially no effect on existing character or quality of environment.

Landscape, and Amenity effects can be rated on a seven-point scale from Very High, through to Very Low.

The degree to which landscape and visual effects are generated by a development depends on several factors, these include:

- The degree to which the proposal contrasts, or is consistent, with the qualities of the surrounding landscape.
- The proportion of the proposal that is visible, determined by the observer's position relative to the objects viewed.
- The distance and foreground context within which the proposal is viewed.

- The area or extent of visual catchment from which the proposal is visible.
- The number of viewers, their location and situation (static or moving) in relation to the view.
- The backdrop and context within which the proposal is viewed
- The predictable and likely known future character of the locality
- The quality of the resultant landscape, its aesthetic values and contribution to the wider landscape character to the area.

Change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. Landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformational ways, these changes are both natural and human induced. What is important in managing landscape change is that adverse effects are avoided or sufficiently mitigated to ameliorate the effects of the change in land use. The aim is to provide a high amenity environment through appropriate design outcomes, including planting that can provide an adequate substitution for the currently experienced amenity.

5.2.1 Biophysical – Abiotic attributes

The key abiotic attributes of the site include the landform, geology, and water catchments. Overall, modification as a result of human processes or human induced processes is limited to the drainage of some areas of lower lying land, earthworks for the construction of accessways and building platforms, or for the creation of stock ponds.

Within Finger 1 (Horticultural Hub), although the development area is generally flat, the proposal will require a total volume of some 304,140m^3 of earthworks to facilitate the construction of accessways, the excavation of a reservoir, the realignment of a watercourse and the construction of building platforms.

This will result in a moderate to high change with respect to the abiotic attributes of the Finger 1 area.

The southern part of Finger 2 (Innovation and Enterprise Hub) is generally flat, whilst within the northern part of the development area, slight undulations in terrain will require more extensive modification. The proposal will require a total volume of some 93,150m^3 of earthworks to facilitate the construction of accessways, the excavation of a number of ponds and the construction of building platforms.

This element of the proposal will result in a moderate change with respect to the abiotic attributes of the Finger 2 area

5.2.2 Biophysical – Biotic attributes

The biotic attributes of the Site are the living organisms which shape an ecosystem. The site displays varied biotic values across the subject site as a whole, described in the ecological report as comprising riparian areas, forest and wetlands.

The proposal has been crafted such that development areas largely avoid impacting on the identified areas of biotic value.

Within Finger 1, the development areas are contained within the low lying landscape to the south of the Kopenui Stream. This area has been subject to grazing, is drained using artificial channels and is characterised by a paucity of vegetation (with the exception of shelterbelts and a limited number of scattered native and exotic trees). The resulting change to the biotic values of this area will, as a result be low.

Similarly, development within Finger 2 has been designed such that its largely avoids affecting the main biotic features of the site – these being the areas of forest within the north eastern and southern portions of Finger 2, and the wetlands

within its southern portion. Some minor modifications will be required, for example where the access passes through the southern area of forest. The resulting change to the biotic values of this area will, as a result be low.

Conversely, enhancement and protection is proposed for these existing natural areas, whilst additional native buffer screen and amenity plantings are also proposed. These will – over time – result in a positive change to the biotic attributes of both Finger 1 and Finger 2. Overall therefore, the change in biotic attributes for both Fingers 1 and 2 is determined to be very low.

5.2.3 Experiential attributes

Experiential attributes comprise the interpretation of human experience of the coastal environment. This includes visible changes in the character of the coastal margin – its naturalness as well as its sense of wildness and remoteness including effects on natural darkness of the night sky.

Visual amenity effects are assessed in detail within section 5.3 of this document. This section concludes that the potential adverse visual amenity effect of the proposal will be – at most - low. The proposed building will result in a change in the character of the Hihiaua peninsula, but the sense of openness and proximity to water will be retained. The proposed building is designed to address and contribute to the space. Its location and extent avoids intruding on the primary areas of existing activity.

The peninsula does not offer a remote experience, and there are limited opportunities to benefit from views of the night sky due to the illumination afforded by the surrounding streets.

5.2.4 Cultural, spiritual and associative attributes

The archaeological report[13] concluded that:

"*Background research failed to identify any previously recorded archaeological sites within or in the immediate vicinity of the property and no archaeological sites or evidence that undetected subsurface archaeological sites exist, were identified during the current inspection. However, the property has a number of attributes such as fresh waterways, thermal wetland, fertile flats and elevated locations known to be favoured for pre-1900 settlement. Anecdotal evidence exists regarding a WWII military camp established on the SH 12 frontage, but no physical evidence of the camp has been identified*."

The report stated that archaeological sites were present in the area, including a hilltop pa (P05/236) located approximately 530 metres west of the property's western boundary. Two additional pa sites (P05/199 & P05/205) have been recorded approximately 640m to the northeast.

The cultural impact assessment is still being completed, but preliminary consultation with tangata whenua raised no specific concerns or matters to be addressed within the application.

Associative values are linked with individual's relationship with the landscape, their memories, the way they interact with and use the landscape. Fingers 1 and 2 display a strong productive rural character although, immediately to the south, the State Highway corridor displays a character that signals the proximity of the Kaikohe urban edge. Clusters of

[13] Time Depth Enterprises. *PROPOSED NGAWHA INNOVATION & ENTERPRISE PARK, STATE HIGHWAY 12, NGAWHA ARCHAEOLOGICAL SURVEY AND ASSESSMENT of EFFECTS. February 2019*

dwellings, and the Kaikohe speedway introduce a slightly peri-urban character which increases along the State Highway corridor to the west.

Within Fingers 1 and 2 however, The areas of pasture, pockets and fingers of bush and exotic vegetation attendant within these pastoral landscapes, and scattered dwellings (the appearance of which generally reflects the rural vernacular), typify the Northland rural landscape. This combination of 'settled' and 'productive landscape' – the rural residential landscape appears to be accepted and valued by the local community.

In the opinion of the author, such rural character is derived from a number of attributes:

- *An inherent sense of spaciousness; of a landscape dominated (usually) by open spaces and pasture or other agricultural activities;*
- *The presence of domesticated animals, crops, shelterbelts and functionally related buildings and structures (such as fencing and accessways);*
- *Limited buildings and residential development in general (with a very high ratio of open space to such development) with considerable separation between houses and buildings relative to those found on neighbouring properties;*
- *An absence of urban forms and infrastructure;*
- *A generally high degree of visual permeability and openness; and*
- *Awareness of the landforms and terrain that underpin individual land units.*

There is some flexibility in the strength or influence of each of these attributes depending on the density or dominance of built form and there is a continuum between a truly rural landscape with very little evidence of settlement, through to a more built rural residential character landscape.

As noted previously, the is a relatively clear distinction in the area between productive rural land – generally occupying the lower lying landscape – and pockets of rural residential settlement which are visible within the wider landscape. These rural tend to display a commonality of elements which may include the following:

- Dwellings set back from the road;
- The presence of barns and sheds, often redundant and left over from former productive activities;
- the frequent occurrence of property entrances along the road frontage sometimes comprising 'feature' gateways;
- extensive garden areas including water features and amenity plantings;
- avenue planted driveways;
- boundaries defined by shelterbelts, or fencing;
- pockets of pasture with limited numbers of livestock, and;
- bush remnants.

Within areas which include the above elements, the character tends to vary – from a quiet and rustic landscape with built form being reasonably well integrated into its landscape setting, to a landscape that is more dominated by built form.

Generally, the observer is aware that the landscape is settled – informed by glimpses of dwellings, gardens and entrances, however there is a predominance of vegetation and open space with significant visual coherence and a level of natural character in evidence.

Development within Finger 1 will (initially) be visible from a limited defined visual catchment, with a small number of potentially affected individuals. The resulting development will have a built form that is consistent with activities that are provided for in the Rural Production Zone, and from the most proximate locations, the full scale of the proposal will not be apparent.

Development within Finger 2 is also located within a visual catchment which affords views to a limited number of individuals. Within 5 years, the proposed mitigation planting will substantially enclose the proposed built development and will restrict views from external locations.

It is the opinion of the author therefore that the proposal will result in a limited apparent change in the character of the landscape, once the mitigation planting has become established, and it is the opinion of the author that the proposal will only result in a limited impact on cultural, spiritual and associative attributes.

5.2.5 Perceptual and experiential attributes

Section 5.3 of this assessment evaluates the potential adverse visual amenity effect of the proposal. It determines that, once the mitigation planting is established – within a time period of a maximum of 5 years – the potential adverse visual amenity effect will be moderated to a level that is low (less than minor). On this basis, it is the opinion of the author that the proposal will only result in a limited impact on perceptual attributes.

5.2.6 Summary of Landscape Effects

The proposal will result in a low level of change with respect to biotic attributes for Fingers 1 and 2, a moderate level of change with respect to the abiotic attributes of Finger 2, and moderate to high for Finger 1.

The change to spiritual, cultural and associative attributes, and perceptual and experiential attributes is assessed as being low for both Fingers 1 and 2.

Overall therefore, it is assessed that the potential adverse landscape and rural character effects on the wider environment that will be generated by the proposal will be moderate to low for both Fingers 1 and 2 once the mitigation planting is established (within 5 years).

5.3 Visual Amenity Effects

5.3.1 Visual catchment

The subject site has a varies visual catchment with the northern, elevated portion being visible from an expansive catchment to the south, west and south west. Similarly, the southern edges of Fingers 1, 2 and 3 are readily visible from the State Highway corridor, whilst much of the mid portion of the site is hidden from the State Highway by vegetation.

For the purpose of this assessment, the visual catchment of that part of the Fingers 1 and 2 that is subject to the consent application will be described separately, and subsequently assessed separately.

Finger 1. Horticulture Hub.

Occupants of dwellings within properties bordering the site to the south east, south and south west

Visually contained by vegetation on its southern edge, and between the site and State Highway, view from the State Highway to Finger 1 are not possible. A number of dwellings located within rural residential properties adjoin the southern, south western and south eastern site boundary and – although partially separated from the subject site – occupants of the dwellings have the ability to gain filtered views into the southern part of Finger 1 (refer to photos 1, 2 and 3).

This includes the following properties:

- 4 Wallis Road (Lot 2 DP 336520),
- 5321 State Highway 12 (Lot 1 DP 166131),
- Lot 3 DP 166131,
- 5347 State Highway 12 (Lot 1 DP 331070), and
- 5347A State Highway 12 (Lot 2 DP 331070).

Occupants of dwellings within properties bordering the site to the west and road users on Wallis Road

Adjoining the western boundary of the site on Wallis Road, 42 Wallis Road (Lot 1 DP 196311) offers direct views into the mid and southern part of Finger 2 (refer to photos 4, 5 and 6).

Wallis Road defines much of the western boundary of Finger 1, and from number 42 Wallis Road northwards, direct views are possible to the east into the mid and northern parts of Finger 1. Located to the west of the road, number 61 - (Sec 14S Te Pua SETT) is at a similar level to Finger 1 and is set back some 120 metres from the road and views of the site are fragmented by vegetation. This property also functions as the Cowshed Camping Site.

Occupants of dwellings within properties bordering the site to the north

At the northern end of Wallis Road, number 122 (Sec 12S Te Pua SETT) contains a dwelling which is slightly elevated on the southern facing hillside. Some 480 metres from the part of Finger 1 subject to development, this dwelling offers long views into Finger 1 (refer to photo 7).

Occupants of dwellings within properties to the west and road users on Te Pua Road

The visual catchment further to the north is contained by the rising terrain, and to the east by vegetation. To the west, the landform rises slowly to the ridge traced by Te Pua Road, and the Putahi volcanic cone. Long views to Finger 1 are possible from Te Pua Road where it ascends the southerly trending ridge, and from a linear cluster of dwellings located along its western side (numbered 127, 131, 133, 139, 141, 143 and 145) (refer to photo 8). Views through vegetation appear to be possible from a dwelling located on the east side of Te Pua Road at number 162.

Finger 2 – Innovation and Enterprise Hub.

The visual catchment of Finger 2 is also relatively contained, with views limited to proximate neighbours, or more extensive views from defined locations. To the east, the State Highway offers the potential for longer views across the undulating landscape toward the eastern boundary of Finger 2 (refer to photo 9). A shelterbelt growing along the eastern boundary of the access to Orauruwharo 5B1B blocks these views. A properties contains a dwelling on this eastern edge of the site include Orauruwharo 5B1B (on the State Highway frontage at number 5461), but views to Finger 2 are precluded by vegetation.

Occupants of dwellings within properties bordering the site to the east.

The dwelling within Orauruwharo 5B1B is contained on its northern and southern sides by native forest, but fragmented views into Finger 2 are possible where the shared boundary lies some 40 metres to the west of the dwelling (refer to photo 10).

To the north, the terrain rises, thereby containing the visual catchment. There are no public or private residential viewpoints within this quadrant.

Occupants of dwellings within properties to the south west and road users State Highway 12

Views from the State Highway to the south into Finger 2 are blocked by the area of native forest growing within this finger. To the south west, views into the Finger are possible from the State Highway. A single dwelling located at 5379 State Highway 12 (Orauruwharo 1C), and properties adjoining the State Highway on its southern side identified as Kohatu-O-Te Haua 3A1, 3B, 3C1 and Kohatu-O-Te Haua 2, offer views to the east at a distance of some 400 metres across the rural landscape to Finger 2 (refer to photo 11). Views to Finger 2 from properties within this linear cluster to the west are blocked by vegetation.

Potential future occupants of dwellings within properties bordering the site to the west

Owners of a property located to the west of Finger 2, identified as Oraruwharo 2A are currently seeking consent to develop this site for papakianga housing. This property offers direct views into Finger 2 across its western boundary at a distance of 120 metres.

Occupants of dwellings within properties to the west and road users on Te Pua Road

Views from further to the south west and low lying landscape to the west are blocked by vegetation, however a glimpse into Finger 2 is possible from the elevated length of Te Pua Road, in the vicinity of the linear cluster of dwellings described previously (numbered 127, 131, 133, 139, 141, 143 and 145). This view is illustrated in photo 8.

5.3.2 Assessment – Finger 1 Horticulture Hub

The primary viewers can be gathered into four main groups, based on a commonality of views-types and geographical locations. These are as follows:

1. *Occupants of dwellings within properties bordering the site to the south east, south and south west*
2. *Occupants of dwellings within properties bordering the site to the west and road users on Wallis Road*
3. *Occupants of a dwelling within a property bordering the site to the north*

4. *Occupants of dwellings within properties to the west and road users on Te Pua Road*

Within these geographical groups, there exist subgroups, including occupants of residential properties, occupants of vehicles and pedestrians, and visitors to, or occupants of commercial premises and offices. The sensitivity to change within the visual environment of these subgroups varies, with occupants of dwellings being most sensitive, whilst users of the road / occupants of vehicles being least sensitive.

5.3.2.1 Occupants of dwellings within properties bordering the site to the south east, south and south west

Located between State Highway 12 and the southern boundary of Finger 1, these dwellings are either accessed from the State Highway or from the southern end of Wallis Road. The dwellings are located within rural residential properties with an area around, or in excess of 1 ha. The dwellings within Lot 2 DP 336520 and Lot 2 DP331070 have been constructed within relatively central locations within these properties, and so are less reliant on external or 'borrowed' views for their sense of rural amenity.

As residential 'receptors' who are located proximate to the boundaries of the site, these individuals are assessed as having a high sensitivity to change. The number of potentially affected individuals is very low.

Dwellings within Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070 are located close to the shared boundary with the subject site, and although the shared boundary is generally defined by a shelterbelt, occupants of these properties appear to gain some benefit from the 'borrowed' views of the rural landscape within Finger 1.

The proposed glasshouses will be separated from these properties, being situated some 190 metres to the north of the boundary with Lot 3 DP 166131, however initially, occupants of dwellings within Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070 will have the ability to gain filtered views of the structure through the boundary shelterbelts. Within some 3 – 5 years, it is anticipated that the boundary landscape buffer mounds and plantings (refer to Figure 4b) will have established to a level that screens views of the proposed built form within the site.

Notwithstanding this, the Rural Production Zone does anticipate the potential for the construction of horticultural glasshouses, and the District Plan provides for these structures to be internally lit, when lighting is compliant with the Plan rules for lux levels. It is understood that the proposed lux levels of lighting within the glass house will be within the levels provided for in the Plan. Although the area coverage proposed exceeds the maximum building coverage permitted for the site, occupants of dwellings within Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070 will (initially) experience views of the southern end of the buildings, whilst the full scale of the building (in terms of building coverage) will not be apparent. It is the understanding of the author that a horticultural glasshouse 255.0 metres in length (this being the length of the visible southern 'end') could be constructed as a permitted activity.

The proposed access road for Finger 1 is aligned to the north of Lot 2 DP 336520 and Lot 1 DP 166131. The northern boundary of these two lots is already vegetated with existing vegetation, however as is illustrated on Figure 4b, it is proposed that mounding and planting be undertaken along the northern boundary within the subject site for the purpose of screening views of activity on this access. It is anticipated that the proposed mounding (to a maximum height of some 3.0 metres) will provide immediate screening for occupants of these dwellings.

Temporary views of the proposed Stage 1 horticultural glasshouse will be visible from dwellings within Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070, and to a lesser degree Lot 2 DP 336520 and Lot 2 DP331070 however, views of such buildings are anticipated within the zone, and given the set back of the building from the boundary it is the opinion of the author that the temporary adverse effect of the proposal will be low.

Within 3 – 5 years, views to the Stage 1 buildings will be substantially screened, and it is the opinion of the author that the temporary adverse effect of the proposal as experienced by these individuals will be very low.

5.3.2.2 Occupants of dwellings within properties bordering the site to the west and road users on Wallis Road

Wallis Road is a no exit unsealed road which serves a limited number of properties. A dwelling located within Lot 1 DP 196311 (number 42) adjoins the site on three sides and as a residential 'receptor' located proximate to the boundaries of the site, occupants of this dwelling are assessed as having a very high sensitivity to change. The number of potentially affected individuals is low.

The number of road users is understood to be low, and as transitory individuals, these receptors are assessed as having a low to moderate sensitivity to change.

A dwelling located to the west of Wallis Road within Sec 14S Te Pua SETT (number 61) is located some 125 metres from the western boundary of Finger 1. As a residential 'receptors' who is located proximate to the boundaries of the site, these individuals are assessed as having a high sensitivity to change. The number of potentially affected individuals is low. This property appears to serve as a camping ground, and as such, the sensitivity of visitors to the camp ground is assessed as being moderate to high (given their likely expectation of a rural environment), and the number affected will be periodically moderate.

Occupants of number 42 currently experience unimpeded and long views across the rural pastoral landscape of Finger 1 to the east, north east and north. The dwelling is situated within a lot of some 2,000 m^2 in area, and so occupants rely to some degree on the borrowed views of the site for their sense of rural amenity.

The proposal seeks to construct a car park a minimum of some 20 metres of the eastern boundary of number 42, with the nearest ancillary building a minimum of some 60 metres from the boundary, and the glasshouse some 120 metres away (refer to Figures 4b, 5, 9 and 32). Initially views from the dwelling will be partially screened by proposed mounding (some 2.0 – 3.0 metres in height). This will screen views of the car parking areas. Within some 3 – 5 years, planting on these mounds will have substantially screened views of built form within the site, although the flue will be visible.

The internal illumination of the glass house will be perceptible until the vegetative screen is established. As a worst case scenario, the structure will be lit between the hours of 1.00am to 6.00pm and so no effects from the lighting will be experienced during the evening hours. In winter, the lighting will be perceptible the early morning hours of darkness.

Although the proposed mounding and planting will, once established, substantially screen views of built form within the site, they will in themselves result in a marked change of character from the existing situation. Instead of the expansive rural and pastoral views, the property will assume a more inward focused, enclosed and private character[14].

[14] It is noted that – whilst the proposal currently shows mounding enclosing three sides of number 42 Wallis Road, there is the potential to omit the mounding and planting along the northern boundary of this property. This would allow the retention of open views to the north, toward and across the proposed reservoir. The angle of such views would preclude views of built form within the site.

It is the opinion of the author that the potential adverse visual amenity effect as experienced by occupants of this property will be moderate to high initially, diminishing to low within 3 – 5 years as the buffer planting becomes established.

Whilst this change would affect the sense of rural amenity as experienced by occupants of this property, a similar change could occur as a permitted activity within the Rural Production Zone if, for example a horticultural glasshouse of a complying area coverage were constructed close to the shared boundary with this property, or if Finger 1 was planted with forestry trees, or if the boundary was planted with shelter trees.

At present, views are possible from Wallis Road (north of number 42) to the east across Finger 1. The proposal includes the construction of mounding along this boundary, north from number 42 as far as the Kopenui Stream bridge. These mounds will be planted with native species. The height of the mounds (2.0 – 3.0 metres) , and their proximity to Wallis Road in relation to the location of built form within the site will ensure that views of the buildings will be blocked. Within 3 to 5 years, the eastern side of the road will assume an enclosed and vegetated character.

It is the opinion of the author that the potential adverse visual amenity effect as experienced by users of Wallis Road will be low initially, diminishing to very low within 3 – 5 years as the buffer planting becomes established.

The planting on these mounds will also serve to screen views of the lower part of the built form within the site from the dwelling and camp ground within Sec 14S Te Pua SETT. With the dwelling and the communal facilities within the campground separated by some 260 metres from the built form within Finger 1, viewed from this distance the upper portion and roof of the glasshouse, and ancillary buildings, will be apparent over the top of these roadside mounds until the planting achieves a height of around 3.0 – 4.0 metres (a period of approximately 5 years). The buffer (water) tank will remain visible for a longer period, becoming largely screened by mitigation planting within the site after approximately 8 years. The flue will remain visible.

From locations nearer the road, the foreshortening effect will result in the buildings being screened more rapidly.

The Rural Production rules allow for built development to be established on site the ability to gain views of built form of character proposed can be anticipated. The proposal exceeds the maximum building coverage for the zone and so the (horizontal) scale of the proposed buildings exceeds what may be anticipated.

The roadside landscape buffer planting will serve to provide a perceptual separation between the viewer within the campground and dwelling within Sec 14S Te Pua SETT and built development within the site. This will result in a reduction in the apparent immediacy, and dominance of the buildings. Although the viewer may be aware of the presence of built form within Finger 1, it will not draw the attention or detract from the amenity of the receptor's surroundings, once the mitigation planting is established.

With the dwelling in this property being oriented toward the northern and eastern outlooks, it is the opinion of the author that the occupants of this dwelling will experience initial potential adverse visual amenity effects that are moderate, diminishing to low within 5 years. Visitors to the camp ground will experience initial adverse effects that are moderate, diminishing to low within 3 years.

5.3.2.3 Occupants of a dwelling within a property bordering the site to the north

At the northern end of Wallis Road, a single dwelling within Sec 12S Te Pua SETT is located within rolling topography at the foot of the south facing ridge slopes. As a residential 'receptor' located proximate to the boundaries of the site,

occupants of this two storey dwelling are assessed as having a high sensitivity to change. The number of potentially affected individuals is very low.

The dwelling is oriented west – east, with landscaped gardens extending to the north, north east and east. The access, manoeuvring and parking areas and accessory buildings are situated to the south west, south and south east of the dwelling. To the south and south, south west and south east, groups of native trees fragment views to the south.

Although the primary focus appears to be away from the southern aspect, it is likely that glimpse views to the lower lying rural landscape to the south, including the subject site are experienced by occupants. The proposal will be visible between the intervening groups of trees, primarily from the upper floor. At a separation distance of some 650 – 700 metres, the change resulting from the proposal will be evident. Within some 3 to 5 years, the fragmentary glimpses of built form will be softened by the proposed mitigation planting located to the north of the glasshouse.

In the opinion of the author, the level of potential adverse visual amenity effect will be low to moderate, diminishing to low within 3 to 5 years as the mitigation planting becomes established.

5.3.2.4 Occupants of dwellings within properties to the west and road users on Te Pua Road

Elevated some 40 – 60 metres above the level of Finger 1, and separated by approximately 1,000 metres, occupants of a number of dwellings within a linear cluster on Te Pua Road (numbered 127, 131, 133, 139, 141, 143 and 145 and a dwelling located on the east side of Te Pua Road at number 162) have the potential to obtain views to the south east across the road to Finger 1. As residential 'receptors' separated from the site by a distance in excess of 1,000 metres, occupants of these dwelling are assessed as having a moderate sensitivity to change. The number of potentially affected individuals is low.

Views are also possible from Te Pua Road, primarily when the road user is travelling south along the road. As transitory and distant 'receptors' these individuals are assessed as having a low sensitivity to change. The number of potentially affected individuals is moderate to high.

A representative view from this location is included as photo 8.

Views from this elevated location are expansive and have a prevailing rural character, although a number of power lines are visible within the landscape. The proposed buildings will be visible, but will be contained within a matrix of vegetation, including shelterbelts and forest remnants to the east, riparian vegetation and forest remnants to the north and mixed vegetation to the south. It is anticipated that the cluster of built form will draw the eye of the casual onlooker due to its scale, but as the proposed mitigation planting becomes established, the scale of the built cluster will become fragmented and partially screened.

Internal lighting within the glass house has the potential to be visible from this elevated location. The worst case scenario would result in the building being lit between the hours of 1.00am – 6.00pm, 7 days a week, however it is understood that during hours of darkness, screens would limit light radiance upwards. It is likely though, that a low level of lighting would be perceptible within the site, where 'leakage' of lighting occurs from the glass house façades.

The lighting would only be visible during the early morning hours, when the majority of potential receptors are sleeping. The building will not be lit when the majority of receptors may be affected – during the mid to late evening hours.

Although occupants of these dwellings would notice the change from the existing situation, and the presence of built form within the site, it is the opinion of the author that the resulting potential adverse visual amenity effect will be low to moderate initially, diminishing to low as the mitigation planting becomes established (within 5 years).

As noted previously, the Rural Production Zone does provide for the construction of buildings where they are related to agricultural or horticultural production. Such buildings could be of a similar character to those proposed. Furthermore, the zone provisions provide for the erection of artificial crop protection as a permitted activity within the zone so long as it is no more than 6.0 metres in height, and 3.0 metres from the boundary. Frequently such structures comprise white shade cloth which would form a prominent feature within the rural landscape.

5.3.3 Assessment – Finger 2 Innovation and Enterprise Hub

The primary viewers can be gathered into four main groups, based on a commonality of views-types and geographical locations. These are as follows:

- *Occupants of dwellings within properties bordering the site to the east.*
- *Occupants of dwellings within properties to the south west and road users State Highway 12*
- *Potential future occupants of dwellings within properties bordering the site to the west*
- *Occupants of dwellings within properties to the west and road users on Te Pua Road*

Within these geographical groups, there exist subgroups, including occupants of residential properties, occupants of vehicles and pedestrians, and visitors to, or occupants of commercial premises and offices. The sensitivity to change within the visual environment of these subgroups varies, with occupants of dwellings being most sensitive, whilst users of the road / occupants of vehicles being least sensitive.

5.3.2.1 Occupants of dwellings within properties bordering the site to the east

A single dwelling is located close to the eastern boundary of Finger 2 within Orauruwharo 5B1B. Illustrated in photo 10, this dwelling is approximately 40 metres from the boundary of the site. As a residential 'receptor' located proximate to the boundaries of the site, occupants of this two storey dwelling are assessed as having a Very high sensitivity to change. The number of potentially affected individuals is very low.

The dwelling is contained by native forest on its northern and southern sides, whilst unobscured views are possible into the adjoining property to the east, and fragmented views are available to the west, into Finger 2. The dwelling and its curtilage appear to be set out and designed such that the amenity is internalised within the lot, however it is likely that the narrow longer views into Finger 2 and to the adjoining property to the east are enjoyed.

The proposal will result in the view to the west into Finger 1 being 'built out' with a car park / storage area with the Carbonscape production plant and sawdust store set back approximately 40 metres, and separated from the boundary by a parking / storage area. These activities will be buffered from the neighbour by a screening buffer planting of approximately 11.0 metres in width and this planting will form a dense vegetative screen within 3 – 5 years. Since existing views tend to be beneath the canopy of trees on the boundary, the upper part of the Carbonscape production plant building will be predominantly screened by the canopy of the existing trees, but occupants of the dwelling are likely to be aware of the presence of built form beyond their boundary – informed by glimpses of the building through the trees and the activity of vehicles during the day.

It is the opinion of the author that the potential adverse visual amenity effect experienced by the occupants of this dwelling will be moderate initially, diminishing to low within 3 to 5 years.

5.3.2.2 Occupants of dwellings within properties to the south west and road users State Highway 12

To the south of Finger 2, views from the State Highway are blocked by the area of native forest. The entrance to the Innovation and Enterprise Hub will be visible to passing road users, but will appear in isolation as road junction, with the road disappearing into the trees. As such, it will appear appropriate within the State Highway corridor environment. To the south west, views into Finger 2 are possible from the State Highway.

The number of road users is high, and as transitory individuals, these receptors are assessed as having a low to moderate sensitivity to change.

A single dwelling located at 5379 State Highway 12, and properties adjoining the State Highway on its southern side identified as Kohatu-O-Te Haua 3A1, 3B, 3C1 and Kohatu-O-Te Haua 2, offer views to the east at a distance of some 400 metres across the rural landscape to Finger 2.

As residential 'receptors' spatially separated from the site, occupants are assessed as having a moderate to high sensitivity to change. The number of potentially affected individuals is low.

The western edge of Finger 2 is exposed to views from the south west and west at its southern end, for a distance of some 300 metres measured from its south western corner. Further to the north, the western edge of the Finger is screened by existing vegetation.

Initially, users of the State Highway, travelling east will have the potential to gain views across a flat rural landscape, open but for scattered native totara and puriri into Finger 2. As the road user passes number 5379, built elements within the southern part of Finger 2 will become visible – being the Honey and Manuka buildings, and the Innovation buildings at a distance of between 500 – 700 metres. Moving east, as the road user passes number 5390, the Carbonscape and Spindle buildings will become visible at a distance of between 500 – 600 metres.

Within 3 to 5 years, the vegetation within the 20 metre wide screen buffer planting on the western boundary of the site will have developed to markedly reduce the visibility of built form within Finger 2. At a height of 3.0 – 4.0 metres, the planting will – given the separation distance between the receptors and buildings – will predominantly screen the Honey and Manuka buildings, and the Innovation buildings and partially screen the Carbonscape and Spindle buildings.

It is the opinion of the author that the potential adverse visual amenity effect that will be experienced by these transitory viewers will be low initially, diminishing to very low within 3 to 5 years.

Occupants of dwellings within 5379 State Highway 12 (Orauruwharo 1C), and properties adjoining the State Highway on its southern side identified as Kohatu-O-Te Haua 3A1, 3B, 3C1 and Kohatu-O-Te Haua 2, offer oblique views to the east at a distance of some 400 metres across the rural landscape to Finger 2. With the State Highway as an immediate foreground element for all but the occupants of 5379 State Highway 12, occupants of these dwellings will have the ability to gain distant views of Honey and Manuka buildings, and the Innovation buildings. Although the change from the existing situation will be apparent, the scale of these buildings, the separation distance between the buildings and the receptors and the oblique angle of view will result in only a limited level of effect initially. Within some 3 to 5 years, the vegetation within the 20.0 metre wide screen buffer planting strip will block views to the proposed buildings.

It is the opinion of the author that the potential adverse visual amenity effect that will be experienced by these individuals will be low initially, diminishing to nil within 3 to 5 years.

5.3.2.3 Potential future occupants of dwellings within properties bordering the site to the west

A consent application has been lodged to construct papakianga housing within the property adjoining Finger 2 on its western boundary (refer to Figure 2). The proposed design for the housing seeks to cluster the dwelling around a central courtyard, with the dwellings focused inwards toward the centre. Notwithstanding this, the potential will exist for views to the east across the boundary toward the proposed development within Finger 2 at a minimum distance of between 150 – 200 metres. If this development was completed, the sensitivity of occupants would be very high, and the number of individuals affected, low.

Initially, the built development within Finger 2 will be readily visible, with the buildings set within a framework of existing vegetation and landscaped grounds. Activity on the access road will also be evident.

Within 3 to 5 years, vegetation within the 20.0 metre wide screen buffer planting strip will obscure views into Finger 2 for these individuals.

It is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be moderate initially, diminishing to very low within 3 to 5 years.

5.3.2.4 Occupants of dwellings within properties to the west and road users on Te Pua Road

Separated by approximately 2,000 metres, occupants of a number of dwellings within a linear cluster on Te Pua Road (numbered 127, 131, 133, 139, 141, 143 and 145 and a dwelling located on the east side of Te Pua Road at number 162) have the potential to obtain views to the south east to Finger 2. As residential 'receptors' separated from the site by a distance in excess of 1,000 metres, occupants of these dwelling are assessed as having a moderate sensitivity to change. The number of potentially affected individuals is low.

As can be seen from photo 8, Finger 2 contains a robust structure of existing native vegetation, however snippet views of open pastured areas are possible within the trees. The proposal will result in these pockets of grass being occupied by built form although, given the distance, and the recessive colouring of the proposed buildings, it is not anticipated that the built form will be easily visible to the casual observer.

It is the opinion of the author that the potential adverse visual amenity effect experienced by these individuals will be very low.

The development within Finger 2 will however, be seen with development within Finger 1 as a foreground element and it is the opinion of the author, that in combination the resulting potential adverse visual amenity effect experienced by these individuals will be low to moderate, diminishing to low as the mitigation planting develops (over a period of up to 5 years).

5.3.4 Visual assessment summary

Receptor / group	sensitivity	number	Potential adverse visual amenity effect of proposal	
			Temporary	Long term
Occupants of dwellings within properties bordering the site to the south east, south and south west				
Lot 2 DP 336520 and Lot 2 DP331070	High	Very low	Low	Very low
Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070	High	Very low	Low	Very low
Occupants of dwellings within properties bordering the site to the west and road users on Wallis Road				
Lot 1 DP 196311	Very high	Very low	Moderate to high	Low
Wallis Road	Low	Low to moderate	Low	Very low
dwelling camp ground within Sec 14S Te Pua SETT	High Moderate to high	Very low Periodically moderate	Moderate Moderate	Low Low
Sec 12S Te Pua SETT	High	Very low	Moderate to low	Low
Occupants of dwellings within properties to the west and road users on Te Pua Road				
127, 131, 133, 139, 141, 143, 145 and 162 Te Pua Road	Moderate	Low	Low	Very Low
Occupants of dwellings within properties bordering the site to the east				
Orauruwharo 5B1B	Very high	Very low	Moderate	Low
Occupants of dwellings within properties to the south west and road users State Highway 12				
State Highway 12	Low to moderate	High	Low	Very low
5379 State Highway 12	Moderate to high	Very low	Low	Nil
Kohatu-O-Te Haua 3A1, 3B, 3C1 and Kohatu-O-Te Haua 2	Moderate to high	Low	Low	Nil
Potential future occupants of dwellings within properties bordering the site to the west				
Possible future papakianga	Very high	Low	Moderate	Low
Occupants of dwellings within properties to the west and road users on Te Pua Road **(combined potential adverse effect of development within Fingers 1 and 2)**				
127, 131, 133, 139, 141, 143 145 and 162 Te Pua Road	Moderate	Low	Moderate to low	Low

Table 1: Summary of assessment of potential adverse visual amenity effects of the proposal

Receptor / group	sensitivity	number	Potential adverse visual amenity effect of the permitted baseline	
			Temporary	Long term
Occupants of dwellings within properties bordering the site to the south east, south and south west				
Lot 2 DP 336520 and Lot 2 DP331070	High	Very low	Low	Very low
Lot 1 DP 166131, Lot 3 DP 166131 and Lot 1 DP 331070	High	Very low	Low	Very low
Occupants of dwellings within properties bordering the site to the west and road users on Wallis Road				
Lot 1 DP 196311	Very high	Very low	Moderate	Low
Wallis Road	Low	Low to moderate	Low	Very low
dwelling camp ground within Sec 14S Te Pua SETT	High Moderate to high	Very low Periodically moderate	Moderate to low Moderate to low	Low Low
Sec 12S Te Pua SETT	High	Very low	Low	Very low
Occupants of dwellings within properties to the west and road users on Te Pua Road				
127, 131, 133, 139, 141, 143, 145 and 162 Te Pua Road	Moderate	Low	Low	Very Low
Occupants of dwellings within properties bordering the site to the east				
Orauruwharo 5B1B	Very high	Very low	Moderate	Low
Occupants of dwellings within properties to the south west and road users State Highway 12				
State Highway 12	Low to moderate	High	Low	Very low
5379 State Highway 12	Moderate to high	Very low	Low	Nil
Kohatu-O-Te Haua 3A1, 3B, 3C1 and Kohatu-O-Te Haua 2	Moderate to high	Low	Low	Nil
Potential future occupants of dwellings within properties bordering the site to the west				
Possible future papakianga	Very high	Low	Moderate	Low
Occupants of dwellings within properties to the west and road users on Te Pua Road				
127, 131, 133, 139, 141, 143 145 and 162 Te Pua Road	Moderate	Low	Low	Very low

Table 2: Summary of assessment of potential adverse visual amenity effects of a permitted baseline development

6.0 CONCLUSION

The application seeks to establish an innovation park on land located to the east of Kaikohe. The property comprises approximately 204.7 ha which is currently operated as a dairy farm with a small area of pine plantation which has recently been harvested. The area is zoned Rural Production in the Far North District Plan.

Development of the proposal has included a thorough assessment of the site and its values (including geotechnical, geothermal, ecological, archaeological, and landscape) was undertaken. The resulting technical reports, established a framework for future development of the site – identifying and mapping sensitive, unsuitable areas, and areas / features of significance. The intention has been to facilitate a development that is sensitive to, and responds to its setting, whilst providing for a range of activities.

The proposal includes the enhancement of existing natural features and substantial buffer plantings / mounding where the potential for adverse effects on neighbouring properties has been identified.

The assessment has determined that the potential adverse landscape and rural character effect of the proposal will be moderate to low once the proposed landscape mitigation planting has become established (within 3 to 5 years).

A number of neighbours will experience temporary potential adverse visual amenity effects that are more than minor, but these effects will be mitigated to a level that is less than minor within a period of some 3 – 5 years, once the proposed landscape mitigation planting has become established.

With the exception of a small number of individuals located on Wallis Road to the west of Finger 1, the potential adverse visual amenity effect that would be generated by development permitted under the District Plan rules would be generally similar.

Simon Cocker

Registered Landscape Architect.

2 OCTOBER 2019

Appendix 1: Landscape and visual effects assessment methodology

Landscape and Visual Effects Assessment Methodology

Introduction

The landscape and visual effects assessment process provides a framework for assessing and identifying the nature and level of likely effects that may result from a proposed development. Such effects can occur in relation to changes to physical elements, the existing character of the landscape and the experience of it. In addition, the landscape assessment method may include an iterative design development processes which includes stakeholder involvement. The outcome of any assessment approach should seek to avoid, remedy or mitigate adverse effects. A separate assessment is required to assess changes in natural character in coastal areas and other waterbodies.

When undertaking landscape and visual effects assessments, it is important that a structured and consistent approach is used to ensure that findings are clear and objective. Judgement should always be based on skills and experience, and be supported by explicit evidence and reasoned argument.

While landscape and visual effects assessments are closely related, they form separate procedures. The assessment of the potential effect on the landscape forms the first step in this process and is carried out as an effect on an environmental resource (i.e. landscape elements, features and character). The assessment of visual effects considers how changes to the physical landscape affect the viewing audience. The types of effects can be summarised as follows:

> **Landscape effects:**
> *Change in the physical landscape, which may change its characteristics or qualities.*
>
> **Visual effects:**
> *Change to views which may change the visual amenity experienced by people.*

The policy context, existing landscape resource and locations from which a development or change is visible all inform the 'baseline' for landscape and visual effects assessments. To assess effects, the landscape must first be described, including an understanding of the key landscape characteristics and qualities. This process, known as landscape characterisation, is the basic tool for understanding landscape character and may involve subdividing the landscape into character areas or types. The condition of the landscape (i.e. the state of an individual area of landscape or landscape feature) should also be described alongside a judgement made on the value or importance of the potentially affected landscape.

This outline of the landscape and visual effects assessment methodology has been undertaken with reference to the Quality Planning Landscape Guidance Note1[1] and its signposts to examples of best practice which include the UK guidelines for landscape and visual impact assessment[2] and the New Zealand Landscape Institute Guidelines for Landscape Assessment[3].

Assessing landscape effects requires an understanding of the nature of the landscape resource and the magnitude of change which results from a proposed development to determine the overall level of landscape effects.

Nature of the landscape resource

Assessing the nature of the landscape resource considers both the susceptibility of an area of landscape to change and the value of the landscape. This will vary upon the following factors:

- Physical elements such as topography / hydrology / soils / vegetation;
- Existing land use;
- The pattern and scale of the landscape;

[1] http://www.qualityplanning.org.nz/index.php/planning-tools/land/landscape
[2] Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3)
[3] Best Practice Note Landscape Assessment and Sustainable Management 10.1, NZILA

- Visual enclosure / openness of views and distribution of the viewing audience;
- The zoning of the land and its associated anticipated level of development;
- The value or importance placed on the landscape, particularly those confirmed in statutory
- documents; and
- The scope for mitigation, appropriate to the existing landscape.

The susceptibility to change takes account of both the attributes of the receiving environment and the characteristics of the proposed development. It considers the ability of a specific type of change occurring without generating adverse effects and/or achievement of landscape planning policies and strategies.

Landscape value derives from the importance that people and communities, including tangata whenua, attach to particular landscapes and landscape attributes. This may include the classification of

Outstanding Natural Landscape (RMA s.6(b)) based on important biophysical, sensory/ aesthetic and associative landscape attributes, which have potential to be affected by a proposed development.

Magnitude of Landscape Change

The magnitude of landscape change judges the amount of change that is likely to occur to existing areas of landscape, landscape features, or key landscape attributes. In undertaking this assessment, it is important that the size or scale of the change is considered within the geographical extent of the area influenced and the duration of change, including whether the change is reversible. In some situations, the loss /change or enhancement to existing landscape elements such as vegetation or earthworks should also be quantified.

When assessing the level of landscape effects, it is important to be clear about what factors have been considered when making professional judgements. This can include consideration of any benefits which result from a proposed development. Table 1 below helps to explain this process. The tabulating of effects is only intended to inform overall judgements.

Contributing factors		Higher	Lower
Nature of Landscape Resource	**Susceptibility to change**	The landscape context has limited existing landscape detractors which make it highly vulnerable to the type of change which would result from the proposed development.	The landscape context has many detractors and can easily accommodate the proposed development without undue consequences to landscape character.
	The value of the landscape	The landscape includes important biophysical, sensory and associative attributes. The landscape requires protection as a matter of national importance (ONF/L).	The landscape lacks any important biophysical, sensory or associative attributes. The landscape is of low or local importance.
Magnitude of Change	**Size or scale**	Total loss or addition of key features or elements. Major changes in the key characteristics of the landscape, including significant aesthetic or perceptual elements.	The majority of key features or elements are retained. Key characteristics of the landscape remain intact with limited aesthetic or perceptual change apparent.
	Geographical extent	Wider landscape scale.	Site scale, immediate setting.
	Duration and reversibility	Permanent. Long term (over 10 years).	Reversible. Short Term (0-5 years).

Table 1: Determining the level of landscape effects

Visual Effects

To assess the visual effects of a proposed development on a landscape, a visual baseline must first be defined. The visual 'baseline' forms a technical exercise which identifies the area where the development may be visible, the potential viewing audience, and the key representative public viewpoints from which visual effects are assessed.

The viewing audience comprises the individuals or groups of people occupying or using the properties, roads, footpaths and public open spaces that lie within the visual envelope or 'zone of visual influence' of the site and proposal. Where possible, computer modelling can assist to determine the theoretical extent of visibility together with field work undertaken to confirm this. Where appropriate, key representative viewpoints should be agreed with the relevant local authority.

Nature of the viewing audience

The nature of the viewing audience is assessed in terms of the susceptibility of the viewing audience to change and the value attached to views. The susceptibility of the viewing audience is determined by assessing the occupation or activity of people experiencing the view at particular locations and the extent to which their interest or activity may be focused on views of the surrounding landscape. This relies on a landscape architect's judgement in respect of visual amenity and reaction of people who may be affected by a proposal. This should also recognise that people more susceptible to change generally include: residents at home, people engaged in outdoor recreation whose attention or interest is likely to be focused on the landscape and on particular views; visitors to heritage assets or other important visitor attractions; and communities where views contribute to the landscape setting.

The value or importance attached to particular views may be determined with respect to its popularity or numbers of people affected or reference to planning instruments such as viewshafts or view corridors.

Important viewpoints are also likely to appear in guide books or tourist maps and may include facilities provided for its enjoyment. There may also be references to this in literature or art, which also acknowledge a level of recognition and importance.

Magnitude of Visual Change

The assessment of visual effects also considers the potential magnitude of change which will result from views of a proposed development. This takes account of the size or scale of the effect, the geographical extent of views and the duration of visual change which may distinguish between temporary (often associated with construction) and permanent effects where relevant. Preparation of any simulations of visual change to assist this process should be guided by best practice as identified by the NZILA[4].

When determining the overall level of visual effect, the nature of the viewing audience is considered together with the magnitude of change resulting from the proposed development. Table 2 has been prepared to help guide this process:

Contributing factors		Higher	Lower
Nature of Landscape Resource	**Susceptibility to change**	Views from dwellings and recreation areas where attention is typically focussed on the landscape..	Views from places of employment and other places where the focus is typically incidental to its landscape context. Views from transport corridors.
	The value of the landscape	Viewpoint is recognised by the community such as an important view shaft, identification on tourist maps or in art and literature. High visitor numbers.	Viewpoint is not typically recognised or valued by the community. Infrequent visitor numbers..
Magnitude of Change	**Size or scale**	Loss or addition of key features in the view. High degree of contrast with existing landscape elements (i.e. in terms of form scale, mass, line, height, colour and texture). Full view of the proposed development	Most key features of view retained. Low degree of contrast with existing landscape elements (i.e. in terms of form scale, mass, line, height, colour and texture. Glimpse / no view of the proposed development.
	Geographical extent	Front on views. Near distance views; Change visible across a wide area.	Oblique views. Long distance views. Small portion of change visible.
	Duration and reversibility	Permanent. Long term (over 15 years).	Transient / temporary. Short Term (0-5 years).

[4] Best Practice Guide: Visual Simulations BPG 10.2, NZILA

Nature of Effects

In combination with assessing the level of effects, the landscape and visual effects assessment also considers the nature of effects in terms of whether this will be positive (beneficial) or negative (adverse) in the context within which it occurs. Neutral effects can also occur where landscape or visual change is benign.

It should also be noted that a change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. Landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformational ways, these changes are both natural and human induced. What is important in managing landscape change is that adverse effects are avoided or sufficiently mitigated to ameliorate the effects of the change in land use. The aim is to provide a high amenity environment through appropriate design outcomes.

This assessment of the nature effects can be further guided by Table 3 set out below:

Nature of effect	Use and definition
Adverse (negative):	The proposed development would be out of scale with the landscape or at odds with the local pattern and landform which results in a reduction in landscape and / or visual amenity values
Neutral (benign):	The proposed development would complement (or blend in with) the scale, landform and pattern of the landscape maintaining existing landscape and / or visual amenity values
Beneficial (positive):	The proposed development would enhance the landscape and / or visual amenity through removal of restoration of existing degraded landscapes uses and / or addition of positive elements or features

Table 3: Determining the Nature of Effects

Cumulative Effects

During the scoping of an assessment, where appropriate, agreement should be reached with the relevant local authority as to the nature of cumulative effects to be assessed. This can include effects of the same type of development (e.g. wind farms) or the combined effect of all past, present and approved future development[5] of varying types, taking account of both the permitted baseline and receiving environment. Cumulative effects can also be positive, negative or benign.

Cumulative Landscape Effects

Cumulative landscape effects can include additional or combined changes in components of the landscape and changes in the overall landscape character. The extent within which cumulative landscape effects are assessed can cover the entire landscape character area within which the proposal is located, or alternatively, the zone of visual influence from which the proposal can be observed.

Cumulative Visual Effects

Cumulative visual effects can occur in combination (seen together in the same view), in succession (where the observer needs to turn their head) or sequentially (with a time lapse between instances where proposals are visible when moving through a landscape). Further visualisations may be required to indicate the change in view compared with the appearance of the project on its own.

Determining the nature and level of cumulative landscape and visual effects should adopt the same approach as the project assessment in describing both the nature of the viewing audience and magnitude of change leading to a final judgement. Mitigation may require broader consideration which may extend beyond the geographical extent of the project being assessed.

Determining the Overall Level of Effects

[5] The life of the statutory planning document or unimplemented resource consents

The landscape and visual effects assessment concludes with an overall assessment of the likely level of landscape and visual effects. This step also takes account of the nature of effects and the effectiveness of any proposed mitigation.

This step informs an overall judgement identifying what level of effects are likely to be generated as indicated in Table 4 below. This table which can be used to guide the level of landscape and visual effects uses an adapted seven-point scale derived from NZILA's Best Practice Note.

	Effect rating	Use and definition
More than minor . . . . **Minor** . . . . . . **Less than minor**	**Very high**	Total loss of key elements / features / characteristics, i.e. amounts to a complete change of landscape character
	High	Major modification or loss of most key elements / features / characteristics, i.e. little of the pre-development landscape character remains. Concise Oxford English Dictionary Definition High: adjective- Great in amount, value, size, or intensity
	Moderate to high	Modifications of several key elements / features / characteristics of the baseline, i.e. the pre-development landscape character remains evident but materially changed.
	Moderate	Partial loss of or modification to key elements / features / characteristics of the baseline, i.e. new elements may be prominent but not necessarily uncharacteristic within the receiving landscape. Concise Oxford English Dictionary Definition Moderate: adjective- average in amount, intensity, quality or degree
	Moderate to low	Minor loss of or modification to one or more key elements / features / characteristics, i.e. new elements are not prominent or uncharacteristic within the receiving landscape.
	Low	No material loss of or modification to key elements / features / characteristics. i.e. modification or change is not uncharacteristic and absorbed within the receiving landscape. Concise Oxford English Dictionary Definition Low: adjective- 1. Below average in amount, extent, or intensity
	Very low	Little or no loss of or modification to key elements/ features/ characteristics of the baseline, i.e. approximating a 'no change' situation.

Table 4: Determining the overall level of landscape and visual effects

Determination of "minor"

Decision makers determining whether a resource consent application should be notified must also assess whether the effect on a person is less than minor6[6] or an adverse effect on the environment is no more than minor[7]. Likewise, when assessing a non-complying activity, consent can only be granted if the s104D 'gateway test' is satisfied. This test requires the decision maker to be assured that the adverse effects of the activity on the environment will be 'minor' or not be contrary to the objectives and policies of the relevant planning documents.

These assessments will generally involve a broader consideration of the effects of the activity, beyond the landscape and visual effects. Through this broader consideration, guidance may be sought on whether the likely effects on the landscape resource or effects on a person are considered in relation to 'minor'. It must also be stressed that more than minor effects on individual elements or viewpoints does not necessarily equate to more than minor effects on the wider landscape resource. In relation to this assessment, moderate-low level effects would generally equate to 'minor'.

[6] RMA, Section 95E
[7] RMA Section 95D

Appendix 2: Figures

Cowshed Camping Site

08

07

Kopenui Stream

Cowshed Camping Site

Te Pua Road

Wallis Road

06

FINGER 1

FINGER 2

FINGER 3

05

04

10

Ngawha Prison

Kopenui Stream

Reservoir Road

02

09

03

01

Kaikohe golf course

11

SH12

Cemetery

Kaikohe speedway

Kaikohe Showgrounds

Ngawha Springs Road

KAIKOHE

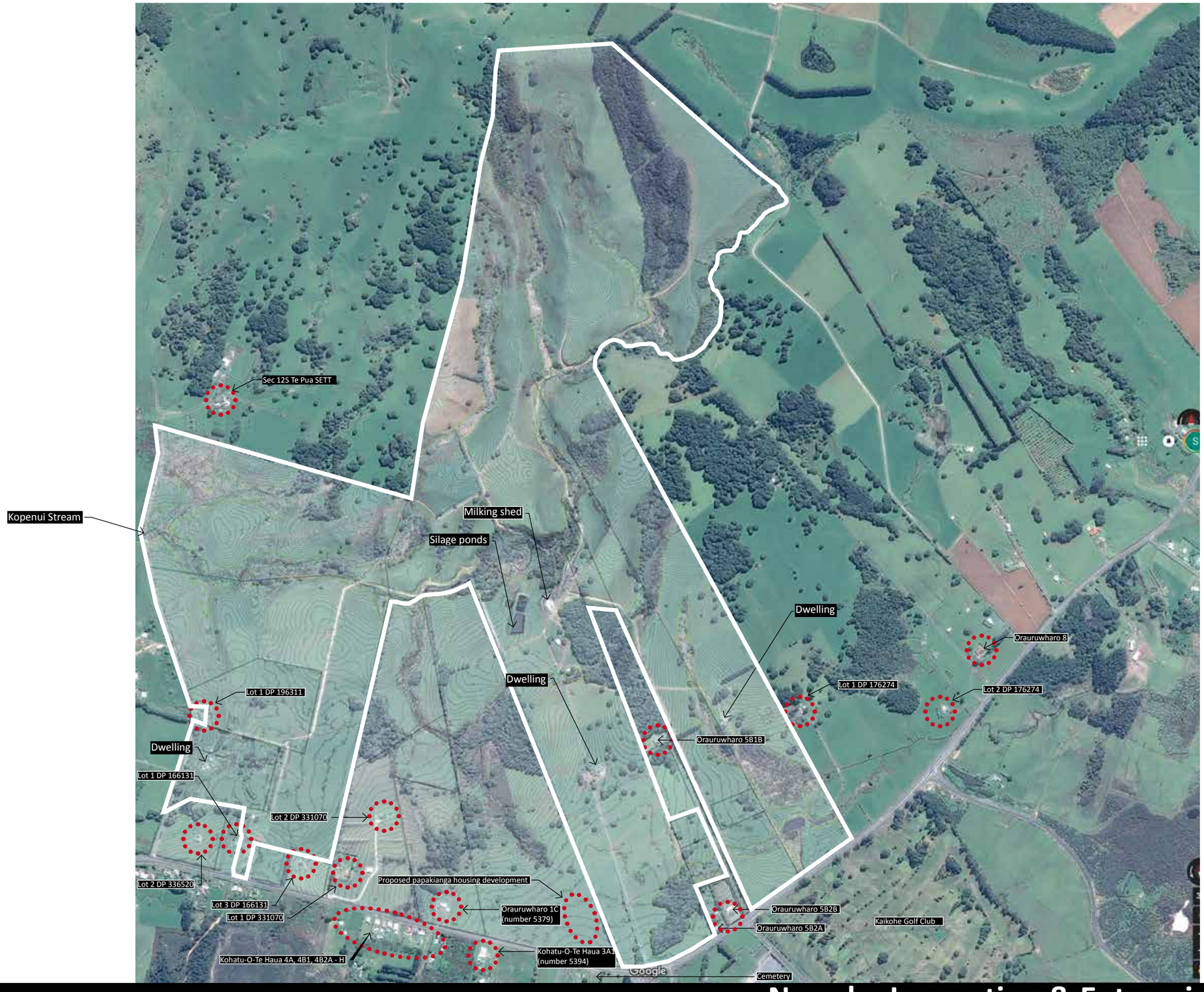
0m 100m 200m 300m 400m

Photograph locations

Ngawha Innovation & Enterprise Park

FIGURE 1: Location of the site and photo locations

Simon Cocker Landscape Architecture



Boundary of the site

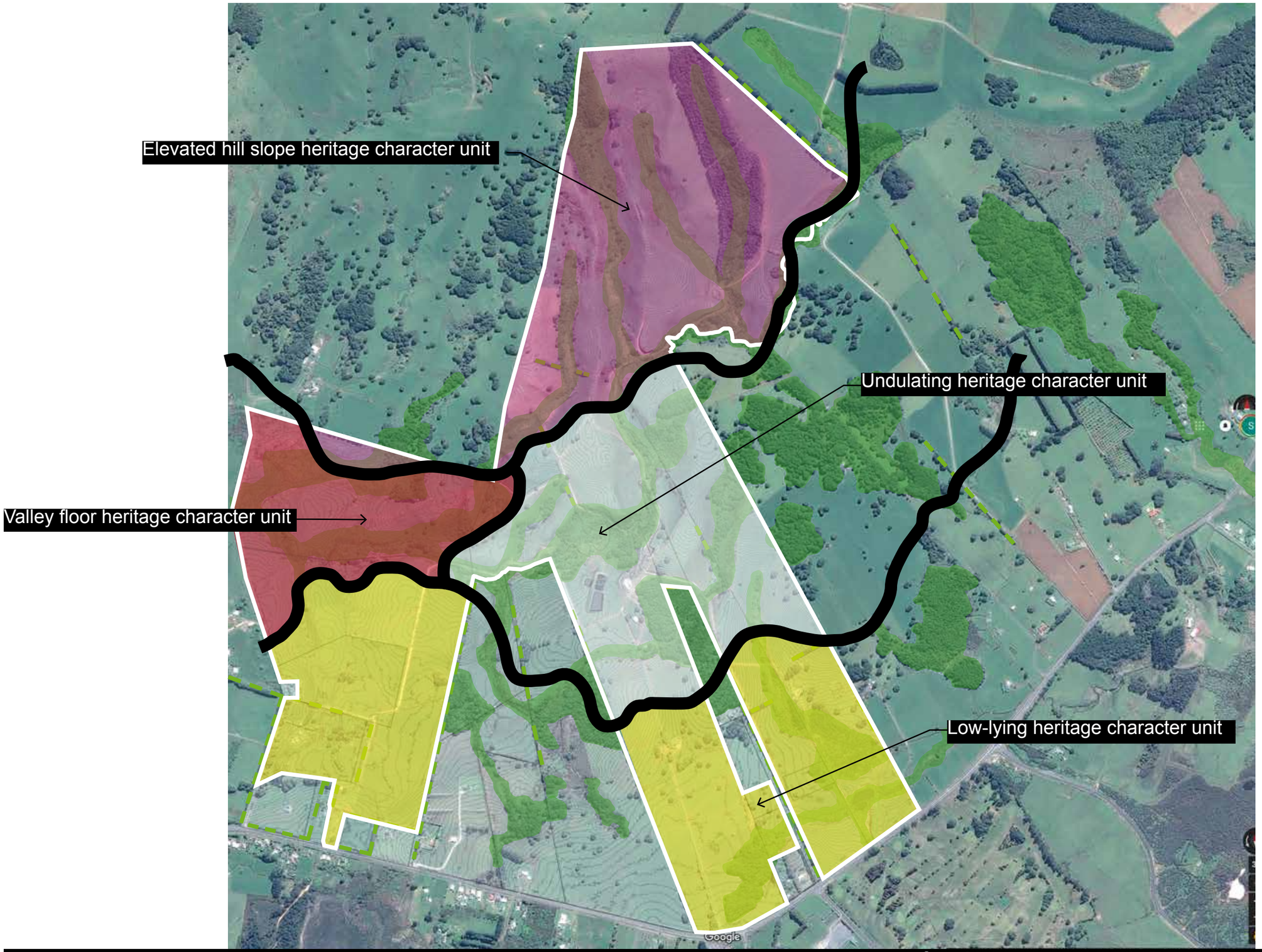
Potentially affected neighbour

0m 100m 200m 300m 400m

Ngawha Innovation & Enterprise Park

FIGURE 2: Site features and neighbours

Simon Cocker Landscape Architecture



0m 100m 200m 300m 400m

High sensitivity particularly on upper and mid slopes. Possible potential for change on lower slopes where visibility limited.

Moderate to high sensitivity. Avoid establishment of built development, earthworks, and roading.

Moderate sensitivity. Retain and enhance vegetation and watercourses. Development possible within defined areas.

Moderate to High sensitivity. Retain and enhance vegetation. Clustered development possible when associated with mitigation planting.

Ngawha Innovation & Enterprise Park

FIGURE 3: Landscape constraints plan

Simon Cocker Landscape Architecture

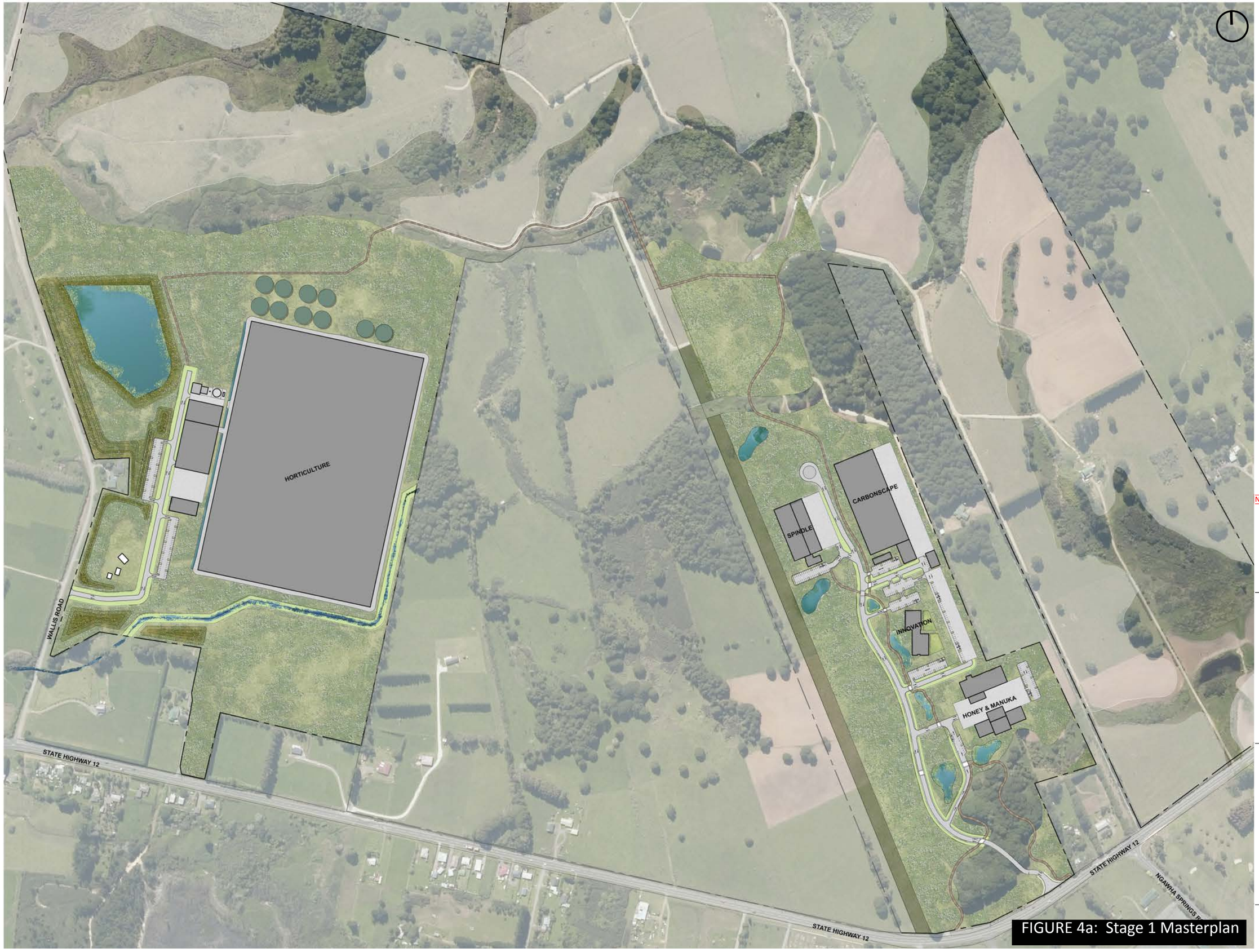


FIGURE 4a: Stage 1 Masterplan

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

DO NOT SCALE DRAWING.

drawing title:
MASTER PLAN
STAGE 1

scale:
1:2500 @ A1, 1:5000 @A3

date:
19.09.2019

drawing no.
L100

project name
Ngawha
Innovation &
Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa
wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

MASTERPLAN - COMPLETE

KEY

1. Streetscape trees
2. Trees and underplanting
3. Industry planting- recreational areas
4. Swales planting
5. Amenity / Orchard planting
6. Existing podocarp forest
7. Existing wetland enhanced
8. Screening buffer planting
9. Raised mounds
10. Wetland / firefighting ponds
11. Road
12. Carpark
13. Bus stop
14. Pedestrian / Cycle networks

Building Status

- Stage 1 Under Negotiation
- Future Stage

HORTICULTURAL HUB **SCALE @ A3 1:5000**

INNOVATION + ENTERPRISE HUB **SCALE @ A3 1:5000**

FIGURE 4b: Annotated Stages 1 and 2 Masterplan

STAGE 1 RESOURCE CONSENT- HORTICULTURE

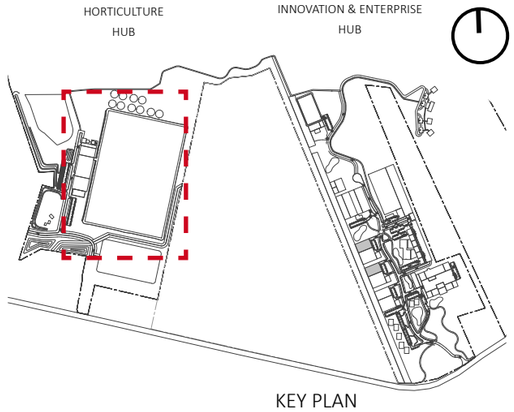
KEY

1. Trees + under planting
2. Light Industry planting
3. Swales planting
4. Screen planting
5. Wetland / firefighting ponds
6. Access road
7. Carpark
8. Pedestrian networks
9. Tanks

SCHEDULE OF AREAS

SITE AREA	293,560m²
GLASS HOUSE	93,840m²
PARKING WAREHOUSE & STAFF FACILITIES	3,500m²
PLANT	1,500m²
M.P.I TRANSITIONAL FACILITY	800m²
WOOD STORE & WOOD BURNER	300m²
CO^2 STORE (Cage on hardstand)	200m²
YARDS	2,650m²
TOTAL BUILDING AREA (Including canopy)	99,940m²
CAR PARKING	102

SCALE - 1:2500@A3



KEY PLAN

Fast growing mix of exotic species to be used to establish a buffer/ shelter belt planting zone. Refer to masterplan strategy report for planting species

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

DO NOT SCALE DRAWING.

drawing title:
RESOURCE CONSENT - HYDROPONICS PLAN

scale:
1:1250 @ A1, 1:2500 @A3

date:
19.09.2019

drawing no.
L150

project name
Ngawha Innovation & Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa wraight associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

FIGURE 5: Hydroponics building site plan

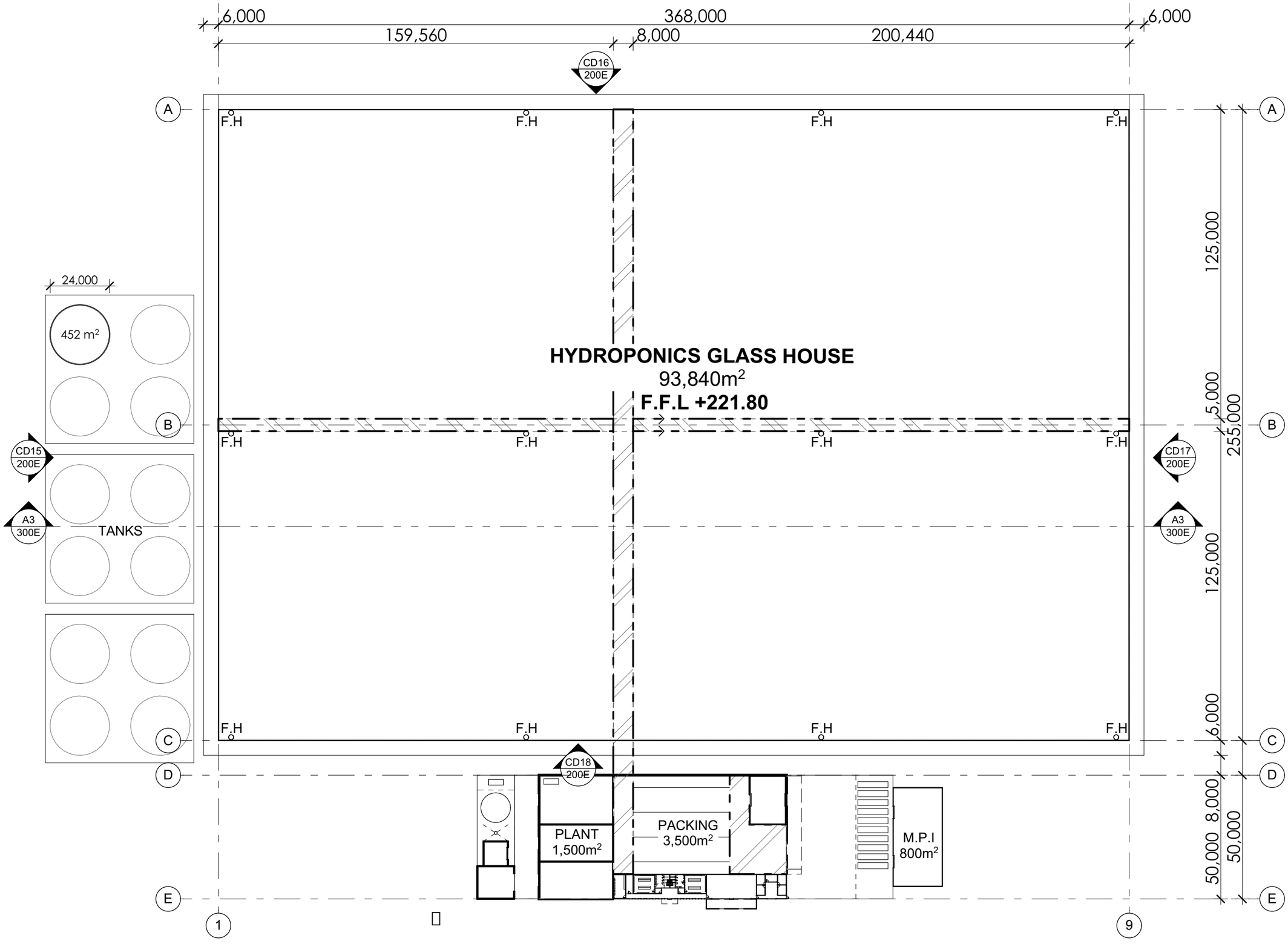


FIGURE 6: Hydroponics building floor plan

Hydroponics Floor Plan
#LayID
scale 1:1500

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no. #Pln
cad file FHH0657 Ngawha Innovation ~~Enterprise Park~~
design
drawn
checked
date 9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

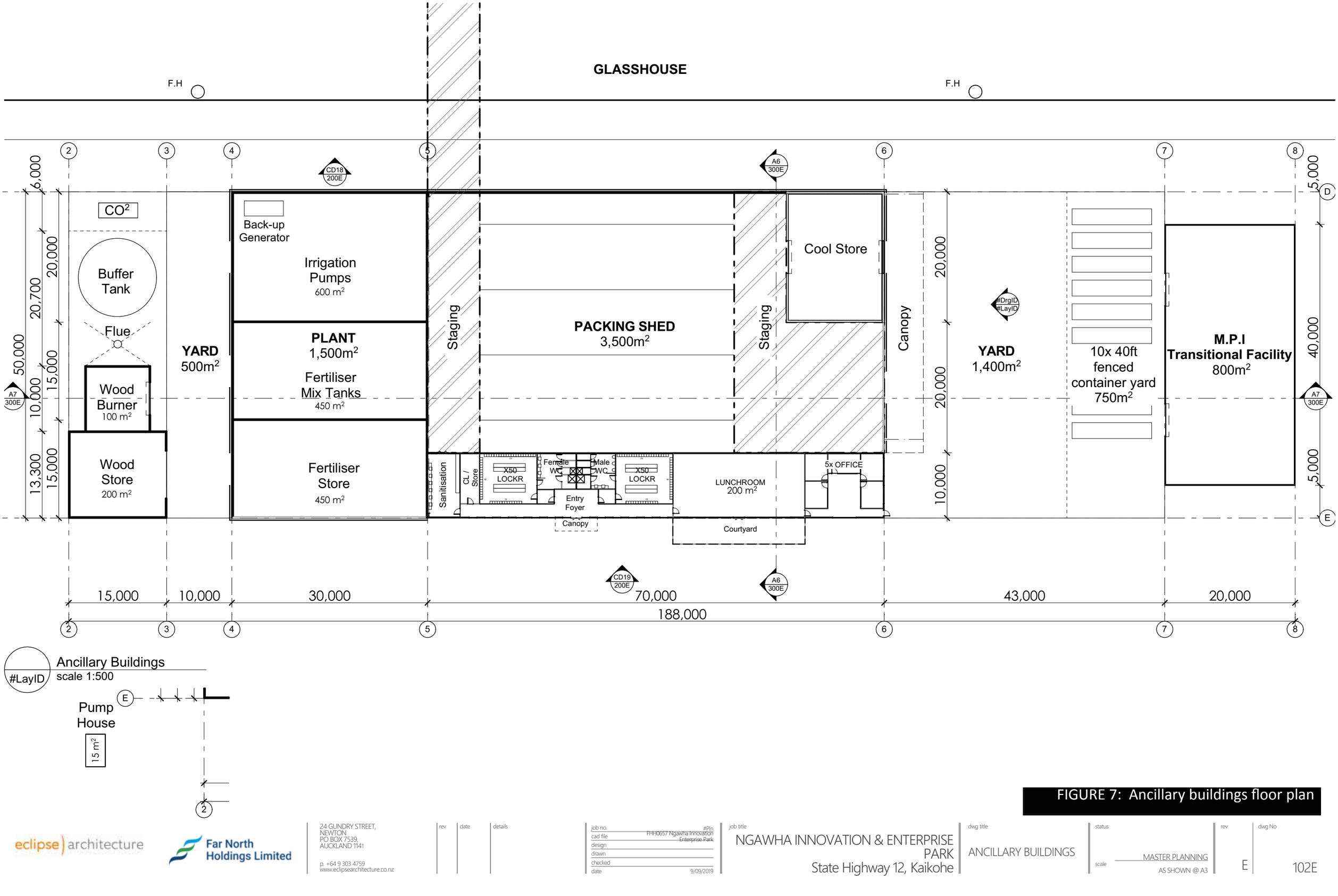
dwg title
HYDROPONICS FLOOR PLAN

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
101E



#LayID Ancillary Buildings
scale 1:500

FIGURE 7: Ancillary buildings floor plan

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

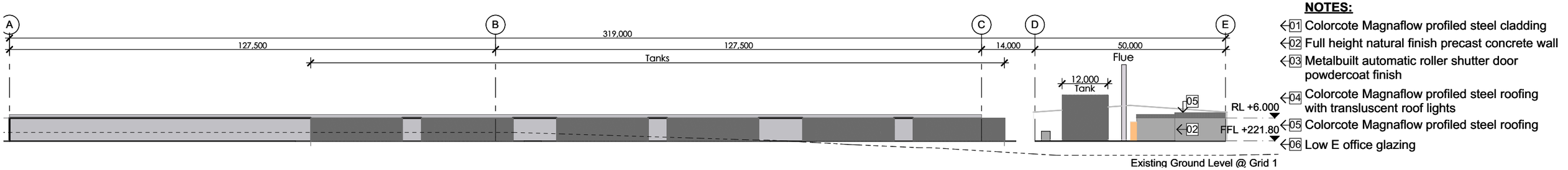
dwg title
ANCILLARY BUILDINGS

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

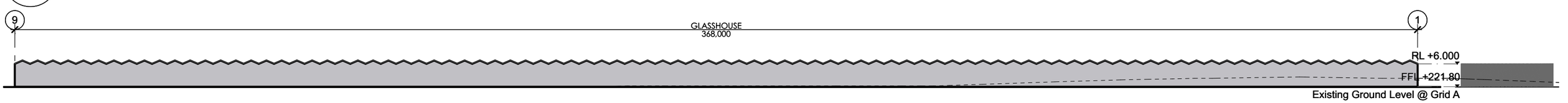
dwg No
102E



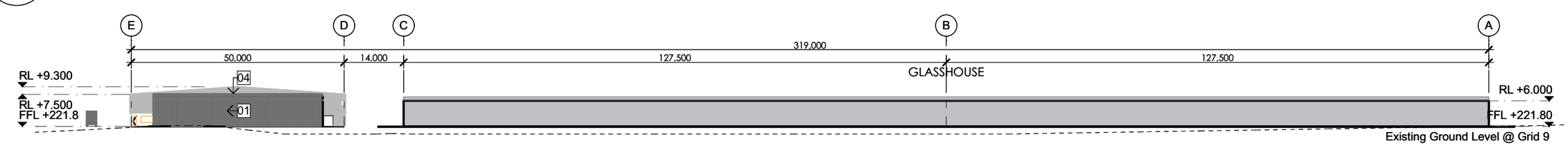
NOTES:

- 01 Colorcote Magnaflow profiled steel cladding
- 02 Full height natural finish precast concrete wall
- 03 Metalbuilt automatic roller shutter door powdercoat finish
- 04 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 05 Colorcote Magnaflow profiled steel roofing
- 06 Low E office glazing

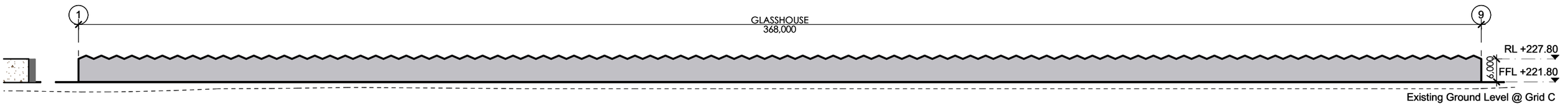
CD15 / 101E NORTH ELEVATION
scale 1:1000



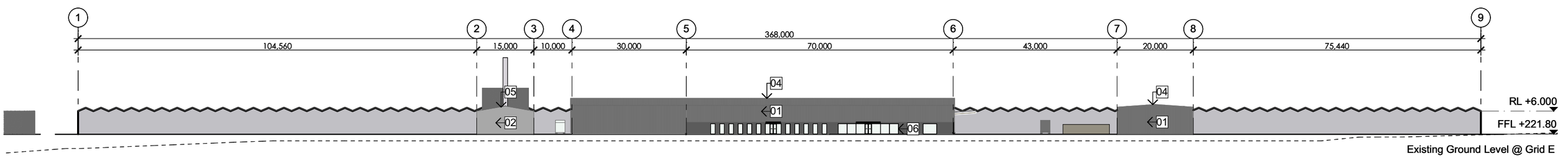
CD16 / 101E EAST ELEVATION
scale 1:1000



CD17 / 101E SOUTH ELEVATION
scale 1:1000



CD18 / 101E WEST ELEVATION
scale 1:1000



CD19 / 102E WEST ANCILLARY ELEVATION
scale 1:1000

FIGURE 8: Hydroponics building elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title: NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

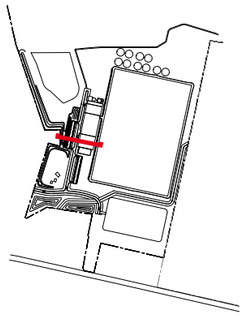
dwg title: HYDROPONICS ELEVATIONS

status: MASTER PLANNING
scale: AS SHOWN @ A3

rev: E

dwg No: 200E

STAGE 1 RESOURCE CONSENT - HYDROPONICS



KEY PLAN

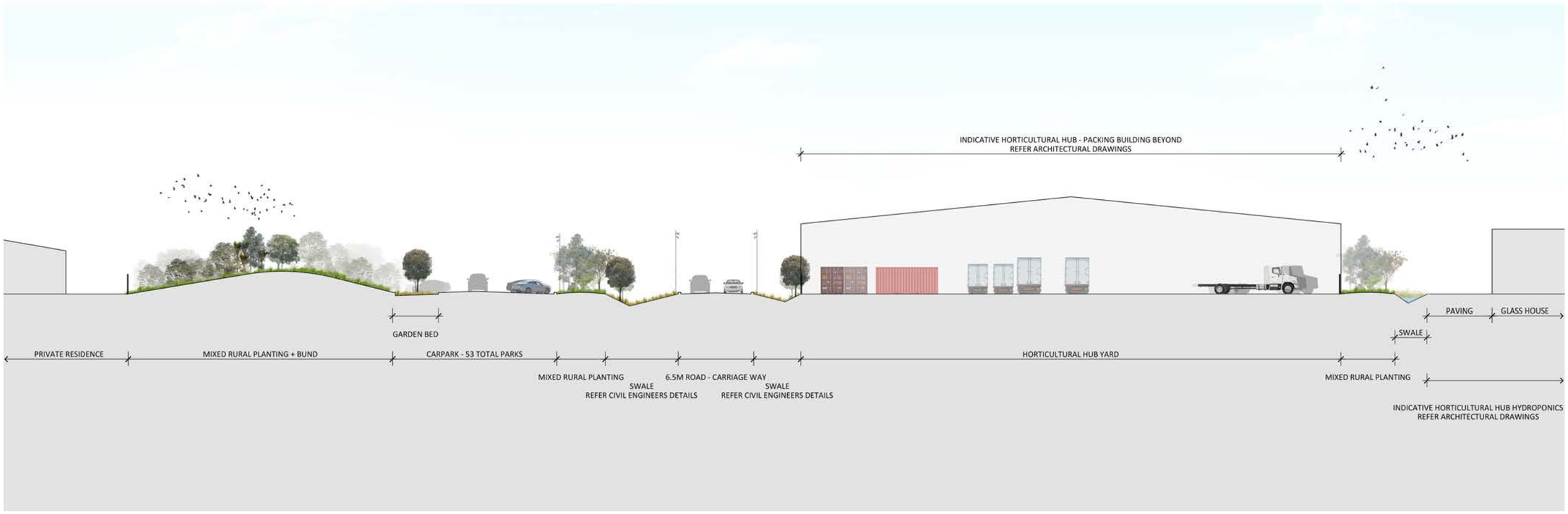


FIGURE 9: Hydroponics cross section

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

DO NOT SCALE DRAWING.

drawing title:
RESOURCE CONSENT
HORTICULTURE
SECTION

scale:
1:200 @ A1, 1:400 @A3

date:
19.09.2019

drawing no.
L250

project name
Ngawha Innovation & Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

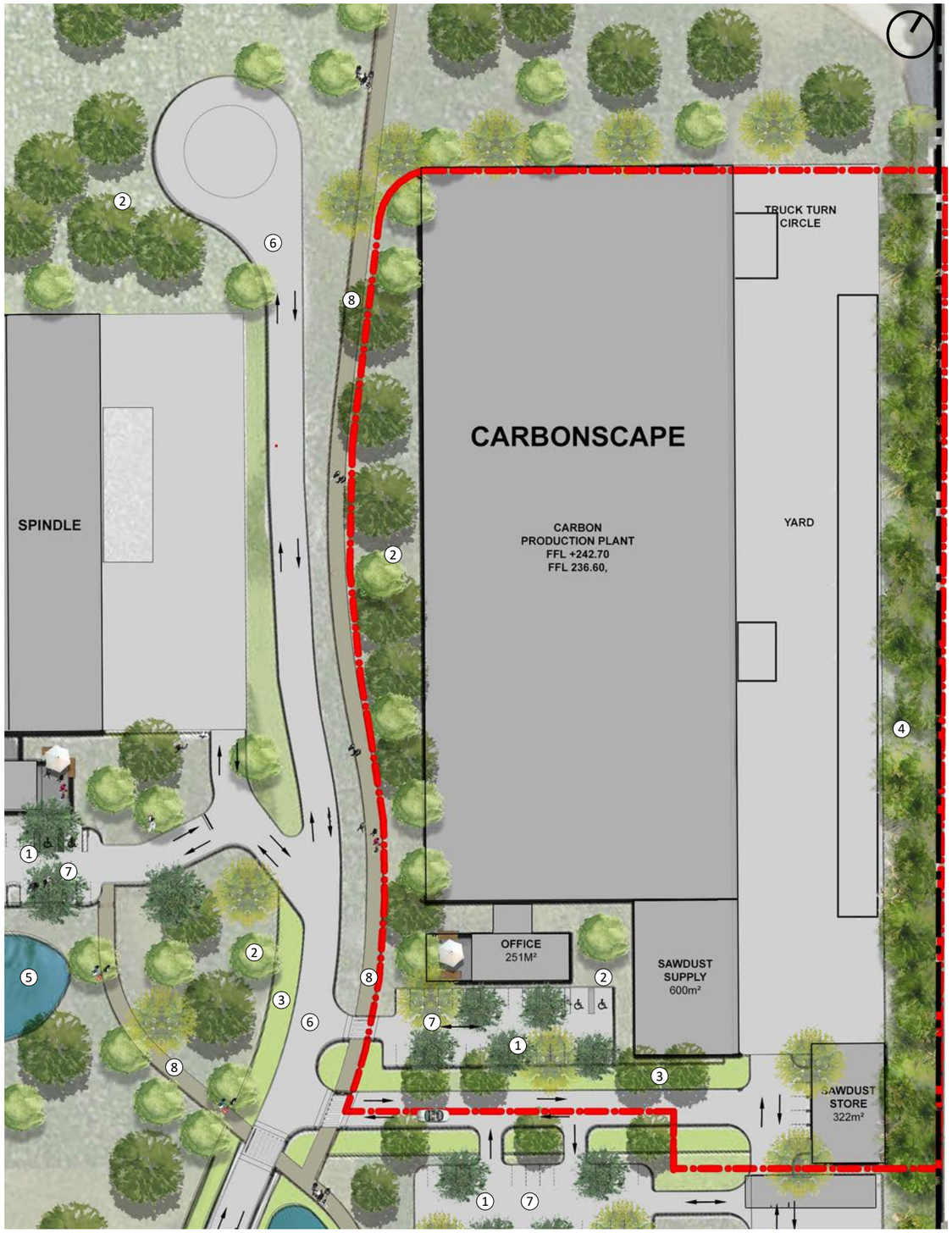
STAGE 1 RESOURCE CONSENT - CARBONSCAPE

KEY

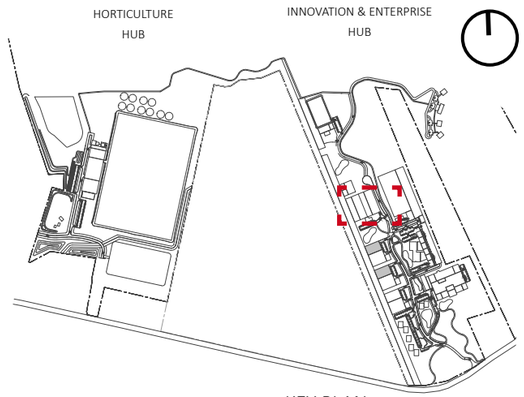
1. Trees + under planting
2. Light Industry planting
3. Swales planting
4. Screen planting
5. Wetland / firefighting ponds
6. Access road
7. Carpark
8. Pedestrian networks

SCHEDULE OF AREAS

SITE AREA	20,589m²
WAREHOUSE	8,460m²
SAWDUST STORE	600m²
OFFICE	251m²
CANOPY	300m²
YARD	4,760m²
TOTAL BUILDING AREA (Including canopy)	9,611m²
CAR PARKING	36



SCALE - 1:1000@A3



KEY PLAN

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOURCE CONSENT
CARBONSCAPE PLAN

scale:
1:500 @ A1, 1:1000 @A3

date:
19.09.2019

drawing no.
L120

project name
Ngawha Innovation & Enterprise Park

project phase.: Masterplan
project no.: 1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

FIGURE 10: Carbonscape site plan

N

1 2 3 4 5

15,350 9,500 5,150

A 300A

A1 300B

CD08 200B

REGENERATION PLANT

PURIFICATION PLANT

DRYING UNIT

OFFICE 251m²

Storage

Boardroom 22 m²

Meeting room 16 m²

W SHOP

CD07 200B

CARBON PRODUCTION PLANT
8,460m²
F.F.L 242.70

CD05 200B

B1 300B

GRAPHITISATION UNIT

COOLING UNIT

1 DAY SAWDUST SUPPLY

PYROLYSIS PLANT

RD 01

RD 02

RD 03

CANOPY 100m²

CANOPY 100m²

CANOPY 100m²

YARD

A1 300B

CD06 200B

WEEKS SAWDUST SUPPLY

RD04

9,660

30,000

22,270

8,070

30,000

20,000

14,000

14,000

6,000

16,700

23,000

18,000

12,000

30,000

120,000

141,000

21,000

A A+ B B+ C D E F

1 2 3 4 5

Carbon Production Plant Floor Plan
#LayID
scale 1:500

FIGURE 11: Carbonscape floor plan

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

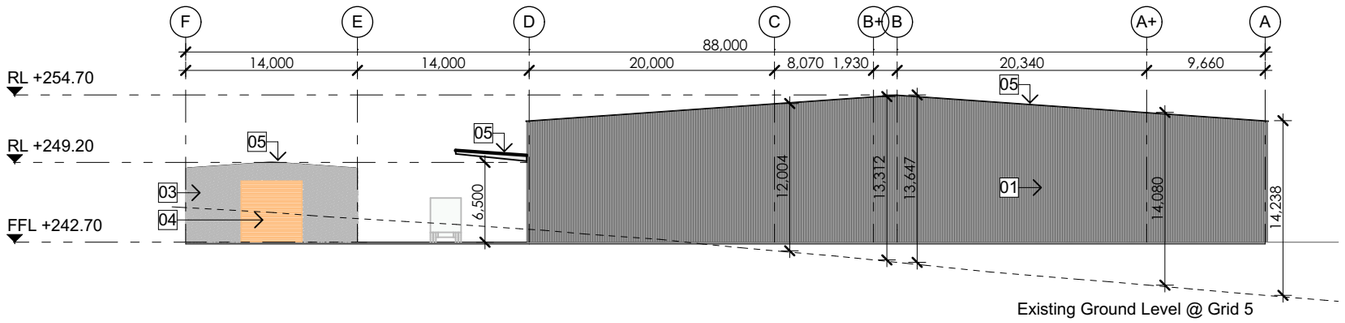
dwg title
CARBONSCAPE FLOOR PLAN

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

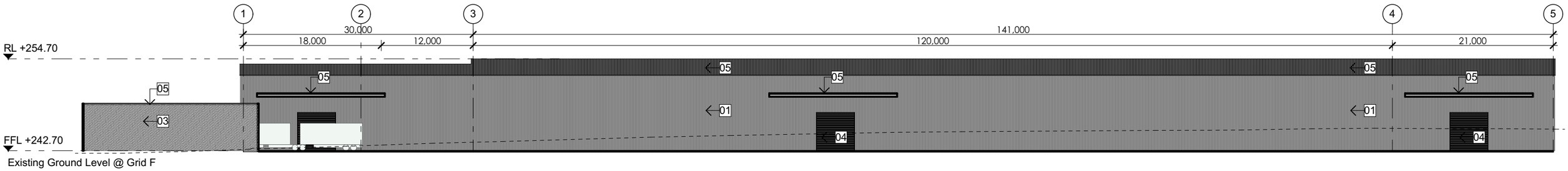
dwg No
101B



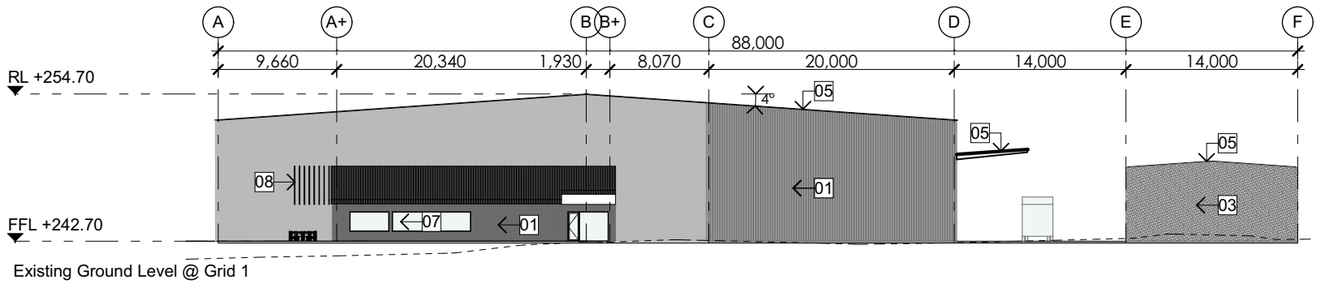
NOTES:

- 01 Colorcote Magnaflow profiled steel cladding
- 02 Natural finish precast concrete wall to 2400mm AFFL
- 03 Full height natural finish precast concrete wall
- 04 Metalbuilt automatic roller shutter door powdercoat finish
- 05 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 06 Colorcote Magnaflow profiled steel office roofing
- 07 Low E office glazing
- 08 Timber Pergola stain finish

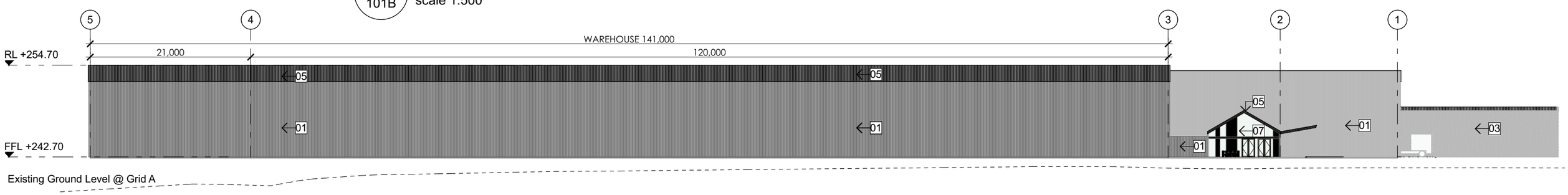
CD05 / 101B NORTH ELEVATION
scale 1:500



CD06 / 101B EAST ELEVATION
scale 1:500



CD07 / 101B SOUTH ELEVATION
scale 1:500



CD08 / 101B WEST ELEVATION
scale 1:500

FIGURE 12: Carbonscape elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

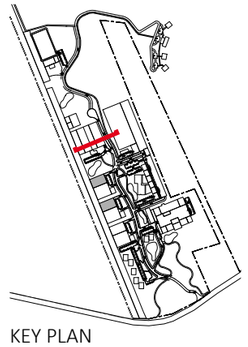
dwg title
CARBONSCAPE ELEVATIONS

status
MASTER PLANNING
scale
AS SHOWN @ A3

rev
E

dwg No
200B

STAGE 1 RESOURCE CONSENT- CARBONSCAPE + SPINDLE



KEY PLAN

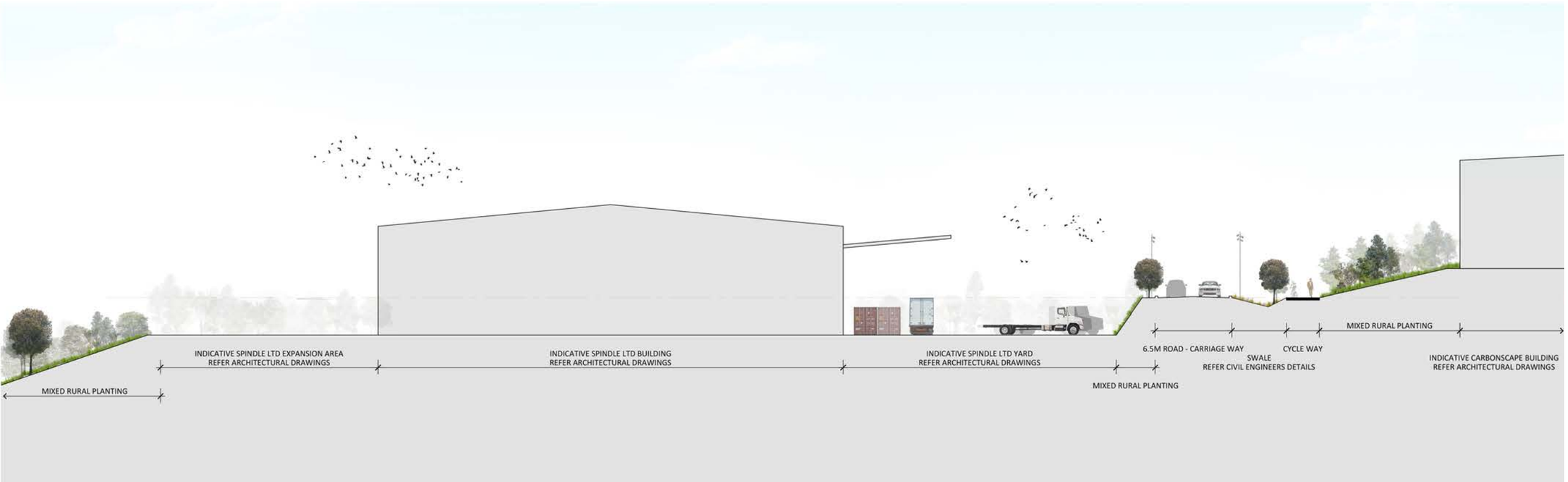


FIGURE 13: Spindle / Carbonscape section

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOURCE CONSENT CARBONSCAPE + SPLINDLE SECTION

scale:
1:200 @ A1, 1:400 @A3

date:
19.09.2019

drawing no.
L210

project name
Ngawha Innovation & Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa
wright + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

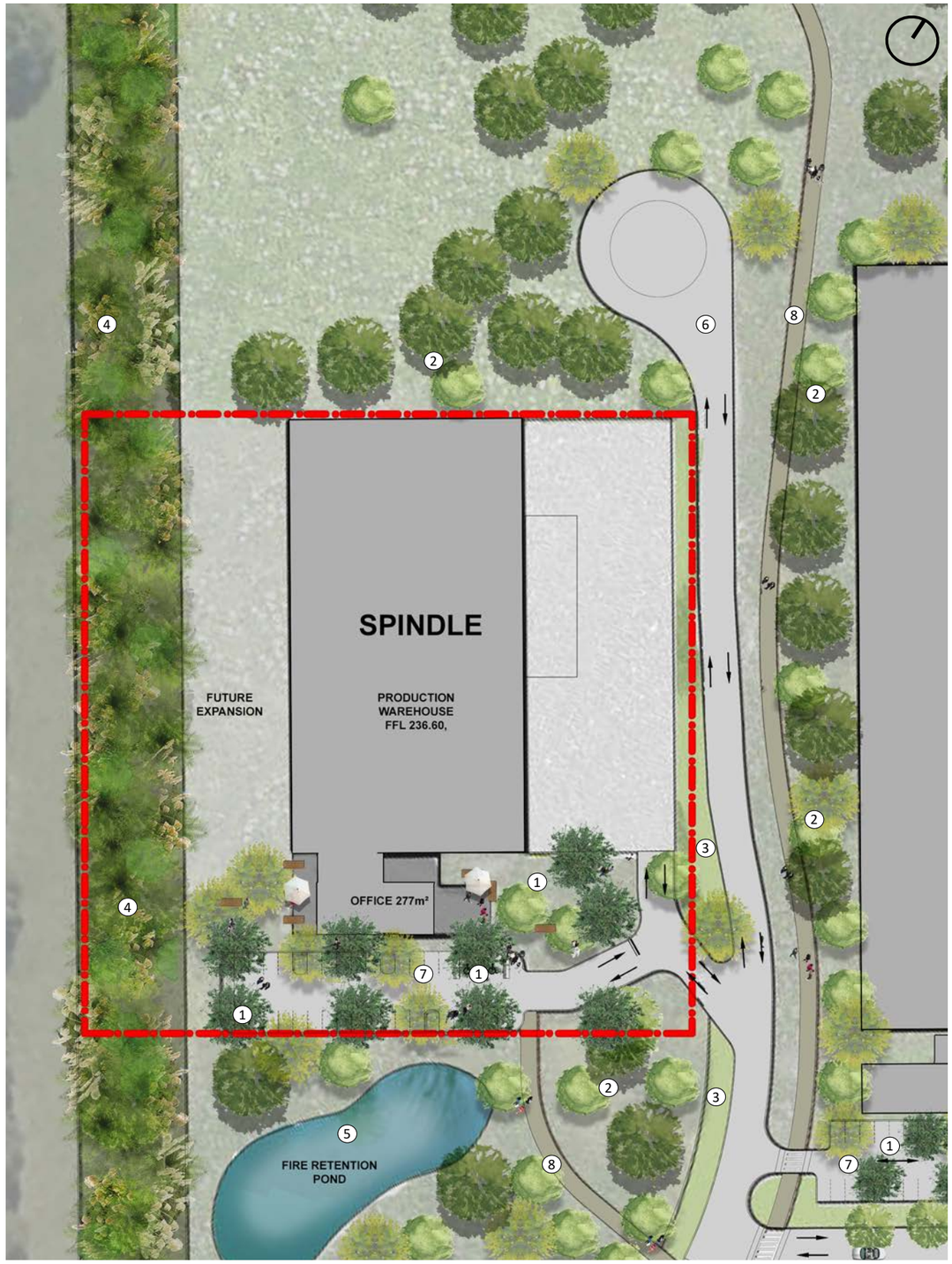
STAGE 1 RESOURCE CONSENT - SPINDLE BUILDINGS LTD

KEY

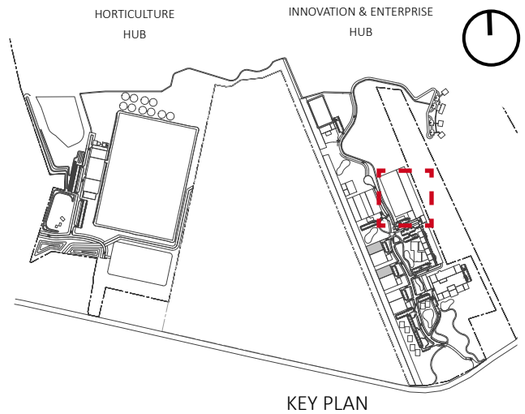
1. Trees + under planting
2. Light Industry planting
3. Swales planting
4. Screen planting
5. Wetland / firefighting ponds
6. Access road
7. Carpark
8. Pedestrian networks

SCHEDULE OF AREAS

SITE AREA	14,212m²
PRODUCTION	3,440m²
OFFICE	277m²
CANOPY	300m²
YARD (Excluding canopy)	2,158m²
TOTAL BUILDING AREA (Including canopy)	4,017m²
CAR PARKING	32
FUTURE EXPANSION	2,000m²



SCALE - 1:1000@A3



KEY PLAN

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOUCE CONSENT
SPINDLE PLAN

scale:
1:500 @ A1, 1:1000 @A3

date:
19.09.2019

drawing no.
L110

project name
Ngawha Innovation & Enterprise Park

project phase. Masterplan

project no. 1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

FIGURE 14: Spindle site plan

N

EXPANSION

PRODUCTION WAREHOUSE
3440m²
F.F.L 236.60

OFFICE
277m²

Lunchroom
Storage
Office
Boardroom
Chr
Unisex Shwr
Locker
Female WC
Male WC
Acc. WC/Shwr

SOUND INSULATED TIMBER TECH

RAW MATERIALS

INWARDS / OUTWARDS GOODS

FINISHED PRODUCT STORE

RD01
RD02

CANOPY
300m²

B 300A
CD03 201A
CD01 200A
CD02 200A

X1 X2 1 2
A B C

15,300
9,500
5,800
80,000
5,000
5,700
11,640
22,000
5,000
25,660
11,000
43,000
9,500
5,800
30,000
30,000
20,000

Floor Plan
#LayID
scale 1:300

FIGURE 15: Spindle floor plan

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

dwg title
SPINDLE BUILDINGS FLOOR PLAN

status
MASTER PLANNING

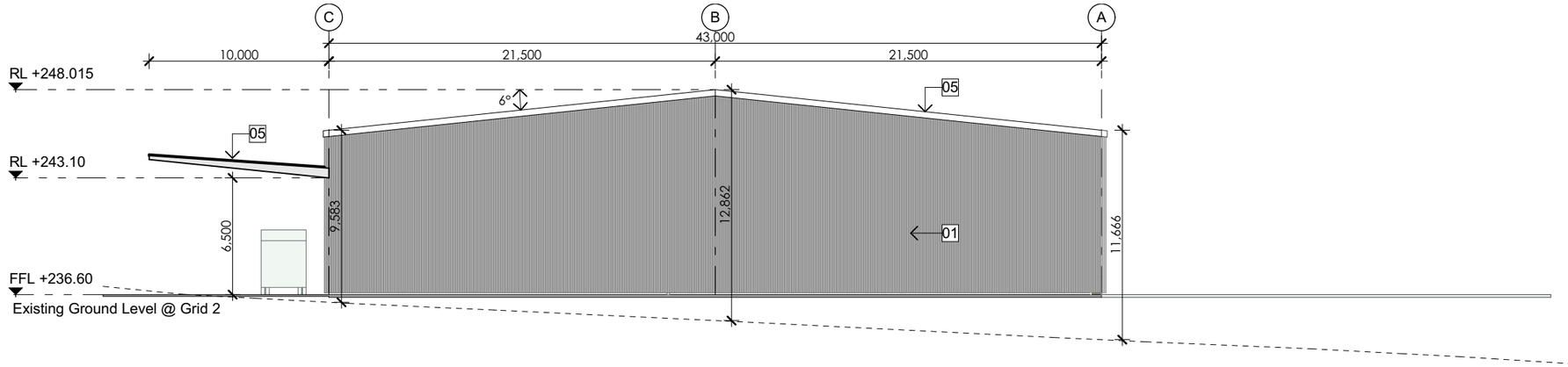
scale
AS SHOWN @ A3

rev
E

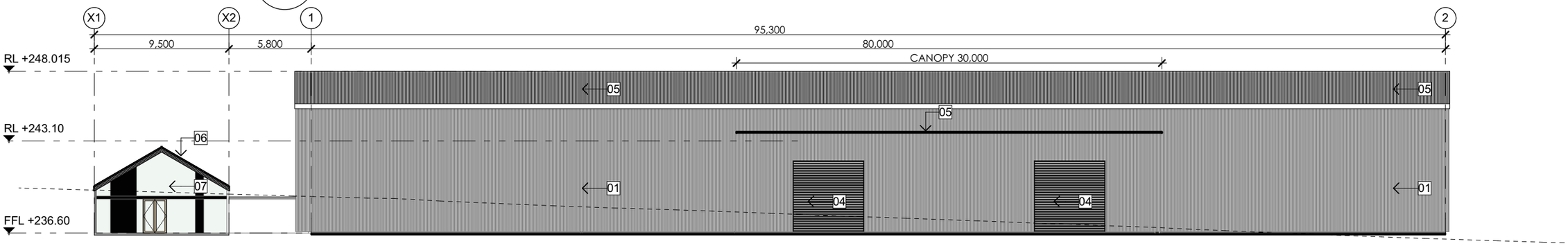
dwg No
101A

NOTES:

- 01 Colorcote Magnaflow profiled steel cladding
- 02 Natural finish precast concrete wall to 2400mm AFFL
- 03 Full height natural finish precast concrete wall
- 04 Metalbuilt automatic roller shutter door powdercoat finish
- 05 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 06 Colorcote Magnaflow profiled steel office roofing
- 07 Low E office glazing
- 08 Timber Pergola stain finish



CD01 / 101A NORTH ELEVATION
scale 1:300



CD02 / 101A EAST ELEVATION
scale 1:300

FIGURE 16: Spindle elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

dwg title
SPINDLE BUILDINGS ELEVATIONS

status
MASTER PLANNING

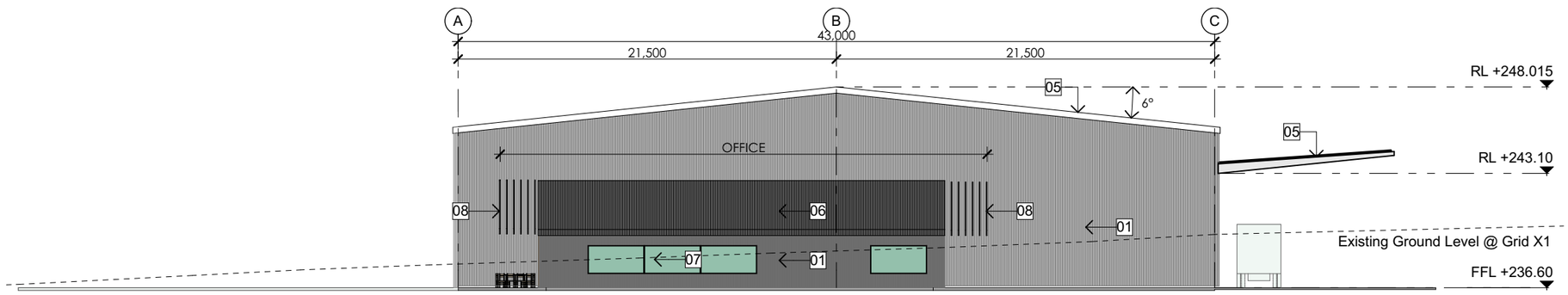
scale
AS SHOWN @ A3

rev
E

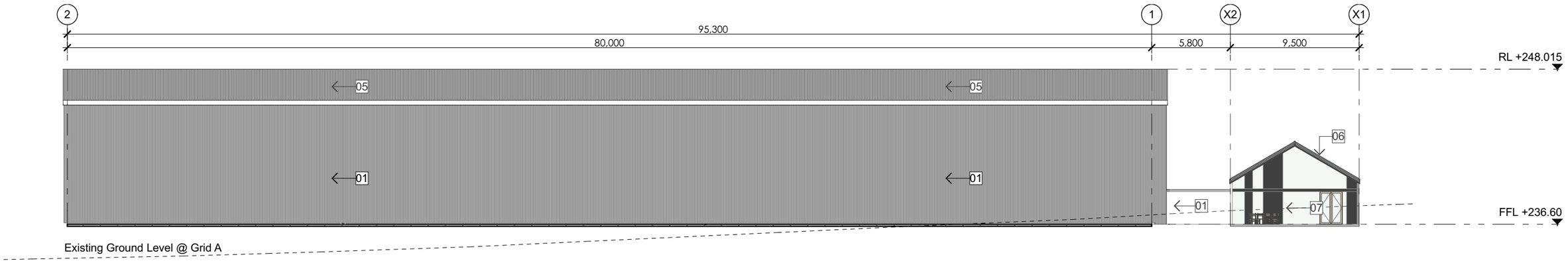
dwg No
200A

NOTES:

- 01 Colorcote Magnaflow profiled steel cladding
- 02 Natural finish precast concrete wall to 2400mm AFFL
- 03 Full height natural finish precast concrete wall
- 04 Metalbuilt automatic roller shutter door powdercoat finish
- 05 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 06 Colorcote Magnaflow profiled steel office roofing
- 07 Low E office glazing
- 08 Timber Pergola stain finish



CD03 / 101A SOUTH ELEVATION
scale 1:300



CD04 / 101A WEST ELEVATION
scale 1:300

FIGURE 17: Spindle elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

dwg title
SPINDLE BUILDINGS ELEVATIONS

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
201A

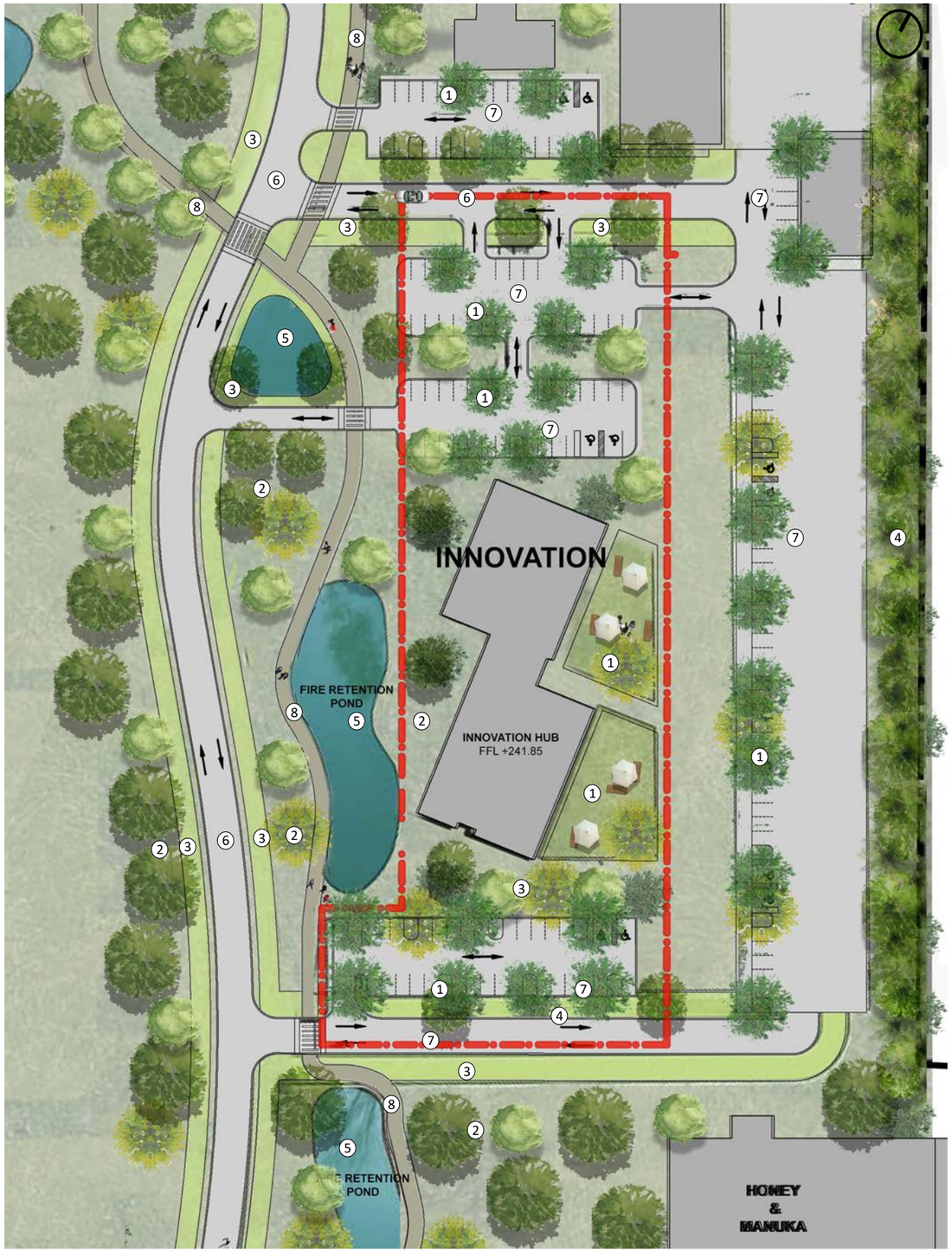
STAGE 1 RESOURCE CONSENT -INNOVATION HUB

KEY

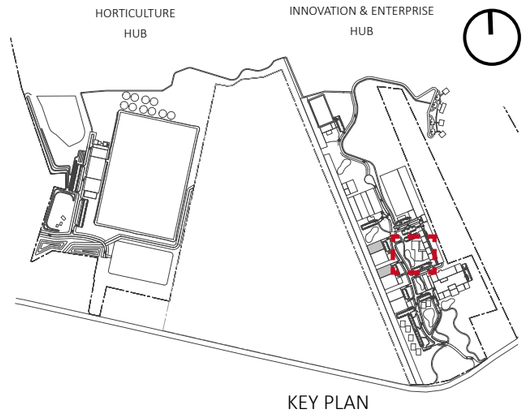
1. Trees + under planting
2. Light Industry planting
3. Swales planting
4. Screen planting
5. Wetland / firefighting ponds
6. Access road
7. Carpark
8. Pedestrian networks

SCHEDULE OF AREAS

SITE AREA	8,360m^2
INNOVATION HUB OFFICE	1,458m^2
HONEY CANOPY	334m^2
SITE COVERAGE	17%
CAR PARKING	86



SCALE - 1:1000@A3



KEY PLAN

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOURCE CONSENT
INNOVATION PLAN

scale:
1:500 @ A1, 1:1000 @A3

date:
19.09.2019

drawing no.
L130

project name
Ngawha
Innovation &
Enterprise Park

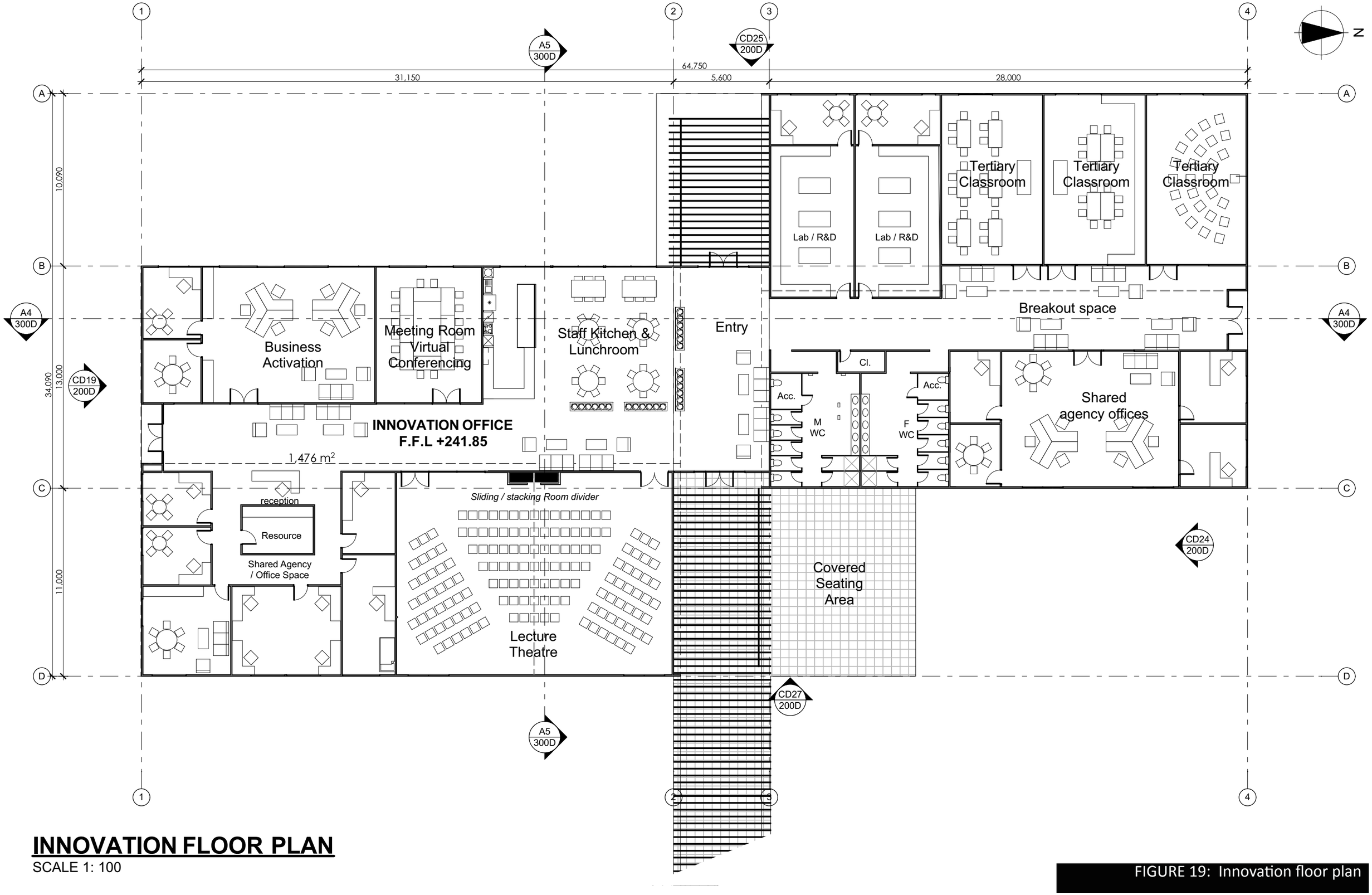
project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa
wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

FIGURE 18: Innovation site plan



INNOVATION FLOOR PLAN

SCALE 1: 100

FIGURE 19: Innovation floor plan

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	11/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

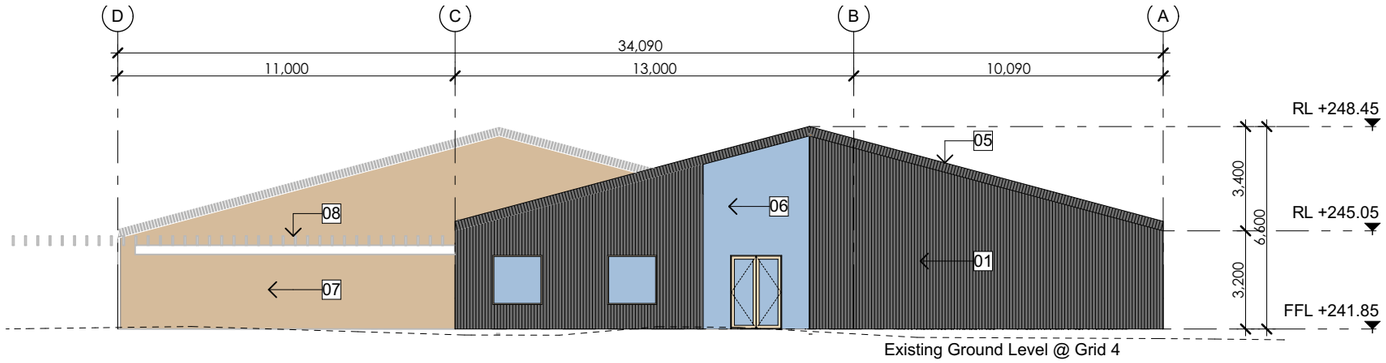
dwg title
INNOVATION OFFICE FLOOR PLAN

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
100D



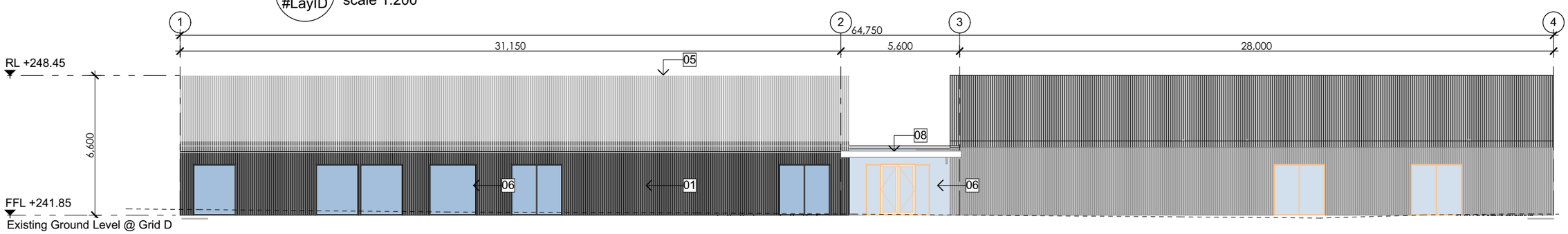
CD24 #LayID

NORTH ELEVATION

scale 1:200

NOTES:

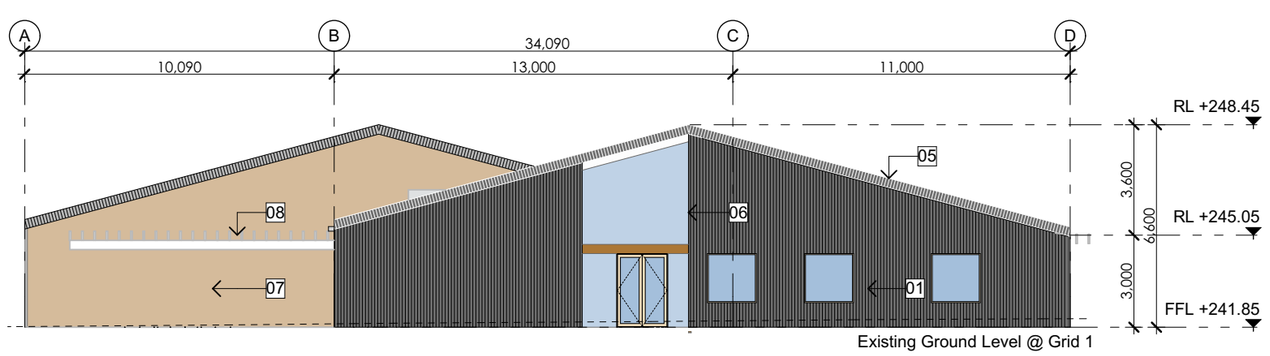
- 01 Colorcote Magnaflow profiled steel cladding
- 05 Colorcote Magnaflow profiled steel roofing
- 06 Low E office glazing
- 07 Board & batten timber cladding stain finish
- 08 Timber Pergola stain finish



CD27 #LayID

EAST ELEVATION

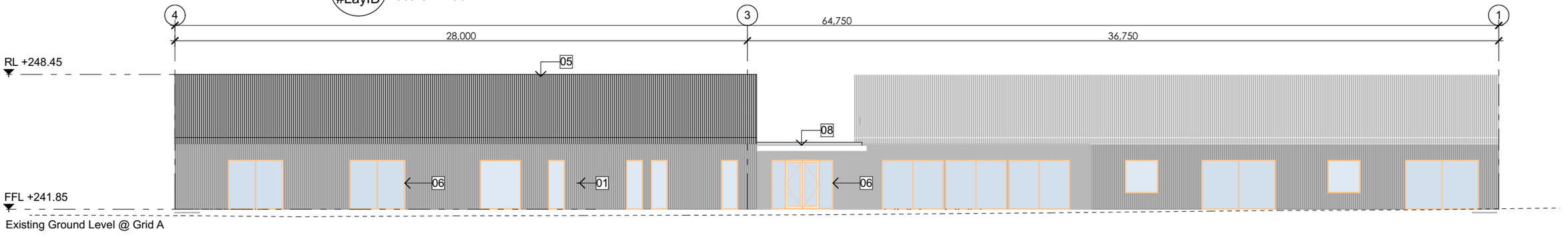
scale 1:200



CD19 #LayID

SOUTH ELEVATION

scale 1:200



CD25 #LayID

WEST ELEVATION

scale 1:200

FIGURE 20: Carbonscape elevations

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

dwg title
INNOVATION OFFICE ELEVATIONS

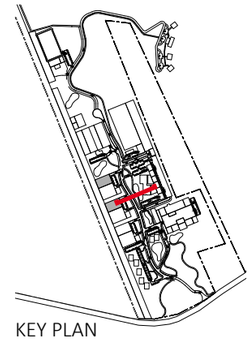
status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
200D

STAGE 1 RESOURCE CONSENT -INNOVATION & INCUBATOR HUB



KEY PLAN

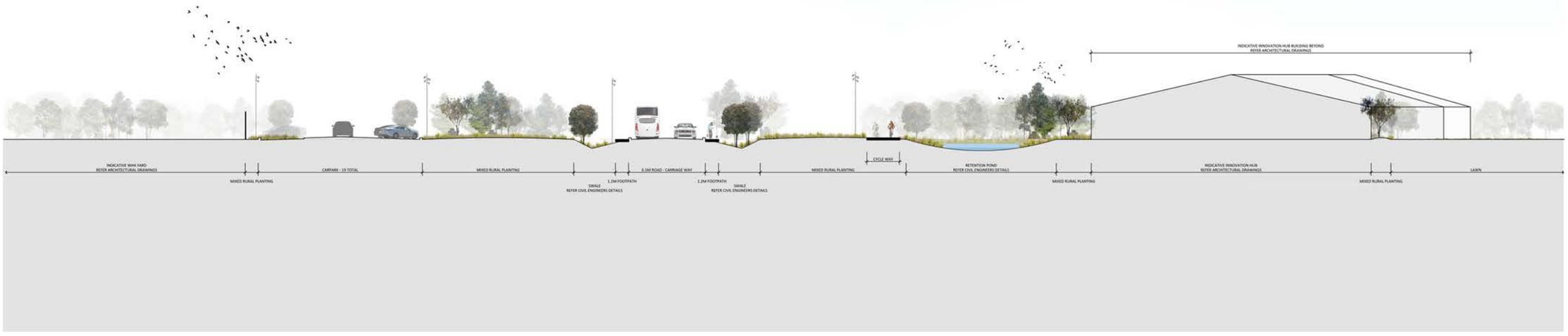


FIGURE 21: Innovation section

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOURCE CONSENT
INNOVATION SECTION

scale:
1:200 @ A1, 1:400 @A3

date:
19.09.2019

drawing no.
L230

project name
Ngawha
Innovation &
Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa
wraight + associates
landscape architects

t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz

lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

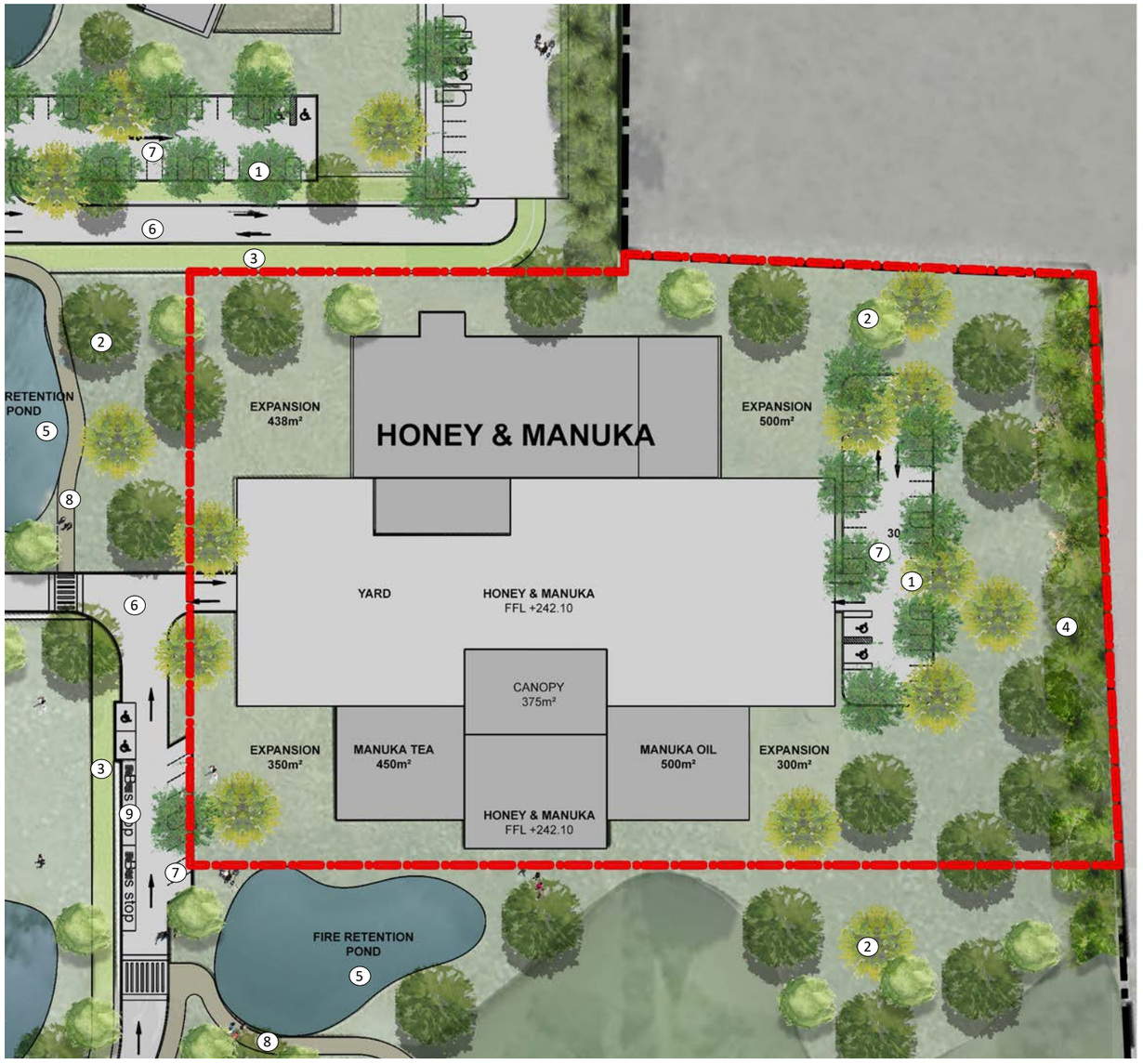
STAGE 1 RESOURCE CONSENT- HONEY & MANUKA

KEY

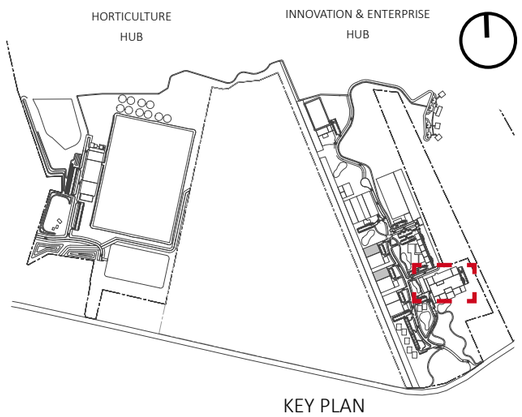
1. Trees + under planting
2. Light Industry planting
3. Swales planting
4. Screen planting
5. Wetland / firefighting ponds
6. Access road
7. Carpark
8. Pedestrian networks
9. Bus stop

SCHEDULE OF AREAS

SITE AREA	16,801m²
HONEY	1,722m²
HONEY CANOPY	334m²
MAUKA TEA & OIL	1,450m²
MANUKA CANOPY	375m²
YARD (Excluding canopy)	3,710m²
TOTAL BUILDING AREA (Including canopy)	3,811m²
CAR PARKING	30
FUTURE EXPANSION	1,588m²



SCALE - 1:1000@A3



KEY PLAN

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

drawing title:
RESOURCE CONSENT
HONEY & MANUKA
PLAN

scale:
1:500 @ A1, 1:1000 @A3

date:
19.09.2019

drawing no.
L140

project name
Ngawha
Innovation &
Enterprise Park

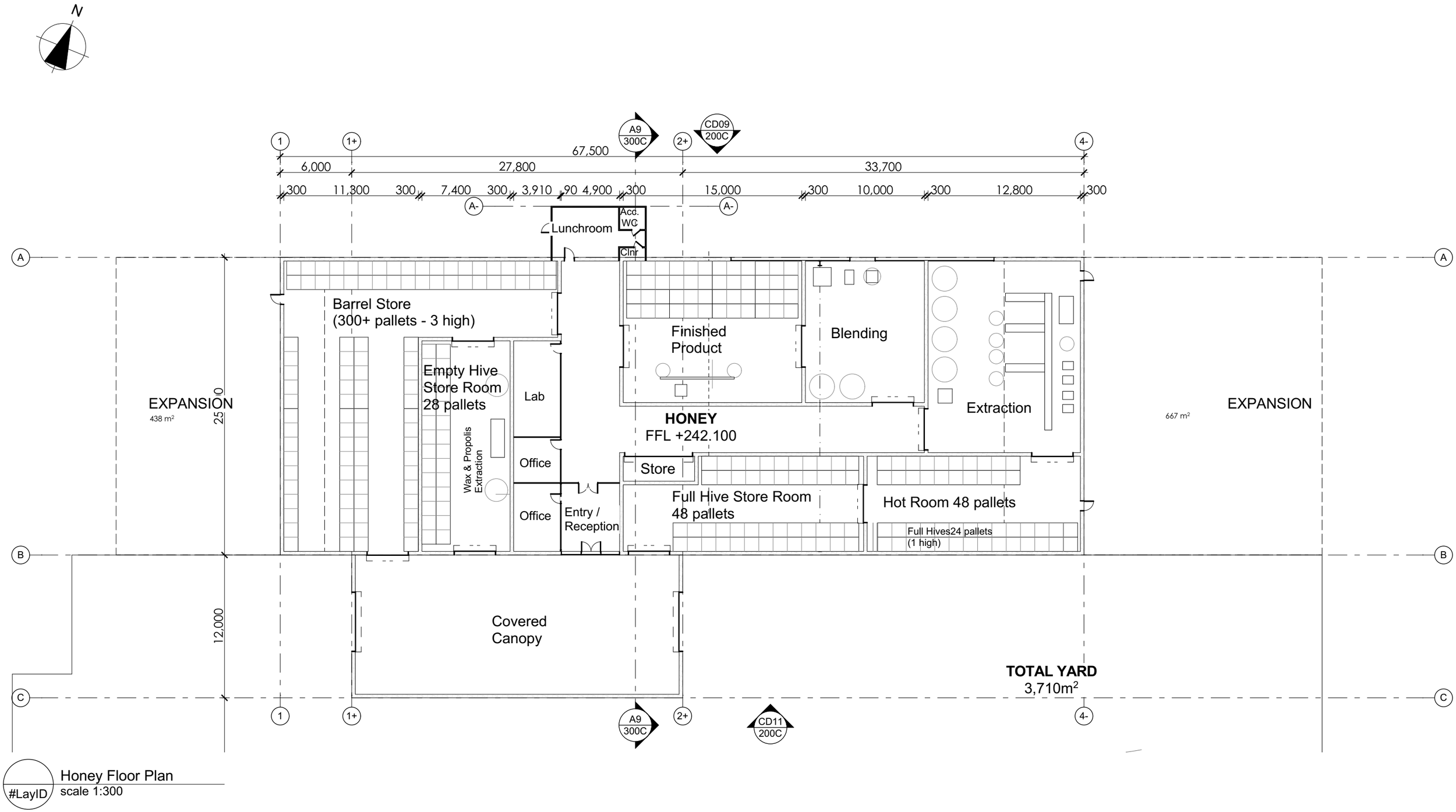
project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wa wright + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

FIGURE 22: Honey and manuka site plan



Honey Floor Plan
#LayID
scale 1:300

FIGURE 23: Honey and manuka floor plan

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

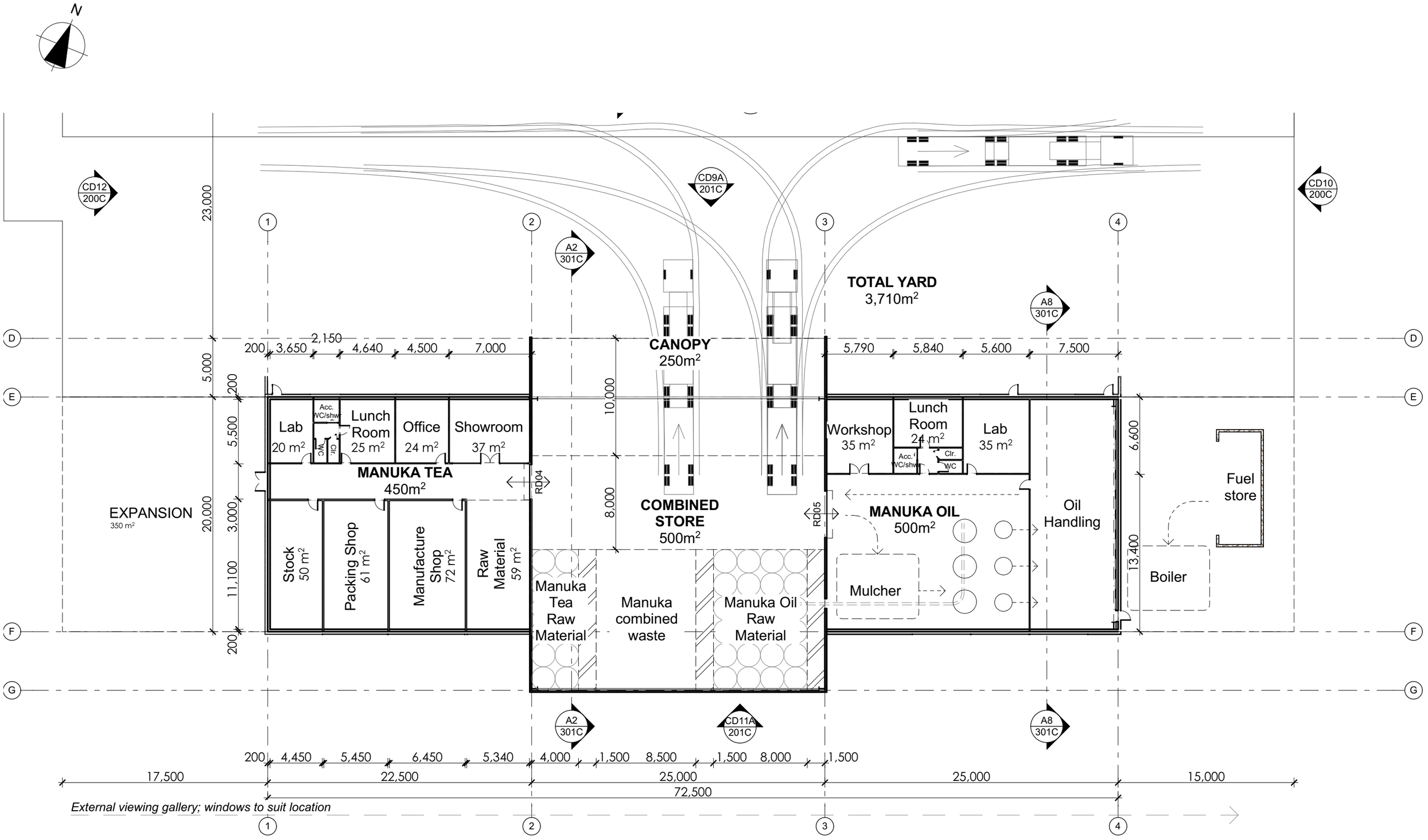
dwg title
HONEY FLOOR PLAN

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
101A



Manuka Floor Plan
#LayID
scale 1:300

FIGURE 24: Honey and manuka floor plan

eclipse architecture

Far North Holdings Limited

24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141

p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

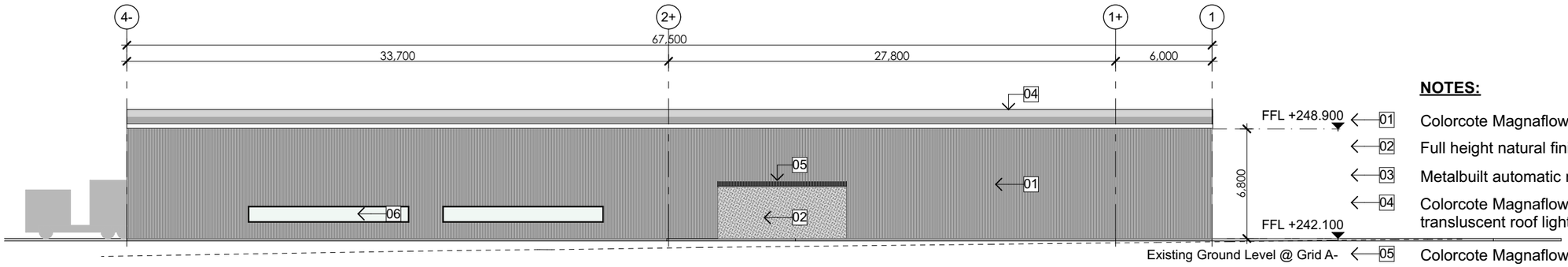
dwg title
MANUKA FLOOR PLAN

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

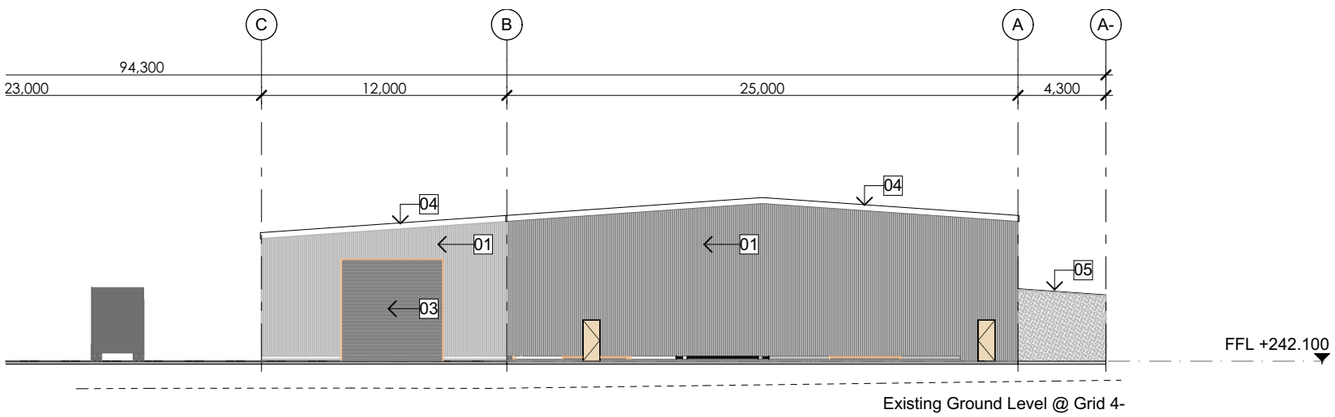
dwg No
102A



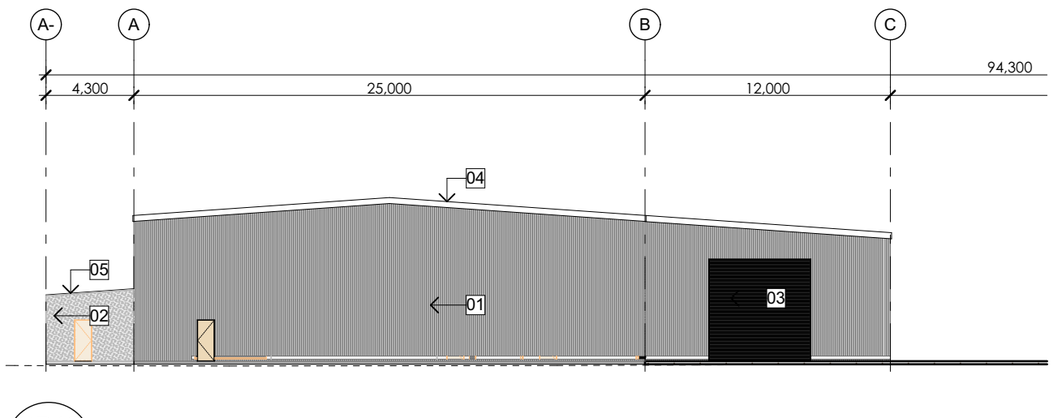
NOTES:

- 01 Colorcote Magnaflow profiled steel cladding
- 02 Full height natural finish precast concrete wall
- 03 Metalbuilt automatic roller shutter door powdercoat finish
- 04 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 05 Colorcote Magnaflow profiled steel office roofing
- 06 Low E glazing

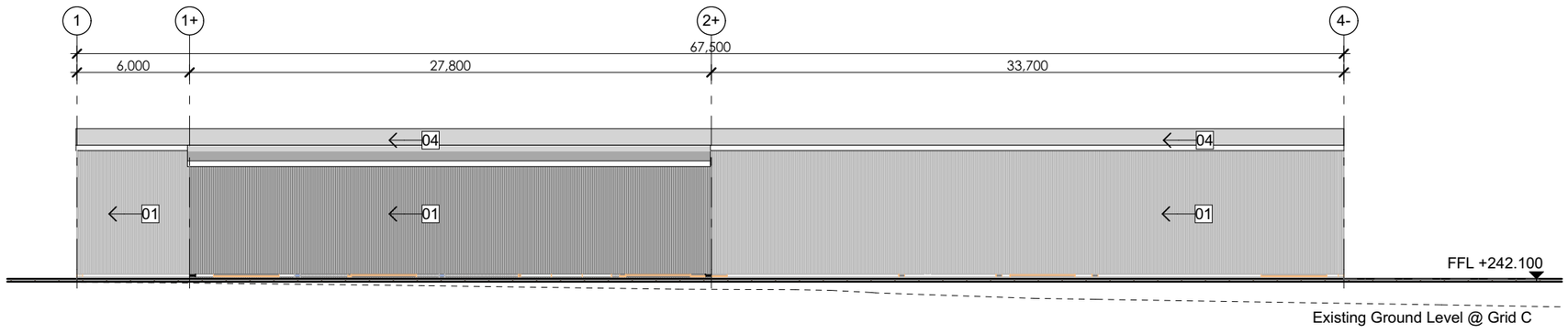
CD09 / 101A NORTH ELEVATION
scale 1:300



CD10 / 101A EAST ELEVATION
scale 1:300



CD12 / 101A WEST ELEVATION
scale 1:300



CD11 / 101A HONEY SOUTH ELEVATION
scale 1:300

FIGURE 25: Honey elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#P\n
cad file	FHH0657 Ngawha Innovation Enterprise Park
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

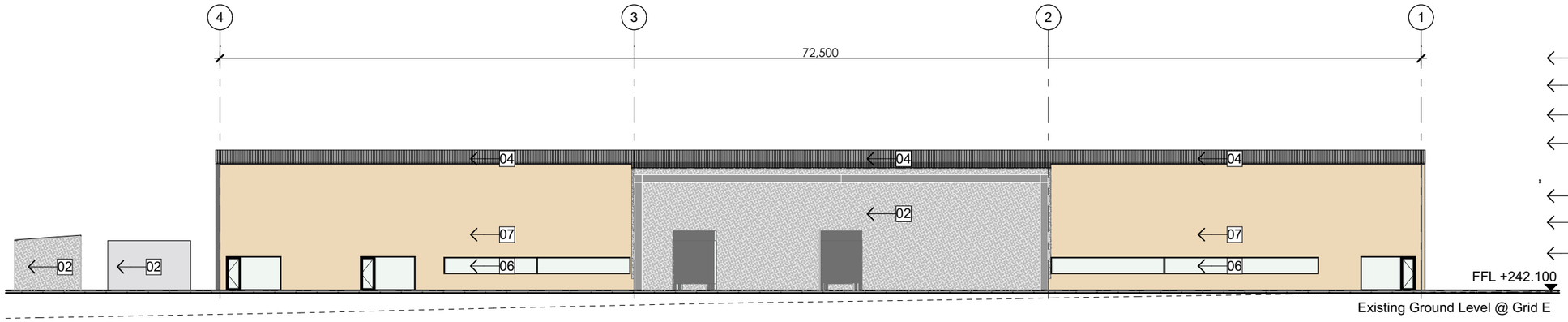
dwg title
HONEY ELEVATIONS

status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

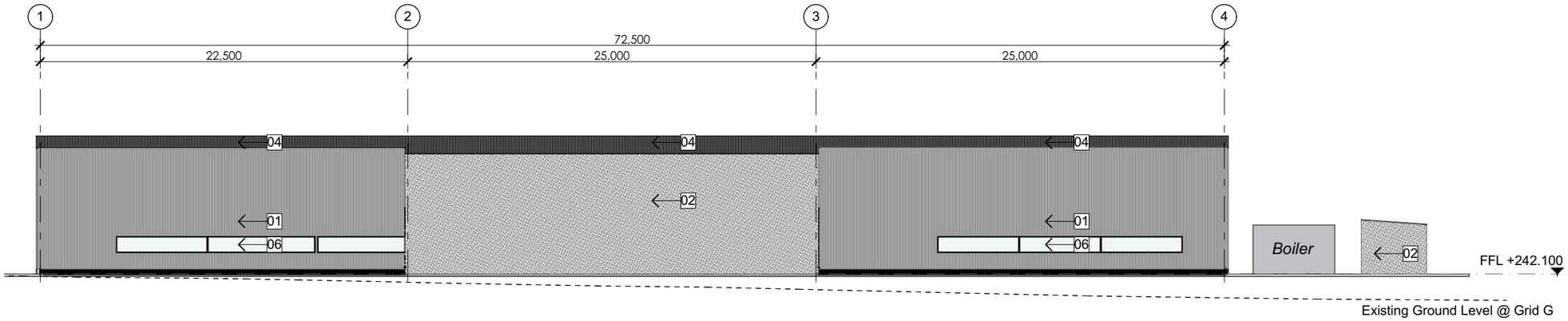
dwg No
200C



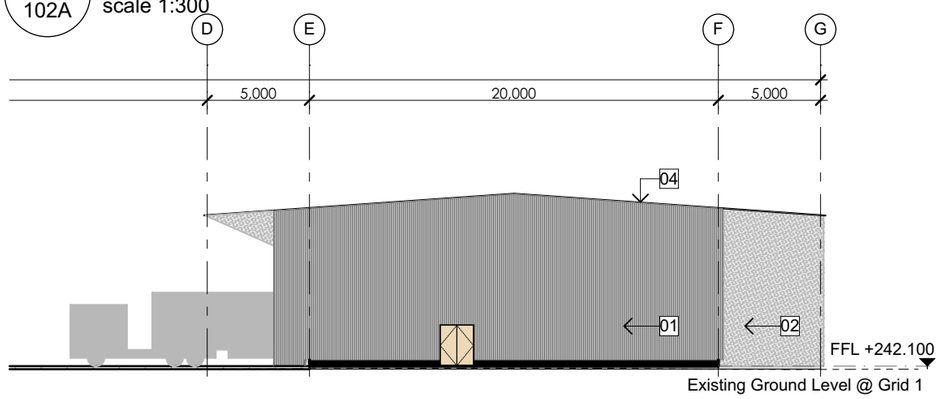
NOTES:

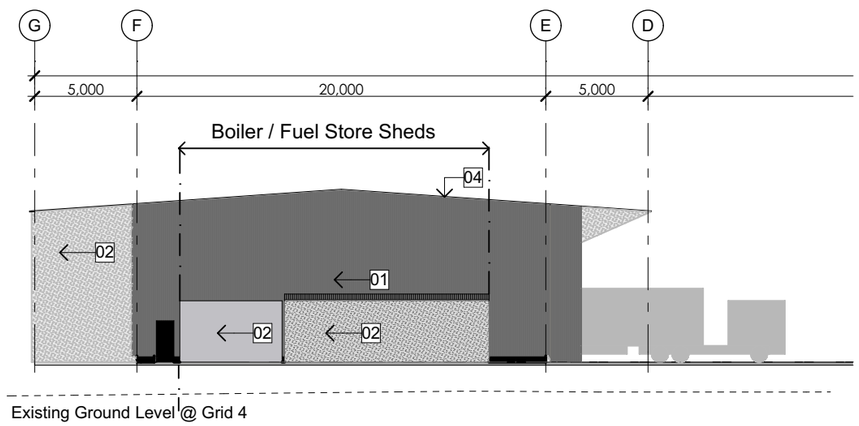
- 01 Colorcote Magnaflow profiled steel cladding
- 02 Full height natural finish precast concrete wall
- 03 Metalbuilt automatic roller shutter door powdercoat finish
- 04 Colorcote Magnaflow profiled steel roofing with transluscent roof lights
- 05 Colorcote Magnaflow profiled steel office roofing
- 06 Low E glazing
- 07 Board & batten timber cladding stain finish

CD9A / 102A MANUKA NORTH ELEVATION
scale 1:300



CD11A / 102A MANUKA SOUTH ELEVATION
scale 1:300





CD12 / 102A WEST ELEVATION
scale 1:300

CD10 / 102A EAST ELEVATION
scale 1:300

FIGURE 26: Manuka elevations

eclipse architecture
Far North Holdings Limited
24 GUNDRY STREET,
NEWTON
PO BOX 7539,
AUCKLAND 1141
p. +64 9 303 4759
www.eclipsearchitecture.co.nz

rev	date	details

job no.	#Pln FHH0657 Ngawha Innovation Enterprise Park
cad file	
design	
drawn	
checked	
date	9/09/2019

job title
NGAWHA INNOVATION & ENTERPRISE PARK
State Highway 12, Kaikohe

dwg title
MANUKA ELEVATIONS

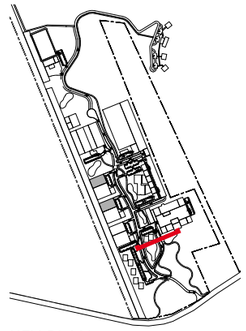
status
MASTER PLANNING

scale
AS SHOWN @ A3

rev
E

dwg No
201C

STAGE 1 RESOURCE CONSENT- HONEY & MANUKA



KEY PLAN

FIGURE 27: Manuka section

NOT FOR CONSTRUCTION

issue:	amendment:	date:
A	MASTER PLANNING	19.09.2019

DO NOT SCALE DRAWING.

drawing title:
RESOURCE CONSENT
HONEY & MANUKA
SECTION

scale:
1:200 @ A1, 1:4000 @A3

date:
19.09.2019

drawing no.
L240

project name
Ngawha
Innovation &
Enterprise Park

project phase.
Masterplan

project no.
1903

client:
Far North Holdings Ltd
Opua Marine Park, Unit 19b
15 Baffin Street, Opua

wā
wraight + associates landscape architects
t +64 9 373 5258
e office@waal.co.nz
w www.waal.co.nz
lvl 2
26 lorne street
auckland 1010
new zealand *aotearoa*

Lake Omapere

Large lakes and margins landscape category

Heritage landscape category

Te Ahuahu

Haruru

Tarahi

Te Pua Crater and flows

Putahi

Waimimiti Scoria Mounds

Pastoral hill country with scrub / bush character category

Plantation forests landscape category

Ngawha Prison

Gently undulating pasture and scrub landscape category

Outstanding Natural Feature (RPS)

Outstanding Natural Landscape (RPS)

PNAP Level 1 sites

Landscape character category (FNLA)

Outstanding Natural Feature (FNDP)

Outstanding Landscape Feature (FNDP)

Site of significance to Maori

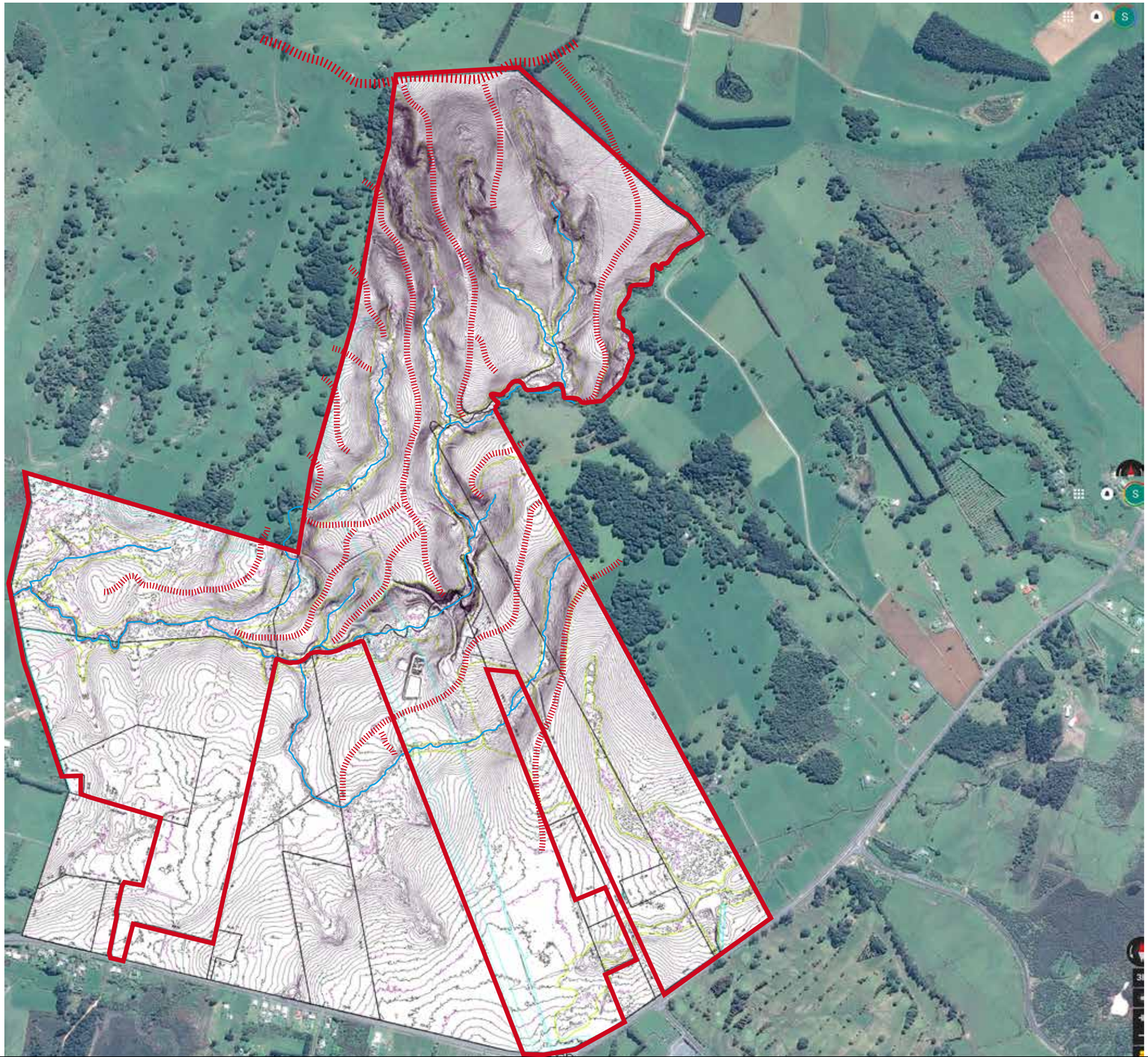
Historic site

0m 250m 500m 750m 1000m

Ngawha Innovation & Enterprise Park

FIGURE 28: Identified Values

Simon Cocker Landscape Architecture



Ngawha Innovation & Enterprise Park

FIGURE 29: Site features - Landform patterns

Simon Cocker
Landscape Architecture

SURFACE SLOPES LOWER_VALUE		UPPER_VALUE		COLOUR	GRADE
0	to	5	%		< 1:20
5	to	6.666	%		< 1:15
6.666	to	10	%		< 1:10
10	to	20	%		< 1:5
20	to	999	%		> 1:5

N

SCALE 1:10000

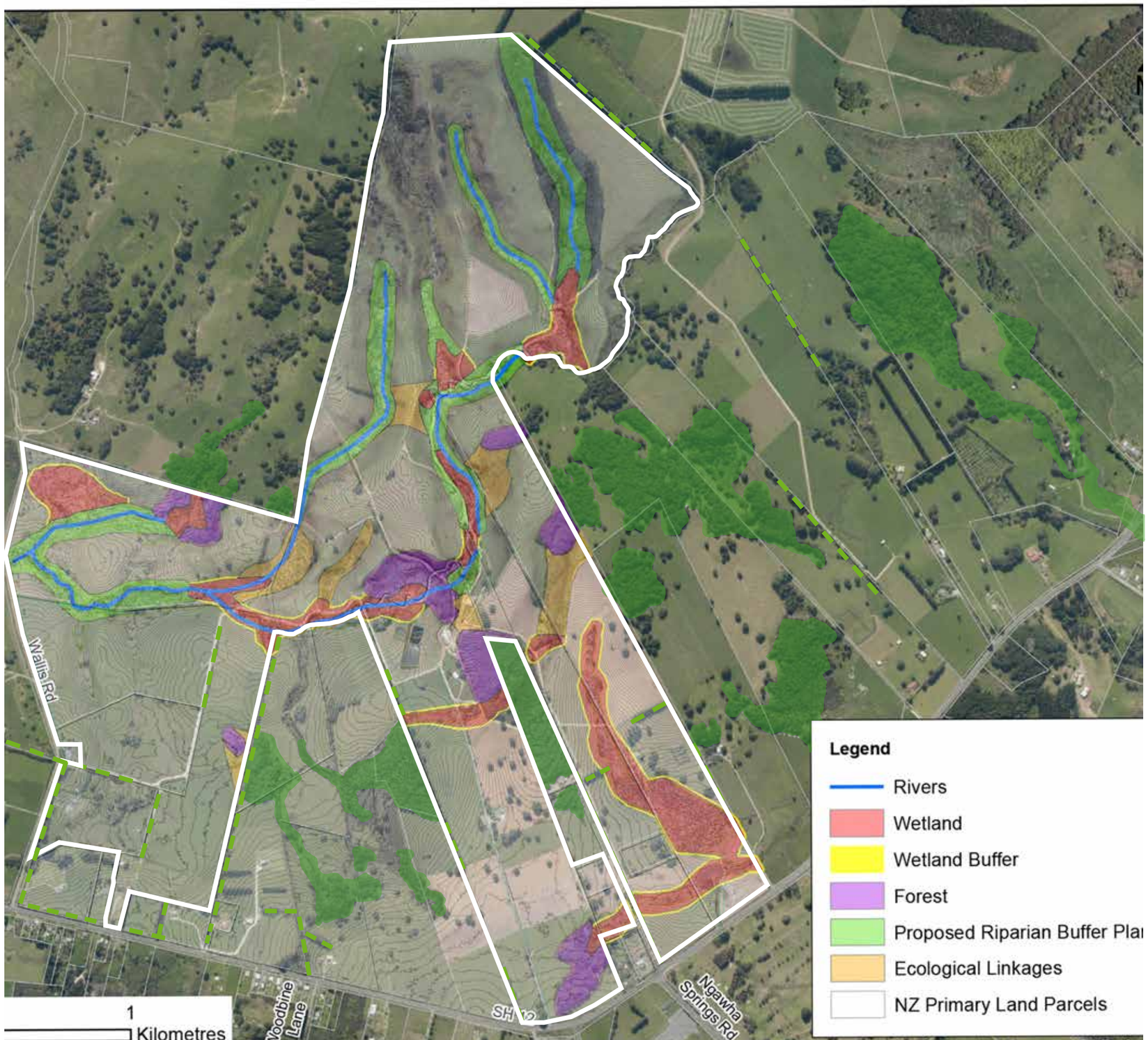
0m 100m 200m 300m 400m

NOT FOR CONSTRUCTION

Ngawha Innovation & Enterprise Park

Drawing prepared by Cook Costello

FIGURE 30: Slope analysis



Indigenous vegetation (outside site boundaries)

Exotic shelterbelt

0m 100m 200m 300m 400m

Ngawha Innovation & Enterprise Park

FIGURE 31: Site features - vegetation patterns

Simon Cocker Landscape Architecture

Photo 1: View to 5347 State Highway 12 from within Finger 1

Photo 2: View to 5347 State Highway 12 from within Finger 1

Photos 3 taken 2 June 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 3: View to 5321 State Highway 12 from within Finger 1

Photos 3 taken 2 June 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 4: View to 42 Wallis Road from within Finger 1

Photo 5: View into Finger 1 to east from adjcent to 42 Wallis Road

Photos 3 taken 2 June 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 6: View into Finger 1 to north east from adjcent to 42 Wallis Road

Photo 7: View into Finger 1 to south east from northern end of Wallis Road

Photo 6 taken 2 June 2019, photo 7 taken 10 January 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 8: View to south east from Te Pua Road

Photo 9: View towards Finger 2 from State Highway to south east

Photo 8 taken 10 January 2019, photo 9 taken 10 January 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 10: View from eastern boundary of Finger 2 to

Photo 6 taken 2 June 2019, photo 7 taken 10 January 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture

Photo 11: View to north east to Finger 2 from State Highway

Photo taken 30 August 2019

Ngawha Innovation & Enterprise Park

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)

Simon Cocker
Landscape Architecture