



# Glenbrook Substation Landscape Design Statement

127 McLarin Road, Glenbrook, Auckland

07.09.2022

## Align

Bringing places and  
communities to life.



# CONTENTS

1	CONTEXT / ANALYSIS	3-4
2	SITE PHOTOS	5
3	PROPOSED PLAN	6
4	DESIGN PHILOSOPHY	7
5	PHOTOMONTAGE	8-10
6	APPENDIX A - D	11-14

## CONTEXT / ANALYSIS

### Landscape Description

This report was undertaken to provide the landscape design vision and proposal to support the NoR application for an enclosed substation at Kahawai Point, Glenbrook. The substation will consist of two outdoor transformer bays and will be a single story building with a basement occupying approximately 140m<sup>2</sup> of land area at 27 McLarin Road, Glenbrook. The design report briefly assesses the existing landscape context, the substation proposal and the likely impact on the surrounding neighbourhood. Note this is not a full landscape assessment and as such full visibility montages have not been undertaken.

Fig. 2 shows an aerial of the 3358m<sup>2</sup> of land to enable the construction of a new enclosed substation at 127 McLarin Road, Glenbrook. The new substation will facilitate the development in the area and is expected to provide for more than 1000 new households in Glenbrook and the wider catchment including the development of over 90ha of business and rural zoned land.

The proposed substation will be within lot 1003 of the proposed subdivision at 27 McLarin Road, approximately 50m from Orawahi Road. The site is irregular in shape and is accessed from McLarin Road via an access way shared with lot 113 and 115 McLarin Road. The surrounding area is gently slopes from the centre to the proposed boundaries. The surrounding area is gently undulating with an existing wetland to the south east. The site itself is currently an undeveloped paddock on a slightly elevated ridge, bordered with planted gullies and wetland to the North, East and South, which link into a broader open space network around Pohutukawa Point. Stage 4 is directly to the North and is currently under construction, with Stage 5 to the south yet to be developed.

### Neighbourhood / Cultural Context

The surrounding area of lot 1003 is undergoing extensive changes with new residential developments being developed (refer Fig.3 showing the overall concept for Kahawai Point). Land north of lot 1003 is zoned Residential Single Housing Zone and is within the Glenbrook 3 Precinct while a small portion of land to the south is zoned Business Local Centre Zone. The land to the south and west remains largely rural in character and is zoned either Future Urban Zone or Rural Mixed Rural Zone.

The vision for Kahawai Point is coastal with stream walkways forming a strong connection between land and sea, linking the emerging Kahawai Point stages / Neighbourhoods and celebrating the unique landscape and identity on the edge of the Manukau Harbour.

For more information regarding the vision for Kahawai Point, refer to Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent*.



Fig 1. showing site context



Fig. 2  
Source: Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent*.



## TE ARANGA MAORI DESIGN PRINCIPLES

The key driver for the Kahawai Point Precinct is the application of the Te Aranga principles. As the new sub station is part of the Kahawai Point Precinct we are including these principles into our design statement.

- Mana (Rangatiratanga authority)
- Whakapapa (naming)
- Taiao (natural environment)
- Mauri tu (environmental)
- Oranga (health)
- Mahi toi (creative expression)
- Tohu (cultural landscape)
- Ahi ka (living)

In addition, a cultural assessment is being undertaken by Ngati Te Ata. This may include opportunities to incorporate cultural narratives into the proposal.

## Planning Context

The specification of the building is not yet confirmed until the tendering process however, concept plans have been provided to show the potential layout of facilities (refer Appendix D) and the overall site plan within the Boffa Miskell Kahawai Point Stage 5 Landscape Masterplan (refer Fig.4). The substation will consist of an indoor switch room and two outdoor transformer bays. The switch room is intended to be a single story building with a basement occupying approximately 140m<sup>2</sup> of land area (21m long and 7m wide). Refer to cross section in Fig.6 to show substation within the lot including basement.

## The Proposal

The substation will be accessed via a 4m wide shared access way. Any vegetation needing to be removed during the construction of the driveway will be reinstated once the driveway is completed. The substation will have parking available which will be surrounded in swales and lower vegetation to treat the stormwater runoff. There will be no office as part of the substation so there will be no requirement for permanent staff parking on site.

The site will have low volumes of traffic and will not have any particular requirement's for stormwater treatment. However a stormwater swale is recommended be installed along both sides of the driveway to the site to provide treatment from the driveway areas.

The combination of Gullies A & B with the existing dense native revegetation planting will provide a visual buffer between the substation and neighbouring residential lots.

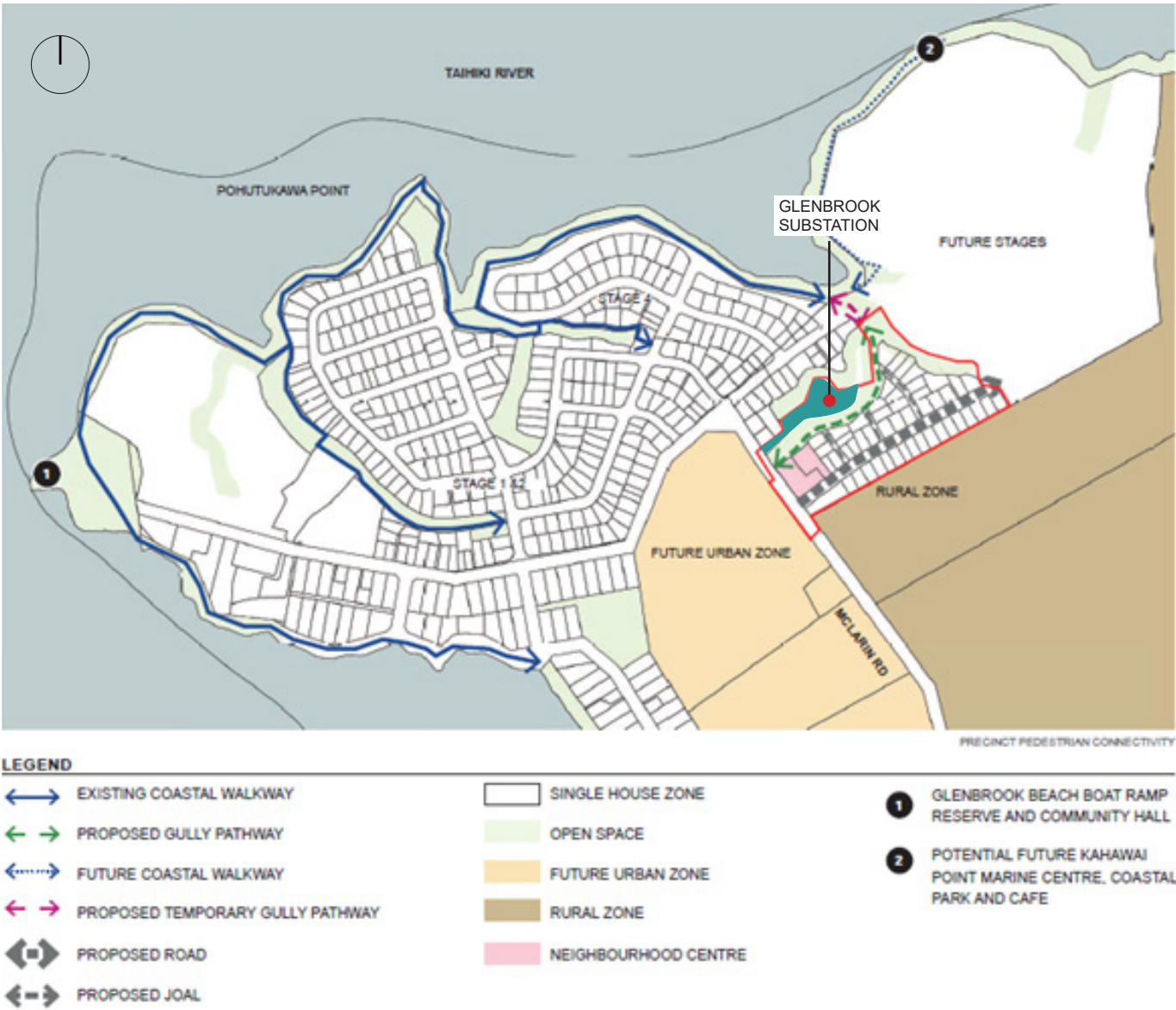


Fig. 3  
Source: Boffa Miskell, 2022. Kahawai Point Stage 5 Landscape Concept Document for Resource Consent.



# SITE PHOTOS

Site photos  
All photos taken on 8/04/2022



View looking north-east down shared driveway



North-west view taken from driveway looking at residential lot 254



View looking south-west from center of site down shared driveway towards McLarin Road



North eastern view from center of site. Existing vegetation is dominated by manuka bush. Refer to Appendix A for other plant species which are consistent with the existing native vegetation.



PROPOSED PLAN

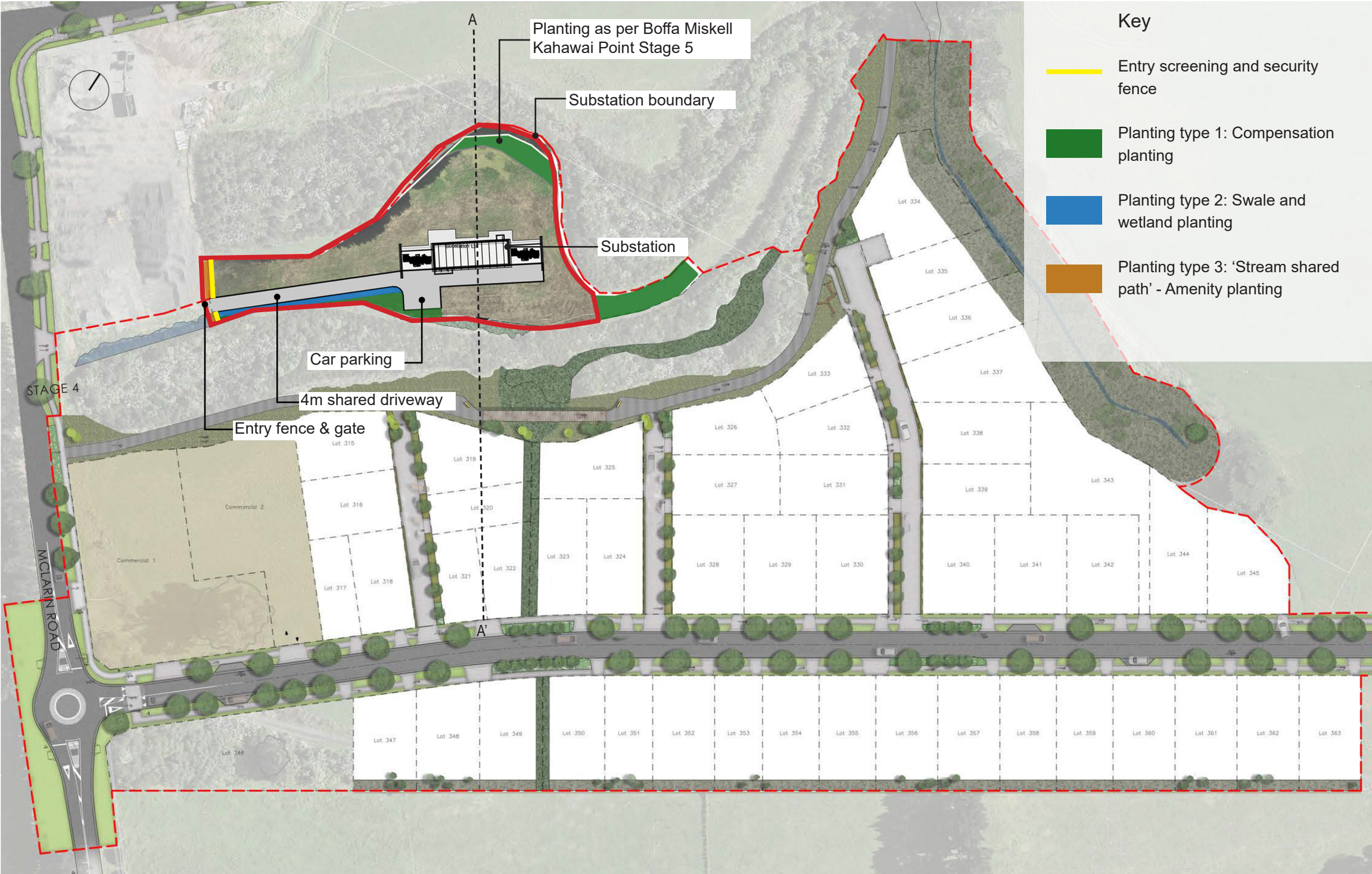


Fig. 4  
Plan is an overlay of Kahawai Point Stage 5 - Landscape Masterplan (Source: Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent.*) and Aligns overlay with additional planting



# DESIGN PHILOSOPHY

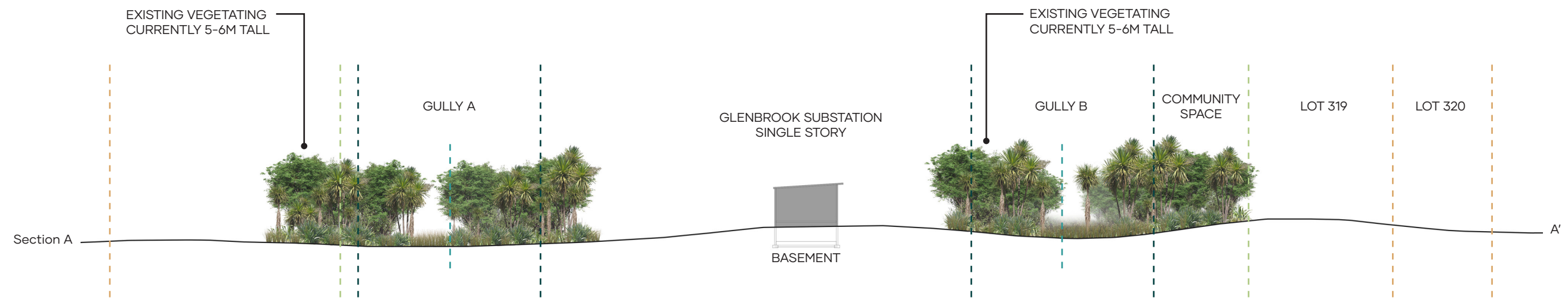


Fig. 5  
Section A of proposed substation

## Planting

The planting for the substation site is dominated by existing manuka bush and other native riparian planting.

### Planting type 1: Compensation planting

Due to the 4m wide driveway and proximity of carpark to the exiting planting we propose that more infill planting is required to extended out further on the southern side of the site as well as the patch to the east - refer to Fig. 4 for locations. We recommend using the planting species from Kahawai Point Stage 5 - Landscape Masterplan (Source: Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent*). Refer to Appendix A for species. The plant species selected in the Kahawai Point Stage 5 document are consistent with the established existing species which form the tall manuka dominated bush around the substation site.

### Planting type 2: Swale and wetland planting

The 4m wide driveway should be planted with a swale ensuring the surface water is treated before being discharged into the gully's / stream. We recommend using the planting species from Kahawai Point Stage 5 - Landscape Masterplan (Source: Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent*). Refer to Appendix B for species. This planting will help to visually blend the planting into planting type 1: Compensation planting. The specimen trees in this planting mix will not be used.

### Planting type 3: 'Stream shared path' - Amenity planting

The front entry of the substation where the entry fence and gate are (refer Fig. 4, 6, 7 & 8) should be planted with low species. We recommend using the planting species from Kahawai Point Stage 5 - Landscape Masterplan (Source: Boffa Miskell, 2022. *Kahawai Point Stage 5 Landscape Concept Document for Resource Consent*.) Refer to Appendix C for species.

The front entrance planting should have a mixture of low and mid height screening species as well as

a few specimen trees to help anchor the substation. The smaller / lower species are to be planted at the front in groups of 3, 5 and 7 with the mid height screening species being planted behind the lower species as an informal hedge.

## Hardstand

To ensure a natural positive experience from the road frontage the driveway should be plain concrete with black oxide to take the brightness away. The timber fence at the entry should be a standard timber paling fence stained black with a black steel sliding gate.

There is an opportunity for local iwi to do motifs on the large concrete panel you can see from the driveway entry lots and McLarin Road (to be determined once consultation with local Iwi is complete).

## Landscape Effects Conclusion

It is our opinion that the design of Glenbrook substation outlined above will appropriately integrate the development with the surrounding neighbourhood context. Retention of the existing planting will minimise the substations impact visually, while additional native planting will complement the driveway and substation entrance.

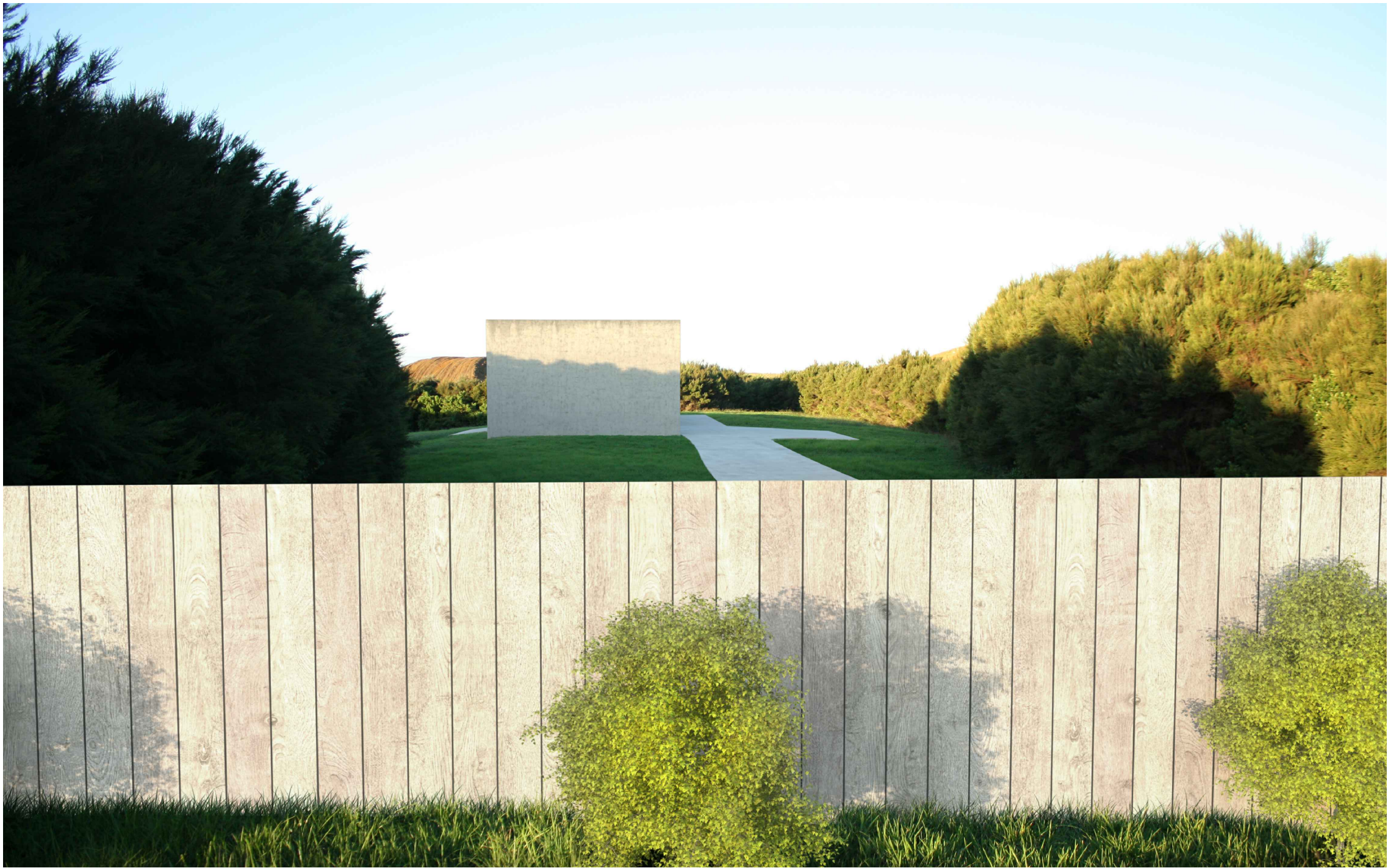
Without undertaking a full Landscape Assessment, we believe that with the extent of existing native planting along with additional planting that the visual impacts of the substation will be minimal. The planting will help soften the views of the substation when viewed from the properties adjacent to the site. However it is anticipated that lots 254 and 256 will get views of the proposed substation eastern walls from the 4m wide driveway. Planting at the entrance of the substation along with the specimen trees will help to reduce the visual effects. In addition, the landscape design measures proposed will ensure that the development is in keeping with the Kahawai Point subdivision context.







PHOTOMONTAGE



PHOTOMONTAGE - VIEW FROM BOUNDARY

CONCEPT ONLY  
FOR COMMENTS

REV	DESCRIPTION	DSN	DATE	APP	REV	DESCRIPTION	DSN	DATE	APP
1	ISSUED FOR REVIEW	NS	-	SG					



Counties  
Energy

ZONE SUBSTATION

GLENBROOK CONCEPT

PROPOSED CONCEPT SWITCHROOM

PHOTOMONTAGE - IMAGE 1

SIZE	SCALE	FOLDER
A1	N.T.S	-
GLB-SK3		1
FILE NAME	GLB_SK03.dwg	

Fig. 7



PHOTOMONTAGE



PHOTOMONTAGE - VIEW FROM ROAD

CONCEPT ONLY  
FOR COMMENTS

REV	DESCRIPTION	DSN	DATE	APP	REV	DESCRIPTION	DSN	DATE	APP	DRAWN	NS	APR'22
1	ISSUED FOR REVIEW	NS	-	SG								



Counties  
Energy

ZONE SUBSTATION

GLENBROOK CONCEPT

PROPOSED CONCEPT SWITCHROOM

PHOTOMONTAGE - IMAGE 2

SIZE	SCALE	FOLDER
A1	N.T.S	-
GLB-SK4		1
FILE NAME: GLB_SK04.dwg		

Fig. 8



COMPENSATION PLANTING  
PLANTING - INDICATIVE SPECIES

In order to provide driveway access from McLarin Road to Superlot 3 between Gully A and B, some removal of existing vegetation on Gully B is required.

To compensate this removal, additional riparian planting along Gully A and B up to the 10m stream centreline offset is proposed. The proposed planting extends the coverage of the existing riparian planting along both gullies.

The plant species selected are consistent with the existing species which form a tall manuka dominated bush.



HARAKEKE  
*Phormium tenax*



KANUKA  
*Kunzea robusta*



KARAMU  
*Coprosma robusta*



KARO  
*Pittosporum crassifolium*



MAHOE  
*Melicytus ramiflorus*



MANUKA  
*Leptospermum scoparium*



MINGIMINGI  
*Coprosma propinqua var. ligustrifolium*



PURIRI  
*Vitex lucens*



TARATA  
*Pittosporum eugeniodies*



TI KOUKA  
*Cordyline australis*



TITOKI  
*Alectryon excelsus*



TOETOE  
*Austroderia fulvida*



STREAM SHARED PATH  
AMENITY PLANTING - INDICATIVE SPECIES

The amenity planting mix shown is located each side of the stream shared path. North of the path, the mix will meet with the existing bush which largely consists of tall manuka. Low-mid height species have been selected to allow for passive surveillance throughout the stream areas whilst some manuka will be used to blend in with the existing bush.

South of the path, planting of varying width (min 1.5m wide against residential lots) meets the boundary line. This area batters in places to meet the footpath at max 1:2 grades. The low-mid height plant selections allow for passive surveillance from both residential and commercial lots over the stream space.

Smaller species will be planted along the path edge, with specimen trees located at entry points and at stream crossings.

Where the amenity planting surrounds the swale and wetland planting mix, the mix responds through incorporating some similar species to blur the distinction between mixes.



COPROSMA POOR KNIGHTS  
*Coprosma repens* 'Poor Knights'



HARAKEKE  
*Phormium tenax*



KAHIKATEA  
*Dacrycarpus dacrydioides*



KOHEKOHE  
*Dysoxylum spectabile*



MANUKA  
*Leptospermum scoparium*



MIKOIKOI  
*Libertia grandiflora*



MIKOIKOI  
*Libertia peregrinans*



NIKAU  
*Rhopalostylis sapida*



PUKATEA  
*Laurelia novae-zelandiae*



PUKIO  
*Carex virgata*



RENGARENGA  
*Arthropodium cirratum*



RAUTAHİ  
*Carex lessoniana*



TI KOUKA  
*Cordyline australis*



TURUTU  
*Dianella nigra*



WHARARIKI  
*Phormium cookianum* subsp. *Hookeri*



SWALE & WETLAND  
PLANTING - INDICATIVE SPECIES

The swale connects the main road raingardens with the existing wetland located in Gully B. To visually blend in, some species from the raingarden and existing wetland will be used in this mix.

All planting selections have been reviewed against GD01 SWMD and typically include low species with some specimen trees located throughout.

The existing wetland is largely kikuyu dominated at present, and will be restored through planting of a selection of the species shown.



HOUHERE  
*Hoheria populnea*



KAKAHA  
*Astelia grandis*



KIOKIO  
*Blechnum novae-zelandie*



KOWHAI  
*Sophora microphylla*



OI OI  
*Apodasmia similis*



PUKIO  
*Carex virgata*



PUREI  
*Carex secta*



PUTAPUTAWETA  
*Carpodetus serratus*



RAUTAHÍ  
*Carex geminata*



RAUTAHÍ  
*Carex lessoniana*



RENGARENGA  
*Arthropodium cirratum*



SOFT TWIG RUSH  
*Machaerina rubiginosa*



TI KOUKA  
*Cordyline australis*



TURUTU  
*Dianella nigra*



UMBRELLA SEDGE  
*Cyperus ustulatus*



WHARARIKI  
*Phormium cookianum subsp. Hookeri*



WIWI  
*Juncus pallidus*



APPENDIX D

