IN THE ENVIRONMENT COURT
AT AUCKLAND

I TE KŌTI TAIAO O AOTEAROA
KI TĀMAKI MAKAURAU

Decision [2023] NZEnvC 198

IN THE MATTER OF	an appeal under section 120 of the Resource Management Act 1991
BETWEEN	G & S STILWELL (ENV-2022-AKL-000212) Appellants
AND	ŌPŌTIKI DISTRICT COUNCIL Respondent

Court:	Chief Environment Court Judge D A Kirkpatrick sitting alone under s 279 of the Act
Last case event:	6 September 2023
Date of Order:	18 September 2023
Date of Issue:	18 September 2023

CONSENT ORDER

A: Under section 279(1)(b) of the Resource Management Act 1991, the Environment Court, by consent, orders that:

(1) the appeal is allowed subject to the amendments to the scheme plan, roading plan, landscape plan, landscape maintenance

specification and conditions of consent as set out in Appendices A, B, C, D and E attached to and forming part of this consent order; and

(i) the appeal is otherwise dismissed.

B: Under section 285 of the RMA, there is no order as to costs.

REASONS

Introduction

[1] This proceeding relates to an appeal by G & S Stilwell against a decision of Ōpōtiki District Council refusing their application for resource consent to undertake a two-stage subdivision of Part Lot DP 7129 including a boundary adjustment at 98C Ōhiwa Harbour Road, Ōpōtiki District. In their appeal the Appellants sought that the decision be reversed and the consent be granted to the subdivision proposal.

[2] The Council refused the application because of the following concerns:

(a) the extent of effects on visual amenity, landscape and natural character were unable to be determined and that landscape and visual effects could not be adequately mitigated through the planting and design controls proposed;

(b) the application is on highly productive horticultural land;

(c) the application was inconsistent with the objectives and policies of the operative Ōpōtiki District Plan; and

(d) the application would set a precedent which might undermine the integrity of the District Plan provisions.

[3] Royal Forest and Bird Protection Society of New Zealand Incorporated, Arthur Sandom, Ian Bertram and Logan Bertram have given notice to become parties under section 274 of the Act.

Agreement reached

[4] Following mediation on 22 March 2023 and several discussions, the parties have now reached agreement regarding the subdivision proposal.

[5] The changes agreed by the parties include:

(a) a revised subdivision proposal that results in the creation of three additional lots (allowing three additional houses) as shown in Appendices A and B;

(b) a new landscape plan which includes provision for planting within Lot 2 to achieve a 'coastal forest' as shown in Appendices C and D;

(c) revised conditions to reflect the amended subdivision proposal as described in Appendix E.

[6] All parties have agreed that the revised proposal appropriately addresses their concerns including the effects on visual amenity and the potential for an adverse precedent. The revised proposal includes several features which, taken together, alleviate the Council's concerns, including significant reduction and reconfiguration of lots to mitigate visibility, planting of a coastal forest and retention of larger areas of productive land.

[7] The parties also agreed that any consent should be subject to the conditions attached as Appendix E to this order.

Consideration

[8] The Court has read and considered the joint memorandum of the parties dated 6 September 2023.

[9] The Court is making this order under section 279(1) of the Act, such order being by consent, rather than representing a decision or determination on the merits pursuant to section 297. The Court understands for present purposes that:

(a) all parties to the proceedings have executed the memorandum requesting this order; and

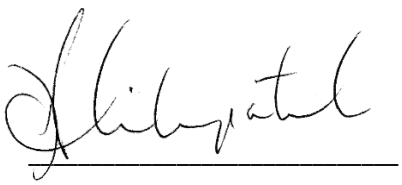
(b) all parties are satisfied that all matters proposed for the Court's endorsement fall within the Court's jurisdiction and conform to the relevant requirements and objectives of the Act including in particular its purpose and principles in Part 2.

Order

[10] The Court therefore orders by consent that the appeal is allowed, and Ōpōtiki District Council is directed to grant G & S Stilwell's application for resource consent to undertake the subdivision on the property at 98C Ōhiwa Harbour Road, Ōpōtiki District subject to the amendments to the scheme plan, roading plan, landscape plan, landscape maintenance specification and conditions of consent as set out in Appendices A, B, C, D and E attached to and forming part of this consent order.

[11] The appeal is otherwise dismissed.

[12] Under s 285 of the Act, there is no order as to costs.



D A Kirkpatrick
Chief Environment Court Judge

Appendix A – Scheme Plan

Proposed Memorandum of Easements

Purpose	Shown	Serv. Ten. (Burdened Land)	Dom. Ten. (Benefited Land)
Right of Way, Right to Convey Electricity, Telecoms & Water, Right to Drain Water	C, F, G, H, & I	Lot 9	Lot 10
	F		Lot 7
	F & G		Lot 2

Proposed Schedule of Easements

Purpose	Shown	Serv. Ten. (Burdened Land)	Dom. Ten. (Benefited Land)
Right to Covey Water	L	Lot 9	All existing dominant tenements from Tr 224181.1, 224181.3, 224181.4 224181.5, 224181.8

Easements to be Partially Surrendered

The right of way over Area A DP 7129 created by EC 162973.3 is to be partially surrendered in so far as it relates to Lot 13 hereon.

The right of way over Area A DP 8269 created by Tr 199220.4 is to be partially surrendered in so far as it relates to Lot 13 hereon.

The (in gross) right of way, right to convey electricity and telecommunication signal over Area B DP 8088 created by Tr 207719.2 is to be partially surrendered in so far as it relates to Lot 13 hereon.

The right of way, right to convey electricity, telecommunications right over Area D DP 9213 created by Tr 220633.6 is to be partially surrendered in so far as it relates to Lot 13 hereon.

The right to convey water over Area A DP 7129 created by Tr 6893523.1 is to be partially surrendered in so far as it relates to Lot 13 hereon.

The right to convey water over Area A DP 9100 created by Tr 224181.1, 224181.3, 224181.4, 224181.5, 224181.8 is to be partially surrendered in so far as it relates to Areas P & Q hereon.

The right of way, right to convey electricity, telecommunications and water, right to drain water over Area A LT 586678 is to be partially surrendered in so far as it relates to Lot 13 hereon.

Schedule of Existing Easements

Purpose	Shown	Serv. Ten. (Burdened Land)	Creating Document
Right of Way, Right to Convey Electricity, Telecoms, Water, Right to Drain Water	F	Lot 9	LT 586678
	O	Lot 2	
Right of Way	F	Lot 9	EC 162973.3 Tr 199220.4
	O	Lot 2	
(in gross) Right of Way, Right to Convey Electricity & Telecoms	F	Lot 9	Tr 207719.2
	O	Lot 2	
Right of Way, Right to Convey Electricity & Telecoms	F	Lot 9	Tr 220633.6
	O	Lot 2	
Right to Convey Water	F	Lot 9	Tr 6893523.1
	O	Lot 2	
Right to Convey Water	I, K, & B	Lot 9	Tr 224181.1, 224181.3, 224181.4, 224181.5, 224181.8

Schedule of Existing Land Covenant Areas

Purpose	Shown	Serv. Ten. (Burdened Land)	Creating Document
Height Restriction	A, B, M, N	Lot 9	Tr 224181.8

Lot 4 DP 545499
Lot 5 DP 545499
Lot 3 DP 545499
Lot 2 DP 5859
Lot 2 DP 553814
Lot 2 DP 545499
Lot 2 DP 555172
Lot 1 DP 545499
Lot 14 LT 586678
Lot 1 DP 8749
Lot 1 DP 8269
Lot 8 LT 586678
Part Lot 1 DP 6545
Lot 1 DP 8048

Paper Road
Ohiwa Harbour Road
Road to Vest (10m wide & over)

Lot 100 LT 586678
6.272ha
RT 1110752

2 3.27ha
9 1.72ha
10 0.58ha
7 0.39ha
13 0.30ha

10m Setback
9m Setback
9m Setback
Existing Dwelling

A B C F G H I K L M N O P Q

NOTES:

GENERAL
- External boundaries have been obtained from LINZ Data Service and have not been redefined.
- Areas and measurements are approximate and subject to title survey.
- Appurtenant, proposed, or existing easements in relation to the subject land may not have been shown if not required for compliance of this proposal.

SURFACES
- Datum
  Horizontal datum: Poverty Bay 2000
  Vertical datum: NZVD 2016
  Source: LINZ Data Service
  Bay of Plenty Lidar 2015
- Existing contour interval
  Major = 5.0m
  Minor = 1.0m

PLANNING
- Subdivision lot layout subject to resource consent.
- Denotes possible house site
- – – – – 5m Boundary Setback (unless shown otherwise)

No.	Date	Drawn	Approved	Issue/Revision
A	07.02.23	SAR	-	ISSUED
B	29.03.23	SAR	-	LOTS REMOVED
C	03.04.23	SAR	-	AMENDMENTS
D	01.05.23	SAR	-	LOT 2 BLD PLATFORM AMENDED
E	23.08.23	SAR	-	AREAS P & Q ADDED
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Stilwell, G. & S.
98c Ohiwa Harbour Road
Opotiki

Proposed Subdivision of
Lot 100 LT 586678
Scheme

Drawing No. 660289 -PLN- D003
Sheet No. 01
Issue E
A3 SCALE: 1:2000

Stratum CONSULTANTS
OFFICE: TAURANGA CONTACT: 07 571 4500

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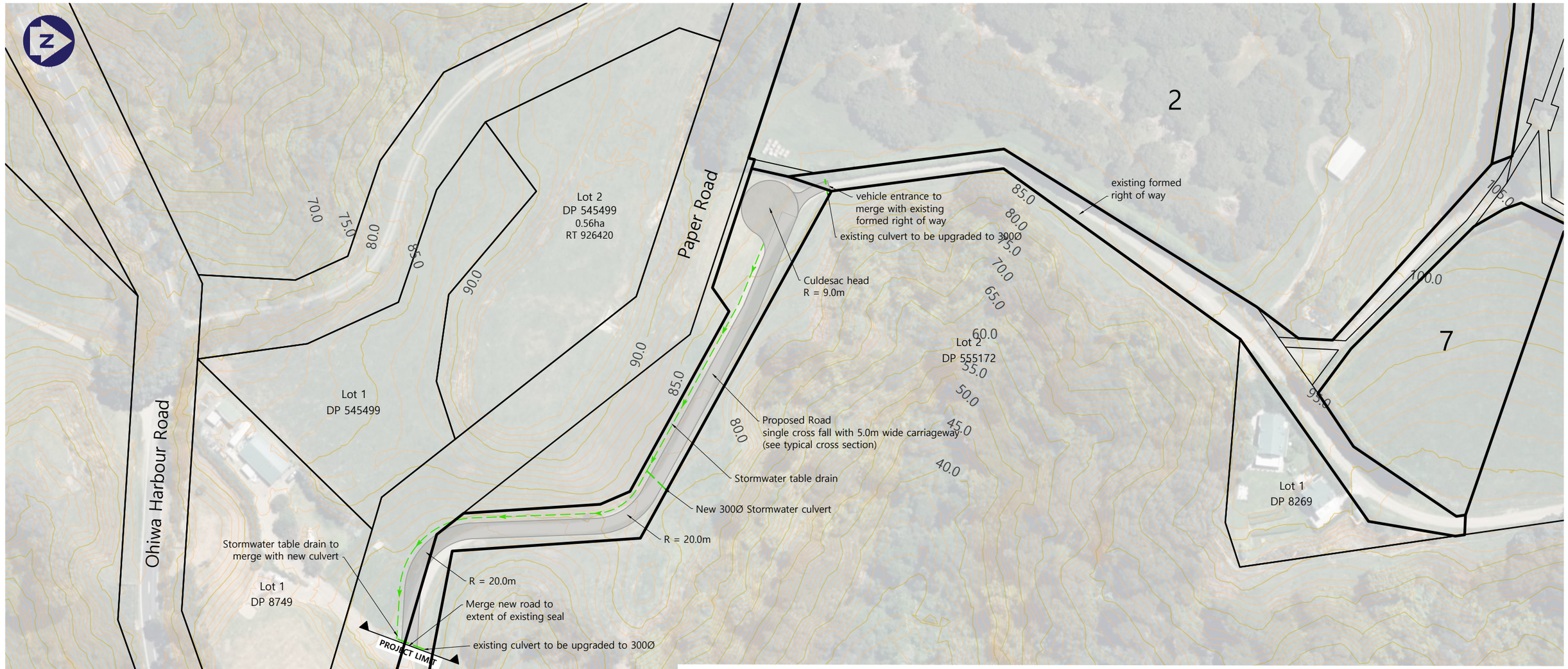
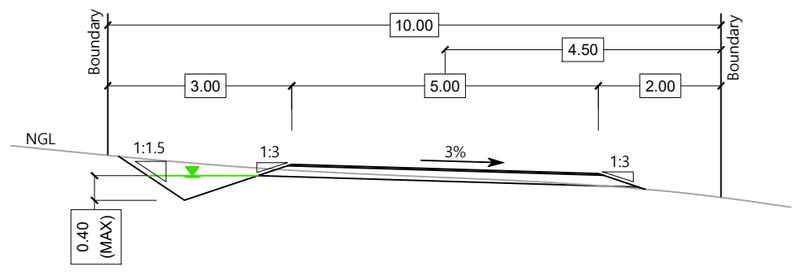
Appendix B – Roading plan





Typical Cross Section - Proposed Road
Scale 1 :100

NOTES:

GENERAL
- External boundaries have been obtained from LINZ Data Service and have not been redefined.
- Areas and measurements are approximate and subject to title survey.
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SURFACES
- Datum
  Horizontal datum: Poverty Bay 2000
  Vertical datum: NZVD 2016
  Source: LINZ Data Service
  Bay of Plenty Lidar 2015
- Existing contour interval
  Major = 5.0m
  Minor = 1.0m

PLANNING
- Subdivision lot layout subject to resource consent.

No.	Date	Drawn	Approved	Issue/Revision
A	29.03.23	SAR	-	ISSUED FOR RC
B	03.04.23	SAR	-	AMENDMENTS
C	-	-	-	-
D	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

Stilwell, G. & S.
98c Ohiwa Harbour Road
Opotiki

Proposed 2 Stage Subdivision of
Lot 1 DP 7129, Part Lot 1 DP 6545, & Lot 2 DP 545499
Stage 2 Proposed Road

Drawing No. 660289 -PLN- D005
Sheet No. 01
Issue B
A3 SCALE: 1:1250

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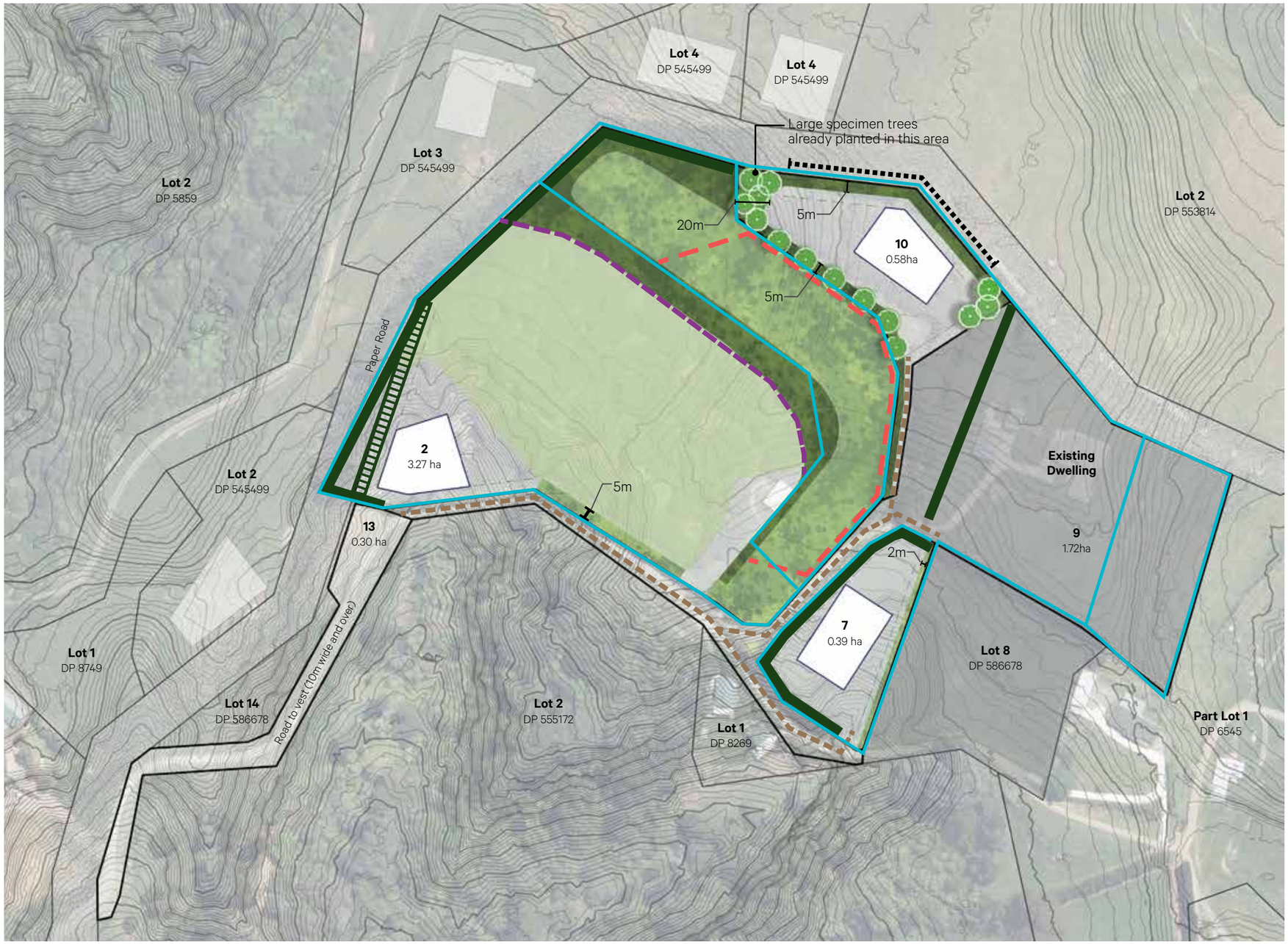
Appendix C – Isthmus landscape plan

98C Ohiwa Harbour Road.
Onekawa Grove Proposal.

1:2000 @ A3

0m 20m 40m 100m



Legend

Existing Stock Proof Fences

Proposed two Wire Electric Fence

Shelter belts to be retained
Maintained to height of 6m

Proposed Shelter belt
To be planted on the boundary of Lot 2
Japanese Cedar - *Cryptomeria japonica*

Existing indigenous vegetation planted areas - to be retained and maintained
Approx, 870 planted

Additional indigenous revegetation planting
Approx, 4000 to be planted at 1.5m centres

Proposed specimen trees:
(To be planted in locations marked)
Pohutukawa - *Metrosideros excelsa*
Rewarewa - *Knightia excelsa*
Puriri - *Vitex lucens*

Planting Mix:	**%**		
Pohutukawa - *Metrosideros excelsa*	4%	Puriri - *Vitex lucens*	4%
Broadleaf - *Griselinia littoralis*	4%	Titoki - *Alectryon excelsus*	4%
Kowhai - *Sophora tetraptera*	4%	Rimu - *Dacrydium cupressinum*	4%
Wineberry - *Aristotelia serrata*	4%	Tōtara - *Pocarpus totara*	4%
Rewarewa - *Knightia excelsa*	4%	Karo - *Pittosporum crassifloium*	4%
Five finger - *Pseudopanax arboreus*	4%	Kanuka - *Kunzea ericoides*	4%
Koromiko - *Hebe stricta*	4%	Ti kouka - *Cordyline australis*	4%
Corokia - *Corokia buddleioides*	4%	Māhoe - *Melicytus ramiflorus*	4%
Harakeke - *Flax - Phormium tenax*	4%	Karamu - *Coprosma robusta*	4%
Karaka - *Corynocarpus laevigatus*	4%	Ngaio - *Myoporum laetum*	4%
Manuka - *Leptospermum scoparium*	4%	Akeake - *Dodonaea viscosa*	4%
Tarata - *Pittosporum eugenioides*	4%	Houpara - *Pseudopanax lessonii*	4%
		Wharangi - *Melicope ternata*	4%

NOTE: Planting percentages to be plus or minus 2% depending on the availability from the plant nursery

Planting Along Western edge of Lot 10 may be controlled in height at 1m-2m tall.

Existing Access track in Lot 2 to be retained for maintenance (Approx location).
Unformed, 2m width walking and quad bike track following small natural bench.

Proposed Lot access routes

Planting Note: General planting specification for existing plantings.

- Indigenous plants have been sourced from Naturally Native plant nursery, Tauranga.
- Plants are eco-sourced to the local ecological region.
- Plants have been sourced as small PB sizes - generally between 300mm and 1,000mm tall.
- Plant spacings are generally at 1.0-1.2m centres.
- Some naturally regenerating plants within the site have also been used.
- All new plantings have been fertilized at the time of planting and watered, as required.
- All new plantings have stakes and sleeves (where required) to protect them from wind and animal grazing.
- Plants are protected from grazing animals by stockproof fences.
- Existing plantings were established in 2022.

This plan is to be read with the Planting Implementation, Weed Removal, Establishment and Maintenance Specification.

Appendix D – Landscape maintenance specification

Planting Implementation, Weed Removal, Establishment and Maintenance Specification

7th June 2023

98C Ōhiwa Harbour Road
RD2 Opotiki 3198

Glossary of Terms used within this document

Owner –	The current owner of 98C Ōhiwa Harbour Road who will develop the property into Three (3) new residential lots (lots 2 ,7,10) and 1 balance lot (lot 9). The owner will be responsible for all installation of softscape material indicated on the landscape plans and will be responsible for maintaining this softscape material for a period of three (3) years from the date of planting or until a lot passes into private ownership, whichever comes last.
Private lot owner –	The individual(s) who take ownership of either one or more of the private lots located within the boundaries of 98C Ōhiwa Harbour Road.
Softscape –	Any trees indicated on the landscape drawings prepared by the landscape architects.

Scope of this document

The scope of this document is limited to all planting within the development area of the site as indicated on the supporting Isthmus landscape plans. Note that this document is only applicable to planting installed by the owner at the subdivision stage and not to any existing or additional planting installed by private lot owners, although it is recommended that this document is adhered to ensure that any subsequent planting undergoes a successful establishment period.

Purpose / interpretation this document

The purpose of this document is to provide a specification for the installation and ongoing maintenance of all softscape materials within the proposed lots within 98C Ōhiwa Harbour Road. This document is intended to be read by both the owner and the private lot owners.

Clarification of responsibilities between owner and private lot owners

All softscape installed within the boundaries of lots will be installed by the owner at the sub-division stage and subsequently maintained by the owner for a period of three (3) years / thirty-six (36) months from the date of planting. If the individual lots transfer to private ownership during this three (3) years / thirty-six (36) months period, the private lot owner will continue to maintain the landscape within these lots until this period. In the event that the lot does not transfer into private ownership during this three (3) years / thirty-six (36) month period the owner will continue to maintain all softscape material within this lot until the affected lot transfers to private ownership.

In the event that any of the installed trees situated within a private lot that has transferred to private ownership dies (after the three (3) year maintenance period), the private lot owner is responsible for its immediate replacement, the install size must conform to those listed in the schedules on the landscape drawings.

Note that upon the passing of the three (3) year establishment period KPIs are no longer applicable, additionally KPIs are only applicable to those plants installed by the owner at the sub-division stage and any subsequent planting installed by private lot owners is not subject to the KPIs.

1. PLANT INSTALLATION

1.1. Site Preparation

The Owner is required to prepare the site for plant installation. The Owner is to ensure all planting areas are prepared appropriately before planting and must undertake all necessary spraying a minimum of one (1) week prior to the commencement of planting. Use only non-residual sprays to remove weed species and vegetation prior to planting.

1.2. Plant supply

All tree and plant species are to be supplied by the Owner and shall be nursery stock, true to name and type. Roots shall not be left exposed. Plants must be eco sourced from plant stocks within the Bay of Plenty region.

All aspects of the species supplied shall meet the following requirements where applicable:

<u>Crown</u>

All trees and plants supplied shall:

- Show no mineral deficiencies or chemical or frost damage.
- Be free of pests and diseases.
- Have good vigour and vitality and form.
- Have a crown/root ratio of reasonable proportions.
- Be hardened off thereby ensuring immediate establishment upon planting.
- Have a sound structure.

<u>Roots</u>

Roots are important to a tree or plant's establishment and continued growth. To ensure the

optimum opportunity for survival all trees and plants shall:

- Be free of decay.
- Be weed free.
- Have no damaged roots (pruning shall be carried in accordance with accepted horticultural standards).
- Have a two-month supply of nutrients.
- Have reasonable moisture content.
- Be conducive to a successful transplant.
- Have a root/crown ratio of reasonable proportions.
- Have a solid root ball with roots holding the mix together firmly (i.e. not prone to disintegration or recently bagged on)
- Have an even 360° spread.

Stem

All trees and plants supplied shall:

- Have no damage either mechanical, insect or disease.
- Be firm and upright in the pot.
- Have a sound structure.

All trees or plants must be true to the species, be well rooted and appear in general good health.

1.3. Transport of plants

The Owner is responsible for transporting all trees and plants to the site of planting unless otherwise agreed upon. The Owner shall adhere to the following practices whilst transporting plants;

Handling

All trees and plants shall be handled with care at all times, lifted by the container and placed on the ground or into vehicles. The Owner is to check the trees and plants at the time of collection or delivery. It is the Owner's responsibility to ensure trees and plants are thoroughly watered before they are transported from the nursery. Once trees and plants leave the nursery, they are the sole responsibility of the Owner.

Packing and loading

All tree and plant material shall be carefully packed and protected during transport to the site to prevent damage. Foliage shall be protected from desiccation during transportation. Black polythene shall not be used for this. Container grown plants shall not be bundled together.

Condition maintenance

Plant roots shall be protected at all times from drying out. Bare rooted plants, such as trees, shall have individual root balls contained in moisture retentive material. Trees and plants shall be planted within forty-eight (48) hours of delivery. The owner and / or their approved representatives shall be informed where this is not achieved. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected, sheltered and the soil kept well-watered. If damage occurs to the trees or plants, they shall be replaced at the Owner's expense. Pots and other protective materials shall not be removed until immediately prior to planting and shall be disposed of appropriately after planting.

1.4. Planting of trees

The Owner is responsible for the installation of all trees where spacing is indicated as 'marked' on the plant table of the planting plans. The Owner shall adhere to the following practices whilst planting all trees;

Timing
Planting shall take place between May and October (the planting season).

Setting out
Trees are to be planted in accordance with the landscaping plan, in the event that this is not possible, they must be planted as close as reasonably possible. Minor refinement to the design with adjustments to lines, levels and grouping of trees locally as the planting proceeds may occur.

Condition maintenance
Containerised trees shall be thoroughly moistened at the time of planting. If the soil is dry, the plant shall be submerged in water for five minutes until air bubbles stop rising. Allow time to drain before planting. Balled and container grown plants shall have the cloth cordage, container, wire containment and hessian removed immediately prior to planting. Care shall be taken to ensure that the root ball is not disturbed during container removal or planting. If plants are slightly pot bound the roots shall be loosened, trimmed and spread out to ensure healthy growth. Roots shall not be exposed to the sun or wind.

Tree pits
Tree pits shall be three times the size of the root ball to be planted, with a minimum depth of 1.5 times the depth of the root ball. The bottom of the pit shall be forked over to an additional depth of 300mm to facilitate root penetration, air movement and free drainage.

Planting
Trees shall be set upright in the centre of the pit at such a depth that the soil, when firmed down, is at the same height as the top of the root ball. Soil shall be heeled in using natural body weight and not compacted by machinery or 'stamped' down. Any major roots that accidentally break off or fray shall be cleanly cut off flush with the root ball using sharp secateurs or a handsaw. Where roots are pot bound and/or girdling they shall be cleanly severed at the edge of the root ball and gently teased out in a radial fashion. Loose roots shall be spread out in a radial fashion and the pit progressively backfilled with first class growing medium, carefully placed under and amongst them to fill all voids and consolidated so that no air pockets are present, and the tree is firmly held. For bare root stock the soil shall be heeled firmly round the root collar. Where an auger or other mechanical method is used to excavate the tree pit, the sides of the excavation shall be scarified before planting. Each tree shall be watered thoroughly after planting, ensuring that the moisture has penetrated to the full depth of the root ball (initial watering is also important to settle the soil around the roots).

Fertiliser
Fertiliser for individual plant types shall be thoroughly mixed with the soil in the base of the planting hole, prior to planting. Apply quantities as recommended by the manufacturer. The owner and /or their approved representative may vary the amount depending on conditions and stock. Slow release fertiliser is to be applied for the initial two (2) years following tree installation, Novatech is the preferred product.

Tree Guards

Tree Guards are to be installed at the base of all trees considered to be susceptible to damage from rabbits. Biodegradable / recyclable plant guards are preferred for this operation.

Frost protection

During the initial two (2) years of establishment thermomax with megaphol should be applied to all trees for frost protection. This is especially pertinent for all Pōhutukawa and Puriri species.

Staking

Where required stakes shall be untreated timber, uniform in appearance, straight and finished to a uniform height. Stakes shall be driven into the ground to a depth sufficient to support the tree, shall be upright and immoveable. All tree ties shall be either jute (hessian) or rubber bicycle inner tubes to allow minor movement without chafing of the stems and to allow the development of supportive 'reaction wood' and a strong supporting root system. Tree ties shall be placed at one third the height of the tree from ground level to a maximum height of 600mm.

A successfully installed tree will be considered as follows :

- be located as specified.
- be upright and firm in the ground.
- be securely staked.
- have the top of the root ball level with the surrounding surface.
- be healthy with no evidence of decline or damage (e.g. dead/dying/diseased foliage/tips/branches, loss of foliage that is uncharacteristic to the species, discoloured foliage, pests and diseases).

2. MULCHING OF NEW LANDSCAPED AREAS

2.1. Garden preparation

The Owner is to prepare new landscaped areas. Spray any weeds with non-residual herbicide and remove any rubbish or foreign matter and make sure surface levels of growing media are as consistent as possible to allow easy and even application of mulch.

2.2. Mulch supply

Any mulch supplied to the site and applied must be deep cambium pine bark mulch or similar. All areas susceptible to weed inundation which are not weeded or sprayed by the Owner must be covered with 100mm of mulch.

2.3. Mulch application

The surface of the mulch in these areas shall be flush with or no more than 25mm below the surrounding ground surface, garden edging, kerb, path or other formed surface and shall be even and free of hollows.

Mulch to tree pits within a lawn shall be placed over the tree pit radially to 1000mm from the trunk of the tree or to the extremity of the tree's drip line, whichever is the greater. Mulch to tree pits in other garden areas shall fill the entire area or radially to 600mm from the trunk of the tree.

Mulch shall not touch the stems of plants. A small circle shall be cleared (diameter of 50mm minimum) around the stem to avoid stem rot. Mulch shall be pulled back to 100mm off the trunk of any tree to prevent collar rot.

Unless specified otherwise, mulch shall be placed to a minimum consolidated depth of 100mm for planter beds and tree pits. Growing media shall not be mixed into the mulch during placement, planting or weeding. Mulch shall not spread onto paved surfaces or onto lawn areas.

2.4. Manner of execution

The Owner is responsible for completing the mulching with care and consideration to the site and its surroundings. They are expected to cooperate with others on site and leave the site in the same or better condition it was prior to the contract being carried out. Any damage to private or public property at the site and surrounding area at the fault of the Owner is the responsibility of the Owner to rectify with the relevant or affected parties.

3. PLANT ESTABLISHMENT PERIOD

3.1. Period

The Owner is responsible for the establishment of the new planting within the private lots from the time installation is completed for a three (3) year/ thirty-six (36) month defects liability period or until the private lot passes into private ownership.

This specification covers the work typically undertaken to provide optimum conditions to establish and maintain the landscape for this period. Table 1 below provides an outline of the maintenance schedule outlining owners minimum responsibilities during this period.

Key performance indicators (KPIs) for plant maintenance (note these are applicable to both the owner and private lot owners, refer to section 'Clarification of responsibilities between owner and private lot owners' for responsibilities and duration of monitoring KPIs);

- 90% survival rate for all shrub, groundcover and grass planting.
- 90% survival rate for all trees

Table 1: Maintenance Schedule

nbr	ITEM	MINIMUM FREQUENCY	ACTION
3.3	**Watering**	To maintain moisture content as specified in section 3.3. Recommendation twice weekly from December to 31st May over the first summer growing season. As required thereafter to maintain growth.	Water all plants to the specified levels. Water to be applied via spray tank application.

3.4	**Pests and diseases**	@ 3-month intervals	Check for pests and diseases and apply appropriate treatment to ensure plants are pest and disease free. Slug bait is to be applied to all Karaka, Kaka Beak and Hoheria trees
3.5	**Rubbish and Litter**	Check @ 2-month intervals	Ensure landscape areas are free of litter. Refer to specification 3.5 and maintain accordingly.
3.6	**Pruning**	@ 3-month intervals	All dead and weak branches to be removed.
3.7	**Plant maintenance vandalism, losses and replacement**	@ 3-month intervals	Refer to specification 3.7 and follow.
1.4	**Stakes and ties**	@ 3-month intervals	Check all stakes and ties, repair and tension as required.
1.4, 1.5	**Fertilisation**	@ 12-month intervals or at the recommended rate depending on type and period of slow release.	Fertilise each plant to the recommended slow release period of manufacturers specification. Novatech is the preferred product.
1.4, 1.5	**Frost Protection**	@ 3-month intervals or at the recommended rate During initial two (2) years of establishment.	Thermomax with megaphol is to be applied to all trees for frost protection. This is especially pertinent for all Pōhutukawa and Puriri species.
4	**Weed control**	@ 2-month intervals through growing seasons and less over winter	Refer Section 4 for specific species treatments

3.2. Scope outline

The Owner is required to provide optimum conditions for plant survival which includes, but is not limited to: barricading, watering, weed control, cultivation, control of pests and diseases, removal of litter, checking of stakes and ties, trimming, pruning or mowing and other accepted horticultural operations necessary to ensure normal and healthy landscape establishment and growth.

The two most important factors are adequate moisture and eliminating competition from other vegetation. Throughout the establishment period, the Owner shall visit the site as and when necessary, to ensure that plant establishment is not limited by drought stress or competition from other plants.

3.3. Watering

The Owner shall provide sufficient water to all lawn areas, trees and planting to maintain plants in a healthy condition. For trees, soil moisture shall contain an average volumetric water content of between 20 and 30%.

Water shall be applied evenly and radially around the root ball to a distance of 600mm from the base of the trunk or to the extremity of the tree's drip line, whichever is the greater. Water shall be applied at low pressure from a height of less than 500mm. Care shall be taken to avoid the displacement of soil or mulch whilst undertaking watering.

3.4. Pests and diseases

Whilst the initial approach will be to treat all plant infestations with a fungicide and/or chemical spray, continued disease may necessitate the removal of the affected species, if a disease continues within a specific plant group it may be required that the particular plant group is removed in its entirety from the site and replaced with a substitute species. In cases of Myrtle rust (*Austropaccina psidi*) as no definitive treatment currently exists, it would be recommended to initially use fungicide and if the infection does not abate to remove the infected tree to prevent the spread. In the event that an acceptable treatment is developed in the period between the writing of this report and the event of myrtle rust occurring, then that treatment is to be utilised as site.

3.5. Rubbish and litter collection and removal

The Owner shall remove all litter from the new landscaped areas and berms or swales. Litter is defined as any refuse, garbage, rubbish, dead animal remains, plant debris including fallen leaves, glass, metal, organic or inorganic waste matter or any other material, which is detrimental to the appearance of the site.

3.6. Pruning

The Owner shall remove all weak, dead, diseased or damaged growth. Sight lines at intersections and driveways shall be maintained and signs shall not be obscured.

3.7. Plant vandalism, loss and replacement

Any plants vandalised or stolen from within occupied private lots during the initial three (3) year maintenance period. The likely cause of damage shall also be reported. The plants shall be removed and replaced where ordered.

All other losses of plants during the three (3) year / thirty-six (36) months establishment period must be replaced in the first available planting season (between May and October) by the Owner unless otherwise agreed upon. The Owner is responsible for covering all supply and labour costs associated with losses unless otherwise agreed upon. Replacements shall be the same as those specified. Any defective stakes, ties, etc. shall be replaced as soon as possible.

3.8. Manner of execution

The Owner is responsible for completing the plant establishment period with care and consideration to the site and its surroundings. They are expected to cooperate with others on site and leave the site in the same or better condition than it was prior to the contract being carried out. Any damage to private or public property at the site and surrounding area at the fault of the Owner is the responsibility of the Owner to rectify with the relevant or affected parties.

3.9. Monitoring during maintenance period

The Owner is to keep records of all ongoing maintenance and provide to Ōpotiki district council, an annual report completed by a suitably qualified person which will confirm (via reference of maintenance records and on-site observations) the following;

- Landscaping summary with site photos
- Overall status of installed plants
- Maintenance completed to date
- Any plant deaths / replacements
- Pest control measures undertaken
- Weed control measures undertaken

4. WEED MANAGEMENT STRATEGY

4.1. Period

The Owner is required to maximize the survivability of plants through weed management from the time installation is completed for a three (3) year / thirty-six (36) months period. Weed control should utilise a combination of techniques in an attempt to minimise herbicide usage and prevent weed invasion, this includes the use of mulch to cover bare soil, manual control methods, and the use of selective herbicides.

4.2. Scope outline

Weed control is required to maximize the survivability of plants in their first three (3) years / thirty-six (36) months period of growth. Weeds and pasture grasses are key competitors for new plantings. The weed management program should be undertaken in a proactive as opposed to a reactive manner. It will ensure that weeds do not compete with the new plantings. To this end weeds and grasses shall always be controlled before they flower, set seed or get to half the height of the new plantings.

4.3. Weed control method

A list of commonly occurring weeds to be controlled and the appropriate eradication methods for each species are listed in appendices A1-A7 of this document, note this list is not exhaustive and for weeds that do not form a part of this list, a differing treatment/control method may be required. It should be noted that as the site is a bare field site it is anticipated that few, if any, weeds will be present. Weeds and grasses will not be allowed to grow over the top of new plantings. If this does occur, weeds must be pulled back from each native plant prior to any spraying being undertaken. In some cases this may require hand pulling of weeds as opposed to spraying. It is recommended that in the first instance removal of weeds from within private lots should be attempted by hand-pulling in the first instance, with spraying to be used if this is not applicable/suitable. (refer section 4.6)

The owner will undertake regular maintenance visits. They are required to:

a) Review work done in the month(s) prior to that visit
b) Assess the condition of plantings and identify any issues
c) Undertake weed control work to be done
d) Identify and confirm work for upcoming months
e) Review weed control species lists and identify any new threats

4.4. Release spraying

The owner is to organise release spraying for any unoccupied private residential lot areas during their maintenance period. It is anticipated that not less than two release sprays will be undertaken over the period of one (1) year / twelve (12) months. If it is determined that more sprays are necessary to control weeds and/or disease/infection, then these will be performed without delay. The owner must ensure that its staff/spraying owner is qualified to advanced Growsafe level. Those undertaking spraying will adhere to the spraying specifications as set out under the Growsafe manual. All chemicals to be used must be submitted for approval to the owner and / or their approved representatives. Detailed spray diaries will be kept and provided to an independent suitably qualified person to prepare the required annual maintenance report for submission to Ōpotiki district council as outlined in section 3.9. Marker dye is to be used every time spraying is undertaken.

4.5. Herbicide selection

Appendices A1-A7 provides a list of both observed weeds and commonly occurring weeds. If a weed is located near native trees Triclopyr or Glyphosate is to be used, therefore this is the preferred herbicide application to be used throughout the site.

Commercial herbicides that can be utilised are inclusive of, but not limited to;

- Triclopyr: Grazon, Brushoff
- Glyphosate: Roundup, Trounce
- Haloxyfop: Gallant NF, Ignite
- Crop Oil: C-Dax Oil, Uptake

4.6. Manual weed control

Removal of weeds shall not be solely limited to the use of herbicides. Some plants may need to be hand pulled or dug out. Care needs to be taken to ensure the whole plant is removed and that it is disposed of in such a manner that it does not regrow.

APPENDIX A-1: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Agapanthus *(Agapanthus praecox)*	Dig out and dispose off site	-	-	Year round	Only if this can be done without posing a weed hygiene risk
	Knapsack – foliar spray	Triclopyr	160ml per 10 litres water plus 20ml pulse (with penetrant)	October-March	Not when flowering or seeding Follow up and dig and out dispose all dead plants
Alligator weed *(Alternathera philoxeroides)*	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	Year round	Requires follow up control
Aristea *(Aristea ecklonii)*	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	October-March	
Arum lily & Flag iris	Hand pull seedlings/small plants	-	-	Year round	Only if this can be done without posing a weed hygiene risk
	Dig out and dispose off site	-		Year round	Monitor for re-growth.
	Cut and spray stems of large plants	Metsulfuron	5g per 10 litres water	October-March	Spray immediately following cutting.
Artillery plant *(Galeobdolon luteum)*	Foliar spray	Glyphosate	100ml per 10 litres water	October-March	
	Cut and treat stumps	Triclopyr	1 part Triclopyr to 20 parts water	October-March	
Asparagus fern *(Asparagus densiflorus)*	Knapsack/hand sprayer	Metsulfuron	5g Metsulfuron plus per 10 litres water plus 20ml pulse	October-March	
Bamboo	Foliar spray re-growth	Glyphosate	200ml per 10 litres water plus 20ml pulse	October-March	Monitor for re-growth - Will need several treatments
	Foliar spray re-growth	Haloxyfop	150ml per 10 litres water	October-March	Monitor for re-growth - Will need several treatments
	Foliar spray re-growth	Haloxyfop + Crop Oil (C-Dax/Uptake)	300ml Haloxyfop (20 lires water) + 100ml Crop Oil	October-March	Monitor for re-growth - Will need several treatments
	Cut tops and treat as per Giant reed grass.	-			
Banana plant	Dig out and dispose off site	-	-	Year round	After foliage die off, remove plant from earth.
	Knapsack – foliar spray	Glyphosate	20ml per litre water	Year round	After foliage die off, remove plant from earth.
Banana passionfruit	Hand pull seedlings/small plants	-	-	Year round	
	Cut and treat stump	Triclopyr	1 part Triclopyr to 20 parts water	October-March	Leave foliage in host to die off
	Cut and treat stump	Metsulfuron	5g per 10 litres water	October-March	Leave foliage in host to die off
	Cut and treat stump	Picloram (Vigilant gel)	Apply gel to cut stem	October-March	
Barberry *(Berberis glaucocarpa)*	Cut and treat stumps	Triclopyr	1 part Triclopyr to 20 parts water	October-March	Apply to freshly cut surface and stems to ground level
Bartlettina *(Bartlettina sordida)*	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	October-March	
Bear's breeches *(Acanthus mollis)*	Dig out and dispose off site	-	-	Year round	
	Cut and treat stump	Triclopyr	1 part Triclopyr to 20 parts water	October-March	
Bindweed *(Calystegia sylvatica, C. septum)*	Knapsack – foliar spray	Banvine	Follow label recommendations		

APPENDIX A-2: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Blackberry (*Rubus fruticosus* agg.)	Knapsack – foliar spray Knapsack – foliar spray	Metsulfuron Triclopyr	5g per 10 litres water 60ml per 10 litres water	December-April December-April	
Black passionfruit *(Passiflora edulis)*	Handpull seedlings/small plants Cut and vines and spray re-growth	- Glyphosate	- 20ml per litre water	Year round Cut vines in winter and spray re-growth in spring	Leave foliage in host to die off
Black wattle Australian Black wood	Hand pull seedlings/small plants Cut and treat stumps Drill and inject	- Triclopyr Triclopyr	- 1 part Triclopyr to 20 parts water 1 part Triclopyr to 20 parts water	Year round October-April October-April	Ensure of felling that damage to surrounding native vegetation is limited.
Blue morning glory	Knapsack – foliar spray Cut and treat stumps	Triclopyr Triclopyr	60ml per 10 litres water 1 part Triclopyr to 20 parts water	November-March November-March	Leave foliage in host to die off
Boneseed	Handpull seedlings/small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round November-February	
Bottlebrush *(Callistemon spp.)*	Handpull seedlings/small Cut and treat stumps Drill and inject	- Triclopyr Metsulfuron	- 1 part Triclopyr to 20 parts water 20g Metsulfuron per litre water, plus 2 ml pulse	Year round Year round Year round	Callistemon is to be planted within the residential planting area, to be monitored to ensure no seed spread via wind dispersal establishes in revegetation area
Broom	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	November-February	Do not spray if seed pods have turned brown
Brush wattle	Handpull seedlings/small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round October-April	
Buddleia *(Buddleja davidii)*	Handpull seedlings/small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round Year round	
Buffalo grass *(Stenotaphrum secundatum)*	Knapsack – foliar spray	Haloxyfop	60ml per 10 litres water	October-January	
Canary Island Date Palm *(Phoenix canarensis)*	Handpull seedlings/small plants Fell tree - remove stump Fell tree - paint stump	- - Roundup	- - 250ml per litre water	Year round Year round Year round	For smaller specimens where trunk can be easily instantly removed - Leaves/fronds can be mulched, trunk to be disposed of at refuse transfer station For smaller specimens where trunk can be easily instantly removed - Leaves/fronds can be mulched, trunk to be disposed of at refuse transfer station
Canna lily	Dig out and dispose off site	-	-	Year round	Monitor for re-growth
Cape gooseberry	Hand pull Knapsack – foliar spray	- Glyphosate	- 100ml per 10 litres water	Year round	Monitor for re-growth For large infestations

APPENDIX A-3: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Cape honey flower	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	November-February	
Cape ivy	Cut and treat stumps	Triclopyr	1 part Triclopyr to 20 parts water	November-February	Leave foliage in host to die off
Castor oil plant *(Ricinus communis)*	Cut and treat stumps Knapsack – foliar spray	Triclopyr Glyphosate	1 part Triclopyr to 20 parts water 100ml per 10 litres water	October-March October-March	
Cestrum *(Cestrum spp.)*	Handpull seedlings/small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round October-March	
Chinese privet	Seedlings – hand pull Trees – drill and inject Saplings - cut and stump treat	- Metsulfuron Triclopyr	- 20g Metsulfuron per litre water, plus 2ml pulse 1 part Triclopyr to 20 parts water	November-April November-April November-April	
Climbing asparagus	Knapsack/hand sprayer	Metsulfuron	5g Metsulfuron plus per 10 litres water plus 20ml pulse	October-March	Foliar spray both climbing stems up to 1m high and scrambling plants in situ. Brittleness of stems means they cannot effectively be pulled off plants. Ensure no tree fern or kowhai trunks are sprayed.
Climbing dock	Knapsack	Metsulfuron	5g per 10 litres water	November-February	
Cotoneaster *(Cotoneaster glaucophyllus)*	Handpull seedlings/small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round October-March	
Crack willow/grey willow	Drill and inject/frill and spray	Metsulfuron	20g Metsulfuron per litre water, plus 2ml pulse	November-February	Do not cut as every twig becomes another willow.
Creeping club moss	Knapsack/hand sprayer Knapsack – foliar spray	Mostox Renovate/Organic Interceptor	1% solution Label rate	Year round.	Ensure no tree fern or kowhai trunks sprayed
Elaeagnus	Cut and treat stumps Cut and treat stumps	Picloram (Vigilant gel) Triclopyr	Apply gel to freshly cut stump 1 part Triclopyr to 20 parts water	October-March October-March	Must be applied liberally within 5 mins of cutting
Elephants ear	Dig out and dispose off site Cut and spray stems	- Metsulfuron	- 5g per 10 litres water	- October-March	Monitor for re-growth Spray immediately following cutting
Fatsia *(Fatsia japonica)*	Dig out	-	-	Year round	
Flame tree *(Brachychiton acerifolium)*	Drill and inject	Metsulfuron	20g per litre water, plus 2ml pulse	Year round	
Fruit salad plant (Monstera deliciosa)	Handpull seedlings/small plants Cut and treat stump	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round October-March	
Garden nasturtium	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	November-March	
German ivy	Cut stems and treat stumps Knapsack – foliar spray	Triclopyr Metsulfuron	1 part Triclopyr to 20 parts water 5g per 10 litres water	November-March November-March	Leave foliage in host to die off
Giant reed	Cut and spray stumps Cut and spray re-growth Cut and spray re-growth	Glyphosate Glyphosate Haloxyfop	1 part Glyphosate to 10 parts water 200ml per 10 litres water 150ml per 10 litres water	November-February November-February November-February	Do not break up canes. These should be removed off site and burned or taken to an approved disposal site.

APPENDIX A-4: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Gorse, and other compositae weeds, and legumes found in pasture such as lotus major.	Knapsack foliar spray For targeted gorse control with minimal loss of existing bush emerging	Versatill	500ml/100litres of water with wetting agent Knapsack 125ml/10 litres with wetting agent	October - March	Will target legumes and compositae species so care needed around Kowhai, Hebe and Olearia species
Hawthorn	Handpull seedlings/small Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round November-March	
Hydrangea *(Hydrangea sp.)*	Dig out and remove	-	-	Year round	
Himalayan honeysuckle	Hand pull seedlings/ small Knapsack – foliar spray Knapsack – foliar spray Cut and treat stems/ Cut and treat stems/	 Metsulfuron Glyphosate Metsulfuron Glyphosate	 5g/10 litres water + 10ml 100ml/10 litres water + 10ml 20g/10 litres water 50:50 mix with water	October to February Spring to late autumn Spring to late autumn Spring to late autumn Spring to late autumn	Ensure no tuber read behind Not for use around native vegetation or waterways. For application near waterways and indigenous For application near waterways and indigenous
Italian arum *(Arum italicum)*	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	October-March	Monitor for re-growth. Spray immediately following cutting.
Ivy *(Hedera helix)*	Cut and treat stems/tubers Cut and treat stems/tubers	Triclopyr Metsulfuron	1 part Triclopyr to 20 parts water 5g per 10 litres water	November-March November-March	Leave foliage in host to die off
Japanese honeysuckle	Knapsack – foliar spray Cut and treat stems	Versatill Triclopyr	40-50mls Versatill to 10 litres water 1 part Triclopyr to 20 parts water	October-March October-March	Pull away from non-target species before spraying. Spray to run off. Ensure no epiphytic attachment. Do not pull cut vegetation from host plant
Japanese spindle tree	Cut and treat stumps	Triclopyr	1 part Triclopyr to 20 parts water	November-March	
Jasmine	Cut and treat stems Where practical foliar spray Where practical foliar spray	Triclopyr Glyphosate Metsulfuron	1 part Triclopyr to 20 parts water 20ml per litre water and 20ml Pulse with clean water 5g per 10 litres water	October-March October-March October-March	Do not pull cut vegetation from host plant Pull away from non-target species before spraying
Kikuyu grass and pasture grasses in the early stages of	Knapsack – foliar spray Knapsack – foliar spray	Glyphosate Haloxyfop	100ml per 10 litres water 150ml per 10 litres water	Year round Year round	
Mexican daisy (*Erigeron karvinskianus)*	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	October-March	Requires regular follow up
Mexican devil (*Ageratina adenophora*)	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	October-March	
Mignonette vine	Cut and treat stump Cut and treat stump	Triclopyr Picloram (Vigilant gel)	1 part Triclopyr to 20 parts water Apply gel to cut stem	October-March October-March	Follow up control required to treat propagules Follow up control required to treat propagules
Mistflower *(Ageratina riparia)*	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	October-March	

APPENDIX A-5: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Monkey apple (*Syzgium smithii*)	Seedlings/small plants – hand pull	-	-	Year round	-
	Sapling – Cut and stump treat	Triclopyr	1 part Triclopyr to 20 parts water	October-March	For smaller plants that cannot be hand pulled but are not large enough for drill and inject method
	Tree – drill and inject	Metsulfuron	2g per 50ml water, plus 2ml pulse	Year round	Cut and filll hole every 10cm of stem diameter
	Cut and treat stumps	Metsulfuron	5g per litre water	October-March	For larger specimens
Montbretia	Knapsack – foliar spray	Triclopyr	60mls per 10 litres water, 10ml Pulse per 10 litres water	October-February	
Moth plant	Seedlings/small plants – hand pull	-	-	Year round	-
	Cut and treat stump	Triclopyr (Tordon BK)	1 part Triclopyr to 20 parts water	October-March	Leave cut vegetation in host to die off. Remove seed pods if possible - dispose of seed pods at refuse station
	Cut and treat stump	Picloram (Vigilant gel)	Apply gel to cut stem	October-March	Leave cut vegetation in host to die off. Remove seed pods if possible - dispose of seed pods at refuse station
	Cut and treat stump	Dicamba	200g 2, 4-D+100g per litre water	December-May	Leave cut vegetation in host to die off. Remove seed pods if possible - dispose of seed pods at refuse station
	Cut and treat stump	Dicamba	50g 2, 4-D+400g per litre water	December-May	Leave cut vegetation in host to die off. Remove seed pods if possible - dispose of seed pods at refuse station
	Cut and treat stump	Picloram (Vigilant gel) / Tricopyr mix	100g Picloaram/300g Triclopyr per litre water	December-May	Leave cut vegetation in host to die off. Remove seed pods if possible - dispose of seed pods at refuse station
Palm grass *(Setaria palmifolia)*	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	October-January	
Pampas	Knapsack – foliar spray	Glyphosate	10ml per litre water	October-March best results	Use clean water and thoroughly soak centre of large plants.
	Knapsack – foliar spray	Haloxyfop	150ml per 10 litres water plus crop oil	October-March	Best on smaller plants.
Periwinkle	Knapsack – foliar spray	Glyphosate	200ml per 10 litres water	November-March	Follow up spray as soon as re-growth big enough to treat. 4-5 treatments required 2-3 months apart.
Poplar At year 5 within the plant zone, prune annually for the first 4 years	Drill and inject/frill and spray	Metsulfuron	20g per litre water + 10ml pulse	November-February	Prune annually for the first 4 years
Prickly hakea *(Hakea sericea)*	Handpull seedlings/small	-	-	Year round	
	Cut and stump treat	Triclopyr	1 part Triclopyr to 20 parts water	Year round	

APPENDIX A-6: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Willow leaved hakea *(Hakea salicifolia)*	Drill and inject	Metsulfuron	20g Metsulfuron per litre water, plus 2ml pulse	Year round	
Reed sweetgrass *(Glyceria maxima)*	Knapsack – foliar spray	Glyphosate	100ml per 10 litres water	October-March	
Shrub balsam	Cut and treat stumps	Metsulfuron	5g per 10 litres water	October-March	
Spanish heath	Cut and treat stumps	Triclopyr	1 part Triclopyr to 20 parts water	October-March	
Sweet pea shrub *(Polygala myrtifolia)*	Handpull small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round October-March	
Three cornered garlic	Knapsack – foliar spray	Triclopyr	15ml per 10 litres water	September-December	
Tradescantia	Knapsack – foliar spray	Triclopyr	10ml per litre water + 2ml Pulse per litre water	November-March	Pull away from non-target species before spraying.
Tree lupin *(Lupinus arboreus)*	Cut and hand fell	-	-	Year round	
Tree privet	Cut and treat stumps Drill and inject	Triclopyr Metsulfuron	1 part Triclopyr to 20 parts water 20g Metsulfuron per litre water, plus 2ml pulse	November-March November-March	
Tuber ladder fern	Knapsack – foliar spray	Metsulfuron	5g per 10 litres water	March to May	
Tutsan (*Hypericum androsaemum*)	Handpull small plants Cut and treat stumps	- Triclopyr	- 1 part Triclopyr to 20 parts water	Year round November-March	
Velvet groundsel *(Senecio petasitis)*	Handpull small plants Knapsack – foliar spray	- Metsulfuron	- 5g per 10 litres water	Year round October-March	
Washington Palm *(Washingtonia filfera/robusta)*	Handpull seedlings/small plants Fell tree - remove stump Fell tree - paint stump	- - Roundup	- - 250ml per litre water	Year round Year round Year round	 For smaller specimens where trunk can be easily instantly removed - Leaves/fronds can be mulched, trunk to be disposed of at refuse transfer station For smaller specimens where trunk can be easily instantly removed - Leaves/fronds can be mulched, trunk to be disposed of at refuse transfer station
Wild ginger	Hand pull seedlings/small plants. Cut and treat stems/tubers	- Metsulfuron	- 10g/10 litres water	October to February Spring to late autumn	Ensure no tuber left behind. Cut above pink "collar" at base and stump paint

APPENDIX A-7: WEED CONTROL METHODS

Weed	Control Method(s)	Chemical(s)	Application Rate	Timing	Remarks
Woolly nightshade	Seedlings/small plants – hand pull	-	-	Year round	
	Trees – cut and treat stump	Picloram / Triclopyr Mix	100g Picloram+300g Triclopyr	Year round	
	Saplings - cut and treat stump	Picloram (Vigilant gel)	Apply gel to cut stems	Year round	
	Saplings - cut and treat stump	Triclopyr	1 part Triclopyr to 20 parts water	Year round	
Wild cherry	Tree – drill and inject	Metsulfuron	20g Metsulfuron per litre water, plus 2ml pulse	October-March	
	Saplings – cut and treat stump	Triclopyr	1 part Triclopyr to 20 parts water	October-March	

Appendix D – Proposed consent conditions

Stilwell Subdivision Conditions – 23 August 2023

1. Except as modified by any condition of this consent, the proposed activity shall be carried out in general accordance with the following information:

    i. Subdivision Scheme Plan entitled "Proposed Subdivision of Lot 100 LT 586678" by Stratum Consultants, ref. 660289-PLN-D003, Sheet 01, Issue E, dated 23 August 2023.

    ii. Drawing entitled "Proposed 2 Stage Subdivision of Lot 1 DP 7129, Part Lot 1 DP 6545, & Lot 2 DP 545499, Stage 2 Proposed Road", by Stratum Consultants, ref. 660289-PLN-D005, Sheet 01, Issue B, dated 3 April 2023.

    iii. Landscape Plan by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023.

    iv. Planting Implementation, Weed Removal, Establishment and Maintenance Specification for 98C Ōhiwa Harbour Road, dated 7 June 2023.

    v. Geotechnical Assessment Report for G and S Stilwell, 98C Ōhiwa Harbour Road, Ōpōtiki, dated 18 March 2022, prepared by Stratum Consultants, as applicable to the approved subdivision scheme plan.

    vi. Stormwater Assessment for Proposed New Lots dated 27 July 2022, prepared by Stratum Consultants, as applicable to the approved subdivision scheme plan.

2. Lot 13 shall vest as road with Ōpōtiki District Council free of all encumbrances and covenants.

3. Lot 13 shall vest as road with Ōpōtiki District Council free of any existing private infrastructure.

4. All easements required to protect access and services shall be duly granted and reserved.

5. All services and soak rings for stormwater disposal from existing buildings on Lots 2 and 9 shall be contained within each lot's boundaries or appropriate easements shall be duly granted or reserved to provide on-going rights of access and maintenance.

6. Underground power shall be provided to the boundaries of Lots 2, 7, and 10 and power shall be terminated by means of standard utility termination boxes.

7. The consent holder shall provide written confirmation from the relevant network utility provider that the works required by condition 6 have been completed.

8. The consent holder shall appoint an appropriately qualified and experienced person to design and supervise the works, certify compliance upon completion and ensure all works, services are designed and completed in accordance with:

    i. This resource consent;
    ii. Sound engineering practice;
    iii. Ōpōtiki District Council's "Code of Practice – Subdivision and Development" version 1: 2000; except as expressly noted by another condition of this consent.
    iv. The engineering plans as approved by the Engineering and Services Group Manager on behalf of the council, as per condition 9.

9. Engineering design drawings for the proposed public road, rights of way and vehicle entrances to Lots 2, 7 and 10 shall be provided to the Engineering and Services Group Manager for approval prior to any construction works commencing. This shall include stormwater control measures for the public road designed in general accordance with the report by Stratum Consultants dated 27 July 2022 entitled 'Stormwater Assessment for Proposed Access Road, 98C Ōhiwa Harbour Road, Ōpōtiki' and as shown on drawing 'Stage 2 Proposed Road Plan', 660289-PLN-D005, Sheet 01, Issue B dated 3 April 2023, except that an alternative outfall design shall be utilised. Project limits are as designed in drawing 660289-PLN-D005, Sheet 01, Issue B dated 3 April 2023.

10. Right of way F shall be upgraded to a 5m sealed width with a 10m legal width but shall otherwise be designed and formed to comply with Standard Drawings R26 and R27 of the Ōpōtiki District Council's Code of Practice.

11. Right of way C and I shall be formed to provide a minimum 3m carriageway width, with a 6m legal width, but shall otherwise be designed and formed to comply with Standard Drawings R26 and R27 of the Ōpōtiki District Council's Code of Practice.

12. The new public road shall be designed and formed in accordance with Standard Drawings R01, R03 and R04, except that the legal width may be reduced to a minimum of 10m and the carriage way may be a minimum of 5.0m as per drawing 660289-PLN-D005, Sheet 01, Issue B dated 3 April 2023 entitled "Proposed 2 Stage Subdivision of Lot 1 DP 7129, Part Lot 1 DP 6545, & Lot 2 DP 545499 Stage 2 Proposed Road".

13. Prior to the commencement of roading works on site, an inspection plan shall be agreed with Council's Engineering and Services Group Manager or delegate, that specifies inspection hold points during the construction of the new public road and rights of way.

14. Appendix 1D of the Ōpōtiki District Council Engineering Code of Practice – Subdivision and development dated August 2000 shall be completed and provided with the application for a 224c certificate.

15. As-built drawings and all relevant producer statements shall be provided for all new public infrastructure. The as-built drawings and information shall be in accordance with the Ōpōtiki District Council's Specification – Asset Management – As-Built Drawings dated 24 February 2023. Certification of as-built plans shall be provided by a suitably qualified Chartered Professional Engineer or qualified surveyor.

16. The consent holder shall supply a convex mirror to Ōpōtiki District Council to be installed within the future Onekawa Road corridor.

17. Dust, erosion and sediment control measures shall be implemented during any earthworks and infrastructure development works in accordance with the Bay of Plenty Regional Council's Erosion and Sediment Control Guidelines for Land Disturbing Activities, June 2010.

18. The consent holder shall ensure that finished ground levels on Lot 10 following any development works, such as removal of the shelterbelt and installation of landscaping, are such that any stormwater runoff from new lots falls to the east, away from the unformed paper road parcel.

19. During development of the extended public road, all noise shall comply with the NZS 6803:1999 Acoustics – Construction noise.

20. A building platform for Lots 2, 7 and 10 shall be defined by survey and shown on the new s223 survey plan and shall be in accordance with the location specified on the scheme plan 660289-PLN-D003, Sheet 01, Issue E dated 23 August 2023. The building platform shall be 10m from the western boundary of Lot 10 as shown on the approved subdivision scheme plan.

21. In the event that an unidentified archaeological site is located during any works, all works shall cease immediately at that place and within 20m of the place and the Accidental Discovery Protocol contain in Appendix 5 (Chapter 21) of the Ōpōtiki District Plan shall be implemented.

22. All landscaping within Lot 10 shall be planted in accordance with the Landscape Plan by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023, at least 12 months prior to the application for s224c certification, except for two additional rows of specimen tree planting in the south corner of Lot 10, which shall be completed prior to application for s224c certification. Landscaping within the remaining allotments shall be established prior to application for s224c certification. Only eco-sourced native species, grown from seed or cuttings collected from natural populations in the Bay of Plenty shall be used.

23. At least 10% of the total plantings shall be kānuka and a minimum of 10% of the total plantings to be comprised of the following 8 canopy species: Pohutukawa, kowhai, rewarewa, karaka, totara, puriri, rimu, and titoki. These canopy species may be planted at 10-12 m spacing.

24. Stock proof fencing, as shown on the Landscape Plan by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023, shall be installed on Lot 2 to ensure that stock and grazing animals are excluded from all areas of native plantings.

25. A Pest Management Plan shall be prepared by a suitably qualified person and provided to the Council for certification by an officer with delegated authority to approve resource consents. The Pest Management Plan shall detail the pest control measures that will be undertaken on each lot in perpetuity. The purpose of the Pest Management Plan is to control possums, rats, mustelids and feral cats within the site.

26. A consent notice, shall be registered against the Record of Title of Lots 2, 7, and 10 to record that the owner(s) shall be required to comply with the following conditions on a continuing basis;

    i. Not permit more than one dwelling or habitable building to be constructed on the lot.

    ii. Ensure all buildings are located within the building platform shown on the Land Transfer Plan, except for the two existing sheds on Lot 2.

    iii. Ensure no buildings on Lots 2 and 7 exceed 7m in height above natural ground level measured at the time of subdivision.

    iv. Ensure that no building on Lot 10 exceeds 5m in height above natural ground level measured at the time of subdivision.

    v. Ensure that the exterior of all buildings is finished in materials with a reflectivity of between 0-20% as defined within the BS5252 colour palette. This shall include roofs, trim, gutters and window framing.

    vi. Ensure no reflective glass is used in any buildings.

vii. Ensure that the maximum length of any façade over 15m on any individual building on Lot 10 is broken up by at least two architectural devices, such as a return in the elevation (minimum return of two metres) to form a step back or courtyard, or a pergola or other shading structure or architectural feature to modulate the form of the building.

viii. Ensure that all required structural retaining is incorporated into future buildings, any retaining outside of a building shall not to exceed 0.5m in height above finished ground level.

ix. Ensure building coverage on Lot 10 does not exceed 500m^2.

x. Maintain in perpetuity the landscape plantings shown on the Landscape Plan by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023.

xi. Implement the Planting Implementation, Weed Removal, Establishment and Maintenance Specification for 98C Ōhiwa Harbour Road, dated 7 June 2023 during the three-year planting and establishment period.

xii. Ensure the shelterbelts shown on the Landscape Plan prepared by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023 are maintained at a minimum height of 6m.

xiii. Ensure that only eco-sourced native species, grown from seed or cuttings from natural populations the Bay of Plenty are used in the landscape plantings on the lot.

xiv. Ensure that no pest plants, as identified in the most recent Bay of Plenty Regional Pest Management Plan, are planted or permitted to grow on the lot.

xv. Ensure all habitable dwellings provide a firefighting water supply and access to that supply that complies with the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008.

xvi. Ensure that all owners and occupiers actively control pest species, not limited to possums, mustelids, rats, and feral cats in accordance with the Pest Management Plan or subsequent version of the Plan certified by an officer of Council with delegated authority to approve resource consents.

xvii. Ensure no cats are permitted to be kept on the lots.

xviii. Ensure all dogs are controlled on-site within a securely fenced area so they cannot roam beyond the boundary of the lot.

xix. Ensure that all future development of the lot is undertaken in accordance with the Geotechnical Assessment Report for G and S Stilwell, 98C Ōhiwa Harbour Road, Ōpōtiki, dated 18 March 2022 prepared by Stratum Consultants, or subsequent report prepared by a suitably qualified practitioner.

xx. Ensure the Bay of Plenty Regional Council's Erosion and Sediment Control Guidelines for Land Disturbing Activities are implemented during any earthworks or site development so that there is no off-site discharge of sediment or sediment laden stormwater.

xxi. Ensure that stormwater from all buildings and impermeable areas is collected and disposed of in accordance with the report by Stratum Consultants entitled 'Stormwater Assessment for Proposed New Lots' dated 27 July 2022, or subsequent report prepared by a suitably qualified practitioner. A detailed stormwater design report shall be provided with all building consent applications, or prior to installing any new impermeable areas which do not require building consent, to demonstrate compliance with this condition.

xxii. Ensure any stock or browsing animals kept on the land are solely contained within a suitably fenced area so they are excluded from all areas of landscaping and native planting.

xxiii. Ensure that any external lighting faces downwards.

xxiv. Provide a monitoring report to the council in accordance with Section 3.9 of the Planting Implementation, Weed Removal, Establishment and Maintenance Specification dated 7 June 2023. The annual monitoring report shall be provided for the three-year planting and establishment period.

xxv. Pay the Council's legal costs and disbursements directly attributable to the Council's enforcement of the conditions which are secured by the consent notice.

27. A consent notice shall be registered against the Record of Title of Lot 9 to record that the owner(s) shall be required to comply with the following conditions on a continuing basis:

i. Not permit more than one dwelling or habitable building to be constructed on the lot.

ii. Ensure that no pest plants, as identified in the most recent Bay of Plenty Regional Pest Management Plan, are planted or permitted to grow on the lot.

iii. Ensure that all owners and occupiers actively control pest species, not limited to possums, mustelids, rats, and feral cats in accordance with the approved Pest Management Plan, or subsequent version of the plan certified by an officer of council with delegated authority to approve resource consents.

iv. Ensure that no cats are permitted to be kept on the lot.

v. Ensure that all dogs are controlled on-site within a securely fenced area so they cannot roam beyond the boundary of the lot.

vi. Ensure the shelterbelts shown on the Landscape Plan by Isthmus for 98C Ōhiwa Harbour, Onekawa Grove Proposal, dated 17 August 2023 are maintained at a minimum height of 6m.

vii. Pay the Council's fair and reasonable legal costs and disbursements directly attributable to Council's enforcement of the conditions which are secured by the

consent notice. Breakdowns of time and hours spent shall be provided to the consent holder as required.

28. The consent notices shall be prepared by the Council's solicitor at the consent holder's cost.

29. The consent holder shall pay a financial contribution for reserves purposes of $790 plus GST for each additional vacant lot created by this subdivision, a total of three additional vacant lots.

30. A monitoring fee of $150 (inclusive of GST) shall be paid to the council for the monitoring and supervision of this resource consent. Notwithstanding the above, where there is good and reasonable cause for unprogrammed monitoring and additional site inspections, the costs of that will be charged to the consent holder. Such costs are recovered on an actual and reasonable basis as defined in the Fees and Charges Schedule as approved by the Council in terms of Section 36 of the Resource Management Act 1991.

Advice Notes:

1. It is an offense under Section 87 of the Heritage NZ Pouhere Taonga Act 2014 to modify or destroy an archaeological site without an authority from Heritage NZ irrespective of whether the works are permitted, or consent has been issued under the Resource Management Act 1991 or Building Act 2004.

2. Under Section 125 of the Resource Management Act 1991, this resource consent will lapse in five years, unless it is given effect to within that time.

3. In accordance with Section 127(1) of the Resource Management Act 1991, the consent holder may apply to the consent authority for a change or cancellation of any condition of this consent.

4. New addressing will be completed following the issue of new records of title to reassign numbers based on the road name Onekawa Road.

5. A 'defensible space' should be maintained around any dwelling in accordance with the recommendations of Fire and Emergency New Zealand.

6. Should the landowner determine that an alternative water source cannot be accessed for firefighting purposes for the development or does not have sufficient capacity or pressure in accordance with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008, consultation and agreement on an alternative supply such as water sprinklers will need to be sought from Fire and Emergency New Zealand and evidence of this agreement provided to Ōpōtiki District Council for its consideration and agreement when determining whether the consent notice relating to the Code of Practice has been satisfied.

7. As part of the building consent application for future dwellings, the applicant will need to demonstrate that conditions allow for on-site effluent treatment in a manner that complies with the Operative On-Site Effluent Treatment Regional Plan (OSET Plan). In order to do this a site and soil evaluation using OSET Plan Schedule 5 must be carried out. New systems must comply with OSET Plan Schedule 2 (which includes a site and soil evaluation). A preliminary assessment has been completed as part of the subdivision application RC2022-47.

   BOPRC will only accept on-site effluent treatment assessments from individuals who have completed the relevant Opus course. For a list of currently approved OSET System Designers go to: www.boprc.govt.nz/environment/resource-consents/consent-and-compliance/household-water/approved-oset-system-designers/.

8. Earthworks will be a permitted activity if the applicant can comply with all the conditions set out in Rule LM R1 (permitted earthworks) of the Regional Natural Resources Plan.

9. Due to the proximity of future house sites to Onekawa Forest Remnants and Oscar Reeve Scenic Reserve future homeowners should be aware of:
   - the effects animals (including dogs) could have on the ecological values of the area and
   - the potential for some garden plant varieties to invade and degrade natural areas.

10. No physical telecommunication infrastructure has been required to be provided to the lots.

11. No physical potable water connection has been required to be provided to the lots.

12. Future owners are encouraged to implement a permanent bird strike reduction plan for all windows over $0.5m^2$. Information and products are available at:
    https://blog.doc.govt.nz/2018/02/17/window-strike
    http://birdrescue.co.nz/stop-birds-hitting-windows-wiindow-decals/
    https://projectkererru.org.nz/preventing-window-strike
    https://humannature.kiwi.nz/product/feather-friendly-diy-window-markers/

13. Future owners are encouraged to implement best practice lighting designs and management principles to minimise the potential effects on avifauna, as described in the Australian Government Guidelines (Commonwealth of Australia. 2020. National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds.

14. Future owners are encouraged to design and install exterior lighting that is of the reduced or filtered blue, violet and ultra-violet wavelengths, sharp cut-off type and fixed to the Australian standard, with no light emittance 35 degrees above horizontal and fitted with a 5-minute maximum auto off sensor control. Refer to:
    https://www.agriculture.gov.au/sites/default/files/documents/national-light-pollution-guidelines-wildlife.pdf