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# RIVERSIDE GROVE TUAKAU

Resource Consent  
28th March 2018

000	Cover Sheet
	<b>CONCEPT PLANS</b>
001	Overall Master Plan
002	Main Entrance
003	Reserves 200 & 201
004	Reserves 202, 300 & 302
005	Esplanade Reserve
	<b>PLANTING PLANS</b>
101	Street Trees
	<b>DETAILS</b>
201	Typical Rain Garden Detail
202	Typical Road Cross Sections
203	Typical Road Cross Sections
204	Typical Road Cross Sections
205	Typical Fence Details & Materials
206	Suggested Plant Species



RIVERSIDE GROVE  
TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

LANDSCAPE CONCEPT  
Overall Master Plan

ISSUE  
RESOURCE CONSENT

NOTES

1. Confirm set out of all dimensions on site prior to commencing work.
2. Do not scale off drawings.
3. Any vehicle crossing locations shown are indicative only.
4. Landscape plans to be read in conjunction with Engineers plans.

MASTER PLAN LEGEND

- Specimen Trees (refer to suggested plant list)
- Planting (refer to suggested plant list)
- Threshold Paving - for traffic calming and to mark entrance to development.
- Wetlands to esplanade reserve (refer to Engineers plans for more detail)
- Kairoa Stream - confirm levels, stream edge etc on site.
- Footpath - concrete, colour and finish to be confirmed in detailed design.
- Street light (refer to Engineers drawings for detail)
- Rain garden (refer to sheet 201 for more detail).
- Fence Type 1 - Open Steel Railing, refer to sheet 205 for more detail.
- Fence Type 2 - Post and cable/chain, Refer to sheet 205 for more detail.
- Square bollards at 1.5m centres to Reserve boundary.

Issue #	Date	Issued by	Reason for issue
1	28.03.18	MB	Resource Consent
2	08.05.18	MB	Resource Consent

**kamommarsh**  
LANDSCAPE ARCHITECTS

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Design MB  
Drawn MB  
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Date :28.03.2018  
Scale: 1:800 @A1

REF. NO.  
4727

SHEET  
ISSUE  
REVISION

001  
2

Treatment to reserve boundary - square bollards, implementation and funding to be agreed upon with WDC. Specimen trees planted to development berms.

Existing mound to be removed - refer to Engineers plans for more detail.

Existing bollard reserve edge to North of Scotts Road, existing post and chain fence to south side.

Main entrance - refer to sheet 002 for details.

DR JOHN LIGHTBODY RESERVE

Drainage channel - confirm location and details on site.

Fence Type 1  
Treatment to boudary - to be confirmed in consultation with WDC. Implementation and funding to be agreen upong with WDC.

Fence type 1 - to residential lot/sports reserve boundary.

Reserve 300 - Refer to sheet 004 for more detail.

Local purpose esplanade reserve 401, riparian planting to stream edge and reserve. Refer to sheet 005 for more detail.

Link reserve 202 refer to sheet 004 for more detail.

Vehicle access to esplanade reserve - refer to sheet 005 and Engineers plans for more detail.

Link reserve 302 refer to sheet 004 for more detail.

Wetland reserve 301 refer to sheet 005 for more detail.

Street trees - refer to sheet 101 for placement, species and typical tree pit detail.

Rain gardens - refer to sheet 201 for typical detail and suggested plant species.

Retaining wall - refer to Engineers plans for details.

Riparian planting to stream edge/esplanade reserve. Refer to sheet 005 for more detail.

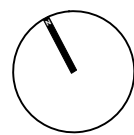
Local purpose esplanade reserve 400, riparian planting to stream edge and reserve. Refer to sheet 005 for more detail.

Link reserve 201 - refer to sheet 003 for more detail.

Fence Type 1 - adjacent to lot/reserve.

0 20 40 60 80 100 M





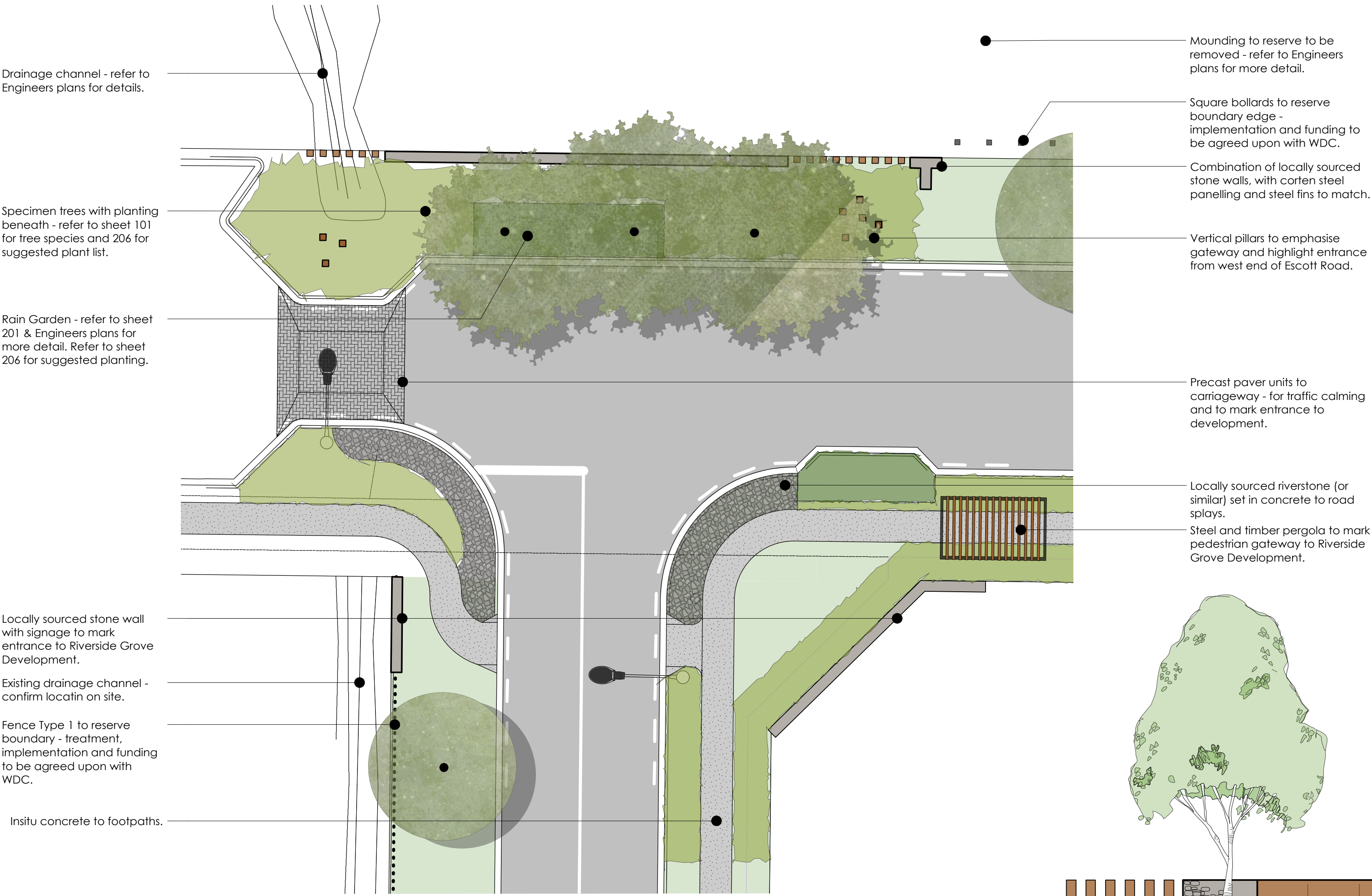
RIVERSIDE GROVE  
TUAKAU

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**HUGHES DEVELOPMENTS**

LANDSCAPE CONCEPT  
Main Entrance

ISSUE  
RESOURCE CONSENT

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1. ENTRANCE PLAN / main entrance plan, entry wall locations, signage, planting and sidewalks / scale 1:150



2. ELEVATION / indicative main entrance signage / 1:100



3. ELEVATION / indicative main entrance signage / 1:100



VISUALISATION / main entrance signage, walls, pergola, etc

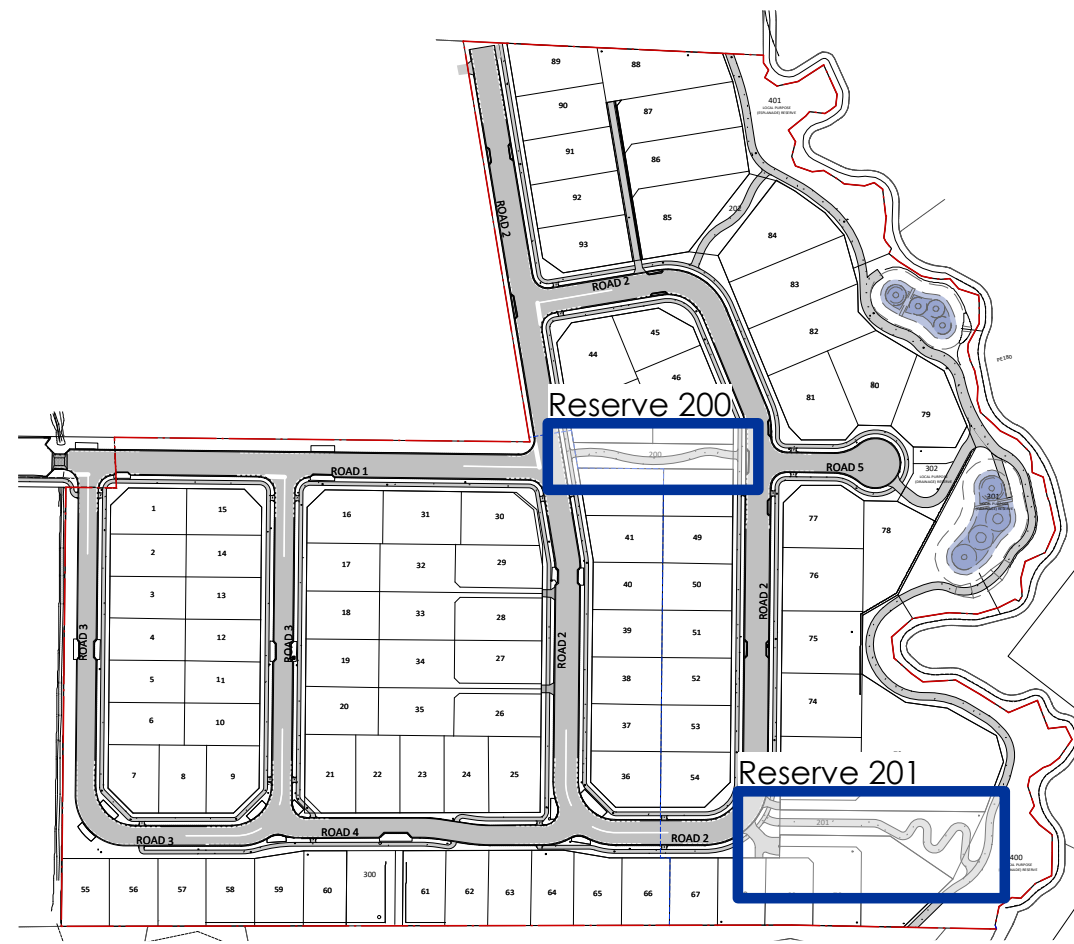
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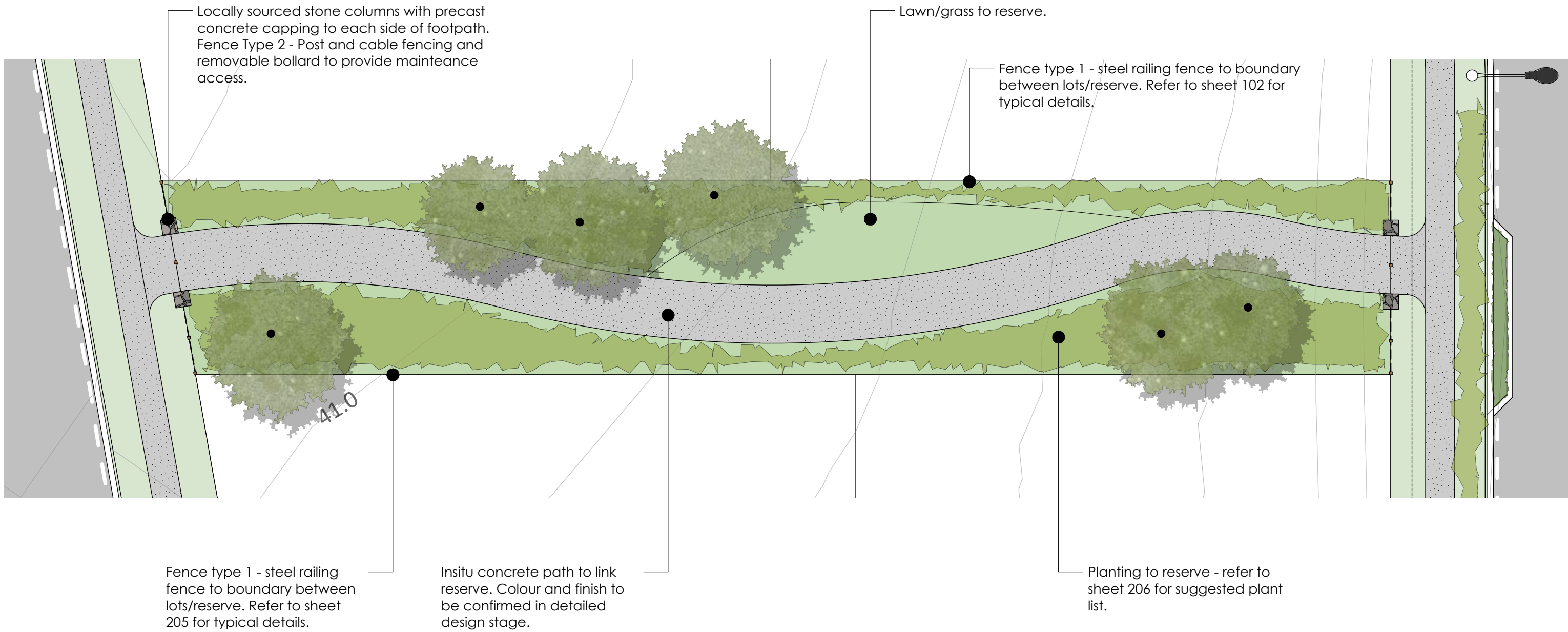
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Design	MB	Date	:28.03.2018
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REF. NO.	4727	SHEET	002
		ISSUE	2
		REVISION	

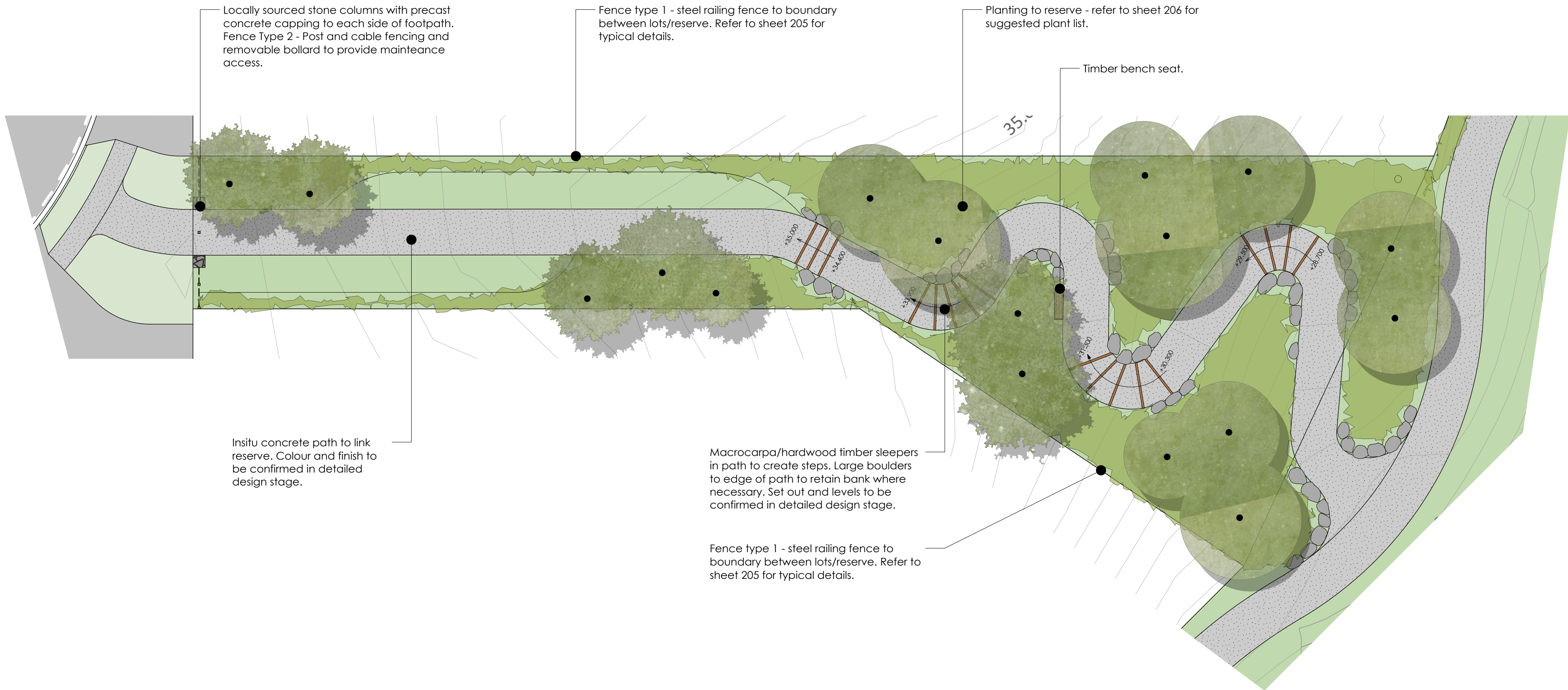




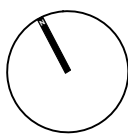
LOCATION MAP/ scale 1:3000



1. RESERVE 200 / scale 1:200



2. RESERVE 201 / scale 1:200



# RIVERSIDE GROVE TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

## LANDSCAPE CONCEPT Reserves 200 & 201

ISSUE  
RESOURCE CONSENT

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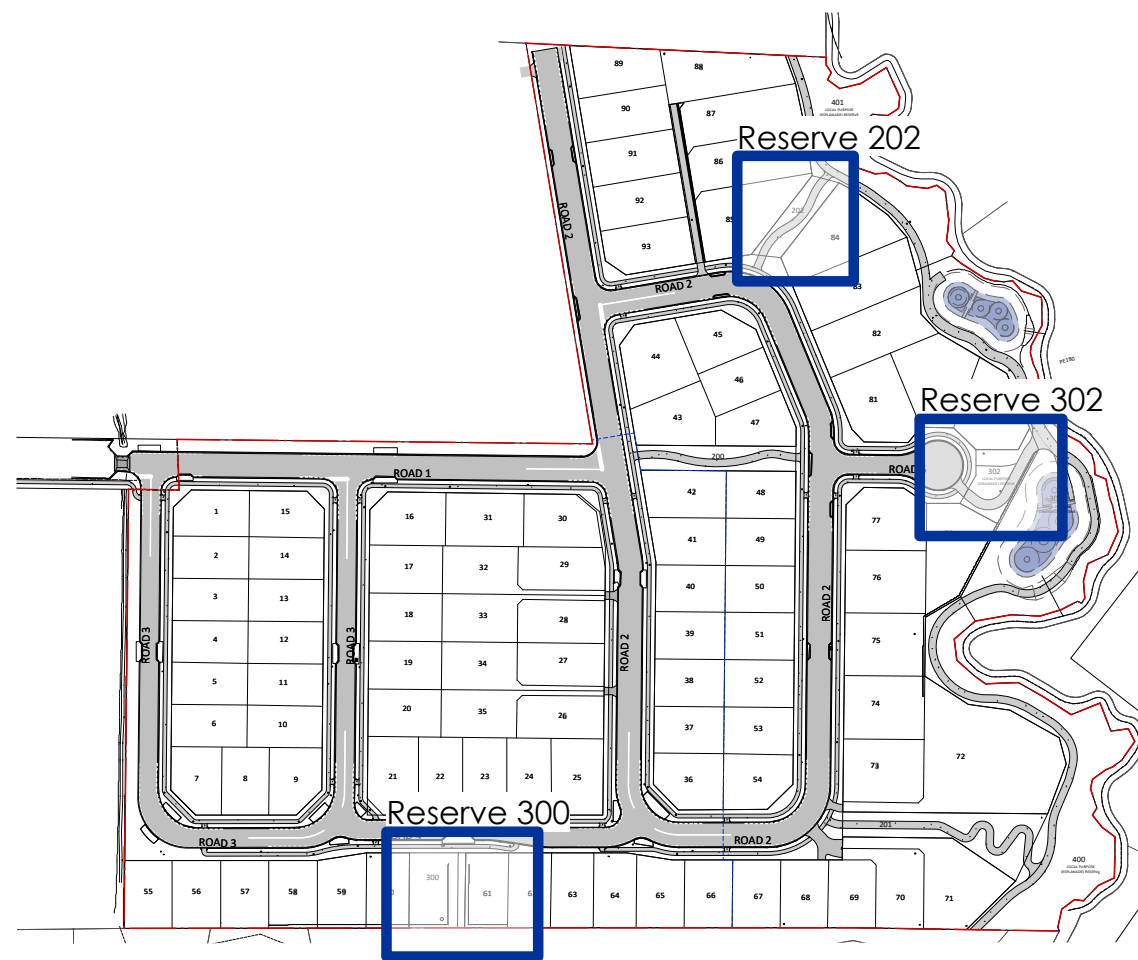


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REF. NO. 4727	SHEET 003 ISSUE 2 REVISION

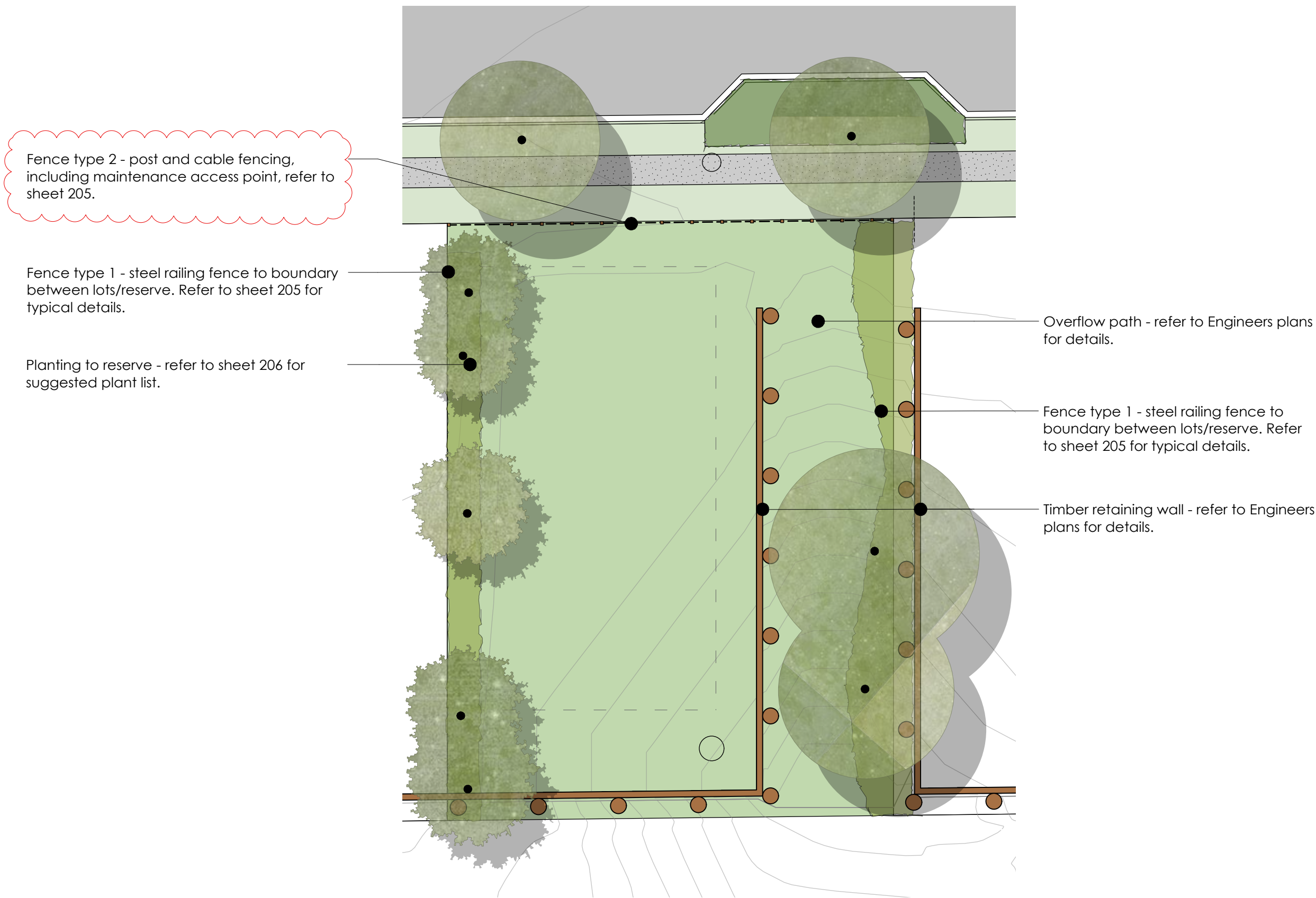




LOCATION MAP/ scale 1:3000



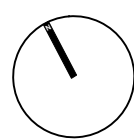
1. RESERVE 202 / scale 1:200



2. RESERVE 300 / scale 1:200



3. RESERVE 302 / scale 1:200



# RIVERSIDE GROVE TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

## LANDSCAPE CONCEPT Reserve 202, 203 & 300

ISSUE  
RESOURCE CONSENT

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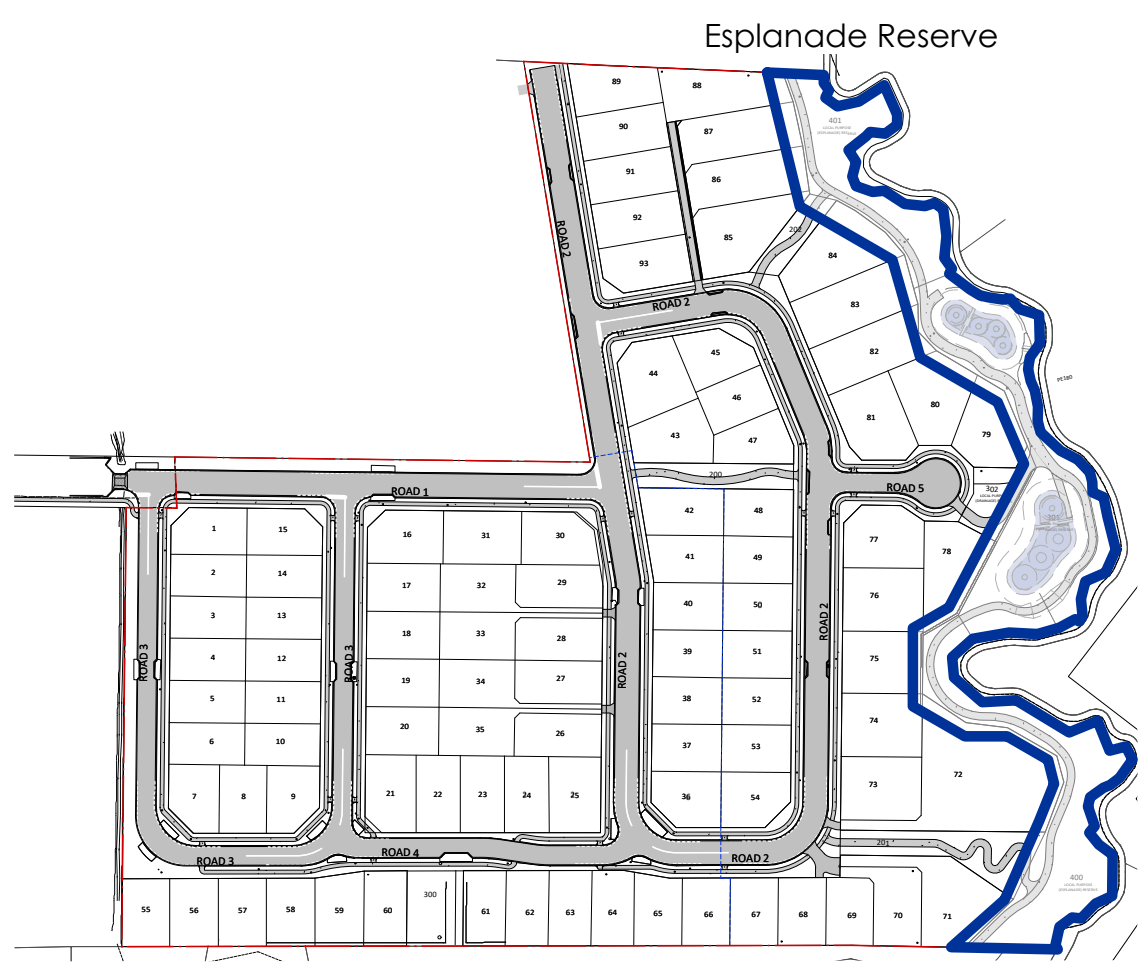


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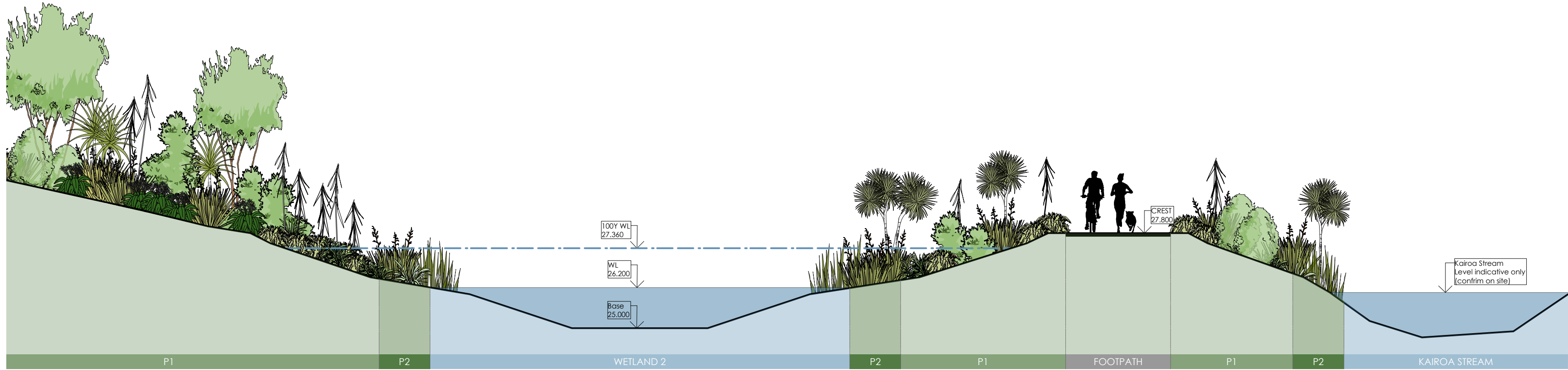




LOCATION MAP/ scale 1:3000



1. ESPLANADE RESERVE TO KAIROA STREAM / scale 1:200



2. TYPICAL CROSS SECTION THROUGH WETLAND AND KAIROA STREAM EDGE / scale 1:100

Species to Plant	Common name	%	Plant Size	Comments
P1 - PLANT MIX 1				
Kunzea ericoides	Karuka	15	RT	Hill sides and higher riparian margins
Leptospermum scorparium	Manuka	15	RT	All sites, wet tolerant and good for riparian margins as well as exposed slopes
Dacrycarpus dacrydiodes	Kahikatea	2	PB12	Tolerates wet, good fruiting
Dacrydium cupressinum	Rimu	2	PB12	Prefers shelter at young age, tolerant of exposed sites when mature
Coprosma robusta	Karamu	15	PB3	All sites, good fruiting
Cyathea dealbata	Silver Fern	5	PB5	Tolerates dry slopes, prefers shelter
Pittosporum eugenoides	Lemonwood	7.5	PB5	All sites
Pittosporum tennuifolia	Matipo	7.5	PB5	More sheltered sites
Houheria populnea	Lacebark	6	PB5	All sites
Pseudopanax arborea	5 finger	5	PB5	All sites
Melicthus ramiflorus	Mahoe	10	PB3	All sites
Hebe stricta	Koromiko	10	PB3	All sites
P2 - PLANT MIX 2				
Carex secta	Sedge	25	RT	Stream edge fronds trailing into water
Cyperus ustulatus	Umbrella sedge	20	RT	Immediately above stream edge
Phormium tenax	Harakeke	35	PB5	Immediately above stream edge
Cordylina australis	Cabbage tree	20	PB12	Immediately above stream edge

3. SUGGESTED PLANT LIST FOR WETLANDS AND KAIROA STREAM EDGE

# RIVERSIDE GROVE TUAKAU

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**HUGHES DEVELOPMENTS**

## LANDSCAPE CONCEPT Esplanade Reserve

ISSUE  
RESOURCE CONSENT

- NOTES**
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### ESPLANADE LEGEND

- Specimen Trees (refer to suggested plant list)
- Planting (refer to suggested plant list)
- Lawn/Grass
- Wetlands to esplanade reserve (refer to engineers plans for more detail)
- Kairoa Stream - confirm levels, stream edge etc on site.
- Footpath - concrete, colour and finish to be confirmed in detailed design.
- Retaining wall - refer to Engineers drawings for more detail.

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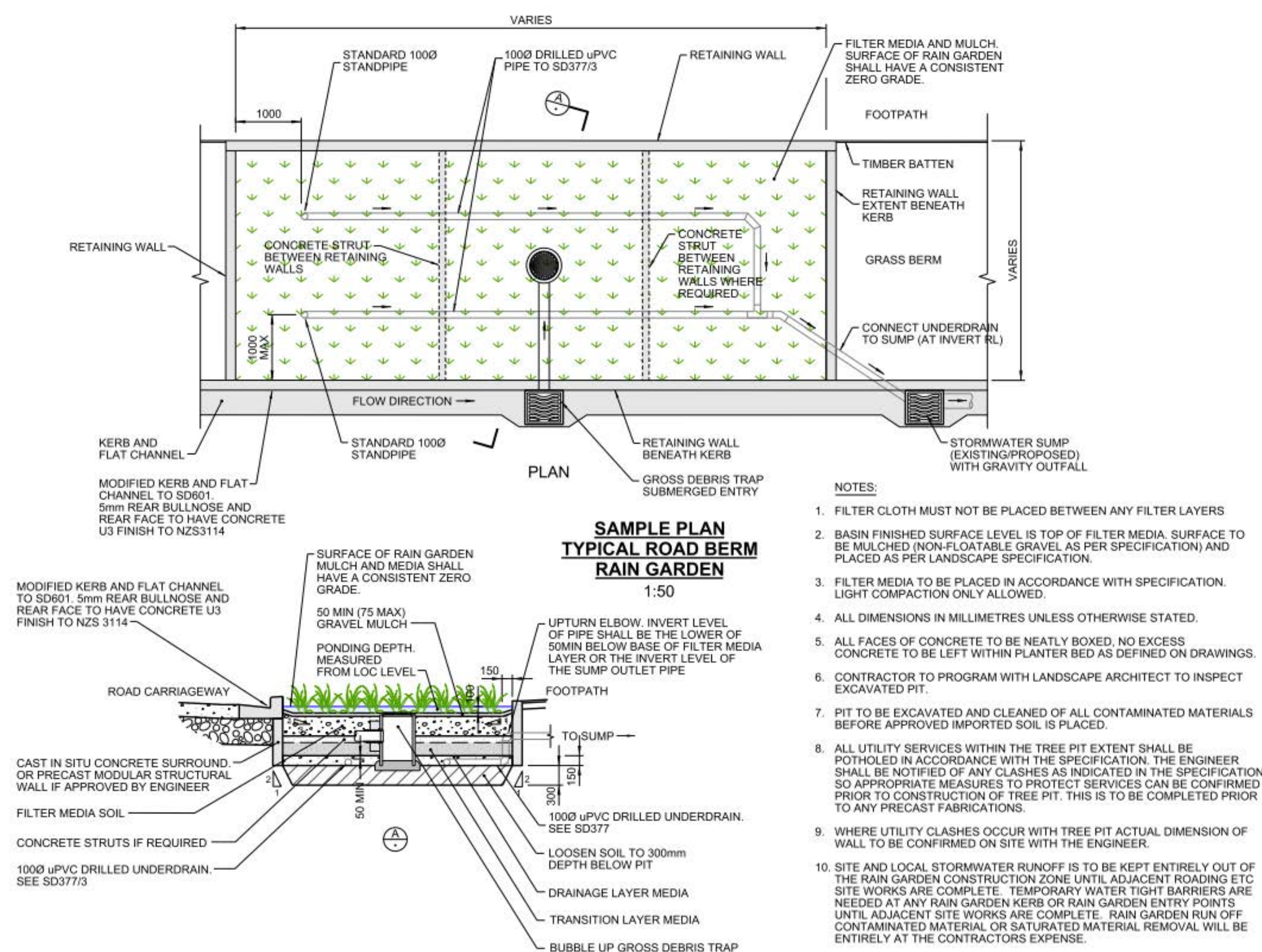
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### Indicative Rain Gardens Planting

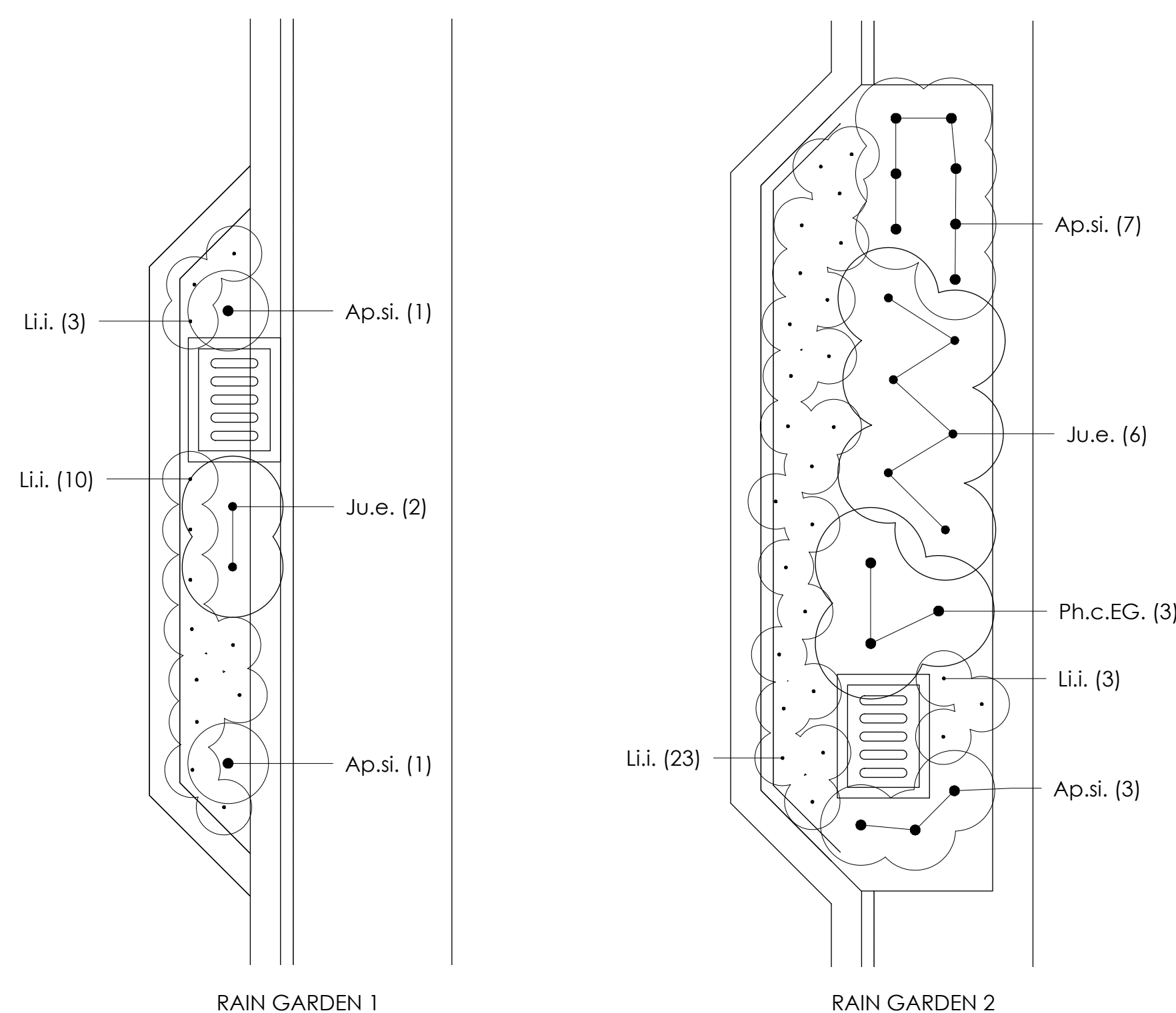
## ISSUE

### RESOURCE CONSENT

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**1. RAIN GARDEN AND DISCHARGE TO STORMWATER OUTFLOW** / Rain Garden Design, Construction and Maintenance Manual (Christchurch City Council 2016)



**2. TYPICAL PLANTING TO RAIN GARDEN** / Planting indicative only, to be confirmed in detailed design stage

Plant Schedule - Rain Garden 1					
ID	Qty	Botanical Name	Common Name	Grade	Remarks
Ap.sl.	2	Apodasmia similis	Ol-oi	300	Plant at 600 mm centres
Ju.e.	2	Juncus edgariae	Rushes/Wiwi	350	Plant at 800mm centres
Li.l.	13	Liberia ixiodes	NZ Iris / Mikoikoi	250	Plant at 500mm centres
	1				

Plant Schedule - Rain Garden 2					
ID	Qty	Botanical Name	Common Name	Grade	Remarks
Ap.sl.	10	Apodasmia similis	Ol-ol	300	Plant at 600 mm centres
Ju.e.	6	Juncus edgarlae	Rushes/Wiwi	350	Plant at 800mm centres
Li.	26	Libertia ixiodes	NZ Iris / Mikoiko	250	Plant at 500mm centres
Ph.c.EG.	3	Phormium cookianum 'Emerald Green	sw. 'Green Dwarf'	400	Plant at 800mm centres

**3. PLANT SCHEDULE** / Plant species and numbers indicative only, to be confirmed in detailed design stage

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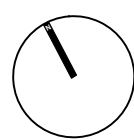
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<b>Design</b> MB <b>Drawn</b> MB <b>Check</b> DK	Date : 28.03.2018 Scale: 1:50 @A1
<b>REF. NO.</b> 4727	<b>SHEET</b> 201 <b>ISSUE</b> 2 <b>REVISION</b>





RIVERSIDE GROVE  
TUAKAU

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**HUGHES DEVELOPMENTS**

LANDSCAPE CONCEPT  
Typical Road Cross Sections,  
Road 1 & 2

ISSUE  
RESOURCE CONSENT

NOTES

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STREET TREE PLANTING

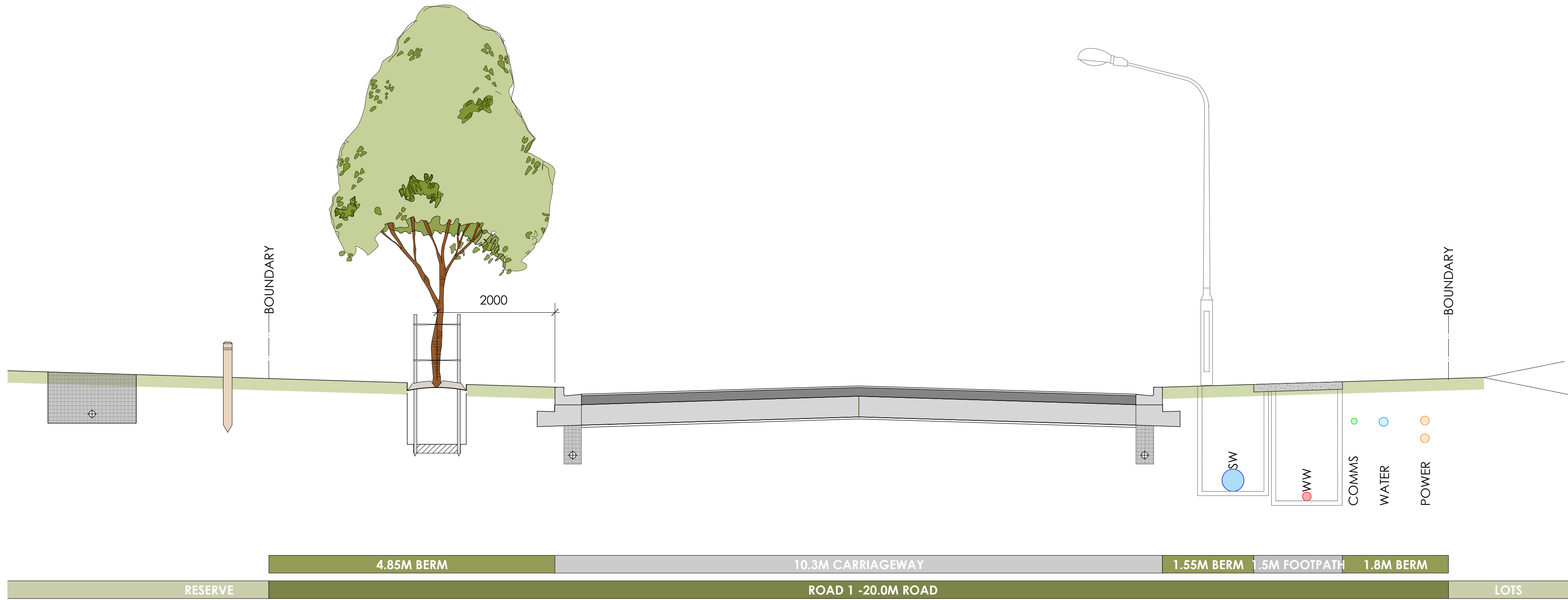
All street trees shall be planted a minimum distance from services, lighting etc as follows

Driveways	3.0m
Street Lights	8.0m
Intersection	20.0m
Bus stop or School speed sign	5.0m
Underground Services	1.5m

Distances recommended by WDC - refer to (RITS) Regional Infrastructure Technical Specifications

All service locations shown on the planting plans are to be used as an indicative guide only.

All services shall be located on site and any damage repaired or mitigated.



1. TYPICAL ROAD CROSS SECTION / Road 1, street tree and services locations and post and cable fence.



2. TYPICAL ROAD CROSS SECTION / Road 2, street tree and service locations and post and cable fence

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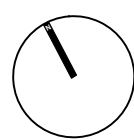


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4727		ISSUE	2
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RIVERSIDE GROVE  
TUAKAU

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**HUGHES DEVELOPMENTS**

LANDSCAPE CONCEPT  
Typical Road Cross Sections  
Road 2, 5 & 3

ISSUE  
RESOURCE CONSENT

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STREET TREE PLANTING

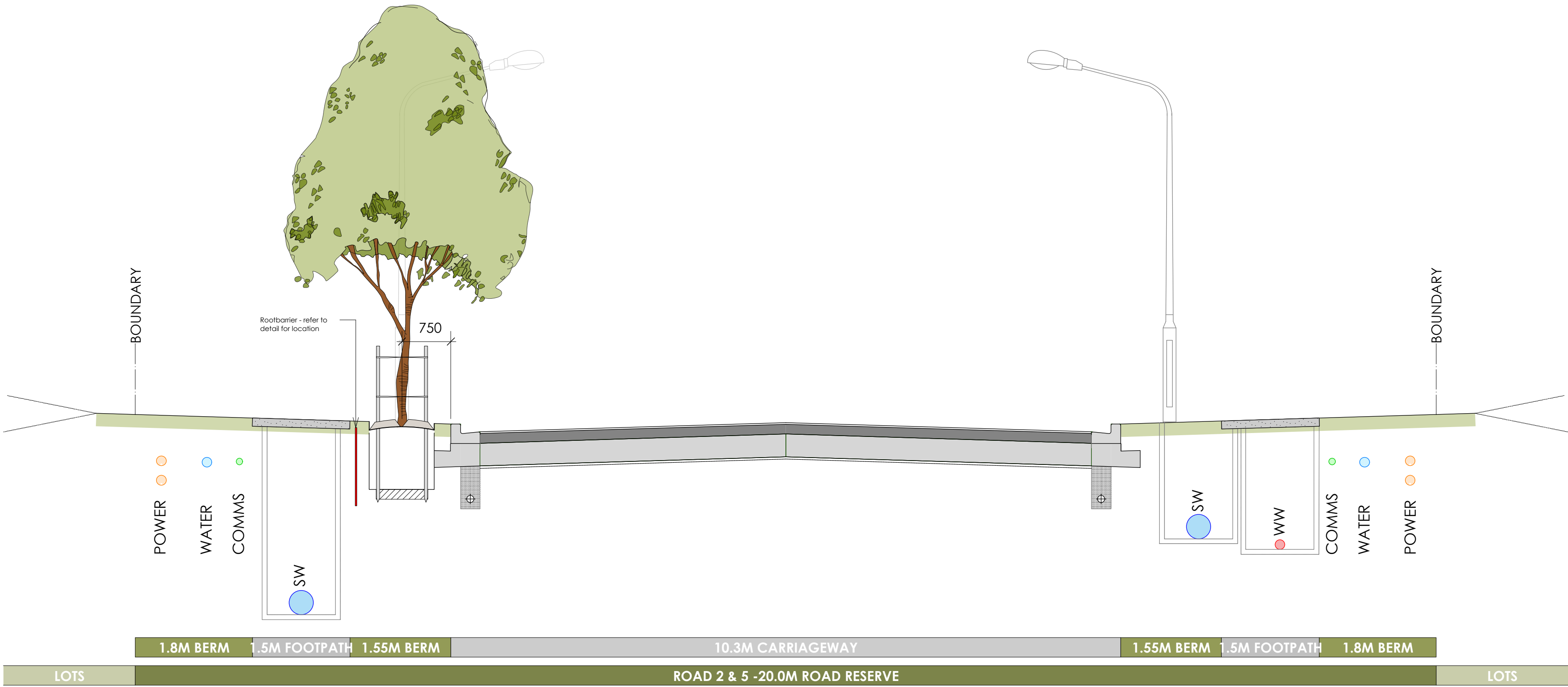
All street trees shall be planted a minimum distance from services, lighting etc as follows

Driveways	3.0m
Street Lights	8.0m
Intersection	20.0m
Bus stop or School speed sign	5.0m
Underground Services	1.5m

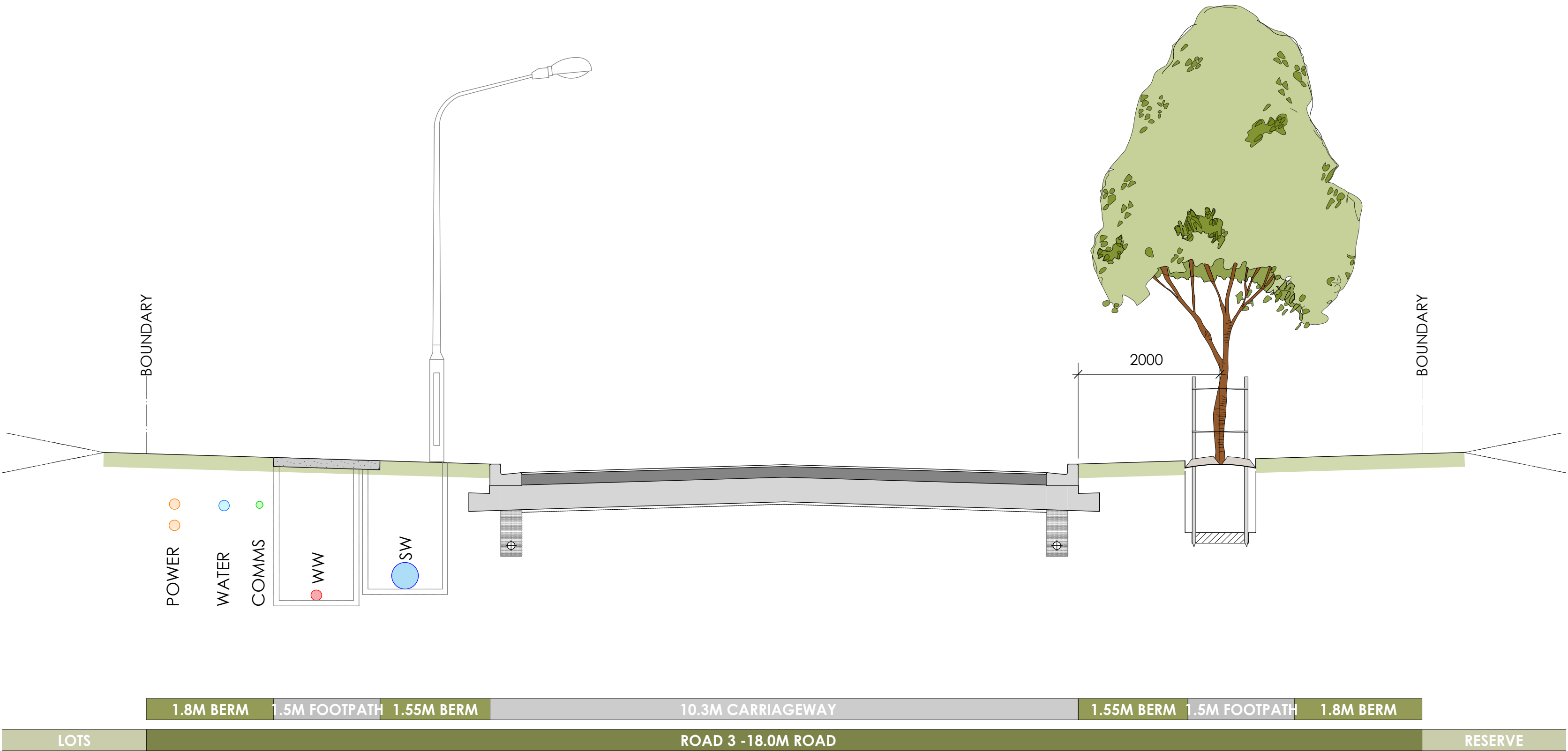
Distances recommended by WDC - refer to (RITS) Regional Infrastructure Technical Specifications

All service locations shown on the planting plans are to be used as an indicative guide only.

All services shall be located on site and any damage repaired or mitigated.



1. TYPICAL ROAD CROSS SECTION / Road 2 & 5, street tree and services locations



2. TYPICAL ROAD CROSS SECTION / Road 3 (adjacent to Dr John Lightbody Reserve), street tree and services locations

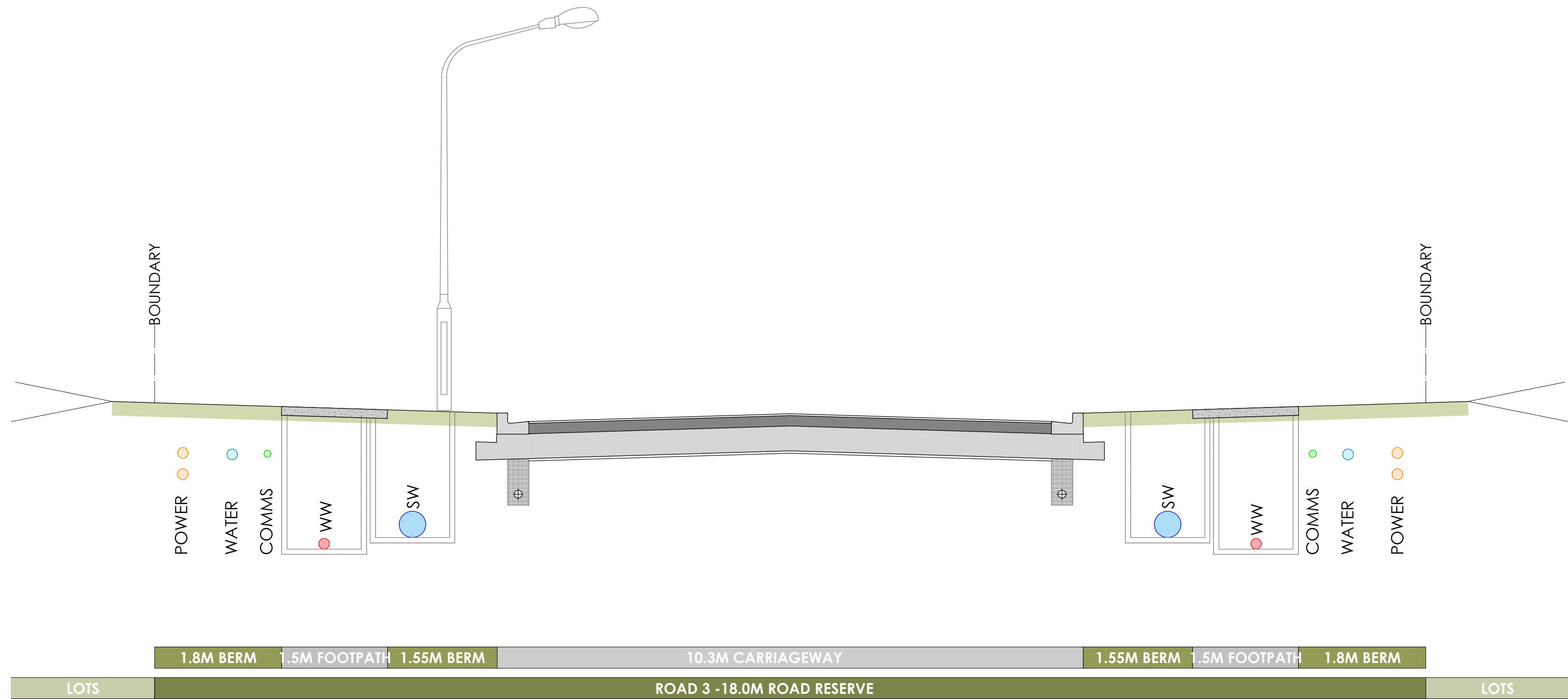
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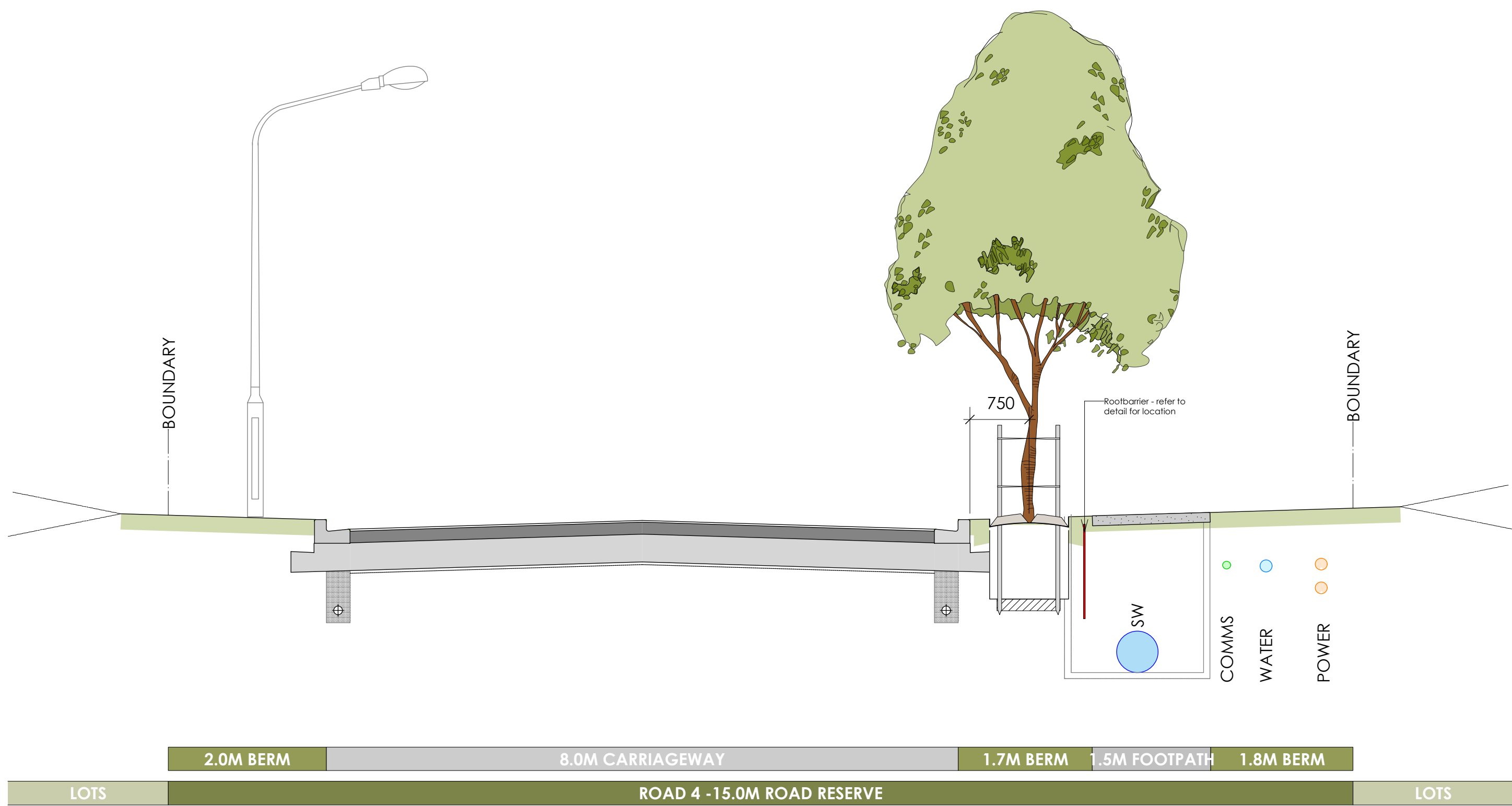
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4727		ISSUE	2
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1. TYPICAL ROAD CROSS SECTION / Road 3, street tree and services locations



2. TYPICAL ROAD CROSS SECTION / Road 4, street tree and services locations

## RIVERSIDE GROVE TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

### LANDSCAPE CONCEPT Typical Road Cross Sections Road 3 & 4

ISSUE  
RESOURCE CONSENT

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#### STREET TREE PLANTING

All street trees shall be planted a minimum distance from services, lighting etc as follows

Driveways	3.0m
Street Lights	8.0m
Intersection	20.0m
Bus stop or School speed sign	5.0m
Underground Services	1.5m

Distances recommended by WDC - refer to (RITS) Regional Infrastructure Technical Specifications

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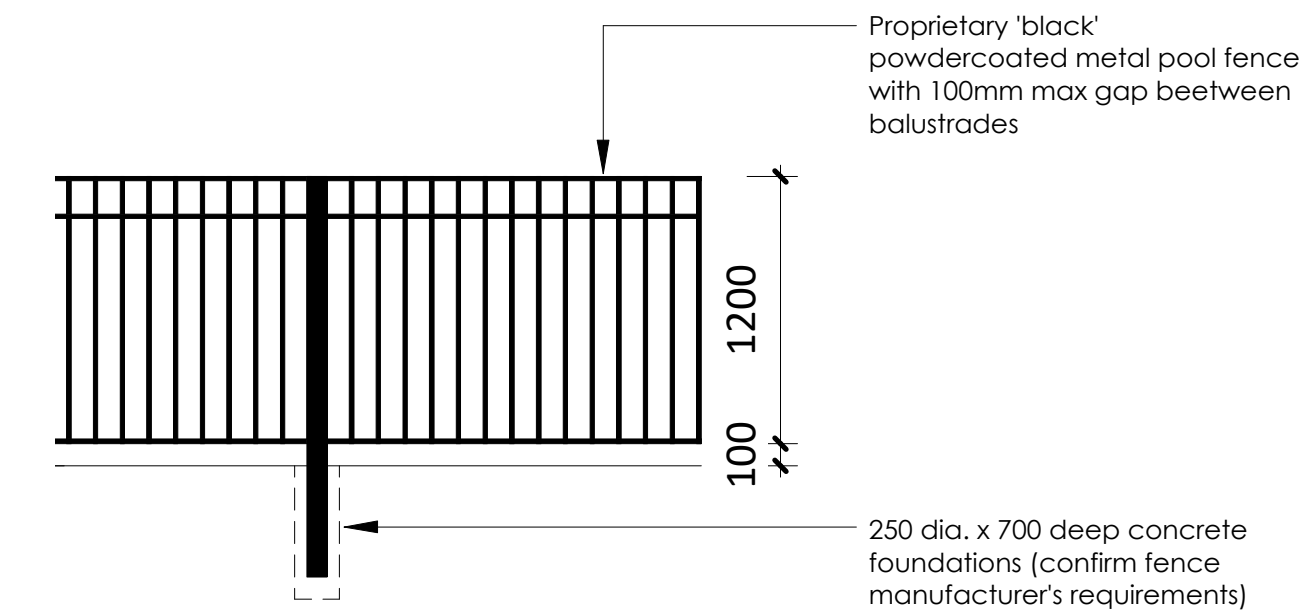
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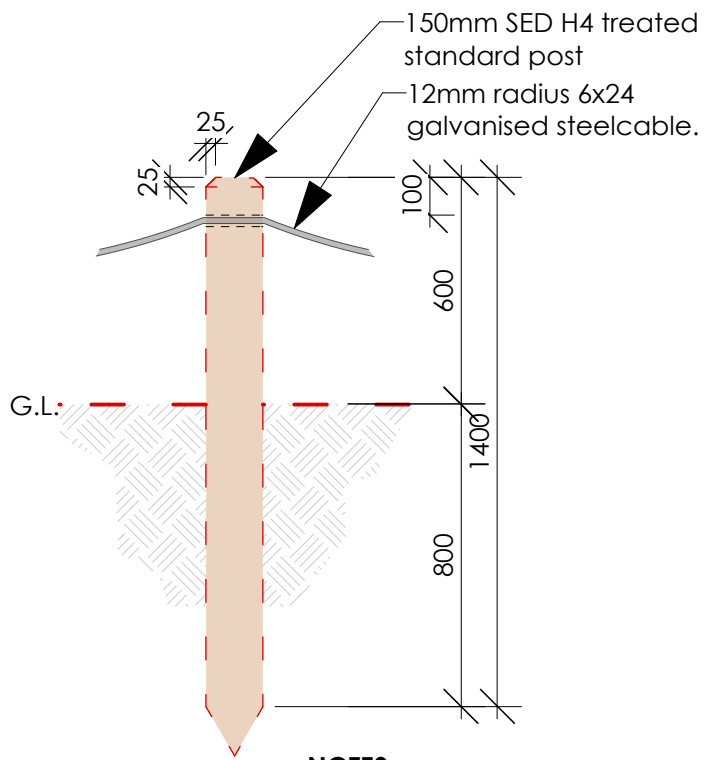
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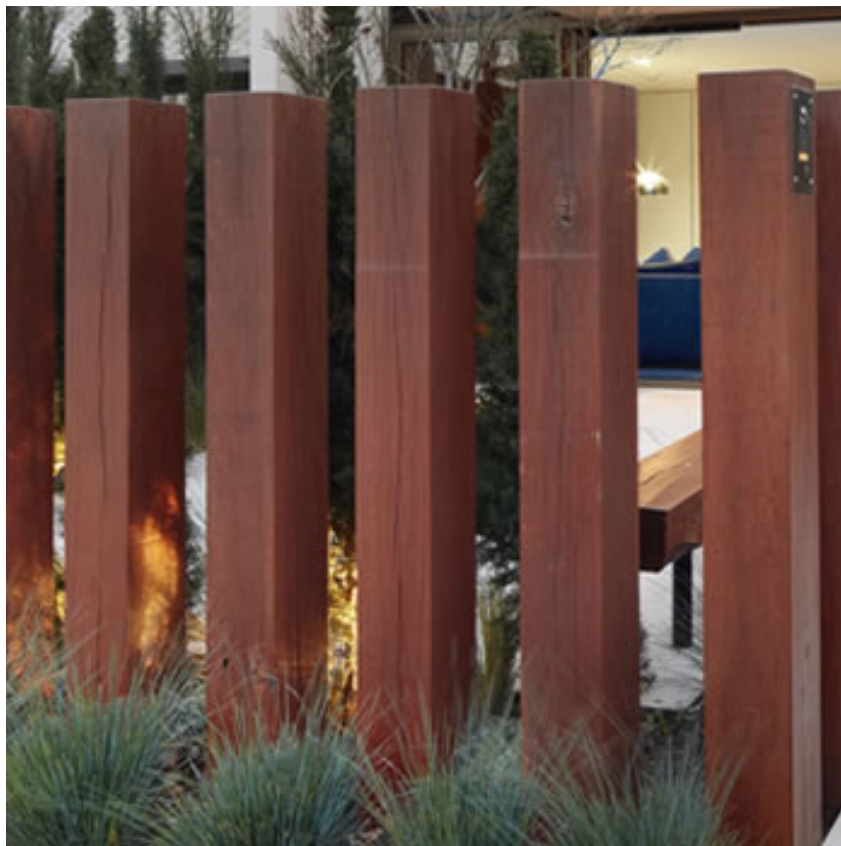
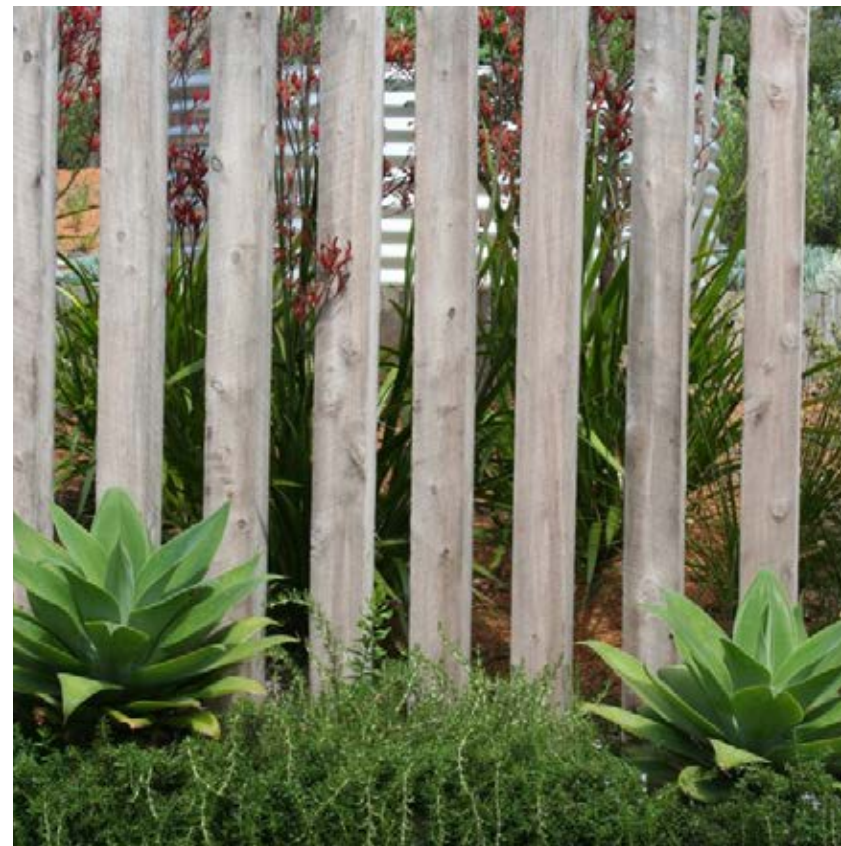
1. INDICATIVE FENCE TYPE 1 ELEVATION / Residential and Reserve Boundaries / scale 1:50



**NOTES:**  
Posts at 1.5 metre spacings.  
Setback from kerb at distance shc  
Fence to comply with WDC Regic  
Infrastructure Technical Specifica



2. INDICATIVE FENCE TYPE 2 ELEVATION / For Reserve Entry Between Stone Columns / scale 1:20



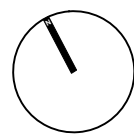
3. MATERIALS TO ENTRY AREA / Gabion stone walls, Corten steel panels, Signage, Timber posts /



4. STEEL PERGOLA / Steel frame with timber perlin



5. THRESHOLD PAVING / Holland firth pavers, Herringbone patterns, header coarse



# RIVERSIDE GROVE TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

## LANDSCAPE CONCEPT Fencing and Materials

ISSUE  
RESOURCE CONSENT

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*Sophora microphylla*



*Dacrydium cupressinum*



*Alectryon excelsus*



*Knightia excelsa*



*Syzygium maire*



*Fuscospora fusca*

1. NATIVE SPECIMEN TREES / Native and Species Throughout Development



*Liquidamber styraciflua*



*Quercus palustris*



*Platanus insularis 'Autumn Glory'*



*Zelkova serrata*

2. EXOTIC SPECIMEN TREES /Exotic Species Throughout Development



*Carex secta*



*Astelia fragrans*



*Phormium cookianum 'Emerald Green'*



*Apodasmia similis*



*Chionochloa flavicans*



*Juncus edgariae*

3. PLANTING TO RAIN GARDENS /

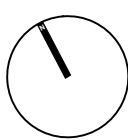


4. RAIN GARDENS / Native planting within rain gardens



Species to Plant	Common name	%	Plant Size	Comments
P1 - PLANT MIX 1				
Kunzea ericoides	Kanuka	15	RT	Hill sides and higher riparian margins
Leptospermun scorparium	Manuka	15	RT	All sites, wet tolerant and good for riparian margins as well as exposed slopes
Dacrycarpus dacrydiodes	Kahikatea	2	PB12	Tolerates wet, good fruiting
Dacrydium cupressinum	Rimu	2	PB12	Prefers shelter at young age, tolerant of exposed sites when mature
Copsrosma robusta	Karamu	15	PB3	All sites, good fruiting
Cyathea dealbata	Silver Fern	5	PB5	Tolerates dry slopes, prefers shelter
Pittosporum eugenoides	Lemonwood	7.5	PB5	All sites
Pittosporum tennuifolia	Matipo	7.5	PB5	More sheltered sites
Houheria populnea	Lacebark	6	PB5	All sites
Pseudopanax arborea	5 finger	5	PB5	All sites
Melicytus ramiflorus	Mahoe	10	PB3	All sites
Hebe stricta	Koromiko	10	PB3	All sites
P2 - PLANT MIX 2				
Carex secta	Sedge	25	RT	Stream edge fronds trailing into water
Cyprus ustulatus	Umbrella sedge	20	RT	Immediately above stream edge
Phormium tenax	Harakeke	35	PB5	Immediately above stream edge
Cordylne australis	Cabbage tree	20	PB12	Immediately above stream edge

5. SUGGESTED PLANT LIST / Native planting to Reserves, Kairoa Stream Edge and Wetlands



RIVERSIDE GROVE  
TUAKAU

CLIENT  
**HUGHES DEVELOPMENTS**

LANDSCAPE CONCEPT  
Suggested Specimen trees and planting

ISSUE  
RESOURCE CONSENT

- NOTES
1. Confirm set out of all dimensions on site prior to commencing work.
  2. Do not scale off drawings.
  3. Any vehicle crossing locations shown are indicative only.
  4. Landscape plans to be read in conjunction with Engineers plans.

Issue #	Date	Issued by	Reason for issue
1	28.03.18	MB	Resource Consent
2	08.05.18	MB	Resource Consent



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Design MB	Date :28.03.2018
Drawn MB	Scale:N/A
Check DK	
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