













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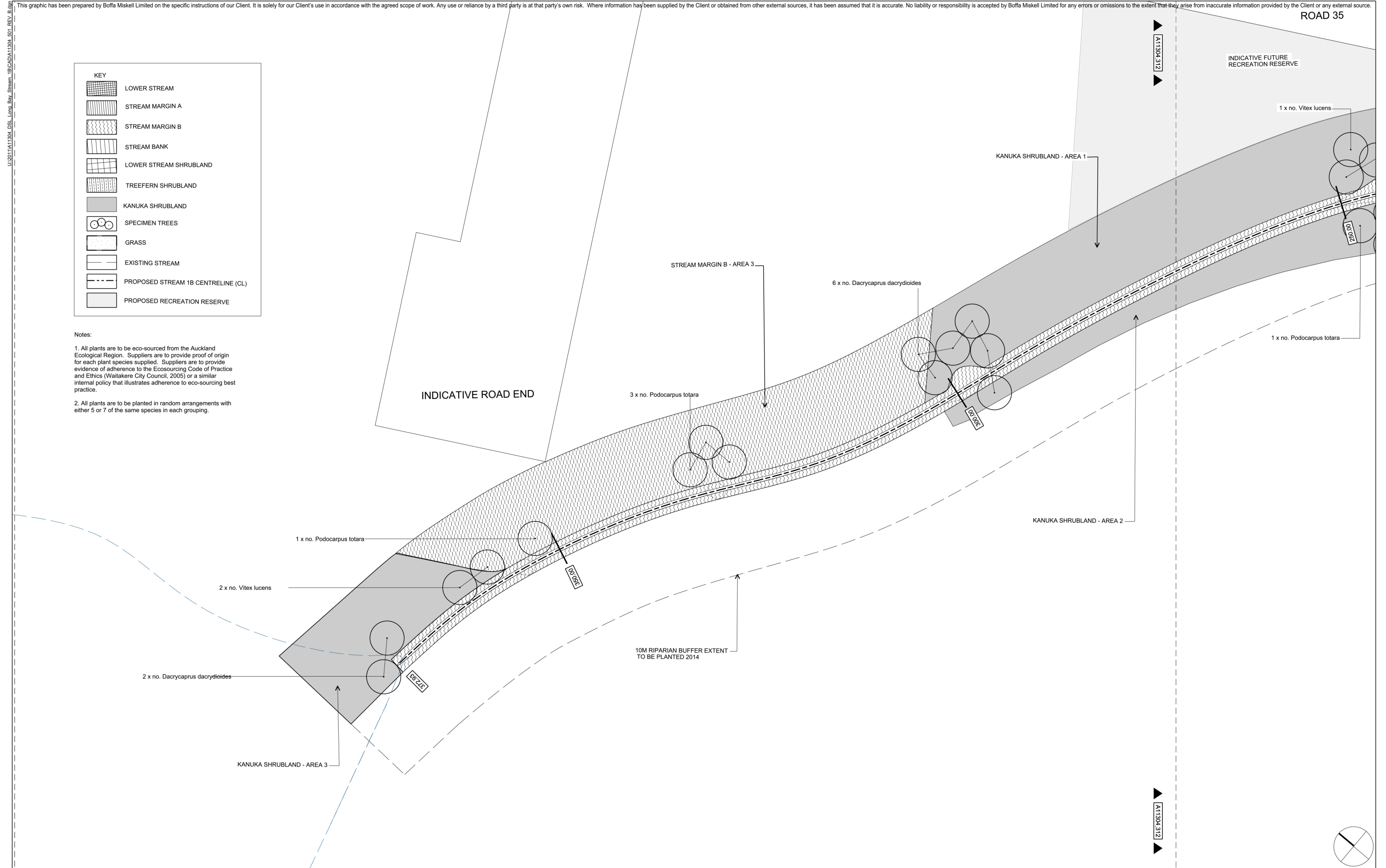
ROAD 35

KEY

-  LOWER STREAM
-  STREAM MARGIN A
-  STREAM MARGIN B
-  STREAM BANK
-  LOWER STREAM SHRUBLAND
-  TREEFERN SHRUBLAND
-  KANUKA SHRUBLAND
-  SPECIMEN TREES
-  GRASS
-  EXISTING STREAM
-  PROPOSED STREAM 1B CENTRELINE (CL)
-  PROPOSED RECREATION RESERVE

Notes:

1. All plants are to be eco-sourced from the Auckland Ecological Region. Suppliers are to provide proof of origin for each plant species supplied. Suppliers are to provide evidence of adherence to the Ecosourcing Code of Practice and Ethics (Waikare City Council, 2005) or a similar internal policy that illustrates adherence to eco-sourcing best practice.
2. All plants are to be planted in random arrangements with either 5 or 7 of the same species in each grouping.



REV	DATE	DESCRIPTION
B	04.03.13	WEST PLANTING AREAS REDUCED TO TOP OF 1ST BENCH
A	22.02.13	PLANT SPECIES AMENDED

CLIENT _____
 CONSULTANTS _____
FOR CONSTRUCTION

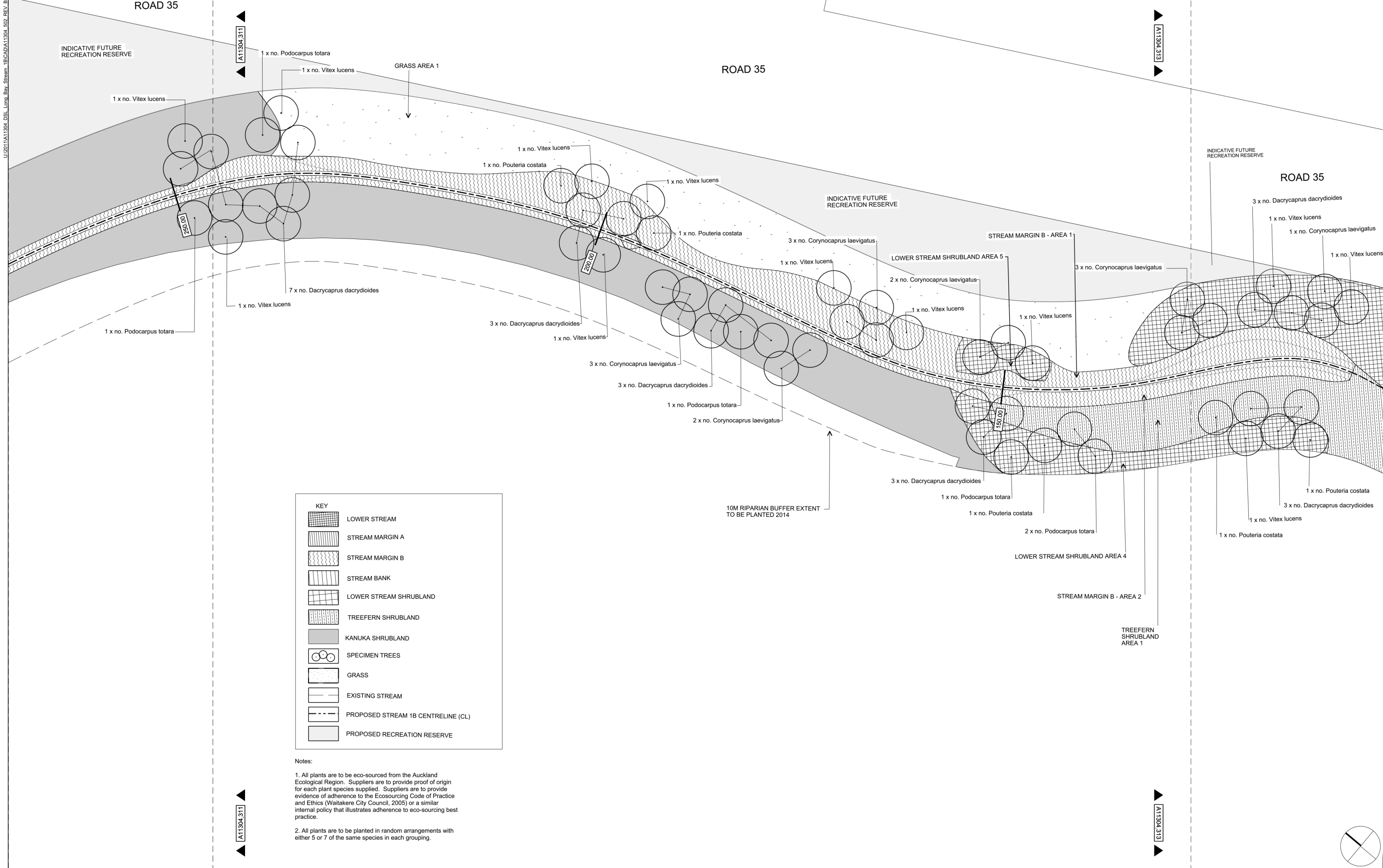
Stream 1B
 PLANTING PLAN
 SHEET 1 OF 3

Design	MLe	Scale	1:200 @ A1	Date	04.03.13
Drawn	HDo	Check	1:400 @ A3		
Appv'd					

DRAWING NO. **A11304_501** REVISION **(B)**

A11304_501_REV_B.dgn

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KEY

- LOWER STREAM
- STREAM MARGIN A
- STREAM MARGIN B
- STREAM BANK
- LOWER STREAM SHRUBLAND
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- KANUKA SHRUBLAND
- SPECIMEN TREES
- GRASS
- EXISTING STREAM
- PROPOSED STREAM 1B CENTRELINE (CL)
- PROPOSED RECREATION RESERVE

Notes:

- All plants are to be eco-sourced from the Auckland Ecological Region. Suppliers are to provide proof of origin for each plant species supplied. Suppliers are to provide evidence of adherence to the Ecosourcing Code of Practice and Ethics (Waitakere City Council, 2005) or a similar internal policy that illustrates adherence to eco-sourcing best practice.
- All plants are to be planted in random arrangements with either 5 or 7 of the same species in each grouping.



REV	DATE	DESCRIPTION
B	04.02.13	WEST PLANTING AREA REDUCED TO TOP OF 1ST BENCH
A	22.02.13	PLANT SPECIES AMENDED

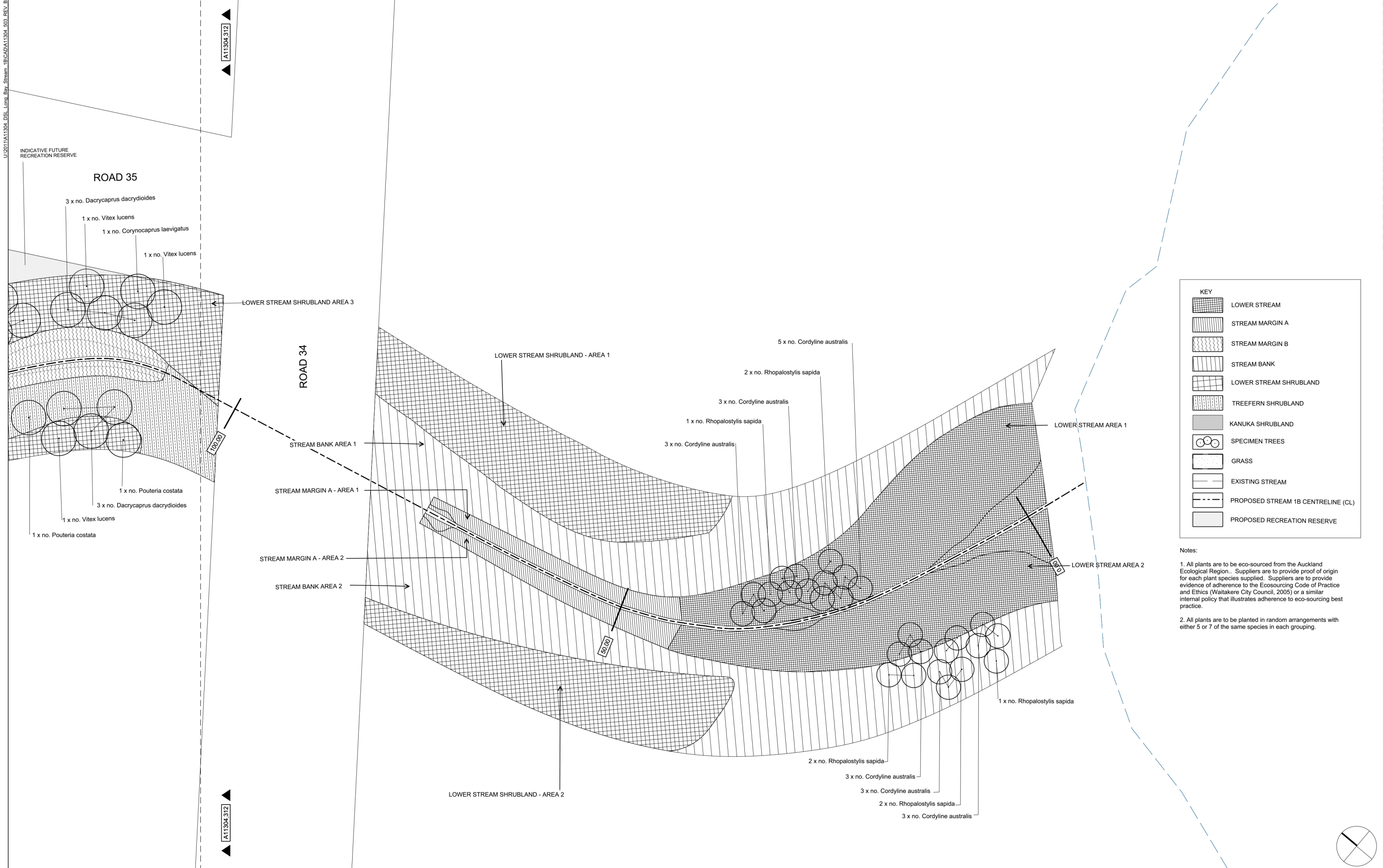
CLIENT
CONSULTANTS

FOR CONSTRUCTION

Stream 1B
PLANTING PLAN
SHEET 2 OF 3

Design	Scale	Date
MLe	1:200 @ A1	04.03.13
Drawn	HDo	
Check	MLe	
Appv'd		

DRAWING NO. **A11304_502** REVISION **(B)**



REV	DATE	DESCRIPTION
B	04.03.13	WEST PLANTING AREA REDUCED TO TOP OF 1ST BENCH
A	22.02.13	PLANT SPECIES AMENDMENT

CLIENT _____
 CONSULTANTS _____

FOR CONSTRUCTION

Stream 1B
 PLANTING PLAN
 SHEET 3 OF 3

Design	MLE	Scale	Date
Drawn	HDO	1:200 @ A1	04.03.13
Check	MLE	1:400 @ A3	
Appv'd			

DRAWING NO. **A11304_503** REVISION **B**

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RIPARIAN PLANT MIXES											
Lower Stream						Total m²	Area 1	Area 2			
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total						
<i>Bolboschoenus fluviatilis</i> ¹	Kukuraho	2L	500mm	10.0	298		172	132			
<i>Cyperus ustulatus</i>	Giant umbrella sedge	2L	600mm	65.0	1,356		783	600			
<i>Juncus kraussii</i> ¹	Spreading sw amp sedge	2L	500mm	25.0	760		430	330			
TOTAL				100.0	2,413						
Stream banks						Total m²	Area 1	Area 2			
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total						
<i>Astelia solandri</i> ²	Kokaha	2L	1000mm	10.0	115		67	50			
<i>Cortaderia fulvida</i>	Toetoe	2L	1000mm	30.0	345		201	151			
<i>Phormium cookianum subsp. hookeri</i> ²	Wharariki	2L	1000mm	10.0	115		67	50			
<i>Phormium tenax</i>	Harakeke	2L	1200mm	50.0	403		235	176			
TOTAL				100.0	978						
Stream Margin A						Total m²	Area 1	Area 2			
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total						
<i>Bolboschoenus fluviatilis</i>	Kukuraho	2L	500mm	30.0	153		76	80			
<i>Carex lessoniana</i>	Spreading sw amp sedge	2L	600mm	70.0	250		124	131			
TOTAL				100.0	403						
Stream Margin B						Total m²	Area 1	Area 2	Area 3		
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total						
<i>Cyperus ustulatus</i>	Giant umbrella sedge	2L	600mm	25.0	954		366	185	422		
<i>Carex lessoniana</i>	Spreading sw amp sedge	2L	600mm	40.0	1,526		585	296	675		
<i>Carex virgata</i>	Small sw amp sedge	2L	600mm	35.0	1,335		512	259	590		
TOTAL				100.0	3,815						
Lower Stream Shrubland³						Total m²	Area 1	Area 2	Area 3	Area 4	Area 5
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total						
<i>Astelia solandri</i> ²	Kokaha	2L	1000mm	5.0	56		19	15	13	9	2
<i>Coprosma lucida</i>	Karamu	2L	1200mm	20.0	157		52	41	36	24	6
<i>Coprosma propinqua</i>	Mingimingi	2L	1200mm	10.0	78		26	21	18	12	3
<i>Cordyline australis</i>	Ti Kouka	2L	1000mm	15.0	168		56	44	39	26	6
<i>Phormium tenax</i>	Harakeke	2L	1200mm	20.0	157		52	41	36	24	6
<i>Phormium cookianum subsp. hookeri</i> ²	Wharariki	2L	1000mm	5.0	56		19	15	13	9	2
<i>Pseudopanax lessonii</i>	Houpara	2L	1200mm	25.0	196		65	51	45	31	7
TOTAL				100.0	867						

Kanuka Shrubland ³						Total m²	Area 1	Area 2	Area 3
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total				
<i>Coprosma robusta</i>	Karamu	2L	1200mm	10.0	123	1719.62	599.71	895.66	224.25
<i>Cordyline australis</i> ⁴	Ti Kouka	2L	1000mm	10.0	175		61	91	23
<i>Geniostoma rupestre</i>	Hangehange	2L	1200mm	10.0	123		43	64	16
<i>Hoheria populnea</i>	Houhere	2L	1200mm	5.0	61		21	32	8
<i>Kunzea ericoides</i>	Kanuka	2L	1200mm	30.0	368		128	192	48
<i>Meliccytus ramiflorus</i>	Mahoe	2L	1200mm	15.0	184		64	96	24
<i>Pittosporum crassifolium</i>	Karo	2L	1200mm	15.0	184		64	96	24
<i>Sophora microphylla</i>	Kow hai	2L	1500mm	5.0	39		14	21	5
TOTAL				100.0	1,259				

Treefern Shrubland						Total m²	Area 1
Botanical Name	Common Name	Size	Spacings (m)	Mix (%)	Total		
<i>Astelia solandri</i> ²	Kokaha	2L	1000mm	7.5	23	296.74	296.74
<i>Cordyline australis</i>	Ti Kouka	5L	1000mm	10.0	30		30
<i>Cyathea dealbata</i>	Ponga	10L	1000mm	5.0	15		15
<i>Dicksonia squarrosa</i>	Wheki	10L	1000mm	5.0	15		15
<i>Geniostoma rupestre</i>	Hangehange	2L	1200mm	20.0	42		42
<i>Olearia solandri</i>	Coastal shrub daisy	2L	1200mm	5.0	11		11
<i>Phormium tenax</i>	Harakeke	2L	1200mm	25.0	53		53
<i>Phormium cookianum subsp. hookeri</i> ²	Wharariki	2L	1000mm	7.5	23		23
<i>Rhabdothamnus solandri</i>	Taurepo	2L	1200mm	5.0	11		11
<i>Rhopalostylis sapida</i>	Nikau	10L	1200mm	10.0	21		21
TOTAL				100.0	244		

SPECIMEN TREES

Upstream Specimen Trees					
Botanical Name	Common Name	Size	Spacings (m)	No	
<i>Cordyline australis</i>	Ti Kouka	5L	1.00	20	
<i>Cornycarpus laevigatus</i>	Karaka	10L	3.00	14	
<i>Dacrydium dacrydioides</i>	Kahikatea	10L	3.00	30	
<i>Podocarpus totara</i>	Totara	10L	4.00	10	
<i>Pouteria costata</i>	Taw apou	10L	4.00	5	
<i>Rhopalostylis sapida</i>	Nikau	10L	1.50	8	
<i>Vitex lucens</i>	Puriri	10L	4.00	14	
TOTAL				101	

GRASS AREA - 682m²⁵

Area 1
682.09

FOOTNOTES:
¹ Plant kukurahu and J. kraussii within stream margins
² Plant kokaha and wharariki adjacent to pathways, open space, and platforms
³ Plant shrubs in groups of 5 minimum
⁴ Plant cordyline in the vicinity of specimen trees
⁵ Grass areas to comply with 'Grass Seed Mix for Streets' - Awaruku Stage 1 Wetland Specification Rev A

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