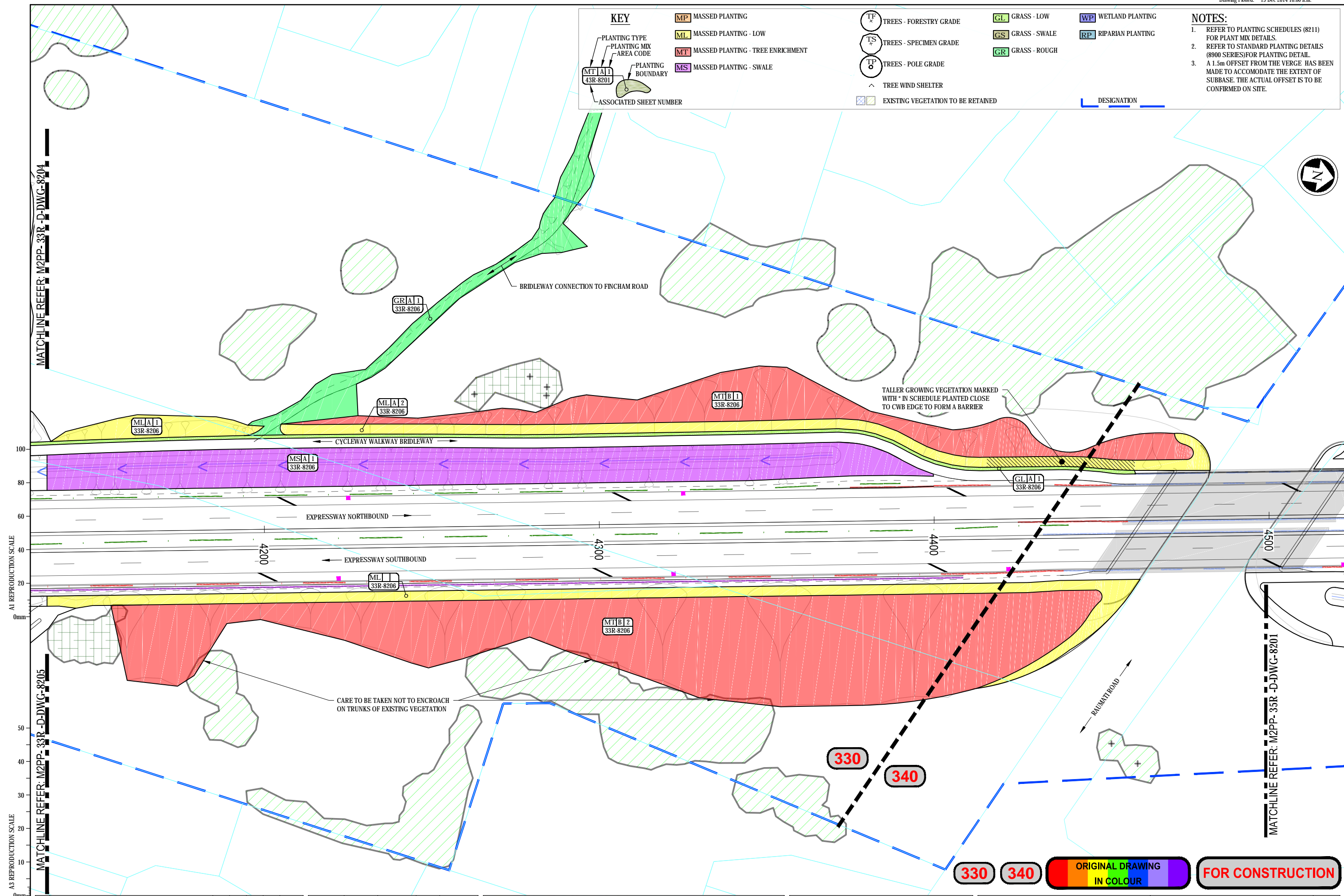


KEY

PLANTING TYPE PLANTING MIX AREA CODE	MASSED PLANTING	TREES - FORESTRY GRADE	GRASS - LOW	WETLAND PLANTING
PLANTING TYPE PLANTING MIX AREA CODE	MASSED PLANTING - LOW	TREES - SPECIMEN GRADE	GRASS - SWALE	RIPARIAN PLANTING
PLANTING TYPE PLANTING MIX AREA CODE	MASSED PLANTING - TREE ENRICHMENT	TREES - POLE GRADE	GRASS - ROUGH	
PLANTING TYPE PLANTING MIX AREA CODE	MASSED PLANTING - SWALE	TREE WIND SHELTER		
PLANTING BOUNDARY		EXISTING VEGETATION TO BE RETAINED		
ASSOCIATED SHEET NUMBER				

NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.



No.	Revision	By	Chk	Chk.V	Appd	Date
1	FOR CONSTRUCTION	MP				15.12.14

Original Scale (A1)	Design	F BAGGLEY	11.08.14	Approved For Construction*
1:500	Drawn	M. POWELL	11.08.14	
Reduced Scale (A3)	Dwg. Verifier	B EVANS	18.11.14	
1:1000	Dwg. Check	C F-B	18.11.14	Date 15.12.14

* Refer to Revision 1 for Original Signature

NZ TRANSPORT AGENCY
WAKA KOTAHĪ

MacKays to Peka Peka
Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
RP 1012/0.00 TO 1023/5.00

Title: LEINSTER AVE TO RAUMATI RD
PLANTING PLAN
SHEET 6

Drawing No: M2PP-33R-D-DWG-8206
Rev: 1

330 340 ORIGINAL DRAWING IN COLOUR FOR CONSTRUCTION

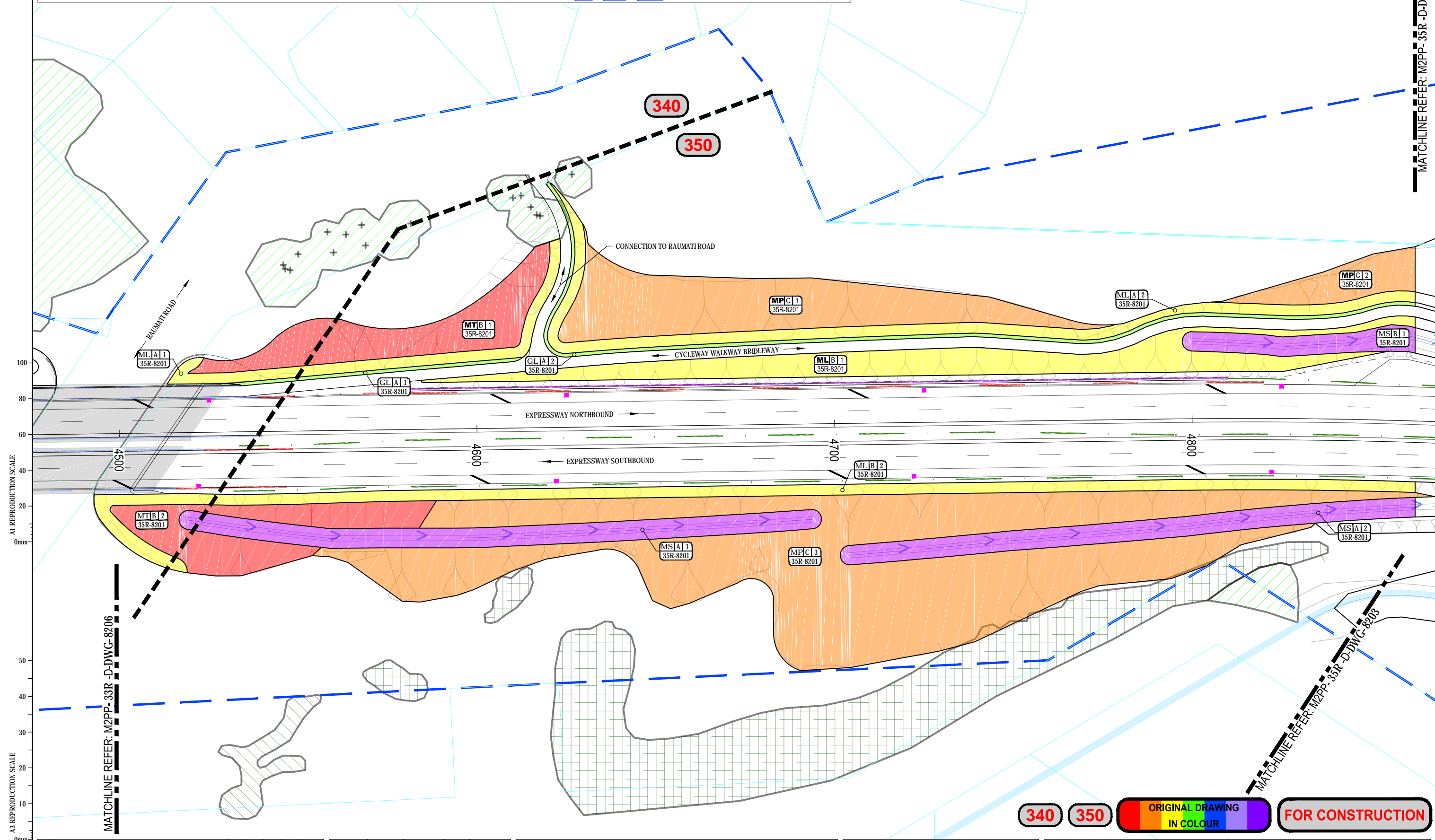


KEY

MP MASSED PLANTING	TF x TREES - FORESTRY GRADE	GL GRASS - LOW	WP WETLAND PLANTING
ML MASSED PLANTING - LOW	TS + TREES - SPECIMEN GRADE	GS GRASS - SWALE	RP RIPARIAN PLANTING
MT MASSED PLANTING - TREE ENRICHMENT	TP o TREES - POLE GRADE	GR GRASS - ROUGH	
MS MASSED PLANTING - SWALE	^ TREE WIND SHELTER		
--- PLANTING BOUNDARY	▨ EXISTING VEGETATION TO BE RETAINED		
MT A 1 PLANTING MIX AREA CODE	--- DESIGNATION		
43R-8201 ASSOCIATED SHEET NUMBER			

NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.



A3 REPRODUCTION SCALE
0mm 10 20 30 40 50 60 80 100

MATCHLINE REFER: M2PP-33R-D-DWG-8206

MATCHLINE REFER: M2PP-35R-D-DWG-8203

MATCHLINE REFER: M2PP-35R-D-DWG-8202

340 350 ORIGINAL DRAWING IN COLOUR FOR CONSTRUCTION

No.	Revision	By	Chk	Chk.V	Appd	Date
1	FOR CONSTRUCTION	MP				15.12.14

Original Scale (A1)	Design	F BAGGLEY	11.08.14	Approved For Construction*
1:500	Drawn	M. POWELL	11.08.14	
Reduced Scale (A3)	Dwg Verifier	B EVANS	18.11.14	
1:1000	Dwg Check	C F-B	18.11.14	Date 15.12.14

* Refer to Revision 1 for Original Signature

NZ TRANSPORT AGENCY WAKA KOTAHU
MacKays to Peka Peka
 Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
 RP 1012/0.00 TO 1023/5.00

Title: RAUMATI RD TO WHAREMAUKU PLANTING PLAN SHEET 1

Drawing No: M2PP-35R-D-DWG-8201
 Rev: 1

KEY

MP MASSED PLANTING	GL GRASS - LOW	WP WETLAND PLANTING
ML MASSED PLANTING - LOW	GS GRASS - SWALE	RP RIPARIAN PLANTING
MT MASSED PLANTING - TREE ENRICHMENT	GR GRASS - ROUGH	
MS MASSED PLANTING - SWALE		

PLANTING TYPE
PLANTING MIX
AREA CODE
PLANTING BOUNDARY
ASSOCIATED SHEET NUMBER

TF TREES - FORESTRY GRADE
TS TREES - SPECIMEN GRADE
TP TREES - POLE GRADE
^ TREE WIND SHELTER
EXISTING VEGETATION TO BE RETAINED

NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.

DESIGNATION



A1 REPRODUCTION SCALE
 0mm 20 40 60 80 100
 MATCHLINE REFER: M2PP-35R-D-DWG-8201

A3 REPRODUCTION SCALE
 0mm 10 20 30 40 50
 MATCHLINE REFER: M2PP-35R-D-DWG-8203

350 ORIGINAL DRAWING IN COLOUR FOR CONSTRUCTION

Original Scale (A1) 1:500	Design F BAGGLEY 11.08.14	Approved For Construction 11.08.14
Revised Scale (A3) 1:1000	Drawn M. POWELL 11.08.14	
	Design Checker B EVANS 18.11.14	
	Drawn C F B 18.11.14	Date 15.12.14

Refer to Revision 1 for Original Signature



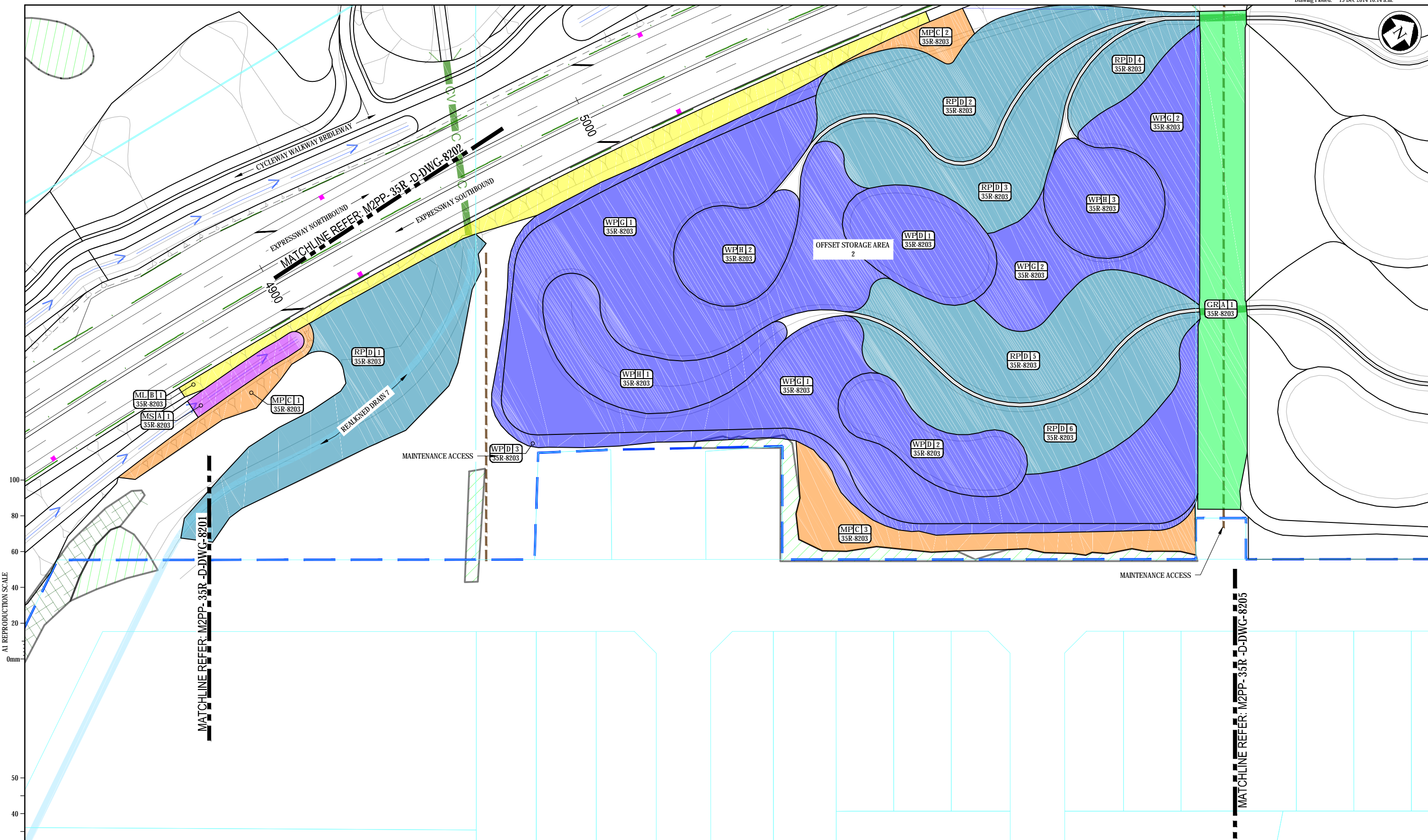
MacKays to Peka Peka
 Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
 RP 1012/0.00 TO 1023/5.00

Title: RAUMATI RD TO WHAREMAUKU PLANTING PLAN SHEET 2

Drawing No: M2PP-35R-D-DWG-8202

Rev. 1



A1 REPRODUCTION SCALE

A3 REPRODUCTION SCALE

KEY

PLANTING TYPE PLANTING MIX AREA CODE	MASSES PLANTING	TREES - FORESTRY GRADE	GRASS - LOW	WETLAND PLANTING
MASSES PLANTING - LOW	MASSES PLANTING - TREE ENRICHMENT	TREES - SPECIMEN GRADE	GRASS - SWALE	RIPARIAN PLANTING
MASSES PLANTING - SWALE	TREES - POLE GRADE	TREE WIND SHELTER	GRASS - ROUGH	
PLANTING BOUNDARY	EXISTING VEGETATION TO BE RETAINED			
ASSOCIATED SHEET NUMBER				

NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.

350 ORIGINAL DRAWING IN COLOUR FOR CONSTRUCTION

No.	Revision	By	Chk	Chk.V	Appd	Date
1	FOR CONSTRUCTION	MP				15.12.14

Original Scale (A1)	Design	Drawn	Date	Approved For Construction
1:500	F BAGGLEY	M POWELL	11.08.14	
Reduced Scale (A3)	Dwg Checker	B EVANS	18.11.14	
1:1000	Dwg Check	C F-B	18.11.14	Date 15.12.14

NZ TRANSPORT AGENCY
WAKA KOTAHĪ

MacKays to Peka Peka
Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
RP 1012/0.00 TO 1023/5.00

Title: RAUMATI RD TO WHAREMAUKU PLANTING PLAN SHEET 3

Drawing No: M2PP-35R-D-DWG-8203
Rev: 1

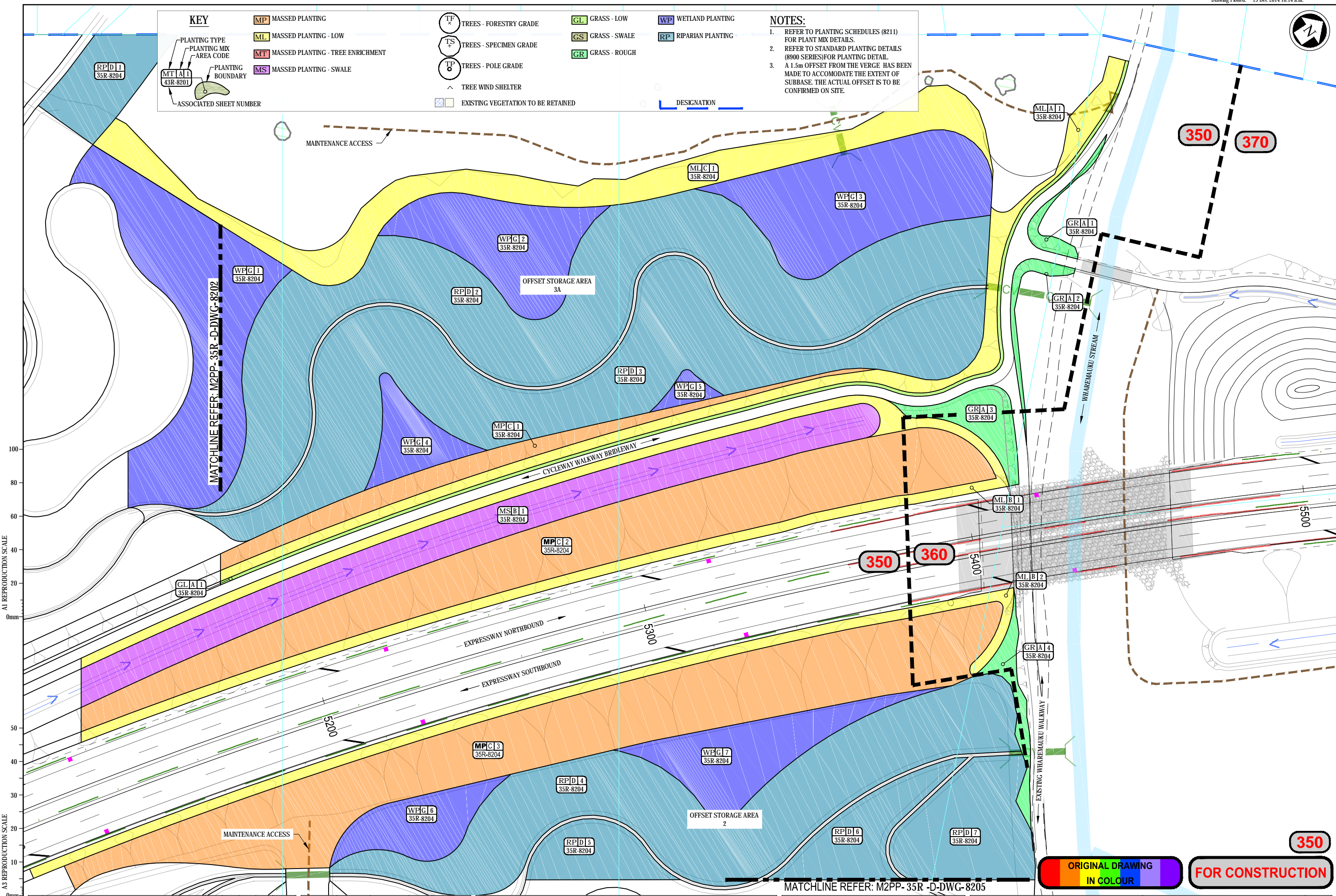
KEY

MP MASSED PLANTING	TF TREES - FORESTRY GRADE	GL GRASS - LOW	WP WETLAND PLANTING
ML MASSED PLANTING - LOW	TS TREES - SPECIMEN GRADE	GS GRASS - SWALE	RP RIPARIAN PLANTING
MT MASSED PLANTING - TREE ENRICHMENT	TP TREES - POLE GRADE	GR GRASS - ROUGH	
MS MASSED PLANTING - SWALE	^ TREE WIND SHELTER		
PLANTING TYPE PLANTING MIX AREA CODE	EXISTING VEGETATION TO BE RETAINED		DESIGNATION

PLANTING BOUNDARY
ASSOCIATED SHEET NUMBER

NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.



A1 REPRODUCTION SCALE
0mm

A3 REPRODUCTION SCALE
0mm

ORIGINAL DRAWING
IN COLOUR

FOR CONSTRUCTION

No.	Revision	By	Chk	Chk.V	Appd	Date
1	FOR CONSTRUCTION	MP				15.12.14

Original Scale (A1)	1:500	Design	F BAGGLEY	11.08.14	Approved For Construction
Reduced Scale (A3)	1:1000	Drawn	M. POWELL	11.08.14	
		Dwg Verifier	B EVANS	18.11.14	
		Dwg Check	C F-B	18.11.14	Date 15.12.14

NZ TRANSPORT AGENCY
WAKA KOTAHU

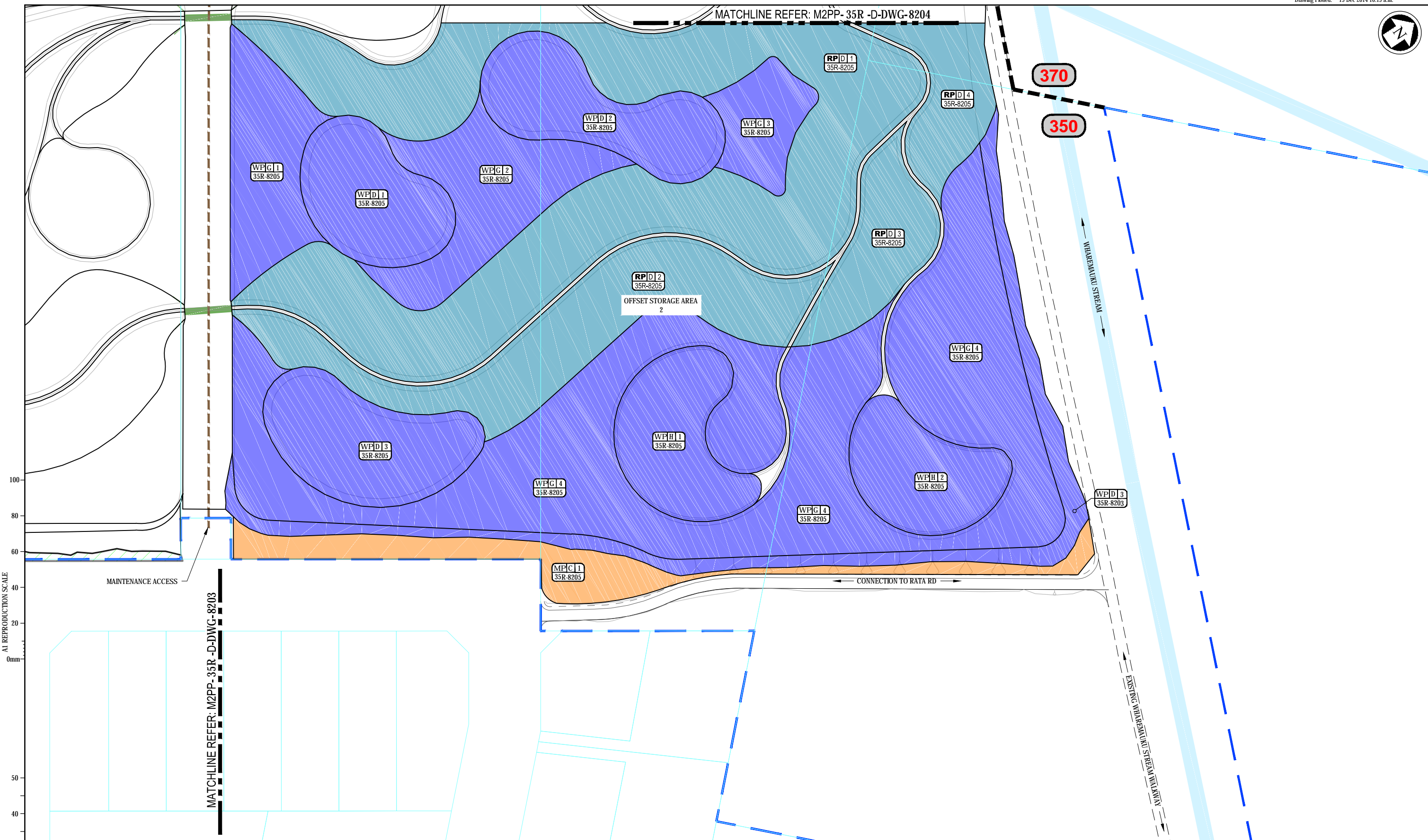
MacKays to Peka Peka
Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
RP 1012/0.00 TO 1023/5.00

Title: RAUMATI RD TO WHAREMAUKU PLANTING PLAN SHEET 4

Drawing No:	M2PP-35R-D-DWG-8204	Rev:	1
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MATCHLINE REFER: M2PP-35R-D-DWG-8204



A1 REPRODUCTION SCALE
0mm
20
40
60
80
100

A3 REPRODUCTION SCALE
0mm
10
20
30
40
50

KEY PLANTING TYPE PLANTING MIX AREA CODE PLANTING BOUNDARY ASSOCIATED SHEET NUMBER		[MP] MASSED PLANTING [ML] MASSED PLANTING - LOW [MT] MASSED PLANTING - TREE ENRICHMENT [MS] MASSED PLANTING - SWALE	[TF] TREES - FORESTRY GRADE [TS] TREES - SPECIMEN GRADE [TP] TREES - POLE GRADE ^ TREE WIND SHELTER [X] EXISTING VEGETATION TO BE RETAINED	[GL] GRASS - LOW [GS] GRASS - SWALE [GR] GRASS - ROUGH	[WP] WETLAND PLANTING [RP] RIPARIAN PLANTING
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NOTES:

- REFER TO PLANTING SCHEDULES (8211) FOR PLANT MIX DETAILS.
- REFER TO STANDARD PLANTING DETAILS (8900 SERIES) FOR PLANTING DETAIL.
- A 1.5m OFFSET FROM THE VERGE HAS BEEN MADE TO ACCOMMODATE THE EXTENT OF SUBBASE. THE ACTUAL OFFSET IS TO BE CONFIRMED ON SITE.

350 ORIGINAL DRAWING IN COLOUR DETAILED DESIGN NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Chk.V	Appd	Date
1	FOR CONSTRUCTION	MP				15.12.14

Original Scale (A1)	Design	F BAGGLEY	11.08.14	Approved For Construction*
1:500	Drawn	M. POWELL	11.08.14	
Reduced Scale (A3)	Dwg Verifier	B EVANS	18.11.14	
1:1000	Dwg Check	G F-B	18.11.14	Date 15.12.14

* Refer to Revision 1 for Original Signature

NZ TRANSPORT AGENCY WAKA KOTAHU
MacKays to Peka Peka
 Wellington Northern Corridor

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
 RP 1012/0.00 TO 1023/5.00

Title: RAUMATI RD TO WHAREMAUKU PLANTING PLAN SHEET 5

Drawing No: M2PP-35R-D-DWG-8205 Rev: 1

A3 REPRODUCTION SCALE

PLANT TYPE	PLANT MIX	BOTANICAL NAME	COMMON NAME	GRADE	% MIX	NOTES	PLANT REFERENCE	TOTAL
AREA ADJUSTED FOR SLOPE								93136 m ²
MT MIX = 1.0M CRS MASSED PLANTING, ENRICHMENT 10.0M CRS, PLANT CENTRES (METRES)								97648 m ²
MULCH TYPE OM = ORGANIC MULCH, GM = GRADED GRAVEL MULCH, BC = BIOCOIR								
N = NO MULCH (IN RIPARIAN / WETLAND ZONES), WM = WOOL MAT SQUARE (RIPARIAN EROSION)								
MASSED LOW EDGE PLANTING - ADJACENT TO CYCLEWAY								
ML	A	Acaena novae-zelandiae	Red bidibidi	1.0 litre	10%	front edge		621 No
ML	A	Austroderia fulvida	syn Cortaderia, toetoe	1.0 litre	5%	back		310 No
ML	A	Carex dipsacea	Teasel sedge	1.0 litre	10%	front edge		621 No
ML	A	Carex solandri	Forest sedge, Solander's sedge	1.0 litre	10%	front edge		621 No
ML	A	Carex virgata	Swamp sedge	1.0 litre	5%	mid back		310 No
ML	A	Coprosma areolata*	Thin leaved Coprosma	1.0 litre	3%	back		186 No
ML	A	Coprosma propinqua*	Mingimingi	1.0 litre	5%	mid back		310 No
ML	A	Coprosma repens	Taupata	1.0 litre	10%	mid back		621 No
ML	A	Ficinia nodosa	Wiwi, Knobby club rush	1.0 litre	10%	front edge		621 No
ML	A	Hebe stricta*	Koromiko	1.0 litre	10%	back		621 No
ML	A	Melicope simplex*	Poataniwha	1.0 litre	2%	mid		124 No
ML	A	Muehlenbeckia complexa	Pohuehue, wire vine	1.0 litre	20%	front edge		1241 No
MASSED LOW EDGE PLANTING - ADJACENT TO EXPRESSWAY								
ML	B	Acaena novae-zelandiae	Red bidibidi	1.0 litre	10%	front edge		788 No
ML	B	Austroderia fulvida	syn Cortaderia, toetoe	1.0 litre	5%	back		394 No
ML	B	Carex dipsacea	Teasel sedge	1.0 litre	15%	front edge		1182 No
ML	B	Carex solandri	Forest sedge, Solander's sedge	1.0 litre	10%	front edge		788 No
ML	B	Carex virgata	Swamp sedge	1.0 litre	5%	mid back		394 No
ML	B	Coprosma acerosa	Sand Coprosma	1.0 litre	10%	front mid		788 No
ML	B	Coprosma areolata	Thin leaved Coprosma	1.0 litre	2%	back		158 No
ML	B	Coprosma propinqua	Mingimingi	1.0 litre	10%	mid back		788 No
ML	B	Coprosma repens	Taupata	1.0 litre	8%	mid back		631 No
ML	B	Ficinia nodosa	Wiwi, Knobby club rush	1.0 litre	15%	front edge		1182 No
ML	B	Melicope simplex	Poataniwha	1.0 litre	5%	mid		394 No
ML	B	Hebe stricta	Koromiko	1.0 litre	5%	back		394 No
MASSED PLANTING + ENRICHMENT SHELTERED FROM NORTHERLY, ADJOINS A WETLAND WITH ENRICHMENT								
MP	D	Aristotelia serrata	Makomako	1.0 litre	10%			249 No
MP	D	Austroderia fulvida	syn Cortaderia, toetoe	1.0 litre	5%			125 No
MP	D	Coprosma tenuicaulis	Hukihuki, swamp Coprosma	1.0 litre	10%			249 No
MP	D	Cordyline australis	Ti kouka	1.0 litre	10%			249 No
MP	D	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella	1.0 litre	5%			125 No
MP	D	Leptospermum scoparium	Manuka	1.0 litre	30%			748 No
MP	D	Melicytus ramiflorus	Mahoe	1.0 litre	5%			125 No
MP	D	Myrsine australis	Mapou, Matipo	1.0 litre	5%			125 No
MP	D	Phormium tenax	Harakeke, Flax	1.0 litre	10%			249 No
MP	D	Pittosporum eugenoides	Tarata, lemonwood	1.0 litre	5%			125 No
MP	D	Pseudopanax arboreus	Whauwhaupaku, Fivefinger	1.0 litre	5%			125 No
MP	D	Syzygium maire	Maire, tawake, Swamp maire	Pb18	20%	enrich		50 No
MP	D	Rhopalostylis sapida	Nikau	Pb18	50%	enrich		125 No
MP	D	Alectryon excelsus	Titoki	Pb18	30%	enrich		75 No
MASSED PLANTING + TREE ENRICHMENT - EXPOSED TO NORTHERLY, KANUKA DOMINANT								
MT	B	Austroderia fulvida	syn Cortaderia, toetoe	1.0 litre	5%			423 No
MT	B	Carex lessoniana	Cutty grass	1.0 litre	10%			847 No
MT	B	Coprosma rhamnoides		1.0 litre	5%			423 No
MT	B	Cordyline australis	Ti kouka	1.0 litre	10%			847 No
MT	B	Kunzea ericoides	Kanuka	1.0 litre	30%			2540 No
MT	B	Melicytus ramiflorus	Mahoe	1.0 litre	10%			847 No
MT	B	Myrsine australis	Mapou, Matipo	1.0 litre	15%			1270 No
MT	B	Pittosporum tenuifolium	Kohuhu	1.0 litre	15%			1270 No
MT	B	Podocarpus totara	Totara	Pb18	40%	enrich		339 No
MT	B	Alectryon excelsus	Titoki	Pb18	60%	enrich		508 No

MASSED PLANTING + TREE ENRICHMENT									
MT	C	Aristotelia serrata	Makomako	1.0 litre	5%				685 No
MT	C	Carex lessoniana	Cutty grass	1.0 litre	5%	front			685 No
MT	C	Carpodetus serratus	Putaputaweta	1.0 litre	5%				685 No
MT	C	Coprosma propinqua	Mingimingi	1.0 litre	7%				960 No
MT	C	Coprosma robusta	Karamu	1.0 litre	10%				1371 No
MT	C	Cordyline australis	Ti kouka	1.0 litre	5%				685 No
MT	C	Griselinia lucida	Puka, Broadleaf	1.0 litre	2%				274 No
MT	C	Hebe stricta	Koromiko	1.0 litre	8%	front			1097 No
MT	C	Kunzea ericoides	Kanuka	1.0 litre	12%				1645 No
MT	C	Macropiper excelsum	Kawakawa	1.0 litre	5%				685 No
MT	C	Melicytus ramiflorus	Mahoe	1.0 litre	5%				685 No
MT	C	Melicope ternata	Wharangi	1.0 litre	3%				411 No
MT	C	Myoporum laetum	Ngaio	1.0 litre	3%				411 No
MT	C	Myrsine australis	Mapou, Matipo	1.0 litre	7%				960 No
MT	C	Olearia solandri	Coastal tree daisy	1.0 litre	5%				685 No
MT	C	Pittosporum tenuifolium	Kohuhu	1.0 litre	8%				1097 No
MT	C	Pseudopanax arboreus	Whauwhaupaku, Fivefinger	1.0 litre	2%				274 No
MT	C	Sophora microphylla	Kowhai	1.0 litre	3%				411 No
MT	C	Alectryon excelsus	Titoki	Pb18	40%	enrich			548 No
MT	C	Dysoxylum spectabile	Kohekohe	Pb18	40%	enrich			548 No
MT	C	Knightia excelsa	Rewarewa	Pb18	15%	enrich			206 No
MT	C	Podocarpus totara	Totara	Pb18	5%	enrich			69 No
MASSED PLANTING + TREE ENRICHMENT (EXOTIC) LEINSTER ROAD EXTENSION									
MT	N	Aristotelia serrata	Makomako	1.0 litre	5%				90 No
MT	N	Carex lessoniana	Cutty grass	1.0 litre	5%				90 No
MT	N	Coprosma propinqua	Mingimingi	1.0 litre	10%				181 No
MT	N	Coprosma robusta	Karamu	1.0 litre	10%				181 No
MT	N	Griselinia lucida	Puka, Broadleaf	1.0 litre	2%				36 No
MT	N	Hebe stricta	Koromiko	1.0 litre	20%				362 No
MT	N	Kunzea ericoides	Kanuka	1.0 litre	12%				217 No
MT	N	Melicope ternata	Wharangi	1.0 litre	3%				54 No
MT	N	Macropiper excelsum	Kawakawa	1.0 litre	5%				90 No
MT	N	Myrsine australis	Mapou, Matipo	1.0 litre	8%				145 No
MT	N	Olearia solandri	Coastal tree daisy	1.0 litre	5%				90 No
MT	N	Pittosporum tenuifolium	Kohuhu	1.0 litre	15%				271 No
EXOTIC TREE ENRICHMENT									
TF	A	Acacia melanoxylon	Blackwood	o/g - 1.0 litre		enrich			14 No
TF	B	Alnus cordata	Italian alder	o/g - 1.0 litre		enrich			10 No
TF	G	Eucalyptus ficifolia	Flowering gum	1.0 litre		enrich			47 No
RIPARIAN PLANTING									
RP	D	Alectryon excelsus	Titoki	1.0 litre	5%				660 No
RP	D	Coprosma robusta	Karamu	1.0 litre	35%				4621 No
RP	D	Austroderia fulvida	syn Cortaderia, toetoe	0.5 litre	10%				1320 No
RP	D	Dysoxylum spectabile	Kohekohe	1.0 litre	5%				660 No
RP	D	Hedycarya arborea	Porokawhiri, Pigeonwood	1.0 litre	5%				660 No
RP	D	Leptospermum scoparium	Manuka	1.0 litre	20%				2641 No
RP	D	Melicope ternata	Wharangi	1.0 litre	10%				1320 No
RP	D	Phormium tenax	Harakeke, Flax	0.5 litre	10%				1320 No
WETLAND PLANTING - SLOPING BANK AND HUMMOCKS TO PERMANENT WATER, OCCASIONAL INUNDATION									
WP	D	Carex secta	Pukio, Purei	0.5 litre	50%	waters edge			6893 No
WP	D	Cordyline australis	Ti kouka	1.0 litre	5%				689 No
WP	D	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella sedge	0.5 litre	15%	waters edge			2068 No
WP	D	Dacrydium dacrydioides	Kahikatea	1.0 litre	2%				276 No
WP	D	Laurelia novae-zelandiae	Pukatea	1.0 litre	3%				414 No
WP	D	Leptospermum scoparium	Manuka	1.0 litre	15%				2068 No
WP	D	Phormium tenax	Harakeke, Flax	0.5 litre	10%				1379 No
WETLAND PLANTING - EMERGENT 0.0 TO 0.3M WATER DEPTH									
WP	F	Carex secta	Pukio, Purei	0.5 litre	10%				2397 No
WP	F	Carex virgata	Swamp sedge	0.5 litre	25%				5993 No
WP	F	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella sedge	0.5 litre	25%				5993 No
WP	F	Machaerina rubiginosa (syn Baumea)		0.5 litre	15%				3596 No
WP	F	Machaerina teretifolia (syn Baumea)	Common twig rush, pakih sedge	0.5 litre	15%				3596 No
WP	F	Phormium tenax	Harakeke, Flax	0.5 litre	10%				2397 No
WETLAND PLANTING - 0.3 TO 0.6M WATER DEPTH									
WP	G	Bolboschoenus fluviatilis	Kukuraho, Marsh club rush	0.5 litre	30%				2318 No
WP	G	Carex secta	Pukio, Purei	0.5 litre	10%				773 No
WP	G	Eleocharis acuta	Sharp spiked sedge	0.5 litre	25%				1932 No
WP	G	Juncus edgariae (syn J. gregifolius)	Wiwi	0.5 litre	35%				2705 No
MASSED SWALE PLANTING									
MS	A	Apodasmia similis	Oioi	0.5 litre	100%	no mulch			18039 No
GRASS									
GL	A	Grass low grow mix	sown, close mow to 100mm	sow					2235 m ²
GR	A	Grass rank - (low grow mix)	sown, allowed to grow rank,	sow					5913 m ²
TOTAL									

No.	Revision	By	Chk	Chk-V	Appd	Date
1	FOR CONSTRUCTION	MP	GFB	DH	DGS	15.12.14

Original Scale (A1)	Design	S DUNN	18.11.14	Approved For Construction
NTS	Drawn	M POWELL	18.11.14	P. BRADSHAW
Reduced Scale (A3)	Dwg. Verifier	B EVANS	18.11.14	
NTS	Dwg. Check	G F B	18.11.14	Date 15.12.14

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
RP 1012/0.00 TO 1023/5.00

Title: LEINSTER AVE TO RAUMATI PLANTING SCHEDULE

Drawing No: M2PP-33R-D-DWG-8211
Rev: 1

330 ORIGINAL DRAWING IN COLOUR FOR CONSTRUCTION

A3 REPRODUCTION SCALE

PLANT MIX		BOTANICAL NAME	COMMON NAME	GRADE	% MIX	NOTES	AREA	PLANT REFERENCE	TOTAL
MULCH TYPE OM = ORGANIC MULCH, GM = GRADED GRAVEL MULCH, BC = BIOCOIR N = NO MULCH (IN RIPARIAN / WETLAND ZONES), WM = WOOL MAT SQUARE (RIPARIAN EROSION)							160167		m ²
AREA ADJUSTED FOR SLOPE							168115		m ²
MT MIX = 1.0M CRS MASSED PLANTING, ENRICHMENT 10.0M CRS, PLANT CENTRES (METRES)									
MULCH TYPE OM = ORGANIC MULCH, GM = GRADED GRAVEL MULCH, BC = BIOCOIR									
N = NO MULCH (IN RIPARIAN / WETLAND ZONES), WM = WOOL MAT SQUARE (RIPARIAN EROSION)									
MASSES LOW EDGE PLANTING - ADJACENT TO CYCLEWAY									
ML	A	Acaena novae-zelandiae	Red bidibidi	1.0"tre	10%	front edge	450		No
ML	A	Austroderia fulvida	syn Cortaderia, toetoe	1.0"tre	5%	back	225		No
ML	A	Carex diosacea	Tease sedge	1.0"tre	10%	front edge	450		No
ML	A	Carex solandri	Forest sedge, Solander's sedge	1.0"tre	10%	front edge	450		No
ML	A	Carex virgata	Swamp sedge	1.0"tre	5%	mid back	225		No
ML	A	Coprosma areolata	Thin leaved Coprosma	1.0"tre	3%	back	135		No
ML	A	Coprosma propinqua	Ming'mingi	1.0"tre	5%	mid back	225		No
ML	A	Coprosma repens	Taupata	1.0"tre	10%	mid back	450		No
ML	A	Ficinia nodosa	Wiw', Knobby club rush	1.0"tre	10%	front edge	450		No
ML	A	Hebe stricta	Koromiko	1.0"tre	10%	back	450		No
ML	A	Melicope simplex	Poataniwha	1.0"tre	2%	mid	90		No
ML	A	Muehlenbeckia complexa	Pohuehue, wire vine	1.0"tre	20%	front edge	900		No
MASSES LOW EDGE PLANTING - ADJACENT TO EXPRESSWAY									
ML	B	Acaena novae-zelandiae	Red bidibidi	1.0"tre	10%	front edge	829		No
ML	B	Austroderia fulvida	syn Cortaderia, toetoe	1.0"tre	5%	back	415		No
ML	B	Carex diosacea	Tease sedge	1.0"tre	15%	front edge	1244		No
ML	B	Carex solandri	Forest sedge, Solander's sedge	1.0"tre	10%	front edge	829		No
ML	B	Carex virgata	Swamp sedge	1.0"tre	5%	mid back	415		No
ML	B	Coprosma acerosa	Sand Coprosma	1.0"tre	10%	front mid	829		No
ML	B	Coprosma areolata	Thin leaved Coprosma	1.0"tre	2%	back	166		No
ML	B	Coprosma propinqua	Ming'mingi	1.0"tre	10%	mid back	829		No
ML	B	Coprosma repens	Taupata	1.0"tre	8%	mid back	663		No
ML	B	Ficinia nodosa	Wiw', Knobby club rush	1.0"tre	15%	front edge	1244		No
ML	B	Melicope simplex	Poataniwha	1.0"tre	5%	mid	415		No
ML	B	Hebe stricta	Koromiko	1.0"tre	5%	back	415		No
MASSES LOW EDGE PLANTING - ADJACENT TO WETLAND									
ML	C	Austroderia toetoe	syn Cortaderia, toetoe	0.5"tre	10%		246		No
ML	C	Carex diosacea	Tease sedge	0.5"tre	20%		492		No
ML	C	Carex secta	Pukio, Purei	0.5"tre	15%		369		No
ML	C	Carex virgata	Swamp sedge	0.5"tre	15%		369		No
ML	C	Coprosma propinqua	Ming'mingi	0.5"tre	15%		369		No
ML	C	Cordylina australis	Ti kouka	1.0"tre	10%		246		No
ML	C	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella sedge	0.5"tre	10%		246		No
ML	C	Phormium tenax	Harakeke, Flax	0.5"tre	5%		123		No
MASSES PLANTING + TREE ENRICHMENT - EXPOSED TO NORTHERLY, KANUKA DOMINANT									
MT	B	Austroderia fulvida	syn Cortaderia, toetoe	1.0"tre	5%		101		No
MT	B	Carex lessoniana	Cutty grass	1.0"tre	10%		201		No
MT	B	Coprosma rhamnoides		1.0"tre	5%		101		No
MT	B	Cordylina australis	Ti kouka	1.0"tre	10%		201		No
MT	B	Kunzea ericoides	Kanuka	1.0"tre	30%		604		No
MT	B	Melicocytus ramiflorus	Mahoe	1.0"tre	10%		201		No
MT	B	Myrsine australis	Mapou, Matipo	1.0"tre	15%		302		No
MT	B	Pittosporum tenuifolium	Kohuhu	1.0"tre	15%		302		No
MT	B	Podocarpus totara	Totara	Po18	40%	enrich	80		No
MT	B	Alectryon excelsus	Titoki	Po18	60%	enrich	121		No

MASSES PLANTING - GENERAL MIX EXPOSED TO NORTHERLY, MAHOE RICH									
MP	C	Aristotelia serrata	Makomako	1.0 litre	5%		1270		No
MP	C	Carpodetus serratus	Putaputaweta	1.0 litre	5%		1266		No
MP	C	Coprosma propinqua	Ming'mingi	1.0 litre	5%		1266		No
MP	C	Coprosma robusta	Karamu	1.0 litre	10%		2532		No
MP	C	Cordylina australis	Ti kouka	1.0 litre	5%		1266		No
MP	C	Griselinia lucida	Puka, Broad leaf	1.0 litre	2%		506		No
MP	C	Hebe stricta	Koromiko	1.0 litre	8%	front	2026		No
MP	C	Kunzea ericoides	Kanuka	1.0 litre	12%		3039		No
MP	C	Melicocytus ramiflorus	Mahoe	1.0 litre	20%		5065		No
MP	C	Melicope tenata	Wharangi	1.0 litre	3%		760		No
MP	C	Macropiper excelsum	Kawakawa	1.0 litre	5%		1266		No
MP	C	Myoporum laetum	Ngalo	1.0 litre	3%		760		No
MP	C	Myrsine australis	Mapou, Matipo	1.0 litre	4%		1013		No
MP	C	Pittosporum tenuifolium	Kohuhu	1.0 litre	8%		2026		No
MP	C	Pseudopanax arboreus	Whauwhauwaka, Fivefinger	1.0 litre	2%		506		No
MP	C	Sophora microphylla	Kowhai	1.0 litre	3%		760		No

RIPARIAN PLANTING									
RP	D	Alectryon excelsus	Titoki	1.0 litre	5%		2816		No
RP	D	Coprosma robusta	Karamu	1.0 litre	35%		19710		No
RP	D	Austroderia fulvida	syn Cortaderia, toetoe	0.5 litre	10%		5631		No
RP	D	Dysoxylum spectabile	Kohokohe	1.0 litre	5%		2816		No
RP	D	Hedycarya arborea	Porokawiri, Pigeonwood	1.0 litre	5%		2816		No
RP	D	Leptospermum scoparium	Manuka	1.0 litre	20%		11263		No
RP	D	Melicope tenata	Wharangi	1.0 litre	10%		5631		No
RP	D	Phormium tenax	Harakeke, Flax	0.5 litre	10%		5631		No

WETLAND PLANTING - SLOPING BANK AND HUMMOCKS TO PERMANENT WATER, OCCASIONAL INUNDATION									
WP	D	Carex secta	Pukio, Purei	0.5 litre	50%	waters edge	10773		No
WP	D	Cordylina australis	Ti kouka	1.0 litre	5%		1077		No
WP	D	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella sedge	0.5 litre	15%	waters edge	3232		No
WP	D	Dacrydium dacrydioides	Kahikatea		2%		431		No
WP	D	Laurelia novae-zealandiae	Pukatea		3%		646		No
WP	D	Leptospermum scoparium	Manuka		15%		3232		No
WP	D	Phormium tenax	Harakeke, Flax	0.5 litre	10%		2155		No

WETLAND PLANTING - EMERGENT 0.0 TO 0.3M WATER DEPTH									
WP	F	Carex secta	Pukio, Purei	0.5 litre	10%		1677		No
WP	F	Carex virgata	Swamp sedge	0.5 litre	25%		4192		No
WP	F	Cyperus ustulatus	Toetoe upokotangata, Giant umbrella sedge	0.5 litre	25%		4192		No
WP	F	Machaeran rubiginosa (syn Baumea)		0.5 litre	15%		2515		No
WP	F	Machaeran teretifolia (syn Baumea)	Common twig rush, pacini sedge	0.5 litre	15%		2515		No
WP	F	Phormium tenax	Harakeke, Flax	0.5 litre	10%		1677		No

WETLAND PLANTING - 0.3 TO 0.6M WATER DEPTH									
WP	G	Bolboschoenus fluviatilis	Kukurano, Marsh club rush	0.5 litre	30%		15984		No
WP	G	Carex secta	Pukio, Purei	0.5 litre	10%		5234		No
WP	G	Eleocharis acuta	Sharp spiked sedge	0.5 litre	25%		13086		No
WP	G	Juncus edgariae (syn J.gregifolius)	Wiwi	0.5 litre	35%		18320		No

WETLAND PLANTING - 0.6M TO 1.0M WATER DEPTH									
WP	H	Typha orientalis	Raupo	Limited use	20%		2337		No
WP	H	Machaeran articulata (syn Baumea)	Jointed baumea or twig rush		80%		9350		No

MASSED SWALE PLANTING									
MS	A	Apodasmia similis	Oioi	0.5 litre	100%	no mulch	3845		No

MASSED SWALE PLANTING - WITH WOODY PLANTS AT TOP EDGES									
MS	B	Apodasmia similis	Oioi	0.5 litre	50%	base and outer sides	4628		No
MS	B	Cordylina australis	Ti kouka	1.0 litre	10%	top slope and outer edges	521		No
MS	B	Leptospermum scoparium	Manuka	1.0 litre	25%	top slope and outer edges	1302		No
MS	B	Phormium tenax	Harakeke, Flax	0.5 litre	15%	top slope and outer edges	781		No

GRASS									
GL	A	Grass low grow mix	sown, close mow to 100mm	sow			1515		m ²
GR	A	Grass rank - (low grow mix)	sown, allowed to grow rank	sow			2158		m ²

No.	Revision	By	Chk	Appd	Date	
1	FOR CONSTRUCTION	MP	GFB	DH	DGS	15.12.14

Original Scale (A1)	Design	Date	Approved For Construction
NTS	S DUNN	18.11.14	P. BRADSHAW
Reduced Scale (A3)	M POWELL	18.11.14	
NTS	B EVANS	18.11.14	
NTS	G F B	18.11.14	

Project: SH1 MACKAYS TO PEKA PEKA EXPRESSWAY
RP 1012/0.00 TO 1023/5.00

Title: RAUMATI TO WHAREMAUKU PLANTING SCHEDULE

Drawing No: M2PP-35R-D-DWG-8211
Rev: 1