

SOFT LANDSCAPE



HYDROSEEDDED GRASS (GRP)
REFER TO DETAIL 03, AL-6300 AND
AL-6001-6013 FOR GENERAL
ARRANGEMENT

PLANTING



RIPARIAN PLANTING MIX (WRP) -
FOR LOCATIONS REFER TO GENERAL
ARRANGEMENT PLANS, DRAWINGS AL-6001-6013.
FOR PLANTING DETAIL REFER TO DETAIL 08,
DRAWING AL-6200. FOR TYPICAL SETOUT REFER TO
DETAIL 04, DRAWING AL-6201 AND FOR PLANTING
SCHEDULE, DRAWING AL-6300.



SWALE PLANTING MIX (SWP) -
FOR LOCATIONS REFER TO GENERAL
ARRANGEMENT PLANS, DRAWINGS AL-6001-6013.
FOR PLANTING DETAIL REFER TO DETAIL 08,
DRAWING AL-6200. FOR TYPICAL SETOUT REFER TO
DETAIL 03, DRAWING AL-6201 AND FOR PLANTING
SCHEDULE, DRAWING AL-6300.



MEDIUM-HIGH NATIVE REVEGETATION (HRP) -
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013. FOR PLANTING
DETAIL REFER TO DETAIL 08, DRAWING AL-6200. FOR
TYPICAL SETOUT REFER TO DETAIL 01, DRAWING
AL-6201 AND FOR PLANTING SCHEDULE, DRAWING
AL-6300.



LOW NATIVE REVEGETATON (LRP) -
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013. FOR PLANTING DETAIL
REFER TO DETAIL 08, DRAWING AL-6200. FOR TYPICAL
SETOUT REFER TO DETAIL 05, DRAWING AL-6201 AND
FOR PLANTING SCHEDULE, DRAWING AL-6300.



AMENITY PLANTING MIX (AMP) -
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013. FOR PLANTING DETAIL
REFER TO DETAIL 02, DRAWING AL-6200. FOR TYPICAL
SETOUT REFER TO DETAIL 04, DRAWING AL-6201 AND
FOR PLANTING SCHEDULE, DRAWING AL-6300.

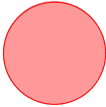
NATIVE SPECIMEN TREES



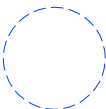
PROPOSED TREE
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013. FOR PLANTING
DETAILS REFER TO DRAWING AL-6200 AND FOR
PLANTING SCHEDULE, DRAWING AL-6300.



NOTABLE TREE
TO BE PROTECTED AND RETAINED DURING
CONSTRUCTION. REFER TO LANDSCAPE SPECIFICATION
FOR FURTHER DETAIL AND GUIDANCE.
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013



NOTABLE TREE PROTECTION ZONE
PROTECTION ZONE FOR NOTABLE TREES AS
DETERMINED BY ARBORIST.
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013



EXISTING TREE
TO BE PROTECTED AND RETAINED WHERE PRACTICABLE
DURING CONSTRUCTION.
TREE PROTECTION TO BE CONFIRMED WITH ENGINEER
ON SITE.
FOR LOCATIONS REFER TO GENERAL ARRANGEMENT
PLANS, DRAWINGS AL-6001-6013

OTHER



NEW 3.0m SHARED PATH



DRIVEWAY ACCESS / VEHICLE CROSSING



RETAINING WALL
REFER TO GEOTECHNICAL DRAWINGS



NEW MASH TL-3 WIRE ROPE BARRIER
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



NEW MASH TL-3 W-BEAM BARRIER
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



NEW THRIE BEAM BARRIER
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



PROPERTY BOUNDARY
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



PROPERTY NUMBER
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



ROAD / RAIL DESIGNATION
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



CHAINAGE
REFER TO CA-1200 FOR GENERAL NOTES AND LEGEND



DIVERSION DRAIN
FOR STORMWATER DRAWINGS REFER TO CD-2100-2127



TREATMENT SWALE
FOR STORMWATER DRAWINGS REFER TO CD-2100-2127



STORMWATER PIPE
FOR STORMWATER DRAWINGS REFER TO CD-2100-2127



NOISE WALL
REFER TO NOISEWALL DRAWINGS



EXISTING ROAD DESIGNATION BOUNDARY



PROPOSED DESIGNATION BOUNDARY



EXISTING LIGHTPOLE



PROPOSED LIGHTPOLE

GENERAL NOTES:

- ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION.
- ALL DIMENSIONS AND LEVELS SHALL BE CONFIRMED ON SITE BY THE CONTRACTOR PRIOR TO UNDERTAKING WORKS
- THE CONTRACTOR SHALL IDENTIFY THE LOCATION OF ALL UNDERGROUND SERVICES ON SITE PRIOR TO UNDERTAKING DEMOLITION OR CONSTRUCTION WORKS.
- ALL SETOUT OF GARDEN BED EDGES INCLUDING CURVED SHAPES SHALL BE MARKED ON SITE BY THE CONTRACTOR AND THEN CONFIRMED WITH THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL ENSURE SUITABLE DRAINAGE IS ACHIEVED IN TOPSOIL AND SUBSOIL LAYERS IN ALL PLANTING AND GRASS AREAS - TO ENSURE GOOD ESTABLISHMENT AND GROWTH. THIS SHALL INCLUDE REMEDIATION OF ALL COMPACTION TO SUBSOIL CREATED DURING THE DEMOLITION AND CONSTRUCTION PROCESS
- FOR SETOUT OF EMBANKMENTS AND PATHS REFER TO GEOMETRICS MODEL.
- TREES SHALL BE PLANTED NO LESS THAN THE FOLLOWING DISTANCES FROM UTILITY ELEMENTS
 - SW AND SEWERAGE PITS: 2m
 - SERVICE CROSSINGS: 2m
 - GAS MAINS AND STREET LIGHTS: 4m
 - LV & HV LINES 3 & 4m
- TOPSOIL DEPTHS (COMBINATION OF ONSITE REUSED AND IMPORTED TOPSOIL):
 - GRASSED AREAS = MIN 100mm
 - PLANTED AREAS = MIN 300mm
- GRASS MAINTENANCE:
 - ALL GRASS ON SLOPES EQUAL TO OR SHALLOWER THAN 1:4 TO BE MOWN WITH MOWER TO MAINTAIN 200mm HEIGHT AS PER LANDSCAPE SPECIFICATION.
 - ALL GRASS ON SLOPES GREATER THAN 1:4 TO BE MAINTAINED MANUALLY BY HAND DRIVEN WEED TRIMMER AS APPROVED BY AGENCY AND KIWI RAIL.
- AREAS DISTURBED BY CONSTRUCTION:
 - ALL AREAS WITHIN A MINIMUM OF 1m OF THE CONSTRUCTION FOOTPRINT ARE TO BE MADE GOOD BY THE CONTRACTOR WITH HYDROSEEDDED GRASS. GRASS TO BE INSTALLED AS PER THE LANDSCAPE SPECIFICATION.
- A SPADE CUT EDGE IS TO BE USED ADJACENT TO ALL PLANTING, GRASS AND SHARED PATH AREAS. EXTENTS OF TIMBER EDGING TO BE DETERMINED AT DETAILED DESIGN.
- MULCH TO BE APPLIED ON ALL AREAS OF HIGH NATIVE REVEGETATION PLANTING (HRP) AND LOW NATIVE REVEGETATION PLANTING (LRP). FOR LOCATIONS, REFER TO LANDSCAPE PLANS AL-6001-6013.
- ECOJUTE MATTING TO BE APPLIED ON ALL AREAS OF WETLAND/RIPARIAN PLANTING (WRP) AND SWALE PLANTING (SWP) AREAS. FOR LOCATIONS, REFER TO LANDSCAPE PLANS AL-6001-6013.

WORK AROUND EXISTING TREES

- ALL CARE SHALL BE UNDERTAKEN WHEN WORKING AROUND EXISTING TREES - REFER TO LANDSCAPE SPECIFICATION FOR FURTHER DETAIL AND GUIDANCE.
- ALL CONSTRUCTION WORKS THAT TAKE PLACE WITHIN THE DRIP-LINE / ROOT ZONE AREAS OF ALL EXISTING TREES SHALL BE UNDERTAKEN IN CONSULTATION WITH A QUALIFIED CONTRACTOR APPOINTED ARBORIST, INCLUDING DIRECT ON-SITE SUPERVISION AS REQUIRED.

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.22
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



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Reduced Scale (A3)	Drawn	K. MCNEILL	26.03.21	
	Dwg Verifier	E. CAMBRIDGE	02.11.22	
	Dwg Check	E. CAMBRIDGE	02.11.22	
	* Refer to Revision 1 for Original Signature			

Client:



Project:

SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title:

LANDSCAPE AND
ECOLOGICAL PLANTING
NOTES AND LEGEND

Discipline

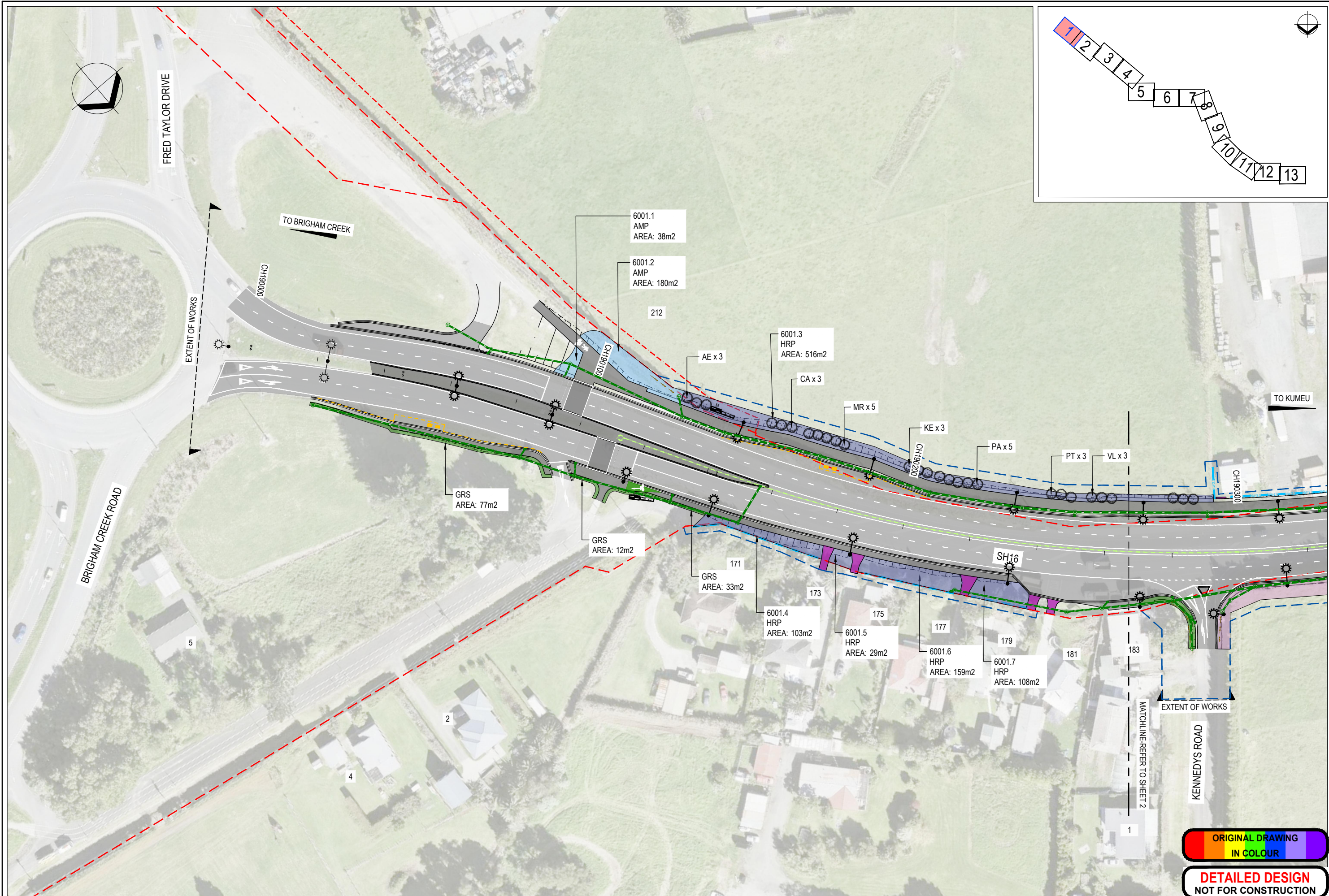
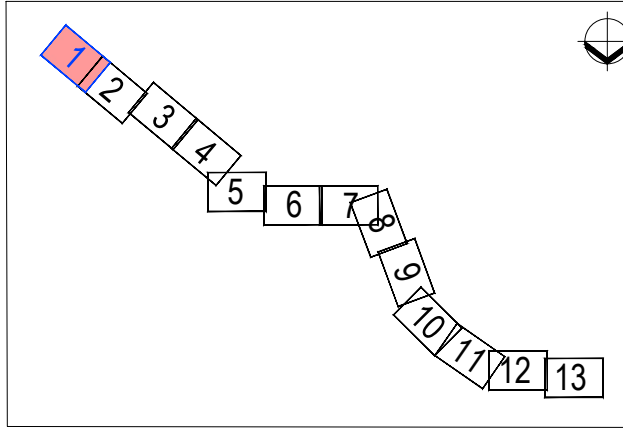
LANDSCAPE

Drawing No.

3235084-AL-6000

Rev.

D



ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION

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No.	Revision	By	Chk	Appd	Date

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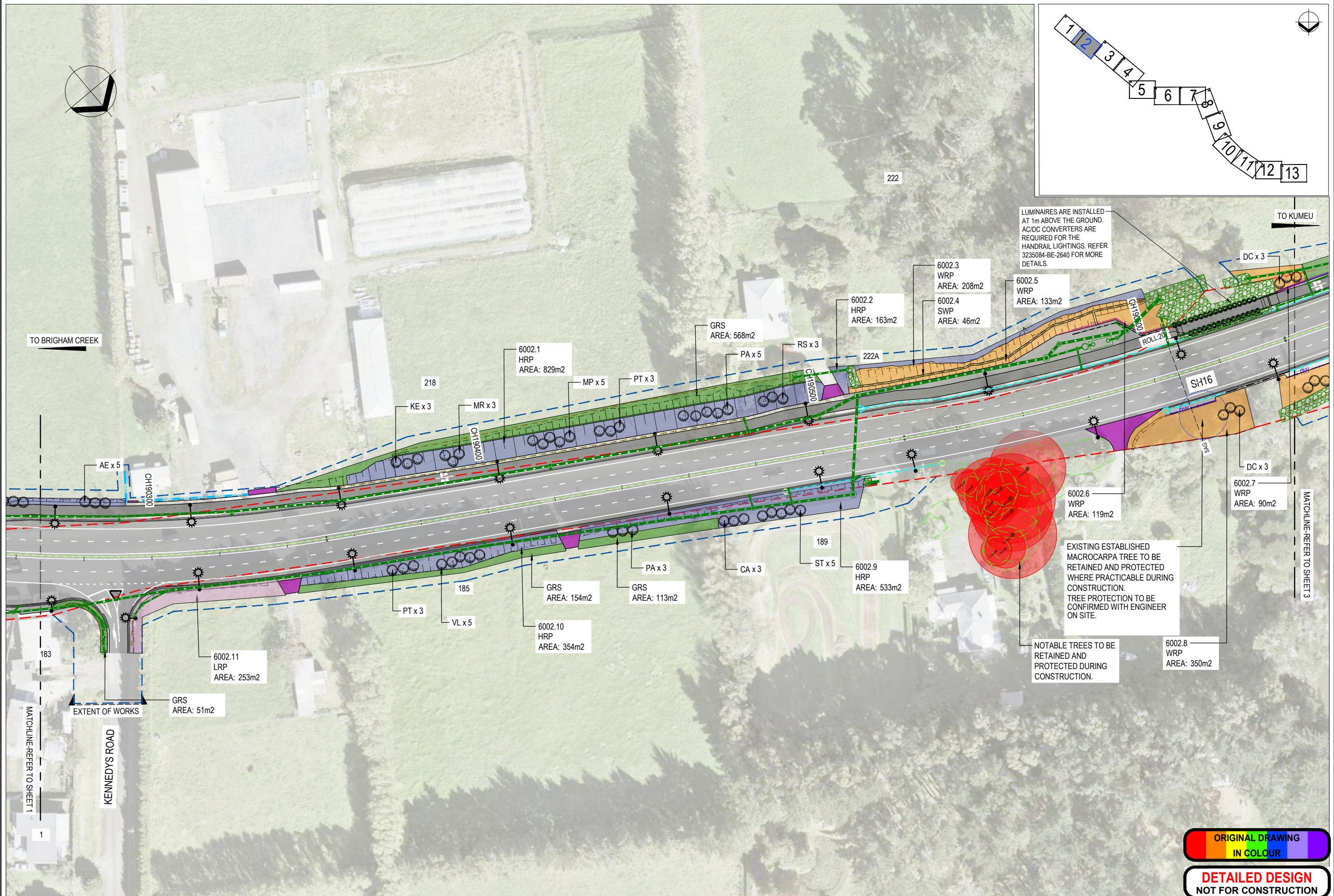
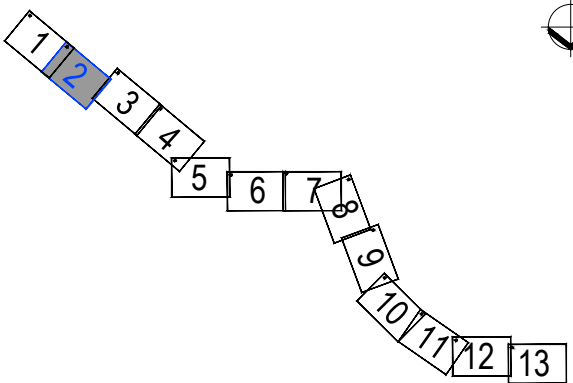
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1:500	Dwg Check	E. CAMBRIDGE	02.11.22	
	* Refer to Revision 1 for Original Signature			

Client:

Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 1

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6001
Rev.	D



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No.	Revision	By	Chk	Appd	Date

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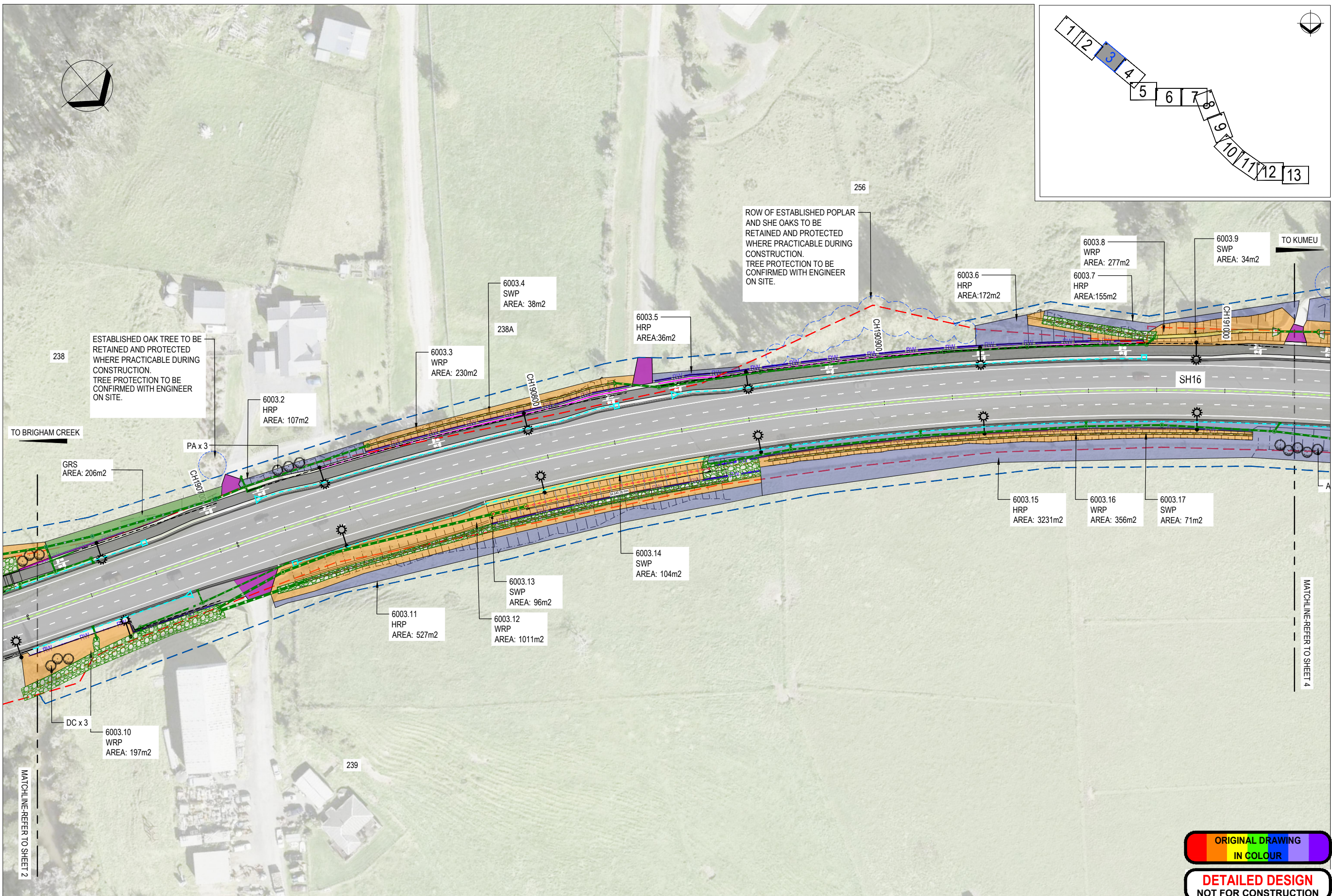
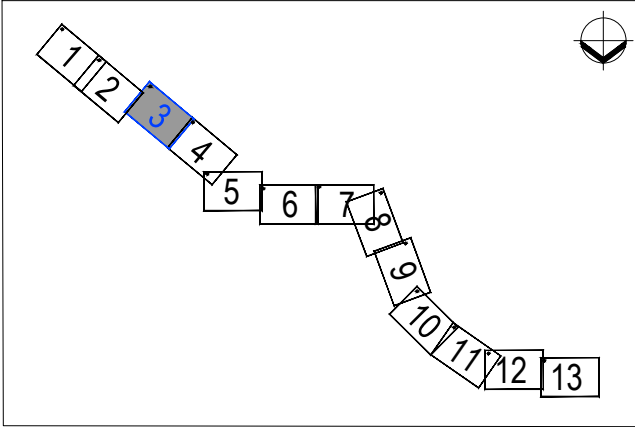
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STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 2

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6002
Rev.	D

ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION



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No.	Revision	By	Chk	Appd	Date

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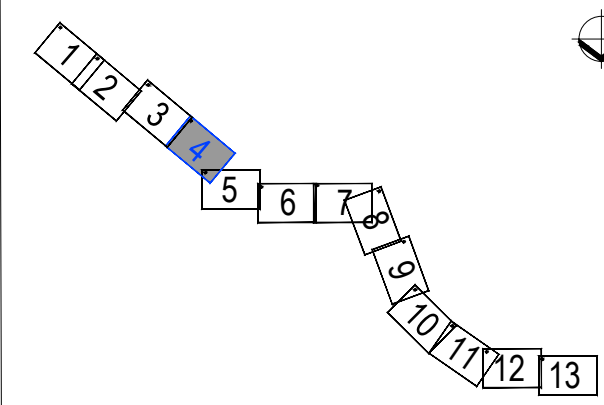
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STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 3

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6003
Rev.	D

ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION



TO BRIGHAM CREEK

264

OAK AND REDWOOD TREE TO BE RETAINED AND PROTECTED WHERE PRACTICABLE DURING CONSTRUCTION. TREE PROTECTION TO BE CONFIRMED WITH ENGINEER ON SITE.

6004.1
HRP
AREA: 1114m²

6004.2
WRP
AREA: 1155m²

6004.3
SWP
AREA: 175m²

6004.4
HRP
AREA: 266m²

6004.5
WRP
AREA: 705m²

6004.6
SWP
AREA: 112m²

6004.8
HRP
AREA: 284m²

6004.7
HRP
AREA: 780m²

EXISTING TOTARA AND OAK TREE TO BE RETAINED AND PROTECTED WHERE PRACTICABLE DURING CONSTRUCTION. TREE PROTECTION TO BE CONFIRMED WITH ENGINEER ON SITE.

TO KUMEU

MATCHLINE-REFER TO SHEET 5

MATCHLINE-REFER TO SHEET 3

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C	FOR CONSENTING	KM	EC	GC	26.08.22
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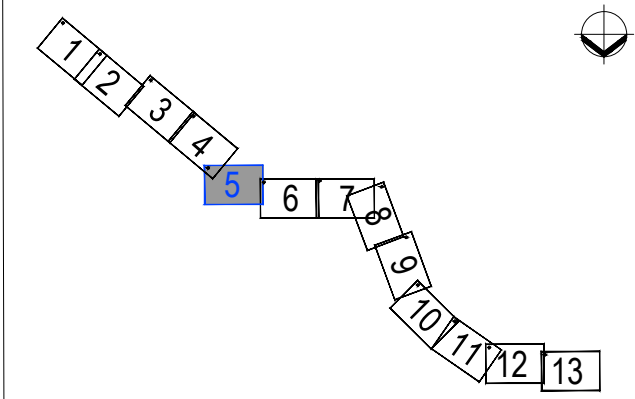
Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 4

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6004
Rev.	D

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IN COLOUR

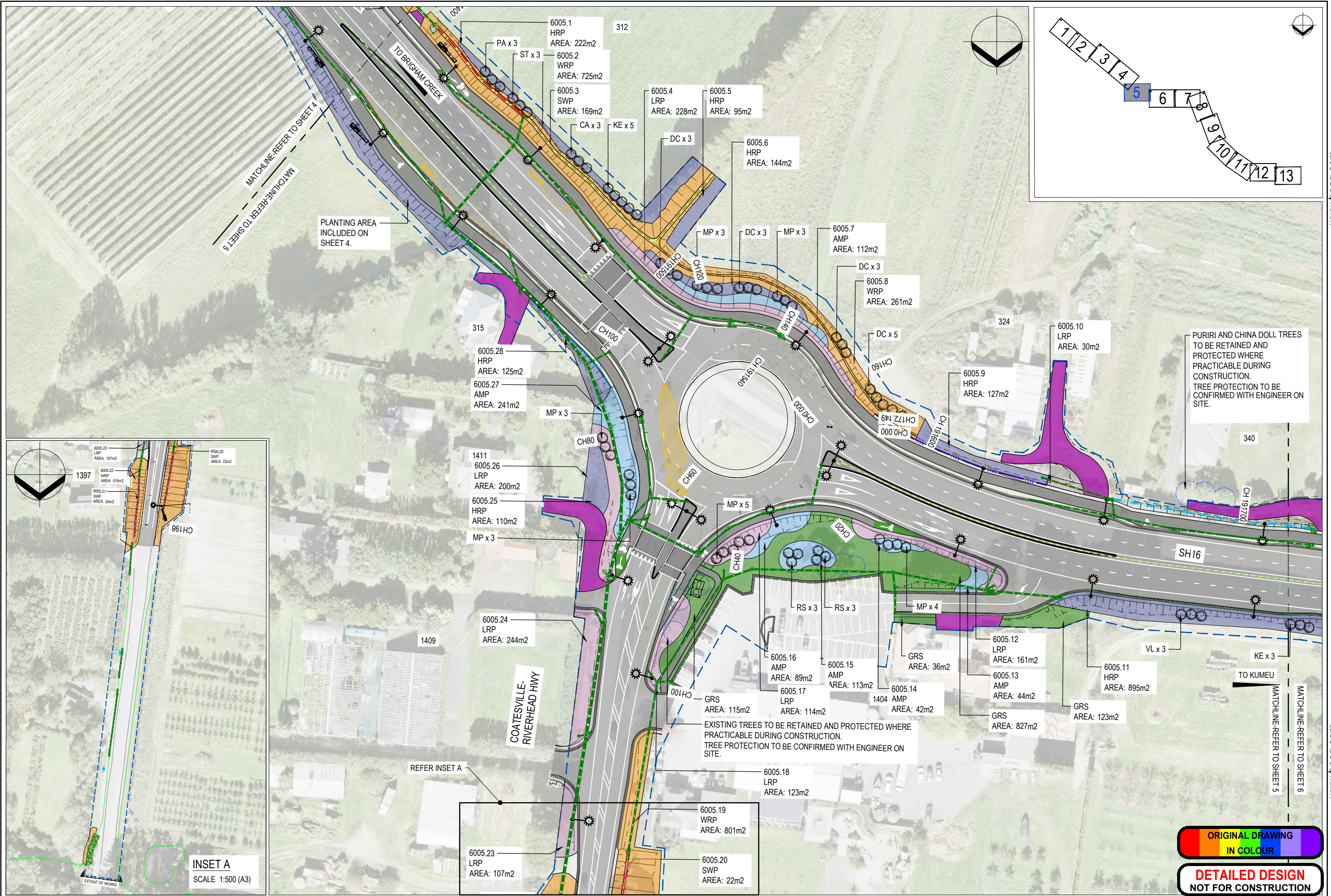
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Document No. 3235084-AL-6001 TO 6013.DWG



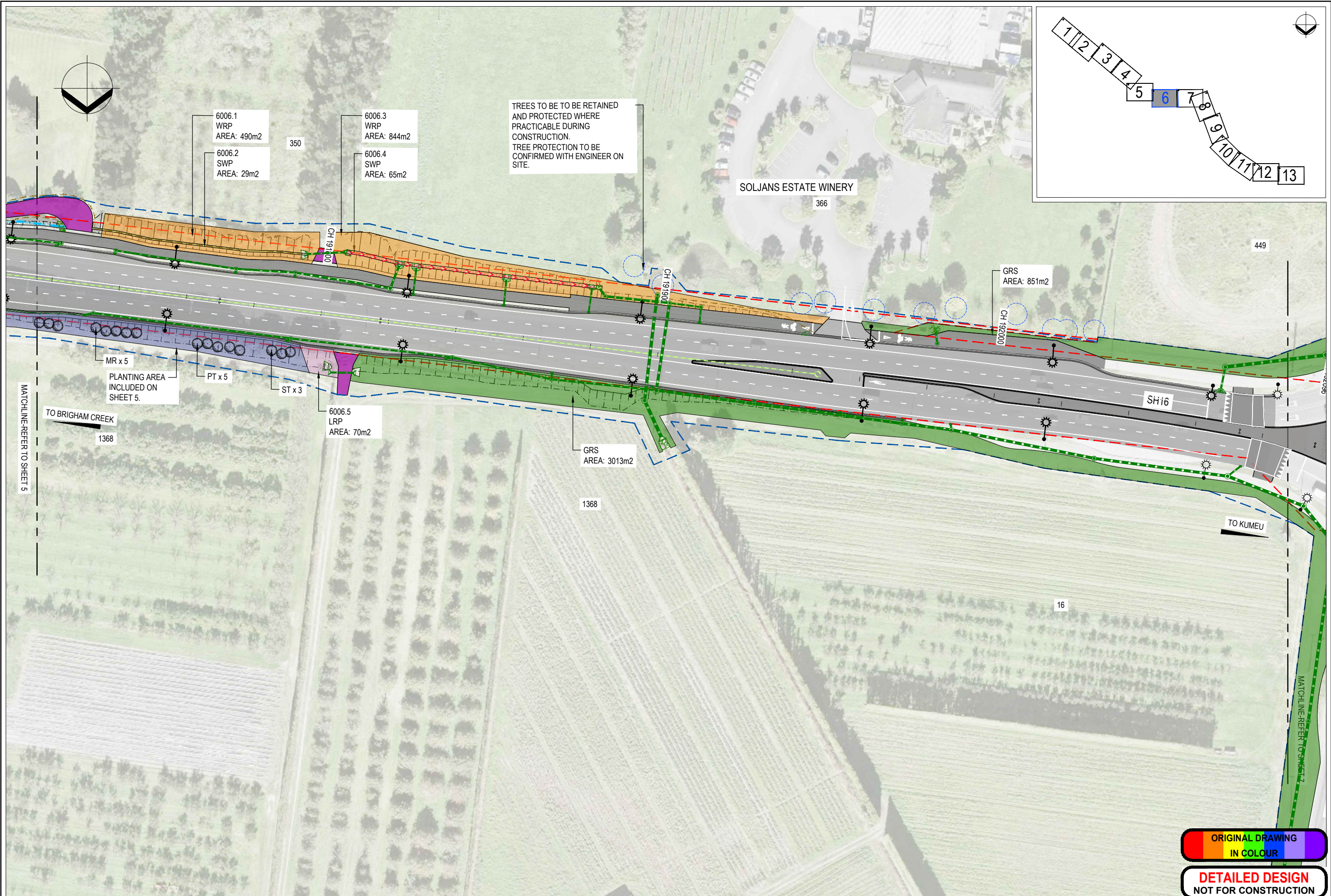
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IN COLOUR

DETAILED DESIGN

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A PRELIMINARY DESIGN				KM	EC	NL	26.03.21							Dwg Check E. CAMBRIDGE 02.11.22								
No.	Revision			By	Chk	Appd	Date															



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No.	Revision	By	Chk	Appd	Date

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Client:

Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 6

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6006
Rev.	D

ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION



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B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.22
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:

Beca

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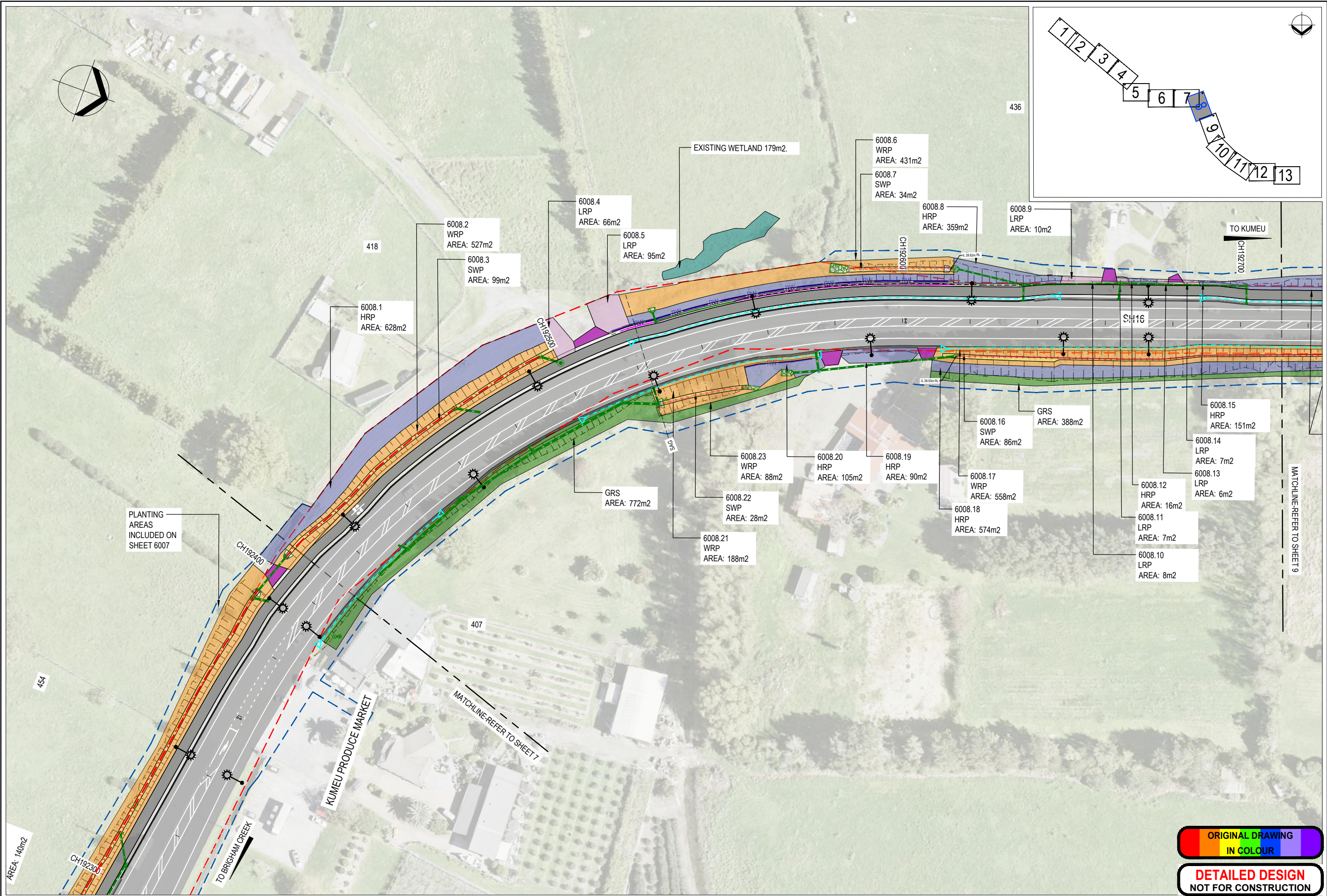
WAKA KOTAHU
NZ TRANSPORT AGENCY

Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND ECOLOGICAL PLANTING PLAN SHEET 7		Discipline: LANDSCAPE
Drawing No: 3235084-AL-6007	Rev: D	

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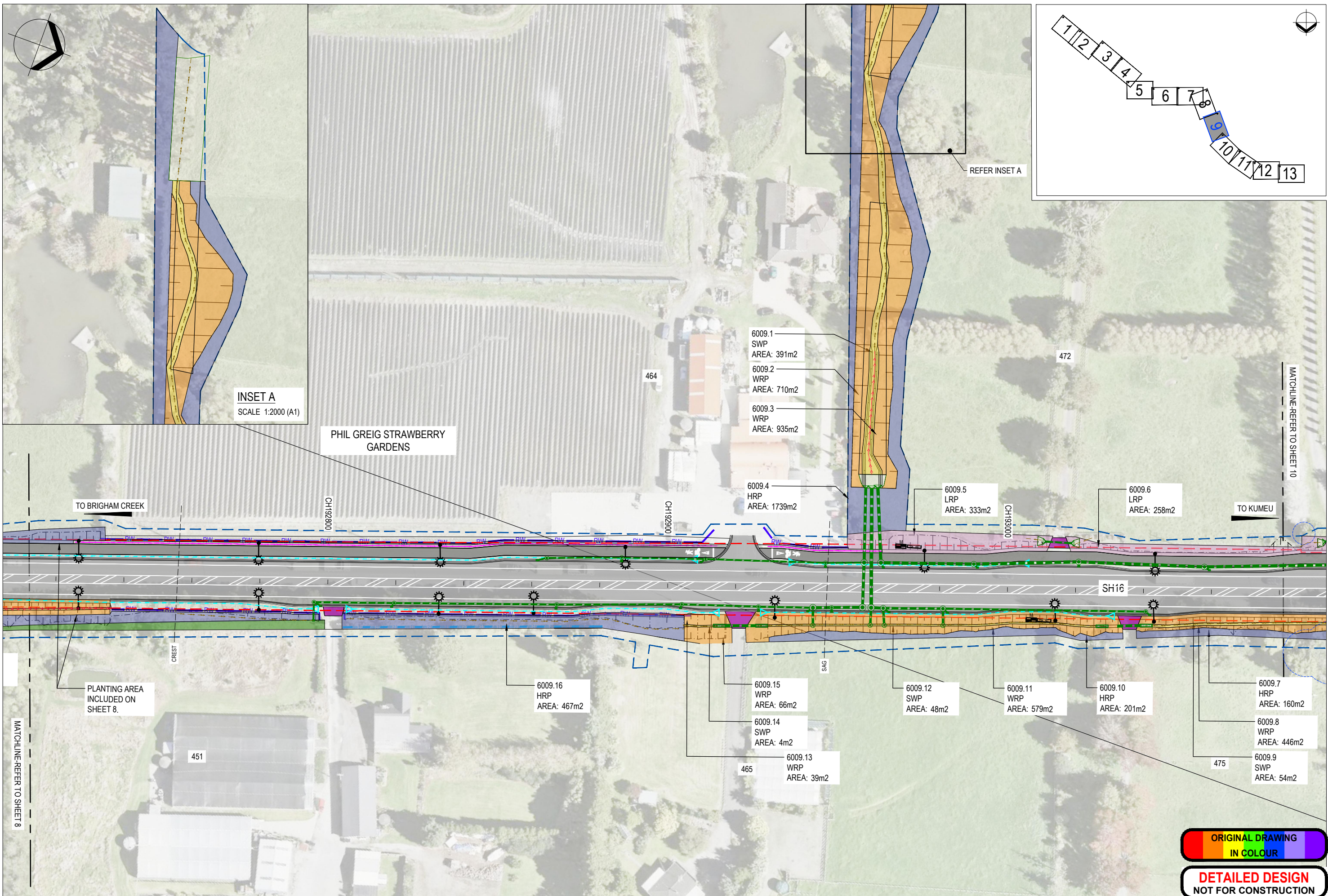
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A PRELIMINARY DESIGN				KM	EC	NL	26.03.21										
No.				Revision				By	Chk	Appd	Date						

ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION



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No.	Revision	By	Chk	Appd	Date

Drawing Originator:

Beca

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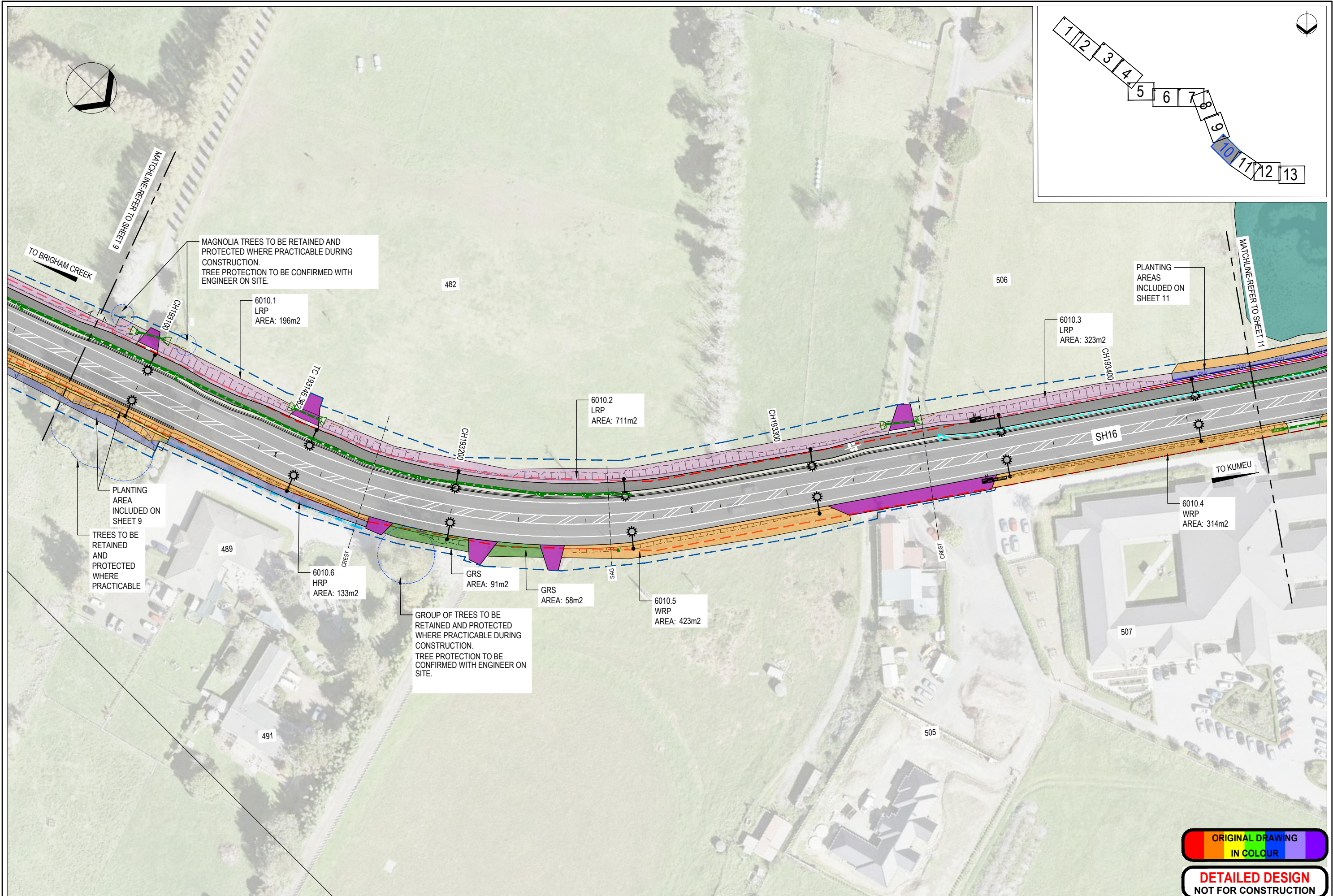
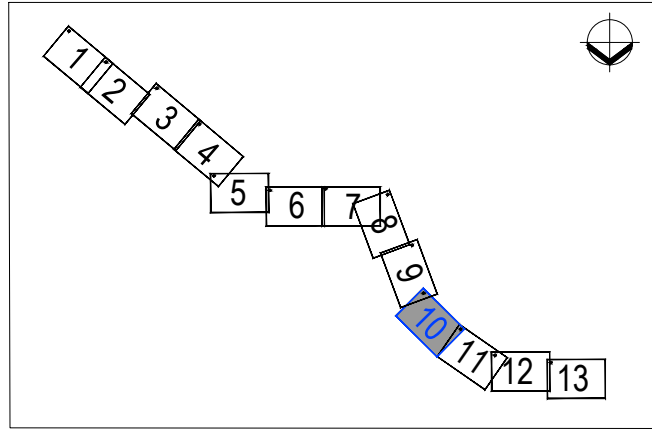
Client:

WAKA KOTAHU
NZ TRANSPORT AGENCY

Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING PLAN
SHEET 9

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6009
Rev.	D



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No.	Revision	By	Chk	Appd	Date

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1:500	Dwg Check	E. CAMBRIDGE	02.11.22	
	* Refer to Revision 1 for Original Signature			

Client:

Project: SH16 - SAFETY IMPROVEMENTS
STAGE 2
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE
ECOLOGICAL PLANTING PLAN
SHEET 10

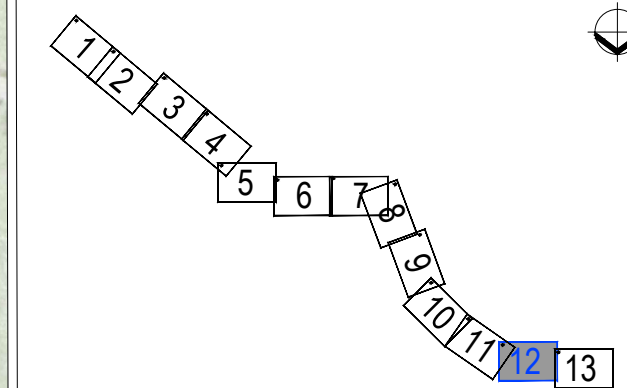
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Rev.	D

ORIGINAL DRAWING
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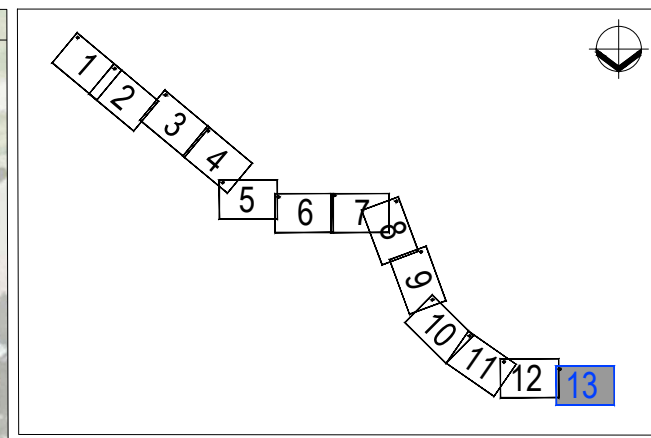
DETAILED DESIGN
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Discipline		LANDSCAPE	
Drawing No.		3235084-AL-6011	Rev. D



Discipline		LANDSCAPE
Drawing No.		Rev.
3235084-AL-6012		D



Discipline	LANDSCAPE	
Drawing No.	3235084-AL-6013	Rev. D

TREE STAKING NOTES:

- 45L TREES
 - USE 4no. 50x50x2400mm H4 TREATED PINUS RADIATA TREE STAKES PER TREE.
 - STAKES TO BE DRIVEN MIN 500mm INTO FIRM UNMODIFIED GROUND AND THEN CUT TO CONSISTENT HEIGHT.
 - STAKES SHALL BE VERTICAL AND PERPENDICULAR TO THE PLANTER EDGE.
 - TREES SHALL BE STAKED IDENTICALLY TO ENSURE CONSISTENCY ACROSS THE SITE BOUNDARY
 - TREES TO HAVE MINIMUM CLEAR STEM OF 1000mm
 - TREE TIES TO BE TIED AT MINIMUM OF 750mm FROM BASE OF TREE
- 25L TREES (EXCEPT *CORDYLINE AUSTRALIS*)
 - USE 1no. 18mm DIAMETER x 1800mm BAMBOO TREE STAKE PER TREE
 - STAKES TO BE DRIVEN MIN 500mm INTO FIRM UNMODIFIED GROUND AND THEN CUT TO CONSISTENT HEIGHT
 - STAKES SHALL BE VERTICAL
 - TREES SHALL BE STAKED IDENTICALLY TO ENSURE CONSISTENCY ACROSS THE SITE
 - TREE TIES TO BE ADJUSTABLE ADVANCED LANDSCAPES 'SPEEDI TIES'
 - TREE TIES TO BE TIED AT MINIMUM OF 700mm FROM BASE OF TREE



4no. 2400X50x50mm H4 TREATED PINUS RADIATA TREE STAKES WITH POINTED ENDS STAINED BLACK TO APPROVED SAMPLE.
STAKES TO BE DRIVEN 500mm INTO FIRM GROUND, VERTICAL AND TO MATCHING HEIGHTS AS PER LANDSCAPE SPECIFICATIONS

BLACK HESSIAN TIES FIRMLY ATTACHED TO TREE STAKES IN OPPOSITE PAIRS

100mm THICK LAYER *LIVING EARTH 'MORE THAN MULCH'* OR APPROVED EQUIVALENT. MULCH PULLED AWAY FROM BASE OF TREE TO PREVENT COLLAR ROT. REFER TO LANDSCAPE SPECIFICATION

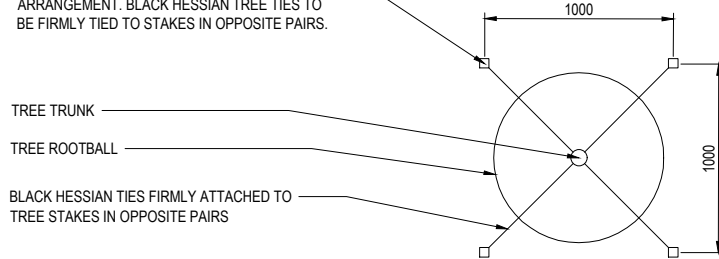
TOP 2/3 OF TREE PIT BACKFILLED WITH 50% APPROVED TOPSOIL AND 50% *'LIVING EARTH ORGANIC COMPOST'* OR APPROVED EQUIVALENT. REFER TO LANDSCAPE SPECIFICATION

BOTTOM 1/3 OF TREE PIT BACKFILLED WITH 50% APPROVED TOPSOIL AND 50% BASAL MATERIAL THAT HAS BEEN LIGHTLY HEELED IN BY FOOT. REFER TO LANDSCAPE SPECIFICATION

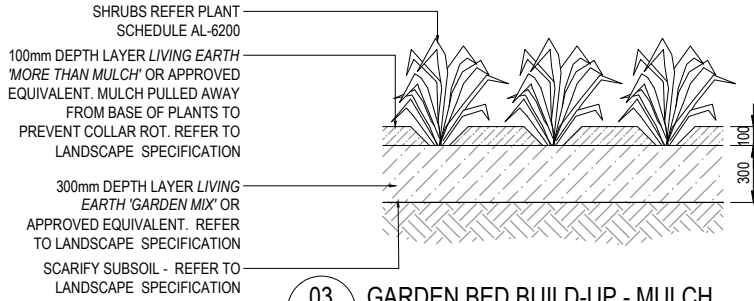
INSTALL 100mm OF DRAINAGE SCORIA IN AREAS OF POOR NATURAL DRAINAGE

01 TYPICAL SPECIMEN TREE PLANTING
SCALE 1:20 @ A1 1:40 @ A3

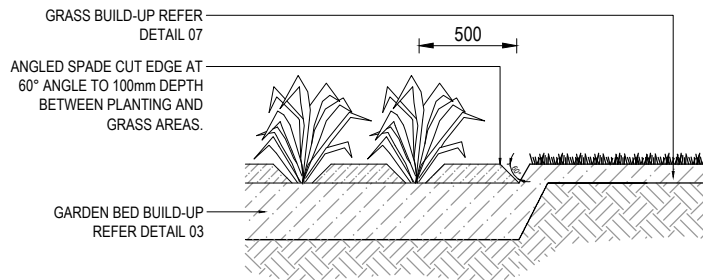
4no. STAKES TO BE SPACED IN 1000mm SQUARE ARRANGEMENT. BLACK HESSIAN TREE TIES TO BE FIRMLY TIED TO STAKES IN OPPOSITE PAIRS.



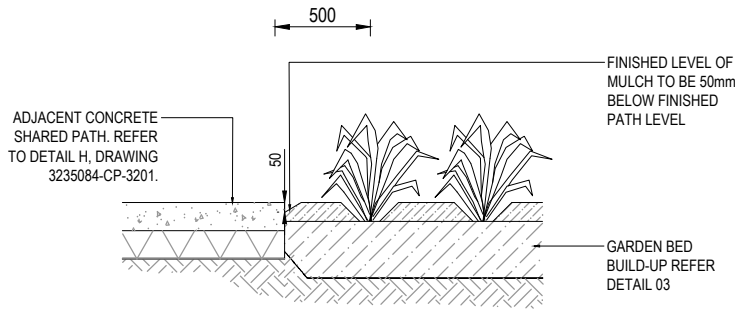
02 TYPICAL SPECIMEN TREE STAKING PLAN
SCALE 1:20 @ A1 1:40 @ A3



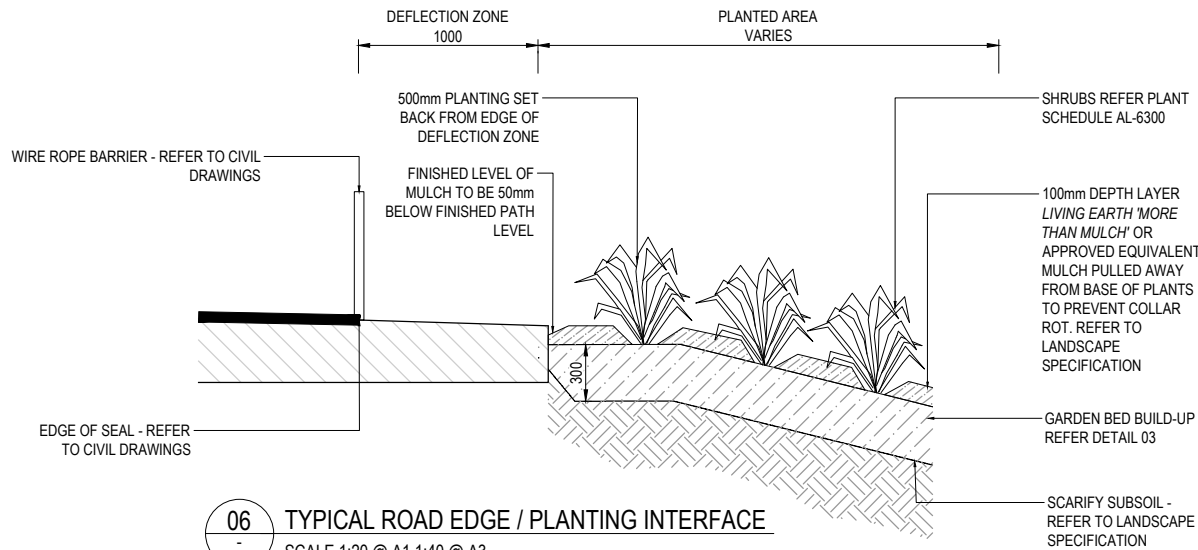
03 GARDEN BED BUILD-UP - MULCH
SCALE 1:20 @ A1 1:40 @ A3



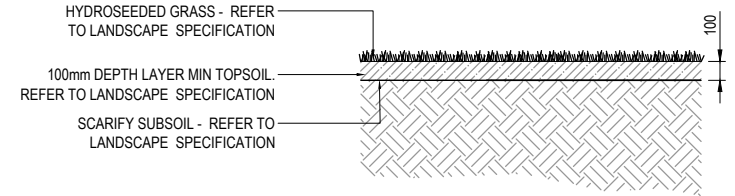
04 PLANTING TO GRASS INTERFACE
SCALE 1:20 @ A1 1:40 @ A3



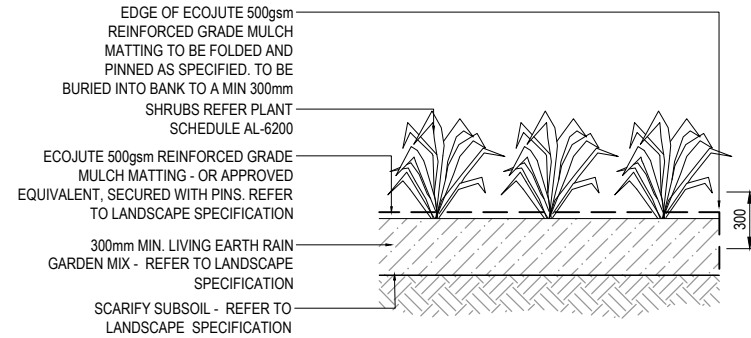
05 GARDEN BED TO CONCRETE PATH INTERFACE
SCALE 1:20 @ A1 1:40 @ A3



06 TYPICAL ROAD EDGE / PLANTING INTERFACE
SCALE 1:20 @ A1 1:40 @ A3



07 GRASS PLANTING
SCALE 1:20 @ A1 1:40 @ A3



08 GARDEN BED BUILD-UP - ECOJUTE MATTING
SCALE 1:20 @ A1 1:40 @ A3

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.28
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:

Beca

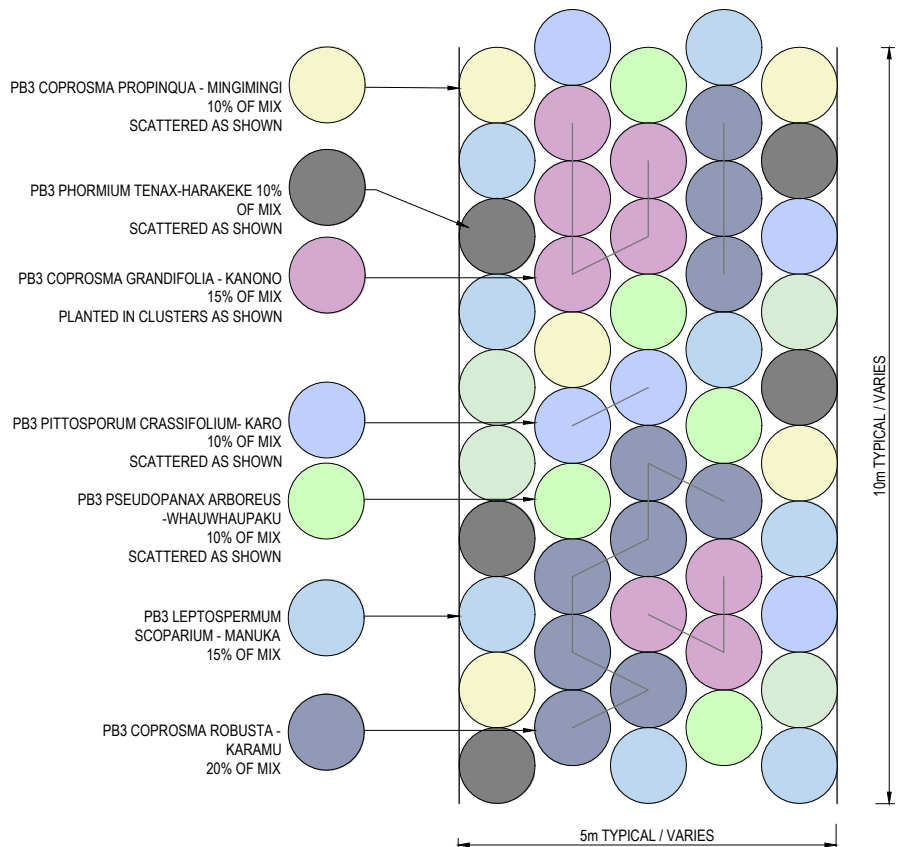
Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
Reduced Scale (A3)	Drawn	K. MCNEILL	26.03.21	
	Dwg Verifier	E. CAMBRIDGE	02.11.22	
	Dwg Check	E. CAMBRIDGE	02.11.22	
HALF SHOWN	* Refer to Revision 1 for Original Signature			

Client: **WAKA KOTAHU**
NZ TRANSPORT AGENCY

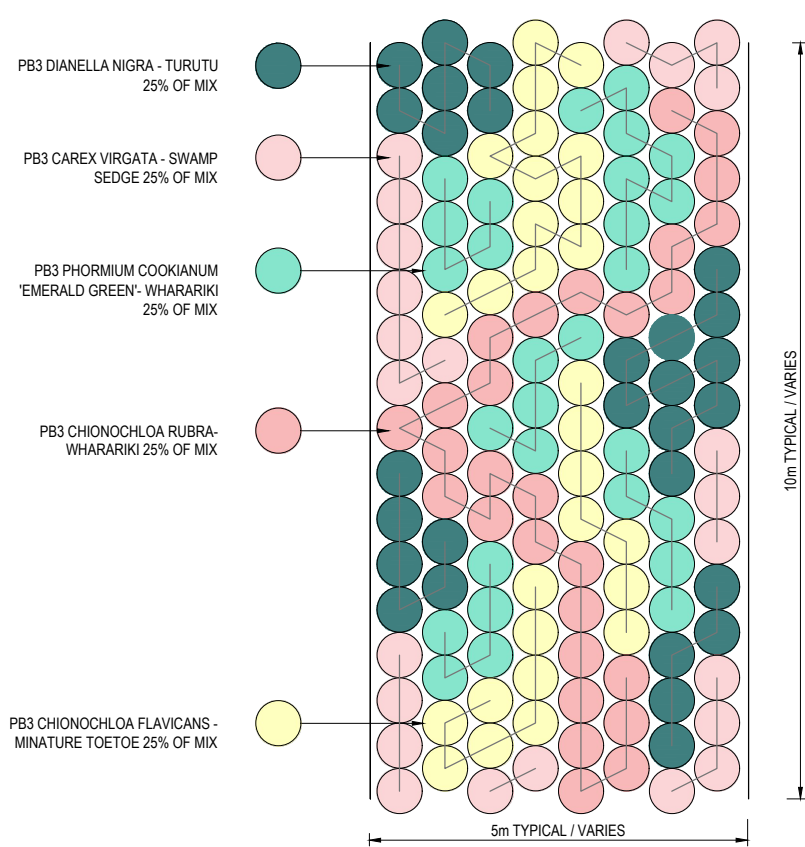
Project: SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title: LANDSCAPE AND
ECOLOGICAL PLANTING
DETAILS

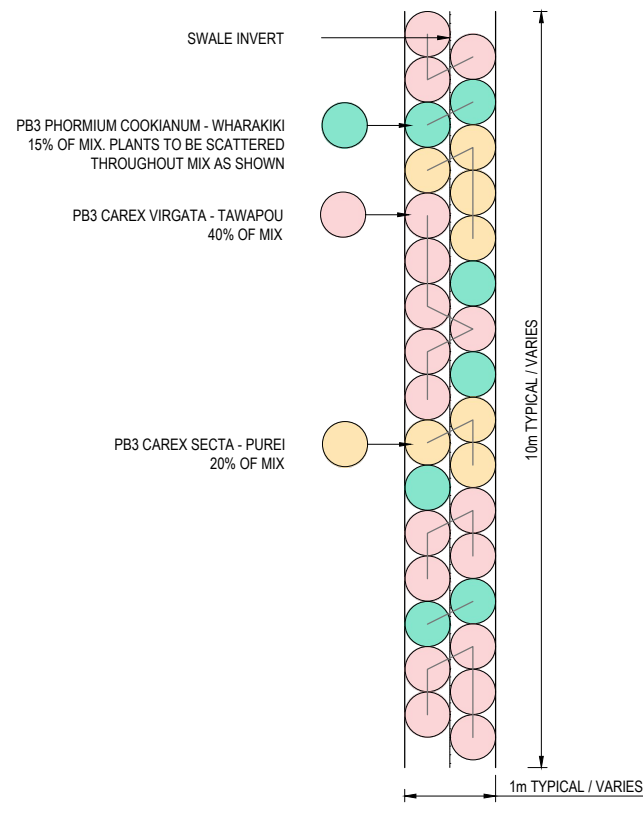
Discipline	LANDSCAPE
Drawing No.	3235084-AL-6200
Rev.	D



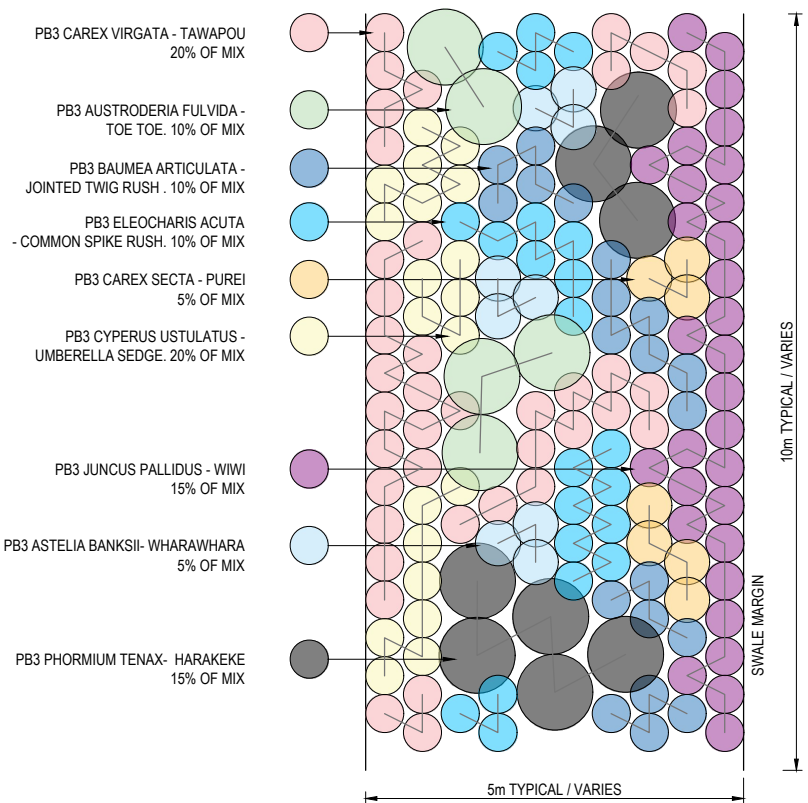
01 TYPICAL PLANTING SET OUT - MEDIUM-HIGH NATIVE REVEGETATION PLANTING
1:50 @ A1 1:100 @ A3



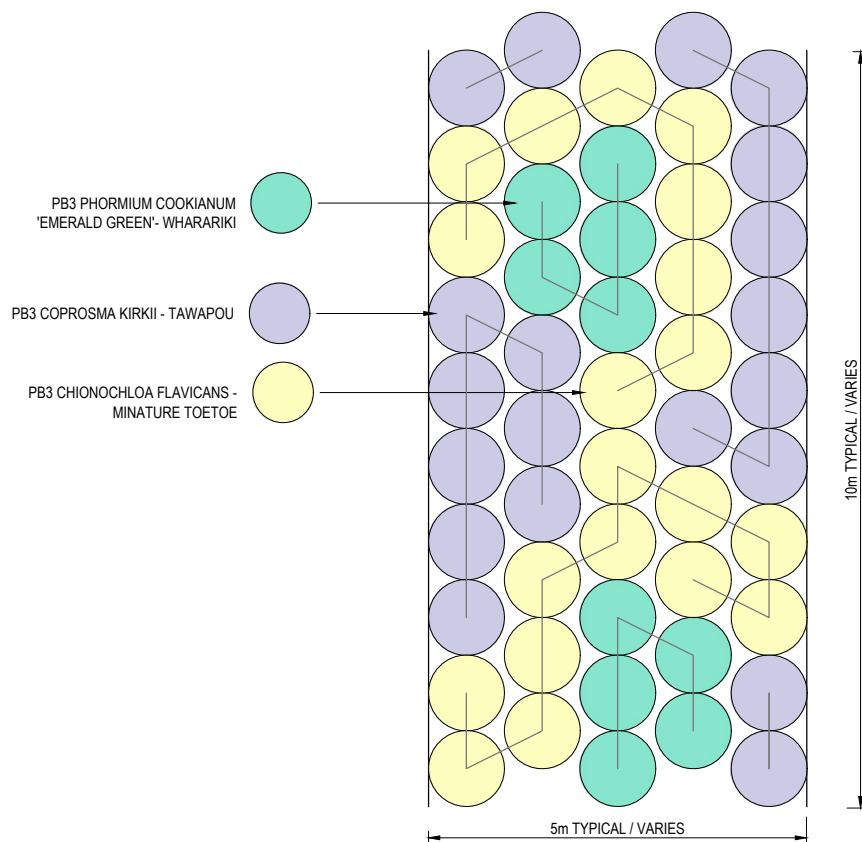
02 TYPICAL PLANTING SET OUT - AMENITY PLANTING
1:50 @ A1 1:100 @ A3



03 TYPICAL PLANTING SET OUT - SWALE PLANTING
1:50 @ A1 1:100 @ A3



04 TYPICAL PLANTING SET OUT - RIPARIAN/WETLAND PLANTING
1:50 @ A1 1:100 @ A3



05 TYPICAL PLANTING SET OUT - LOW NATIVE REVEGETATION PLANTING
1:50 @ A1 1:100 @ A3

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.28
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:
Beca

Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
AS SHOWN	Drawn	K. MCNEILL	26.03.21	
Reduced Scale (A3)	Dwg Verifier	E. CAMBRIDGE	02.11.22	Date
HALF SHOWN	Dwg Check	E. CAMBRIDGE	02.11.22	

Client:
WAKA KOTAHĪ
NZ TRANSPORT AGENCY

Project:
SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:
LANDSCAPE AND
ECOLOGICAL PLANTING
TYPICAL PLANT SETOUT

Discipline	LANDSCAPE
Drawing No.	3235084-AL-6201
Rev.	D

ORIGINAL DRAWING
IN COLOUR
DETAILED DESIGN
NOT FOR CONSTRUCTION

Landscape Planting Schedule - Totals							
WRP (Wetland/Riparian Planting)							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Astelia banksii</i>	Wharawhara	16844	1L	2.77	0.6m	5%	2525
<i>Austroderia fulvida</i>	Toetoe		1L	1	1.0m	10%	1823
<i>Baumea articulata</i>	Jointed twig rush		1L	4	0.5m	10%	7293
<i>Carex secta</i>	Purei		1L	2.77	0.6m	5%	2525
<i>Carex virgata</i>	Pukio		1L	4	0.5m	20%	14586
<i>Cyperus ustulatus</i>	Toetoe Whatu-manu		1L	4	0.5m	10%	7293
<i>Eleocharis acuta</i>	Common spike-rush		1L	4	0.5m	10%	7293
<i>Juncus pallidus</i>	Wiwi		1L	4	0.5m	15%	10939
<i>Phormium cookianum</i>	Wharariki		1L	1	1.0m	15%	2735
SWP (Swale Planting)							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Carex virgata</i>	Pukio	2062	1L	2.77	0.6m	40%	2298
<i>Carex secta</i>	Purei		1L	2.77	0.6m	20%	1149
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		1L	2.77	0.6m	20%	1149
HRP (Medium - High Native Revegetation Planting)							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Austroderia fulvida</i>	Toe toe	16807	1L	1	1.0m	10%	1765
<i>Coprosma grandiflora</i>	Kanono		1L	1	1.0m	15%	2647
<i>Coprosma robusta</i>	Karamu		1L	1	1.0m	20%	3530
<i>Leptospermum scoparium</i>	Manuka		1L	1	1.0m	15%	2647
<i>Phormium tenax</i>	Harakeke		1L	1	1.0m	10%	1765
<i>Psuedopanax arboreus</i>	Whauwhaupaku		1L	1	1.0m	10%	1765
<i>Coprosma propinqua</i>	Mingimingi		1L	1	1.0m	10%	1765
<i>Pittosporum crassifolium</i>	Karo		1L	1	1.0m	10%	1765
LRP (Low Native Revegetation Planting - where planting occurs within sightlines)							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Chionochloa flavicans</i>	Dwarf Toe toe	4636	1L	1	1.0m	40%	1961
<i>Coprosma kirkii</i>	Coprosma		1L	1	1.0m	40%	1961
<i>Phormium cookianum</i>	Wharariki		1L	1	1.0m	20%	980
AMP (Amenity Planting - roundabouts, key junctions etc)							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Dianella nigra</i>	Turutu	1389	1L	2.77	0.6m	20%	794
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		1L	2.77	0.6m	20%	794
<i>Chionchloa rubra</i>	Red Tussock		1L	2.77	0.6m	20%	794
<i>Carex virgata</i>	Pukio		1L	2.77	0.6m	20%	794
<i>Chionochloa flavicans</i>	Dwarf Toe toe		1L	2.77	0.6m	20%	794
Specimen Trees							
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	Quantity
<i>Alectryon excelsus</i> (AE)	Titoki	N/A	45L	AS SHOWN	N/A	N/A	17
<i>Cordyline australis</i> (CA)	Ti Kouka		25L	AS SHOWN	N/A	N/A	18
<i>Knightia excelsa</i> (KE)	Rewarewa		45L	AS SHOWN	N/A	N/A	27
<i>Melicytus ramiflorus</i> (MR)	Mahoe		45L	AS SHOWN	N/A	N/A	23
<i>Metrosideros</i> Maori Princess (MP)	Maori Princess		45L	AS SHOWN	N/A	N/A	45
<i>Pittosporum tenuifolium</i> (PT)	Kohukohu		25L	AS SHOWN	N/A	N/A	22
<i>Pseudopanax arboreus</i> (PA)	Pauahou		45L	AS SHOWN	N/A	N/A	25
<i>Rhopalostylis sapida</i> (RS)	Nikau palm		25L	AS SHOWN	N/A	N/A	24
<i>Sophora tetraptera</i> (ST)	Kowhai		45L	AS SHOWN	N/A	N/A	25
<i>Vitex lucens</i> (VL)	Puriri		45L	AS SHOWN	N/A	N/A	24
<i>Dacrydium cupressinum</i> (DC)	Rimu		45L	AS SHOWN	N/A	N/A	24
Total Plant area (m2)		41738				Total Plant Numbers	88403
GRP Grass area (m2)		8213					
Topsoil (m2)	300mm depth for planting, 100mm for grassed	49951					
Mulch Volume (m3)	100mm depth for HRP, LRP and Specimen trees (based on min 1.6x1.6m tree pit)	2214					
Weedmat area (m2)	Included on WRP, SWP areas	18906					

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1) NTS	Design Drawn	K. MCNEILL	26.03.21	Approved For Construction*
Reduced Scale (A3) NTS	Design Verified	E. CAMBRIDGE	02.11.22	Date
* Refer to Revision 1 for Original Signature				

Client:



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
OVERALL

Discipline		LANDSCAPE
Drawing No.	3235084-AL-6300	Rev. D



Sheet 6001 Plant Schedule														
(HRP) Medium -High Native Revegetation Planting														
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6001.1	6001.2	6001.3	6001.4	6001.5	6001.6	6001.7	Total Qty
Austroderia fulvida	Toe toe	915	PB3	1	1.0m	10%	-	-	56	11	3	17	12	100
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%			84	17	5	26	18	150
Coprosma robusta	Karamu		PB3	1	1.0m	20%			112	22	6	35	24	199
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%			84	17	5	26	18	150
Phormium tenax	Harakeke		PB3	1	1.0m	10%			56	11	3	17	12	100
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%			56	11	3	17	12	100
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%			56	11	3	17	12	100
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%			56	11	3	17	12	100
AMP (Amenity Planting - roundabouts, key junctions etc)														
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6001.1	6001.2	6001.3	6001.4	6001.5	6001.6	6001.7	Total Qty
Dianella nigra	Turutu	218	1L	2.77	0.6m	20%	21	100	-	-	-	-	-	121
Phormium cookianum 'Emerald green'	Wharariki		1L	2.77	0.6m	20%	21	100						121
Chionchloa rubra	Red Tussock		1L	2.77	0.6m	20%	21	100						121
Carex virgata	Pukio		1L	2.77	0.6m	20%	21	100						121
Chionochloa flavicans	Dwarf Toe toe		1L	2.77	0.6m	20%	21	100						121
Specimen Trees														
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6001.1	6001.2	6001.3	6001.4	6001.5	6001.6	6001.7	Total Qty
Alectryon excelsus (AE)	Titoki	N/A	45L	AS SHOWN	N/A	N/A	-	-	-	-	-	-	-	3
Cordyline australis (CA)	Ti Kouka		25L	AS SHOWN	N/A	N/A								3
Knightia excelsa (KE)	Rewarewa		45L	AS SHOWN	N/A	N/A								3
Melicytus ramiflorus (MR)	Mahoe		45L	AS SHOWN	N/A	N/A								5
Pittosporum tenuifolium (PT)	Kohukohu		25L	AS SHOWN	N/A	N/A								3
Pseudopanax arboreus (PA)	Puahou		45L	AS SHOWN	N/A	N/A								5
Vitex lucens (VL)	Puriri		45L	AS SHOWN	N/A	N/A								3
Total grass area		122												

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1) NTS	Design	K. MCNEILL	26.03.21	Approved For Construction*
	Drawn	K. MCNEILL	26.03.21	
Reduced Scale (A3) NTS	Dwg Verifier	E. CAMBRIDGE	02.11.22	
	Dwg Check	E. CAMBRIDGE	02.11.22	
* Refer to Revision 1 for Original Signature				Date

Client:



Project: SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 1 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6301

Rev.

D



Sheet 6002 Plant Schedule																		
(HRP) Medium -High Native Revegetation Planting																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6002	6002	6002	6002	6003	6003	6003	6003	6003	6002.10	6002.11	Total Qty
<i>Austroderia fulvida</i>	Toe toe	1878	PB3	1	1.0m	10%	90	18	-	-	-	-	-	-	58	39	-	205
<i>Coprosma grandiflora</i>	Kanono		PB3	1	1.0m	15%	135	27							87	58		307
<i>Coprosma robusta</i>	Karamu		PB3	1	1.0m	20%	181	36							116	77		409
<i>Leptospermum scoparium</i>	Manuka		PB3	1	1.0m	15%	135	27							87	58		307
<i>Phormium tenax</i>	Harakeke		PB3	1	1.0m	10%	90	18							58	39		205
<i>Psuedopanax arboreus</i>	Whauwhaupaku		PB3	1	1.0m	10%	90	18							58	39		205
<i>Coprosma propinqua</i>	Mingimingi		PB3	1	1.0m	10%	90	18							58	39		205
<i>Pittosporum crassifolium</i>	Karo		PB3	1	1.0m	10%	90	18							58	39		205
(WRP) Wetland/Riparian Planting																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6002	6002	6002	6002	6003	6003	6003	6003	6003	6002.10	6002.11	Total Qty
<i>Astelia banksii</i>	Wharawhara	900	PB3	2.77	0.6m	5%	-	-	29	-	18	18	12	48	-	-	-	126
<i>Austroderia fulvida</i>	Toetoe		PB3	1	1.0m	10%			21		13	13	9	35				91
<i>Baumea articulata</i>	Jointed twig rush		PB3	4	0.5m	10%			83		53	52	36	140				364
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	5%			29		18	18	12	48				126
<i>Carex virgata</i>	Swamp sedge		PB3	4	0.5m	20%			166		106	104	72	280				729
<i>Cyperus ustulatus</i>	Toetoe Whatu-manu		PB3	4	0.5m	10%			83		53	52	36	140				364
<i>Eleocharis acuta</i>	Common spike-rush		PB3	4	0.5m	10%			83		53	52	36	140				364
<i>Juncus pallidus</i>	Wiwi		PB3	4	0.5m	15%			125		80	78	54	210				546
<i>Phormium cookianum</i>	Wharariki		PB3	1	1.0m	15%			31		20	19	14	53				137
(SWP) Swale Planting																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6002	6002	6002	6002	6003	6003	6003	6003	6003	6002.10	6002.11	Total Qty
<i>Carex virgata</i>	Tawapou	46	PB3	2.77	0.6m	40%	-	-	-	56	-	-	-	-	-	-	-	56
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	20%				28								28
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	2.77	0.6m	20%				28								28
LRP (Low Native Revegetation Planting)																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6002	6002	6002	6002	6003	6003	6003	6003	6003	6002.10	6002.11	Total Qty
<i>Chionochloa flavicans</i>	Dwarf Toe toe	253	PB3	1	1.0m	40%	-	-	-	-	-	-	-	-	-	-	101	101
<i>Coprosma kirkii</i>	Coprosma		PB3	1	1.0m	40%											101	101
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	1	1.0m	20%											51	51
Specimen Trees																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6002	6002	6002	6002	6003	6003	6003	6003	6003	6002.10	6002.11	Total Qty
<i>Alectryon excelsus (AE)</i>	<i>Titoki</i>	N/A	45L	AS SHOWN	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	3
<i>Cordyline australis (CA)</i>	<i>Ti Kouka</i>		25L	AS SHOWN	N/A	N/A												3
<i>Knightia excelsa (KE)</i>	Rewarewa		45L	AS SHOWN	N/A	N/A												3
<i>Melicytus ramiflorus (MR)</i>	<i>Mahoe</i>		45L	AS SHOWN	N/A	N/A												3
<i>Metrosideros Maori Princess (MP)</i>	<i>Maori Princess</i>		45L	AS SHOWN	N/A	N/A												5
<i>Pittosporum tenuifolium (PT)</i>	<i>Kohukohu</i>		25L	AS SHOWN	N/A	N/A												6
<i>Pseudopanax arboreus (PA)</i>	<i>Pauahou</i>		45L	AS SHOWN	N/A	N/A												8
<i>Rhopalostylis sapida (RS)</i>	<i>Nikau palm</i>		25L	AS SHOWN	N/A	N/A												3
<i>Sophora tetraptera (ST)</i>	<i>Kowhai</i>		45L	AS SHOWN	N/A	N/A												5
<i>Vitex lucens (VL)</i>	<i>Puriri</i>		45L	AS SHOWN	N/A	N/A												5
<i>Dacrydium cupressinum (DC)</i>	<i>Rimu</i>		45L	AS SHOWN	N/A	N/A												6
Total grass area		886																

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
NTS	Drawn	K. MCNEILL	26.03.21	
Reduced Scale (A3)	Dwg Verifier	E. CAMBRIDGE	02.11.22	Date
NTS	Dwg Check	E. CAMBRIDGE	02.11.22	
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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 2 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6302

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Sheet 6003 Plant Schedule																																		
(WRP) Wetland/Riparian Planting																																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6003	6003	6003	6003	6004	6004	6004	6004	6004	6003.10	6003	6003	6003	6003	6003.15	6003	6003.17	Total Qty										
Astelia banksii	Wharawhara	2071	PB3	2.77	0.6m	5%	-	-	35	-	-	-	-	-	42	-	-	-	-	-	-	54	-	313										
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%			25						30							21		110	39	226								
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%			100						121							86		441	155	903								
Carex secta	Purei		PB3	2.77	0.6m	5%			35						42							30		153	54	313								
Carex virgata	Swamp sedge		PB3	4	0.5m	20%			201						242							172		882	310	1806								
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%			100						121							86		441	155	903								
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%			100						121							86		441	155	903								
Juncus pallidus	Wiwi		PB3	4	0.5m	15%			150						181							129		661	233	1354								
Phormium cookianum	Wharariki		PB3	1	1.0m	15%			38						45							32		165	58	339								
(SWP) Swale Planting																																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6003	6003	6003	6003	6004	6004	6004	6004	6004	6003.10	6003	6003	6003	6003	6003.15	6003	6003.17	Total Qty										
Carex virgata	Tawapou	343	PB3	2.77	0.6m	40%	-	-	-	42	-	-	-	-	38	-	-	-	106	115	-	-	79	380										
Carex secta	Purei		PB3	2.77	0.6m	20%				21					19				53	58			39	190										
Phormium cookianum 'Emerald green'	Wharariki		PB3	2.77	0.6m	20%				21					19				53	58			39	190										
(HRP) Medium -High Native Revegetation Planting																																		
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6003	6003	6003	6003	6004	6004	6004	6004	6004	6003.10	6003	6003	6003	6003	6003.15	6003	6003.17	Total Qty										
Austroderia fulvida	Toe toe	4441	PB3	1	1.0m	10%	23	12	-	-	4	19	17	-	-	-	57	-	-	-	323	-	-	455										
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%	35	17			5	28	25				86				485			682										
Coprosma robusta	Karamu		PB3	1	1.0m	20%	46	23			7	37	34				115				646			909										
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%	35	17			5	28	25				86				485			682										
Phormium tenax	Harakeke		PB3	1	1.0m	10%	23	12			4	19	17				57				323			455										
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%	23	12			4	19	17				57				323			455										
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%	23	12			4	19	17				57				323			455										
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%	23	12			4	19	17				57				323			455										
Specimen Trees																																		
Botanical Name	Common Name		Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6003			6003	6003	6003				6004				6004			6004	6004	6004	6003.10	6003	6003	6003	6003	6003.15	6003	6003.17
Pittosporum tenuifolium (PT)	Kohukohu	N/A	25L	AS SHOWN	N/A	N/A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3										
Pseudopanax arboreus (PA)	Pauahou		45L	AS SHOWN	N/A	N/A																		3										
Dacrydium cupressinum (DC)	Rimu		45L	AS SHOWN	N/A	N/A																		3										

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1) NTS	Design	K. MCNEILL	26.03.21	Approved For Construction*
Reduced Scale (A3) NTS	Drawn	K. MCNEILL	26.03.21	
	Dwg Verifier	E. CAMBRIDGE	02.11.22	
	Dwg Check	E. CAMBRIDGE	02.11.22	Date
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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 3 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6303

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Sheet 6004 Plant Schedule															
SWP (Swale Planting)															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6004.1	6004.2	6004.3	6004.4	6004.5	6004.6	6004.7	6004.8	Total Qty
Carex virgata	Tawapou	288	PB3	2.77	0.6m	40%	-	-	194	-	-	125	-	-	319
Carex secta	Purei		PB3	2.77	0.6m	20%			97			63			160
Phormium cookianum	Wharariki		PB3	2.77	0.6m	20%			97			63			160
(HRP) Medium -High Native Revegetation Planting															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6004.1	6004.2	6004.3	6004.4	6004.5	6004.6	6004.7	6004.8	Total Qty
Austroderia fulvida	Toe toe	2444	PB3	1	1.0m	10%	121	-	-	29	-	-	85	31	266
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%	182			43			128	46	400
Coprosma robusta	Karamu		PB3	1	1.0m	20%	243			58			170	62	533
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%	182			43			128	46	400
Phormium tenax	Harakeke		PB3	1	1.0m	10%	121			29			85	31	266
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%	121			29			85	31	266
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%	121			29			85	31	266
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%	121			29			85	31	266
(WRP) Wetland/Riparian Planting															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6004.1	6004.2	6004.3	6004.4	6004.5	6004.6	6004.7	6004.8	Total Qty
Astelia banksii	Wharawhara	1860	PB3	2.77	0.6m	5%	-	174	-	-	106	-	-	-	281
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%		126			77				203
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%		504			307				811
Carex secta	Purei		PB3	2.77	0.6m	5%		174			106				281
Carex virgata	Swamp sedge		PB3	4	0.5m	20%		1007			615				1622
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%		504			307				811
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%		504			307				811
Juncus pallidus	Wiwi		PB3	4	0.5m	15%		755			461				1216
Phormium cookianum	Wharariki		PB3	1	1.0m	15%		189			115				304
Specimen Trees															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6004.1	6004.2	6004.3	6004.4	6004.5	6004.6	6004.7	6004.8	Total Qty
Alectryon excelsus (AE)	Titoki	N/A	45L	AS SHOWN	N/A	N/A	-	-	-	-	-	-	-	-	11
Cordyline australis (CA)	Ti Kouka		25L	AS SHOWN	N/A	N/A									9
Knightia excelsa (KE)	Rewarewa		45L	AS SHOWN	N/A	N/A									13
Melicytus ramiflorus (MR)	Mahoe		45L	AS SHOWN	N/A	N/A									10
Metrosideros Maori Princess (MP)	Maori Princess		45L	AS SHOWN	N/A	N/A									8
Pittosporum tenuifolium (PT)	Kohukohu		25L	AS SHOWN	N/A	N/A									5
Pseudopanax arboreus (PA)	Pauahou		45L	AS SHOWN	N/A	N/A									6
Rhopalostylis sapida (RS)	Nikau palm		25L	AS SHOWN	N/A	N/A									6
Sophora tetraptera (ST)	Kowhai		45L	AS SHOWN	N/A	N/A									6
Vitex lucens (VL)	Puriri		45L	AS SHOWN	N/A	N/A									13
Total grass area		596													

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C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
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Drawing Originator:



Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
NTS	Drawn	K. MCNEILL	26.03.21	
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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 4 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6304

Rev.

D

ORIGINAL DRAWING
IN COLOUR

DETAILED DESIGN
NOT FOR CONSTRUCTION

Discipline		
LANDSCAPE		
Drawing No.	3235084-AL-6305	Rev.
		D

Sheet 6005b Plant Schedule

SWP (Swale Planting)

Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6005.1	6005.2	6005.2	6005.2	6005.2	6005.19	6005.20	6005.2	6005.2	6005.23	6005.24	6005.25	6005.26	6005.27	6005.28	Total Qty
Carex virgata	Tawapou	46	PB3	2.77	0.6m	40%	-	-	-	-	-	-	24	27	-	-	-	-	-	-	-	51
Carex secta	Purei		PB3	2.77	0.6m	20%							12	13								25
Phormium cookianum	Wharariki		PB3	2.77	0.6m	20%							12	13								25

(HRP) Medium -High Native Revegetation Planting

Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6005.1	6005.2	6005.2	6005.2	6005.2	6005.19	6005.20	6005.2	6005.2	6005.2	6005.23	6005.24	6005.25	6005.26	6005.27	6005.28	Total Qty
Austroderia fulvida	Toe toe	235	PB3	1	1.0m	10%	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	14	25
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%													17			20	37
Coprosma robusta	Karamu		PB3	1	1.0m	20%													22			27	49
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%													17			20	37
Phormium tenax	Harakeke		PB3	1	1.0m	10%													11			14	25
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%													11			14	25
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%													11			14	25
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%													11			14	25

LRP (Low Native Revegetation Planting)

Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6005.1	6005.2	6005.2	6005.2	6005.2	6005.19	6005.20	6005.2	6005.2	6005.2	6005.23	6005.24	6005.25	6005.26	6005.27	6005.28	Total Qty
Chionochloa flavicans	Dwarf Toe toe	788	PB3	1	1.0m	40%	-	-	-	50	54	-	-	-	-	-	43	98	-	80	-	-	324
Coprosma kirkii	Coprosma		PB3	1	1.0m	40%				50	54						43	98		80			324
Phormium cookianum 'Emerald green'	Wharariki		PB3	1	1.0m	20%				25	27						21	49		40			162

(WRP) Wetland/Riparian Planting

Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6005.1	6005.2	6005.2	6005.2	6005.2	6005.19	6005.20	6005.2	6005.2	6005.2	6005.23	6005.24	6005.25	6005.26	6005.27	6005.28	Total Qty
Astelia banksii	Wharawhara	1317	PB3	2.77	0.6m	5%	-	-	-	-	-	121	-	-	-	-	-	-	-	-	-	-	199
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%						87											144
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%						349											574
Carex secta	Purei		PB3	2.77	0.6m	5%						121											199
Carex virgata	Swamp sedge		PB3	4	0.5m	20%						698											1148
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%						349											574
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%						349											574
Juncus pallidus	Wiwi		PB3	4	0.5m	15%						524											861
Phormium cookianum	Wharariki		PB3	1	1.0m	15%						131											215

AMP (Amenity Planting - roundabouts, key junctions etc)

Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6005.1	6005.2	6005.2	6005.2	6005.2	6005.19	6005.20	6005.2	6005.2	6005.2	6005.23	6005.24	6005.25	6005.26	6005.27	6005.28	Total Qty
Dianella nigra	Turutu	485	1L	2.77	0.6m	20%	23	63	54	-	-	-	-	-	-	-	-	-	-	-	146	-	285
Phormium cookianum 'Emerald green'	Wharariki		1L	2.77	0.6m	20%	23	63	54												146		285
Chionchloa rubra	Red Tussock		1L	2.77	0.6m	20%	23	63	54												146		285
Carex virgata	Pukio		1L	2.77	0.6m	20%	23	63	54												146		285
Chionochloa flavicans	Dwarf Toe toe		1L	2.77	0.6m	20%	23	63	54												146		285

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 6 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6306

Rev.

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Sheet 6006 Plant Schedule												
(WRP) Wetland/Riparian Planting												
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6006.1	6006.2	6006.3	6006.4	6006.5	Total Qty
<i>Astelia banksii</i>	Wharawhara	1334	PB3	2.77	0.6m	5%	74	-	127	-	-	201
<i>Austroderia fulvida</i>	Toetoe		PB3	1	1.0m	10%	53		92			145
<i>Baumea articulata</i>	Jointed twig rush		PB3	4	0.5m	10%	214		368			582
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	5%	74		127			201
<i>Carex virgata</i>	Swamp sedge		PB3	4	0.5m	20%	427		736			1163
<i>Cyperus ustulatus</i>	Toetoe Whatu-manu		PB3	4	0.5m	10%	214		368			582
<i>Eleocharis acuta</i>	Common spike-rush		PB3	4	0.5m	10%	214		368			582
<i>Juncus pallidus</i>	Wiwi		PB3	4	0.5m	15%	320		552			872
<i>Phormium cookianum</i>	Wharariki		PB3	1	1.0m	15%	80		138			218
(SWP) Swale Planting												
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6006.1	6006.2	6006.3	6006.4	6006.5	Total Qty
<i>Carex virgata</i>	Tawapou	94	PB3	2.77	0.6m	40%	-	32	-	72	-	104
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	20%		16		36		52
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	2.77	0.6m	20%		16		36		52
LRP (Low Native Revegetation Planting)												
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6006.1	6006.2	6006.3	6006.4	6006.5	Total Qty
<i>Chionochloa flavicans</i>	Dwarf Toe toe	70	PB3	1	1.0m	40%	-	-	-	-	31	31
<i>Coprosma kirkii</i>	Coprosma		PB3	1	1.0m	40%					31	31
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	1	1.0m	20%					15	15
Specimen Trees												
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6006.1	6006.2	6006.3	6006.4	6006.5	Total Qty
<i>Melicytus ramiflorus (MR)</i>	<i>Mahoe</i>	N/A	45L	AS SHOWN	N/A	N/A	-	-	-	-	-	5
<i>Pittosporum tenuifolium (PT)</i>	<i>Kohukohu</i>		25L	AS SHOWN	N/A	N/A						5
<i>Sophora tetraptera (ST)</i>	<i>Kowhai</i>		45L	AS SHOWN	N/A	N/A						3
<i>Total grass area</i>		3864										

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:		 Beca	Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*	
			NTS	Drawn	K. MCNEILL	26.03.21		
			Reduced Scale (A3)	Dwg Verifier	E. CAMBRIDGE	02.11.22		
			NTS	Dwg Check	E. CAMBRIDGE	02.11.22		Date
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Title:	PLANT SCHEDULE SHEET 7 OF 13	Discipline:	LANDSCAPE
Drawing No.	3235084-AL-6307	Rev.	D



Sheet 6007 Plant Schedule									
(WRP) Wetland/Riparian Planting									
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6007.1	6007.2	Total Qty
<i>Astelia banksii</i>	Wharawhara	927	PB3	2.77	0.6m	5%	140	-	140
<i>Austroderia fulvida</i>	Toetoe		PB3	1	1.0m	10%	101		101
<i>Baumea articulata</i>	Jointed twig rush		PB3	4	0.5m	10%	404		404
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	5%	140		140
<i>Carex virgata</i>	Swamp sedge		PB3	4	0.5m	20%	808		808
<i>Cyperus ustulatus</i>	Toetoe Whatu-manu		PB3	4	0.5m	10%	404		404
<i>Eleocharis acuta</i>	Common spike-rush		PB3	4	0.5m	10%	404		404
<i>Juncus pallidus</i>	Wiwi		PB3	4	0.5m	15%	606		606
<i>Phormium cookianum</i>	Wharariki		PB3	1	1.0m	15%	152		152
(SWP) Swale Planting									
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6007.1	6007.2	Total Qty
<i>Carex virgata</i>	Tawapou	144	PB3	2.77	0.6m	40%	-	160	160
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	20%		80	80
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	2.77	0.6m	20%		80	80

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:		Original Scale (A1)		Design		K. MCNEILL		26.03.21		Approved For Construction*	
		NTS		Drawn		K. MCNEILL		26.03.21			
		Reduced Scale (A3)		Dwg Verifier		E. CAMBRIDGE		02.11.22			
		NTS		Dwg Check		E. CAMBRIDGE		02.11.22		Date	
* Refer to Revision 1 for Original Signature											

Client:		Project:	
		SH16 - SAFETY IMPROVEMENTS STAGE 3 BRIGHAM CREEK TO KUMEU	

Title:		Discipline:	
PLANT SCHEDULE SHEET 8 OF 13		LANDSCAPE	
Drawing No.		Rev.	
3235084-AL-6308		D	



Sheet 6008 Plant Schedule																															
SWP (Swale Planting)																															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6008.1	6008.2	6008.3	6008.4	6008.5	6008.6	6008.7	6008.8	6008.9	6008.10	6008.11	6008.12	6008.13	6008.14	6008.15	6008.16	6008.17	6008.18	6008.19	6008.20	6008.21	6008.22	6008.23	Total Qty	
Carex virgata	Tawapou	247	PB3	2.77	0.6m	40%	-	-	110	-	-	-	38	-	-	-	-	-	-	-	-	95	-	-	-	-	-	31	-	274	
Carex secta	Purei		PB3	2.77	0.6m	20%		55	19				48									16						137			
Phormium cookianum	Wharariki		PB3	2.77	0.6m	20%		55	19				48									16						137			
(HRP) Medium -High Native Revegetation Planting																															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6008.1	6008.2	6008.3	6008.4	6008.5	6008.6	6008.7	6008.8	6008.9	6008.10	6008.11	6008.12	6008.13	6008.14	6008.15	6008.16	6008.17	6008.18	6008.19	6008.20	6008.21	6008.22	6008.23	Total Qty	
Austroderia fulvida	Toe toe	1978	PB3	1	1.0m	10%	63	-	-	-	-	-	-	39	-	-	-	2	-	-	15	-	-	63	15	11	-	-	-	206	
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%	94							59				3			22			94	22	16				310	
Coprosma robusta	Karamu		PB3	1	1.0m	20%	126							78				3			30			125	30	21				413	
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%	94							59				3			22			94	22	16				310	
Phormium tenax	Harakeke		PB3	1	1.0m	10%	63							39				2			15			63	15	11				206	
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%	63							39				2			15			63	15	11				206	
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%	63							39				2			15			63	15	11				206	
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%	63							39				2			15			63	15	11				206	
LRP (Low Native Revegetation Planting)																															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6008.1	6008.2	6008.3	6008.4	6008.5	6008.6	6008.7	6008.8	6008.9	6008.10	6008.11	6008.12	6008.13	6008.14	6008.15	6008.16	6008.17	6008.18	6008.19	6008.20	6008.21	6008.22	6008.23	Total Qty	
Chionochloa flavicans	Dwarf Toe toe	199	PB3	1	1.0m	40%	-	-	-	26	38	-	-	-	4	3	3	-	2	3	-	-	-	-	-	-	-	-	-	-	80
Coprosma kirkii	Coprosma		PB3	1	1.0m	40%				26	38				4	3	3		2	3											80
Phormium cookianum 'Emerald green'	Wharariki		PB3	1	1.0m	20%				13	19				2	2	2		1	1											40
(WRP) Wetland/Riparian Planting																															
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6008.1	6008.2	6008.3	6008.4	6008.5	6008.6	6008.7	6008.8	6008.9	6008.10	6008.11	6008.12	6008.13	6008.14	6008.15	6008.16	6008.17	6008.18	6008.19	6008.20	6008.21	6008.22	6008.23	Total Qty	
Astelia banksii	Wharawhara	1792	PB3	2.77	0.6m	5%	-	80	-	-	-	65	-	-	-	-	-	-	-	-	-	84	-	-	-	-	28	-	13	271	
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%		57				47										61					20		10	195	
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%		230				188										243					82		38	781	
Carex secta	Purei		PB3	2.77	0.6m	5%		80				65										84					28		13	271	
Carex virgata	Swamp sedge		PB3	4	0.5m	20%		460				376										487					164		77	1563	
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%		230				188										243					82		38	781	
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%		230				188										243					82		38	781	
Juncus pallidus	Wiwi		PB3	4	0.5m	15%		345				282										365					123		58	1172	
Phormium cookianum	Wharariki		PB3	1	1.0m	15%		86				70										91					31		14	293	
Total grass area		1212																													

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1) NTS	Design	K. MCNEILL	26.03.21	Approved For Construction*
Reduced Scale (A3) NTS	Drawn	K. MCNEILL	26.03.21	
	Design Verifier	E. CAMBRIDGE	02.11.22	Date
	Design Check	E. CAMBRIDGE	02.11.22	
* Refer to Revision 1 for Original Signature				

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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 9 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6309

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Sheet 6009 Plant Schedule																								
SWP (Swale Planting)																								
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6009	6009	6009	6009.4	6009.5	6009.6	6009.7	6009.8	6009.9	6009.10	6009.11	6009.12	6009.13	6009.14	6009.15	6009.16	Total Qty	
Carex virgata	Tawapou	497	PB3	2.77	0.6m	40%	433	-	-	-	-	-	-	-	60	-		53		4	-	-	551	
Carex secta	Purei		PB3	2.77	0.6m	20%	217								30			27		2			275	
Phormium cookianum	Wharariki		PB3	2.77	0.6m	20%	217								30			27		2			275	
(HRP) Medium -High Native Revegetation Planting																								
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6009	6009	6009	6009.4	6009.5	6009.6	6009.7	6009.8	6009.9	6009.10	6009.11	6009.12	6009.13	6009.14	6009.15	6009.16	Total Qty	
Austroderia fulvida	Toe toe	2567	PB3	1	1.0m	10%	-	-	-	174	-	-	16	-	-	22	-	-	-	-	-	51	263	
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%				261			24			33						76	394	
Coprosma robusta	Karamu		PB3	1	1.0m	20%				348			32			44						102	525	
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%				261			24			33						76	394	
Phormium tenax	Harakeke		PB3	1	1.0m	10%				174			16			22						51	263	
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%				174			16			22						51	263	
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%				174			16			22						51	263	
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%				174			16			22						51	263	
LRP (Low Native Revegetation Planting)																								
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6009	6009	6009	6009.4	6009.5	6009.6	6009.7	6009.8	6009.9	6009.10	6009.11	6009.12	6009.13	6009.14	6009.15	6009.16	Total Qty	
Chionochloa flavicans	Dwarf Toe toe	591	PB3	1	1.0m	40%	-	-	-	-	145	112	-	-	-	-	-	-	-	-	-	-	258	
Coprosma kirkii	Coprosma		PB3	1	1.0m	40%					145	112											258	
Phormium cookianum 'Emerald green'	Wharariki		PB3	1	1.0m	20%					73	56											129	
(WRP) Wetland/Riparian Planting																								
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6009	6009	6009	6009.4	6009.5	6009.6	6009.7	6009.8	6009.9	6009.10	6009.11	6009.12	6009.13	6009.14	6009.15	6009.16	Total Qty	
Astelia banksii	Wharawhara	2775	PB3	2.77	0.6m	5%	-	107	141	-	-	-	-	67	-	-	87	-	6	-	10	-	419	
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%		77	102					49			63		4		7		302	
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%		310	408					194			252		17		29		1210	
Carex secta	Purei		PB3	2.77	0.6m	5%		107	141					67			87		6		10		419	
Carex virgata	Swamp sedge		PB3	4	0.5m	20%		619	815					389			505		34		58		2420	
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%		310	408					194			252		17		29		1210	
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%		310	408					194			252		17		29		1210	
Juncus pallidus	Wiwi		PB3	4	0.5m	15%		464	611					292			379		26		43		1815	
Phormium cookianum	Wharariki		PB3	1	1.0m	15%		116	153					73			95		6		11		454	

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
NTS	Drawn	K. MCNEILL	26.03.21	
Reduced Scale (A3)	Dwg Verifier	E. CAMBRIDGE	02.11.22	Date
NTS	Dwg Check	E. CAMBRIDGE	02.11.22	
* Refer to Revision 1 for Original Signature				

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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 10 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6310

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Sheet 6010 Plant Schedule													
LRP (Low Native Revegetation Planting)													
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6010.1	6010.2	6010.3	6010.4	6010.5	6010.6	Total Qty
<i>Chionochloa flavicans</i>	Dwarf Toe toe	1229	PB3	1	1.0m	40%	85	310	141	-	-	-	536
<i>Coprosma kirkii</i>	Coprosma		PB3	1	1.0m	40%	85	310	141				536
<i>Phormium cookianum</i> 'Emerald green'	Wharariki		PB3	1	1.0m	20%	43	155	70				268
(WRP) Wetland/Riparian Planting													
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6010.1	6010.2	6010.3	6010.4	6010.5	6010.6	Total Qty
<i>Astelia banksii</i>	Wharawhara	737	PB3	2.77	0.6m	5%	-	-	-	47	64	-	111
<i>Austroderia fulvida</i>	Toetoe		PB3	1	1.0m	10%				34	46		80
<i>Baumea articulata</i>	Jointed twig rush		PB3	4	0.5m	10%				137	184		321
<i>Carex secta</i>	Purei		PB3	2.77	0.6m	5%				47	64		111
<i>Carex virgata</i>	Swamp sedge		PB3	4	0.5m	20%				274	369		643
<i>Cyperus ustulatus</i>	Toetoe Whatu-manu		PB3	4	0.5m	10%				137	184		321
<i>Eleocharis acuta</i>	Common spike-rush		PB3	4	0.5m	10%				137	184		321
<i>Juncus pallidus</i>	Wiwi		PB3	4	0.5m	15%				205	277		482
<i>Phormium cookianum</i>	Wharariki		PB3	1	1.0m	15%				51	69		120
(HRP) Medium -High Native Revegetation Planting													
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	6010.1	6010.2	6010.3	6010.4	6010.5	6010.6	Total Qty
<i>Austroderia fulvida</i>	Toe toe	133	PB3	1	1.0m	10%	-	-	-	-	-	13	13
<i>Coprosma grandiflora</i>	Kanono		PB3	1	1.0m	15%						20	20
<i>Coprosma robusta</i>	Karamu		PB3	1	1.0m	20%						27	27
<i>Leptospermum scoparium</i>	Manuka		PB3	1	1.0m	15%						20	20
<i>Phormium tenax</i>	Harakeke		PB3	1	1.0m	10%						13	13
<i>Psuedopanax arboreus</i>	Whauwhaupaku		PB3	1	1.0m	10%						13	13
<i>Coprosma propinqua</i>	Mingimingi		PB3	1	1.0m	10%						13	13
<i>Pittosporum crassifolium</i>	Karo		PB3	1	1.0m	10%						13	13
Total grass area		149											

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1)	Design	K. MCNEILL	26.03.21	Approved For Construction*
NTS	Drawn	K. MCNEILL	26.03.21	
Reduced Scale (A3)	Dwg Verifier	E. CAMBRIDGE	02.11.22	Date
NTS	Dwg Check	E. CAMBRIDGE	02.11.22	
* Refer to Revision 1 for Original Signature				

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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
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Discipline

LANDSCAPE

Drawing No.

3235084-AL-6311

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Sheet 6011 Plant Schedule																	
SWP (Swale Planting)																	
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	60011.1	60011.2	60011.3	60011.4	60011.5	60011.6	60011.7	60011.8	60011.9	60011.10	Total Qty
Carex virgata	Tawapou	105	PB3	2.77	0.6m	40%	-	-	-	13	-	80	-	-	23	-	116
Carex secta	Purei		PB3	2.77	0.6m	20%				7		40			12		58
Phormium cookianum	Wharariki		PB3	2.77	0.6m	20%				7		40			12		58
(HRP) Medium -High Native Revegetation Planting																	
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	60011.1	60011.2	60011.3	60011.4	60011.5	60011.6	60011.7	60011.8	60011.9	60011.10	Total Qty
Austroderia fulvida	Toe toe	338	PB3	1	1.0m	10%	-	17	-	-	-	-	18	-	-	-	35
Coprosma grandiflora	Kanono		PB3	1	1.0m	15%		26					27				53
Coprosma robusta	Karamu		PB3	1	1.0m	20%		34					37				71
Leptospermum scoparium	Manuka		PB3	1	1.0m	15%		26					27				53
Phormium tenax	Harakeke		PB3	1	1.0m	10%		17					18				35
Psuedopanax arboreus	Whauwhaupaku		PB3	1	1.0m	10%		17					18				35
Coprosma propinqua	Mingimingi		PB3	1	1.0m	10%		17					18				35
Pittosporum crassifolium	Karo		PB3	1	1.0m	10%		17					18				35
LRP (Low Native Revegetation Planting)																	
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	60011.1	60011.2	60011.3	60011.4	60011.5	60011.6	60011.7	60011.8	60011.9	60011.10	Total Qty
Chionochloa flavicans	Dwarf Toe toe	20	PB3	1	1.0m	40%	-	-	-	-	-	-	-	9	-	-	9
Coprosma kirkii	Coprosma		PB3	1	1.0m	40%								9			9
Phormium cookianum 'Emerald green'	Wharariki		PB3	1	1.0m	20%								4			4
(WRP) Wetland/Riparian Planting																	
Botanical Name	Common Name	Area (m2)	Grade	Density (x/m2)	Spacing	% Mix	60011.1	60011.2	60011.3	60011.4	60011.5	60011.6	60011.7	60011.8	60011.9	60011.10	Total Qty
Astelia banksii	Wharawhara	1619	PB3	2.77	0.6m	5%	27	-	20	-	125	-	-	-	-	70	242
Austroderia fulvida	Toetoe		PB3	1	1.0m	10%	19		14		90					51	175
Baumea articulata	Jointed twig rush		PB3	4	0.5m	10%	77		58		362					202	699
Carex secta	Purei		PB3	2.77	0.6m	5%	27		20		125					70	242
Carex virgata	Swamp sedge		PB3	4	0.5m	20%	154		116		724					405	1398
Cyperus ustulatus	Toetoe Whatu-manu		PB3	4	0.5m	10%	77		58		362					202	699
Eleocharis acuta	Common spike-rush		PB3	4	0.5m	10%	77		58		362					202	699
Juncus pallidus	Wiwi		PB3	4	0.5m	15%	115		87		543					303	1048
Phormium cookianum	Wharariki		PB3	1	1.0m	15%	29		22		136					76	262
Total grass area		198															

D	FOR CONSENTING	KM	EC	GC	02.11.22
C	FOR CONSENTING	KM	EC	GC	26.08.22
B	DRAFT DETAILED DESIGN	KM	EC	GC	19.01.29
A	PRELIMINARY DESIGN	KM	EC	NL	26.03.21
No.	Revision	By	Chk	Appd	Date

Drawing Originator:



Original Scale (A1) NTS	Design Drawn	K. MCNEILL	26.03.21	Approved For Construction*
Reduced Scale (A3) NTS	Design Verified	E. CAMBRIDGE	02.11.22	Date
* Refer to Revision 1 for Original Signature				

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SH16 - SAFETY IMPROVEMENTS
STAGE 3
BRIGHAM CREEK TO KUMEU

Title:

PLANT SCHEDULE
SHEET 12 OF 13

Discipline

LANDSCAPE

Drawing No.

3235084-AL-6312

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DETAILED DESIGN
NOT FOR CONSTRUCTION

Discipline		LANDSCAPE
Drawing No.	3235084-AL-6313	Rev. D