

SITE ECOLOGICAL ENHANCEMENTS LAYOUT PLAN

PROJECT LEADER PCM

INFRAST'R APP'D EE

JEH

BY APPD.

INFORMATION ISSUE

AMENDMENT

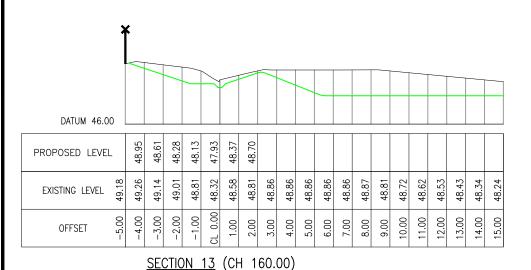
ISSUE DATE

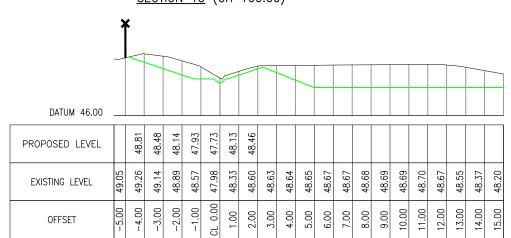
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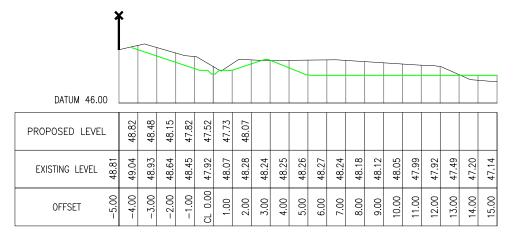
DATE

INFRASTRUCTURE

CI-CIVII 2011806.057







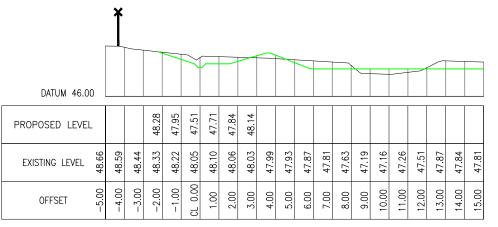
**SECTION 14** (CH 165.00)

<u>SECTION 15</u> (CH 170.00)

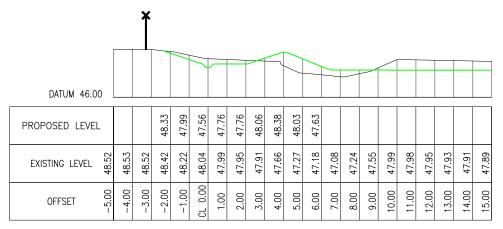
AMENDMENT

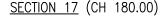
17.11.23 INFORMATION ISSUE

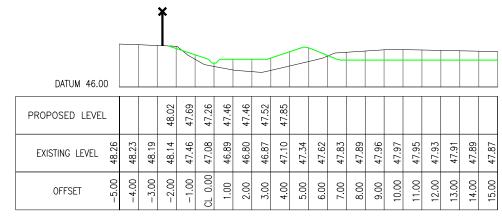
SSUE DATE



<u>SECTION 16</u> (CH 175.00)







<u>SECTION 18</u> (CH 185.00)

#### NOTES:

WSL-CON-00016 1

- 1. ALL LEVELS ARE IN METRES AND DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
- 2. LEVELS ARE TO AUCKLAND L&S 1946 DATUM.
- 3. CROSS SECTION MARKERS REFER TO DRAWING 2011806.057.

#### **GEOTECHNICAL NOTES:**

- HOLD POINTS SHALL BE OBSERVED PRE-CONSTRUCTION. THIS SHALL INVOLVE INSPECTION BY AN EXPERIENCED ENGINEERING GEOLOGIST AND CARRYING OUT HAND AUGERS WITH SCALA DCP TESTING TO CONFIRM THE GROUND MODEL ASSUMED IN THE DESIGN.
- 2. OBSERVE A FURTHER HOLD POINT DURING CONSTRUCTION WHEN THE CUT SLOPES HAVE BEEN FORMED. THIS SHALL INVOLVE INSPECTION BY AN ENGINEERING GEOLOGIST AND WHERE NEEDED, CARRYING OUT HAND AUGERS WITH SCALA DCP TESTING TO CONFIRM THE GROUND MODEL ASSUMED IN THE DESIGN.

#### LEGEND:

EXISTING GROUND PROFILE

PROPOSED FINISHED GROUND PROFILE

PROPERTY BOUNDARY

SCALE 1:100 (A1) 2 4 6

INFORMATION ISSUE

JACOBS' AECOM

	11.23	KL	DESIGNED		
	11.23	JEH	DES. CHECKED		
OPERATIONS	11.23	SS	DRAWN		
OI LIVIIONO	11.23	PMF	DWG. CHECKED		
	11.23	PCM	PROJECT LEADER		

SS JEH

BY APPD.

INFRAST'R APP'D EB

11.23

DATE

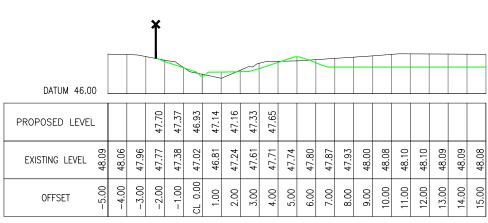
INFRASTRUCTURE



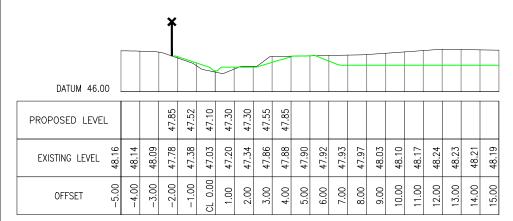
MAY RD - CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 3 OF 8

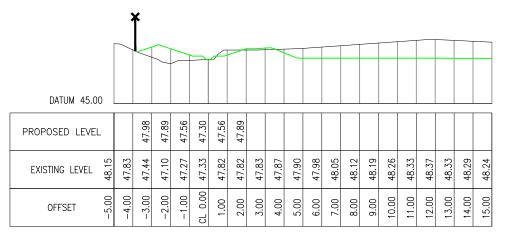
<b>CAD FILE</b> 20118	06.061	DATE 1/.	11.23
ORIGINAL SCALE A1 CONTRACT NO 1:100 6661		T No.	
REF. No. CI-CIVIL			ISSUE
DWG. No. 20	11806	5.061	1



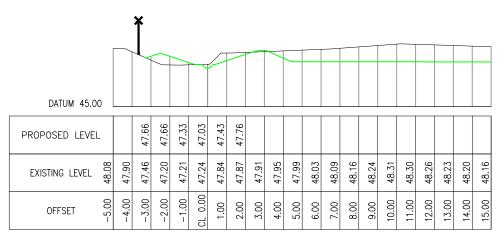
SECTION 19 (CH 190.00)



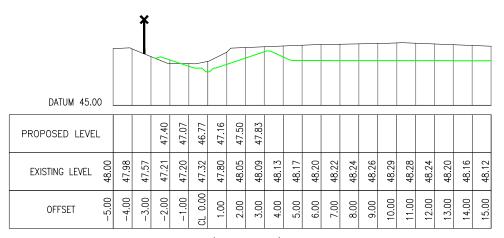
<u>SECTION 20</u> (CH 195.00)



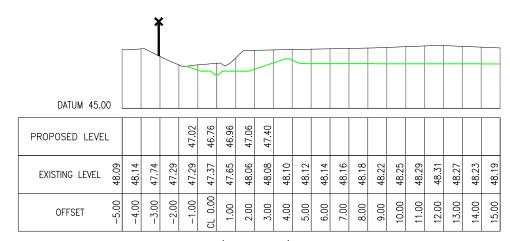
SECTION 21 (CH 200.00)



**SECTION 22 (CH 205.00)** 



<u>SECTION 23</u> (CH 210.00)



**SECTION 24** (CH 215.00)

#### NOTES:

WSL-CON-00016 1

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   THIS SHALL INVOLVE INSPECTION BY AN EXPERIENCED
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   GROUND MODEL ASSUMED IN THE DESIGN.
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#### LEGEND:

EXISTING GROUND PROFILE

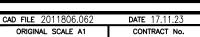
PROPOSED FINISHED GROUND PROFILE

T PROPERTY BOUNDARY

SCALE 1:100 (A1) 2 4 6 8 10m

INFORMATION ISSUE





DES. CHECKED JEH 11.23 DRAWN 11.23 OPERATIONS DWG. CHECKED PMF 11.23 PROJECT LEADER PCM 11.23 1 17.11.23 INFORMATION ISSUE SS JEH INFRAST'R APP'D EB 11.23 AMENDMENT ISSUE DATE BY APPD. DATE

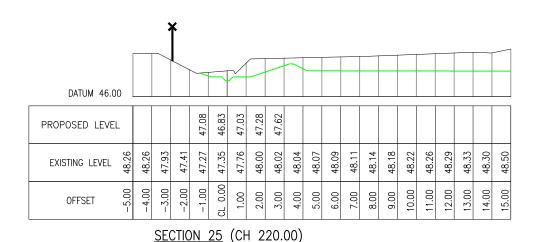
Watercare

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MAY RD — CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

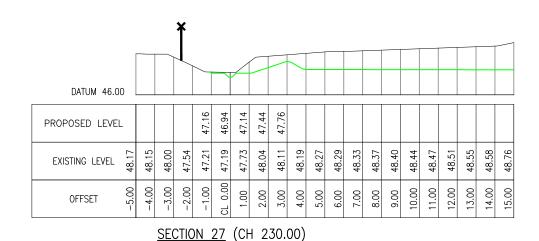
SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 4 OF 8

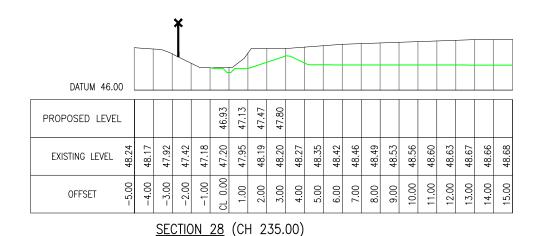
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REF. No. CI-CIVIL		ISSUE
DWG. No. 2011806.062		1

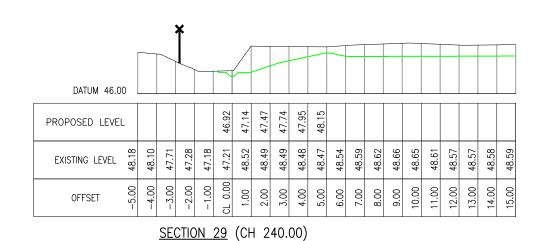


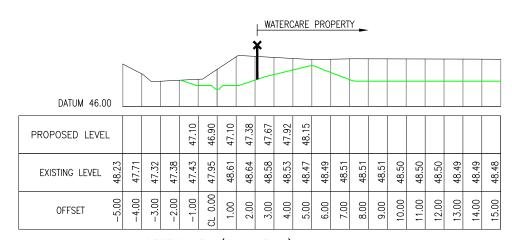
DATUM 46.00 PROPOSED LEVEL 48.19 48.11 48.16 48.30 48.34 47.78 48.12 48.14 EXISTING LEVEL 0.00 9.00 10.00 2.00 5.00 6.00 4.00 1.00 OFFSET

<u>SECTION 26</u> (CH 225.00)









**SECTION 30** (CH 245.00)

#### **NOTES:**

WSL-CON-00016 1

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#### LEGEND:

EXISTING GROUND PROFILE

PROPOSED FINISHED GROUND PROFILE

PROPERTY BOUNDARY

SCALE 1:100 (A1) 0 2 1

INFORMATION ISSUE JACOBS' AECOM

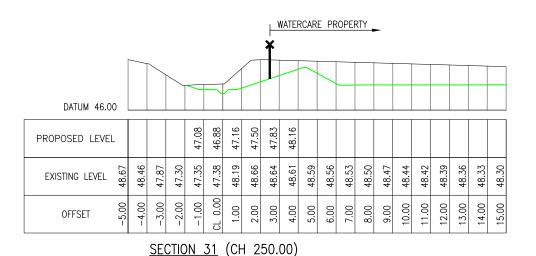
issue	DATE	AMENDMENT	33 BY	APPD.	INFRASI K AFF D	BY	DATE
± 1	17.11.23	INFORMATION ISSUE	22	JEH	INFRAST'R APP'D	EB	11.23
ž					PROJECT LEADER	PCM	11.23
ov 24					DWG. CHECKED	PMF	11.23
, 20					DRAWN	SS	11.23
133 -					DES. CHECKED	JEH	11.23
1:57					DESIGNED	KL	11.23

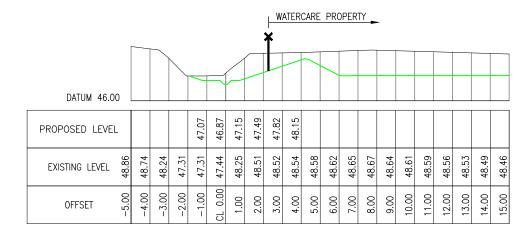


MAY RD - CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

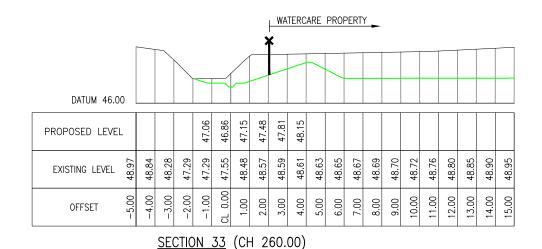
SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 5 OF 8

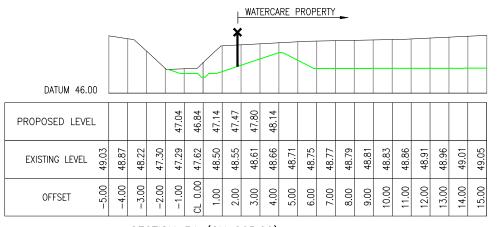
<b>CAD FILE</b> 2011806.063	<b>DATE</b> 17.	11.23
ORIGINAL SCALE A1 1:100	<b>CONTRACT No.</b> 6661	
REF. No. CI-CIVIL		ISSUE
DWG. No. 201180	06.063	1

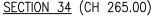


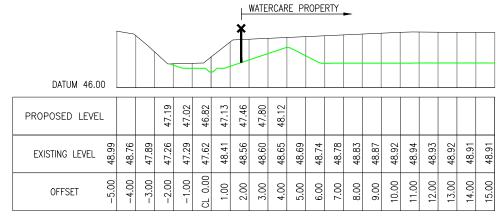


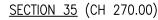
<u>SECTION 32</u> (CH 255.00)

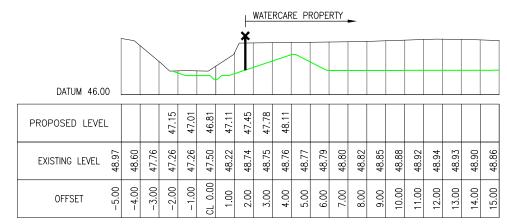












<u>SECTION 36</u> (CH 275.00)

#### NOTES:

WSL-CON-00016\_1

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#### LEGEND:

EXISTING GROUND PROFILE

— PROPOSED FINISHED GROUND PROFILE

PROPERTY BOUNDARY

SCALE 1:100 (A1) 2 4 6 8 10

INFORMATION ISSUE

JACOBS' AECOM

					DESIGNED	KL	11.23	
					DES. CHECKED	JEH	11.23	
					DRAWN	SS	11.23	OPERATIONS
					DWG. CHECKED	PMF	11.23	OI EIGHIONS
					PROJECT LEADER	РСМ	11.23	
1	17 11 23	INFORMATION ISSUE	CC	Ē	INEDAST'D ADD'D		11 07	İ

AMENDMENT

ISSUE DATE

BY APPD.



INFRASTRUCTURE

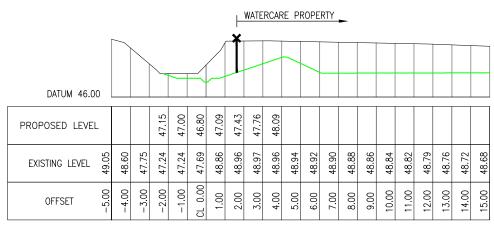
DATE

BY

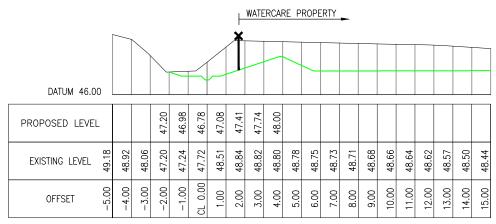
MAY RD — CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 6 OF 8

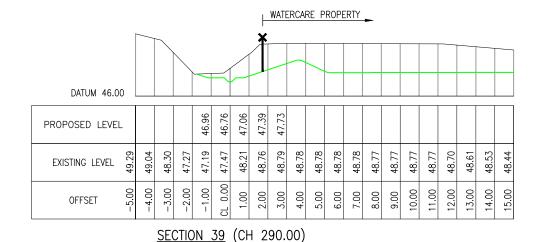
CAD FILE 2011806.064	DATE 1/.	11.23
ORIGINAL SCALE A1 1:100	contract no. 6661	
REF. No. CI-CIVIL		ISSUE
DWG. No. 2011806	1	



<u>SECTION 37</u> (CH 280.00)



<u>SECTION 38</u> (CH 285.00)



DATUM 46.00 PROPOSED LEVEL 48.99 48.82 48.88 48.79 48.85 48.95 48.98 48.99 EXISTING LEVEL

3.00 4.00 7.00

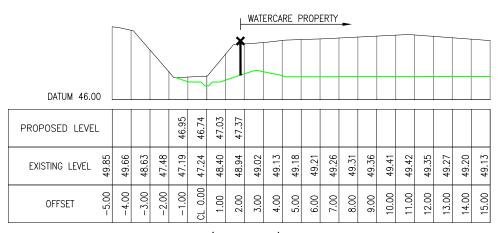
WATERCARE PROPERTY

<u>SECTION 40</u> (CH 295.00)

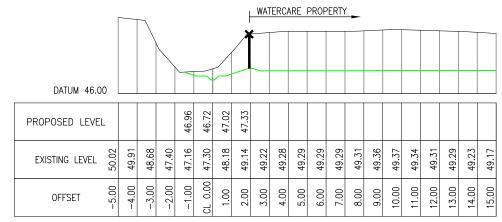
1.00

-1.00

OFFSET



<u>SECTION 41</u> (CH 300.00)



<u>SECTION 42</u> (CH 305.00)

#### NOTES:

WSL-CON-00016 1

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#### **LEGEND:**

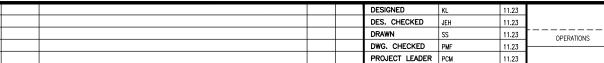
EXISTING GROUND PROFILE

PROPOSED FINISHED GROUND PROFILE

PROPERTY BOUNDARY

SCALE 1:100 (A1) 2 4

INFORMATION ISSUE JACOBS' AECOM



SS JEH

BY APPD.

INFRAST'R APP'D EB

11.23

DATE

INFRASTRUCTURE

1 17.11.23 INFORMATION ISSUE

ISSUE DATE

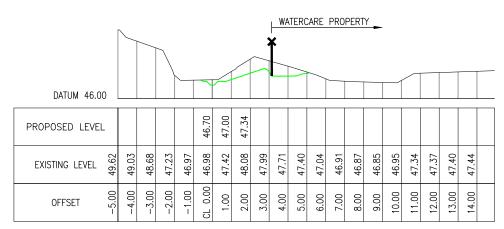
AMENDMENT



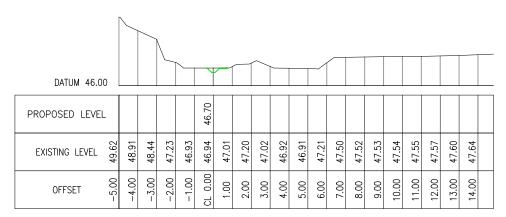
MAY RD - CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 7 OF 8

CAD FILE 2011806.065	<b>DATE</b> 17.	11.23
original scale at 1:100	contrac 6661	T No.
REF. No. CI-CIVIL		ISSUE
DWG. No. 201180	6.065	1



<u>SECTION 43</u> (CH 310.00)



<u>SECTION 44</u> (CH 310.73)

NOTES:

WSL-CON-00016 1

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EXISTING GROUND PROFILE

PROPOSED FINISHED GROUND PROFILE

PROPERTY BOUNDARY

SCALE 1:100 (A1) 2 1

INFORMATION ISSUE JACOBS' AECOM

DESIGNED   KL   11.23	IS	SUE	DATE	AMENDMENT	BY	APPD.		BY	DATE	INFRASTRUCTURE
DES. CHECKED   JEH   11.23	á	1	17.11.23	INFORMATION ISSUE	MB	JEH	INFRAST'R APP'D	EB	11.23	
DES. CHECKED	Ĺ						PROJECT LEADER	PCM	11.23	
DES. CHECKED JEH 11.23	L						DWG. CHECKED	PMF	11.15	or Elethons
	í.						DRAWN	SS	11.23	OPERATIONS
Ф   DESIGNED   KL   11.23							DES. CHECKED	JEH	11.23	
							DESIGNED	KL	11.23	



MAY RD - CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

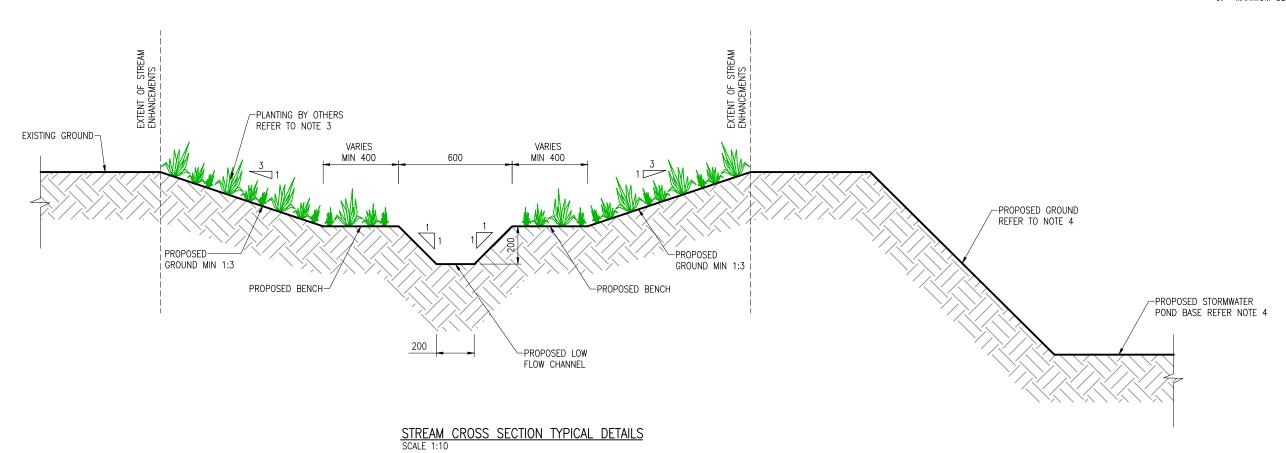
SITE ECOLOGICAL ENHANCEMENTS - CROSS SECTIONS SHEET 8 OF 8

CAD FILE 2011806.066	<b>DATE</b> 17.	11.23
ORIGINAL SCALE A1 1:100	<b>CONTRAC</b> 6661	
REF. No. CI-CIVIL	ISSUE	
DWG. No. 201180	1	

### NOTES:

WSL-CON-00016\_1

- 1. ALL LEVELS ARE IN METERS AND DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED.
- 2. LEVELS ARE TO AUCKLAND L&S 1946 DATUM.
- 3. FOR PLANTING PLAN AND ARRANGEMENT REFER TO LANDSCAPE DRAWINGS (BY OTHERS).
- 4. FOR STORMWATER POND CROSS SECTIONS (FLOOD STORAGE AREA) REFER TO DRAWINGS 2011806.019 TO 024.
- 5. FOR STREAM LONGITUDINAL SECTION REFER TO DRAWING 2011806.058 AND FOR STREAM CROSS SECTIONS REFER TO DRAWINGS 2011806.059 TO 066.
- 6. MAXIMUM SLOPE ON THE STREAM BATTER TO BE 1:3.



SCALE 1:10 (A1) 0 0.2 0.4 0.6 0.8 1.0m

INFORMATION ISSUE

JACOBS' AECOM

FILE 2011806.067	<b>DATE</b> 17.11.23
DRIGINAL SCALE A1 1:10	contract no. 6661

DES. CHECKED 11.23 DRAWN 11.23 OPERATIONS DWG. CHECKED PMF PROJECT LEADER PCM 11.23 1 17.11.23 INFORMATION ISSUE MB JEH INFRAST'R APP'D EB 11.23 INFRASTRUCTURE AMENDMENT BY APPD. ISSUE DATE DATE

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MAY RD - CENTRAL INTERCEPTOR (DSCIN) 11 STORMWATER

SITE ECOLOGICAL ENHANCEMENTS - TYPICAL DETAILS

ORIGINAL SCALE A1         CONTRACT           1:10         6661		T No.
REF. No. CI-CIVIL	ISSUE	
DWG. No. 201180	6.067	1

# MAY ROAD ECOLOGICAL STREAM ENHANCEMENT

## MOUNT ROSKILL, AUCKLAND

LANDSCAPE DRAWINGS FOR RESOURCE CONSENT

22 MARCH 2024 **REVISION A** 

BECA PROJECT NUMBER: 3126161

PREPARED FOR:

WATERCARE SERVICES LIMITED

Watercare **\*\*** CONTACT: SHALINI SANJESHNI

ENVIRONMENTAL LEAD - CENTRAL INTERCEPTOR

PREPARED BY:

**調Beca** BECA LTD

21 PITT ST

**AUCKLAND** 1010

## **GENERAL NOTES**

- DRAWINGS FOR RESOURCE CONSENT ONLY, NOT FOR CONSTRUCTION.
- LEVELS AND DRAINAGE SHOWN INDICATIVE ONLY/ REFER TO JACOBS CIVIL DRAWINGS FOR ALL DRAINAGE AND LEVELS INFORMATION.



LOCATION OF ECOLOGICAL STREAM ENHANCEMENT SITE ACCESSED FROM ROMA ROAD, MOUNT ROSKILL

SCALE 1:1000@A1, 1:2000 @A3

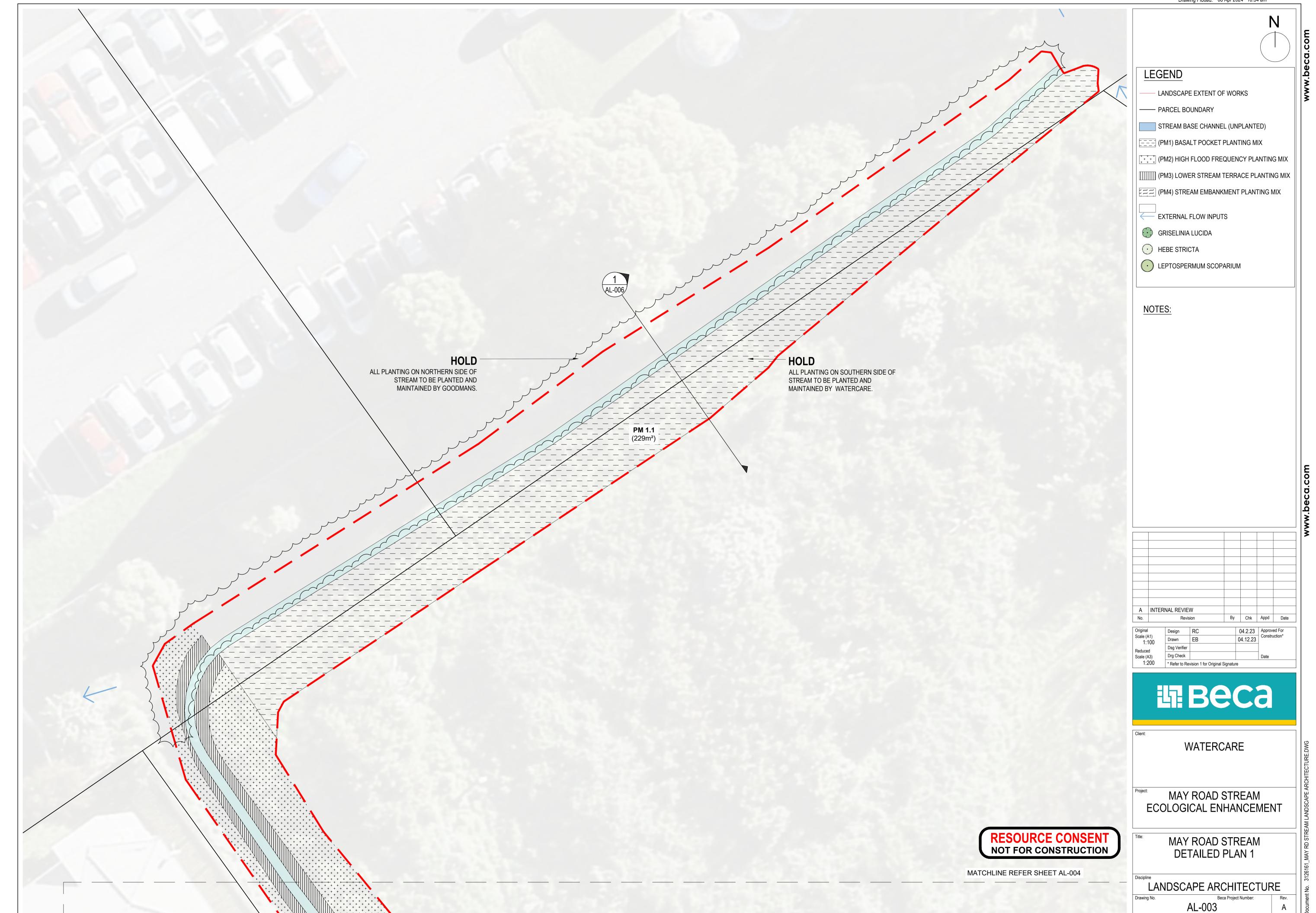
## **DRAWING LIST**

DWG No.	TITLE	ISSUI
AL-001	COVER SHEET	Α
AL-002	SITE PLAN	Α
AL-003	PLANTING PLAN 1	Α
AL-004	PLANTING PLAN 2	Α
AL-005	PLANTING PLAN 3	Α
AL-006	TYPICAL CROSS SECTIONS	Α
AL-007	PLANTING SCHEDULE	Α

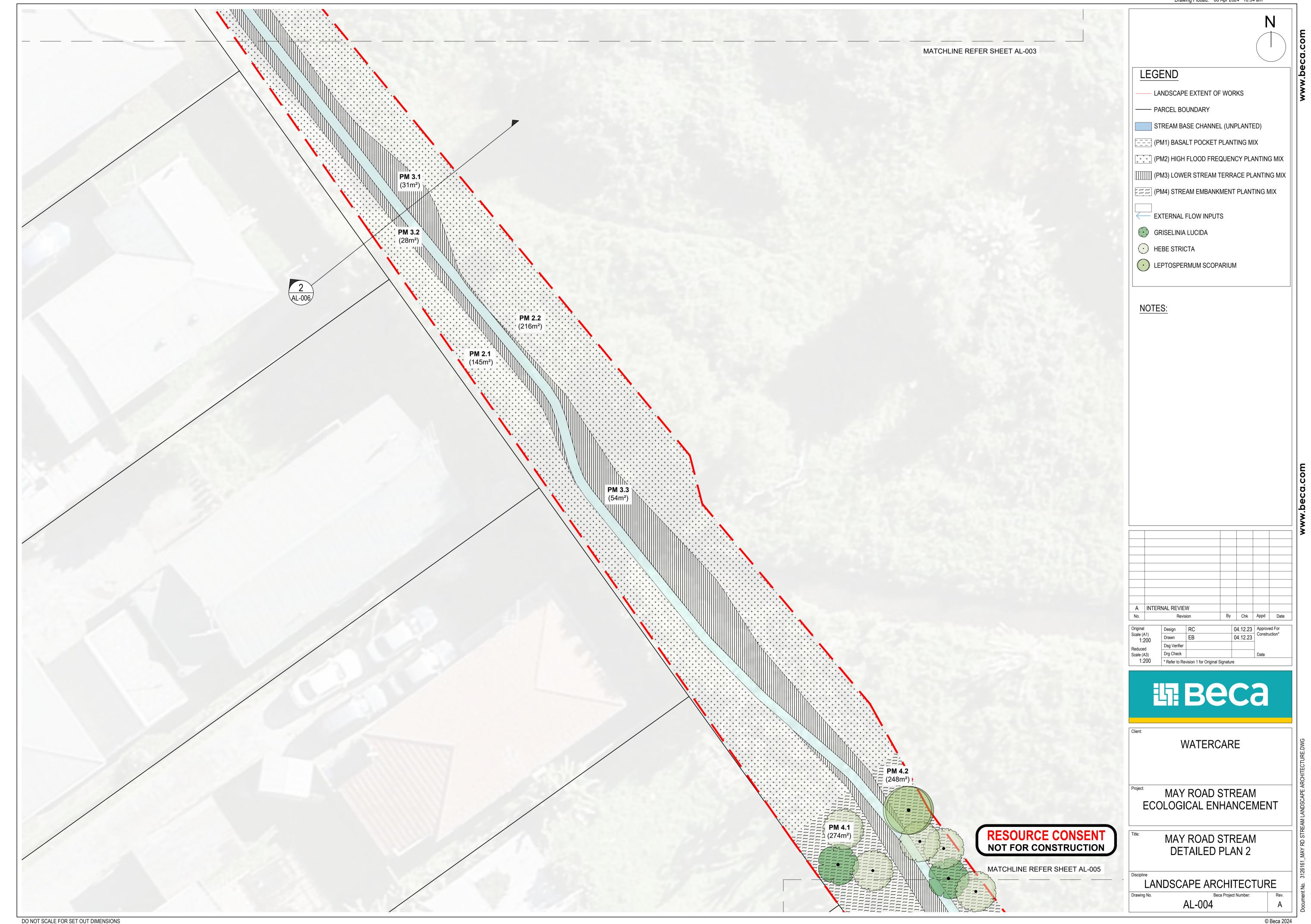


Auckland Council | Approved Resource Consent Plan | BUN60444050 | 02/09/2025 | Page 10 of 16

© Beca 2024

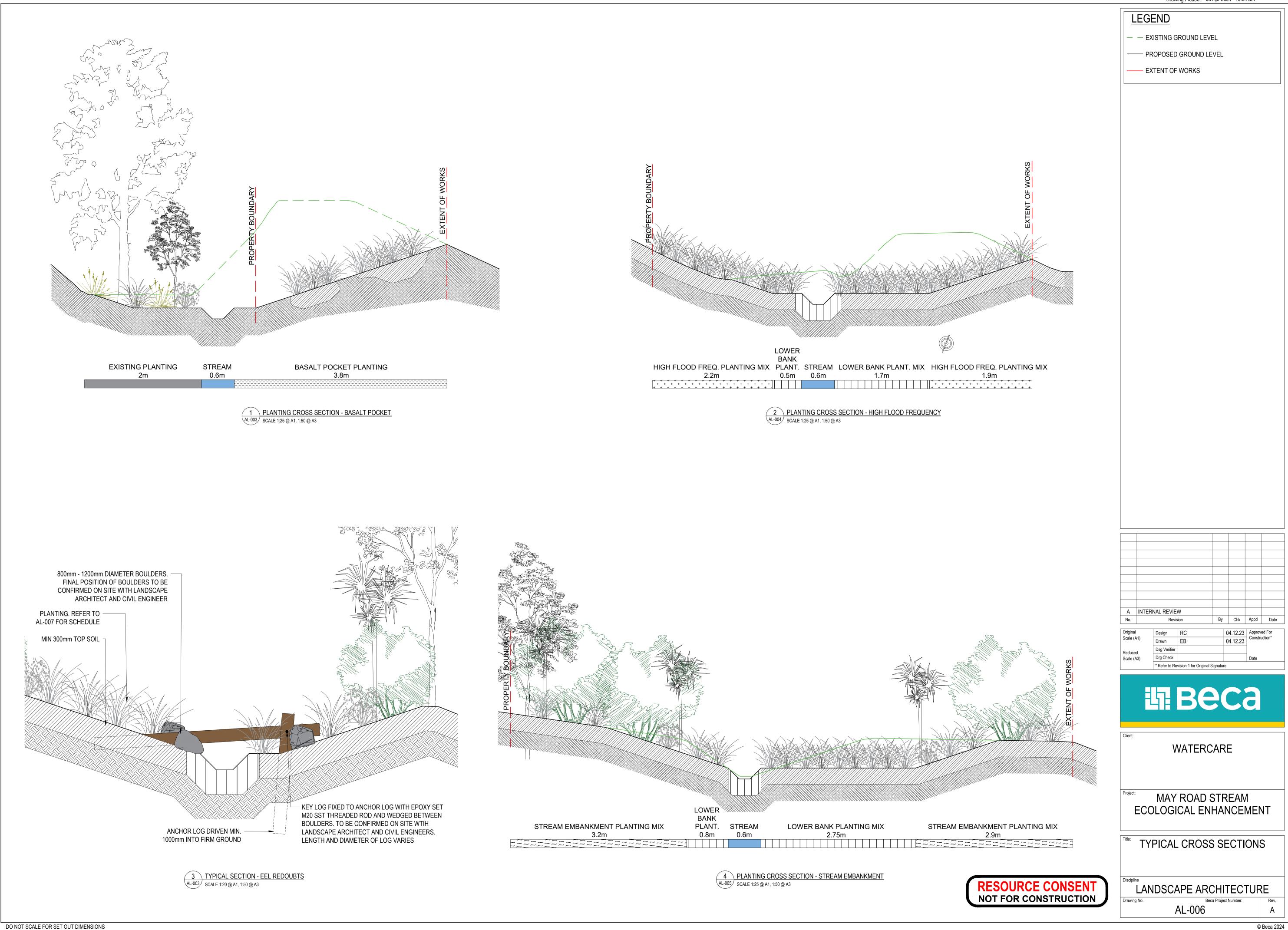


DO NOT SCALE FOR SET OUT DIMENSIONS





DO NOT SCALE FOR SET OUT DIMENSIONS



LEGEND

EXISTING GROUND LEVEL

---- PROPOSED GROUND LEVEL

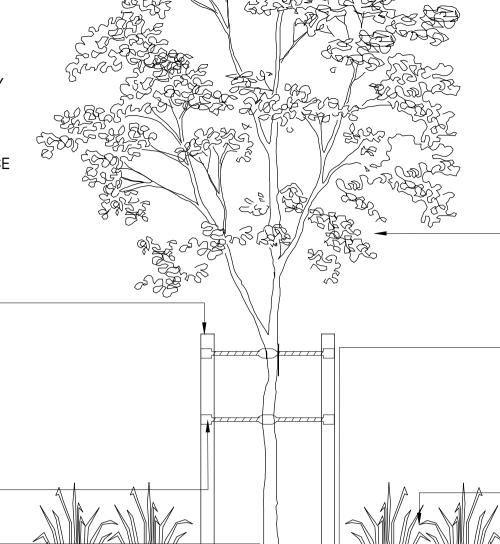
## TREE PLANTING NOTES:

- 1. TOPSOIL TO BE PLACED IN LIGHTLY COMPACTED LAYERS OF NO MORE THAN 250mm DEPTH.
- 2. SPREAD MULCH EVENLY AWAY FROM PLANT STEMS AND ROOTS. SAMPLES OF MULCH TO BE APPROVED BY THE ENGINEER.
- 3. TOPSOIL TO BE APPROVED PRIOR TO USE AS PER THE LANDSCAPE SPECEFICATION
- 4. ALL PLANTING SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATION.

STAKES:
2 NO. PB 40 1800 / PB 95 2400 SQUARE
POINTED STAKES. H4 PINUS RADIATA.
STAKES SHALL BE VERTICAL AND DRIVEN
500mm INTO FIRM GROUND AT BASE OF
TREE PIT TO AN EVEN HEIGHT. SECOND
TIE MAY ALSO BE NECESSARY TO
IMPROVE TREE FORM. TO BE USED ON
RECOMMENDATION OF CONTRACTOR

BLACK HESSIAN TIE FIRMLY ATTACHED TO STAKE IN OPPOSITE PAIRS

MULCH TO BE KEPT BACK FROM TRUNK
WITH TREE TRUNK COLLAR TO AVOID
COLLAR ROT. REFER TO LANDSCAPE
SPECIFICATION FOR MULCH TYPE



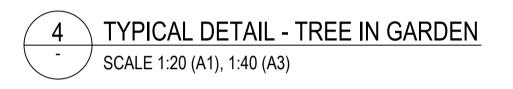
TN - TREE PROPOSED.
FOR LOCATION, REFER TO LAYOUT
PLANS, SHEET AL-002 TO AL-005.
FOR SPECIES, REFER TO PLANT
SCHEDULE, SHEET AL-007.

TOP TWO THIRDS OF PLANTING HOLE
TO BE BACKFILLED WITH 50 %
APPROVED SITE TOPSOIL (OR
IMPORTED TOP SOIL IF SITE SOIL IS
POOR) AND 50% COMPOST SOIL
CONDITIONER OR EQUIVALENT
APPROVED BY THE ENGINEER.

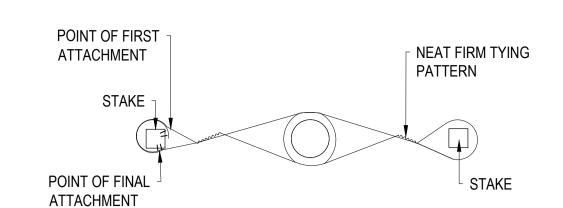
PLANTING. FOR LOCATION, REFER TO LAYOUT PLAN REFER AL-002 TO AL-005. FOR PLANTING DETAILS REFER DETAIL 03 ON THIS SHEET. FOR TYPICAL SETOUTS REFER AL-00. FOR SPECIES, REFER TO PLANT SCHEDULE, SHEET AL-007.

FILLED WITH MIXTURE OF TOPSOIL AND EXISTING BASAL MATERIAL THAT HAS BEEN LIGHTLY HEALED IN BY FOOT

- 200mm LAYER 20/7 GRAVEL LEVELING DRAINAGE LAYER

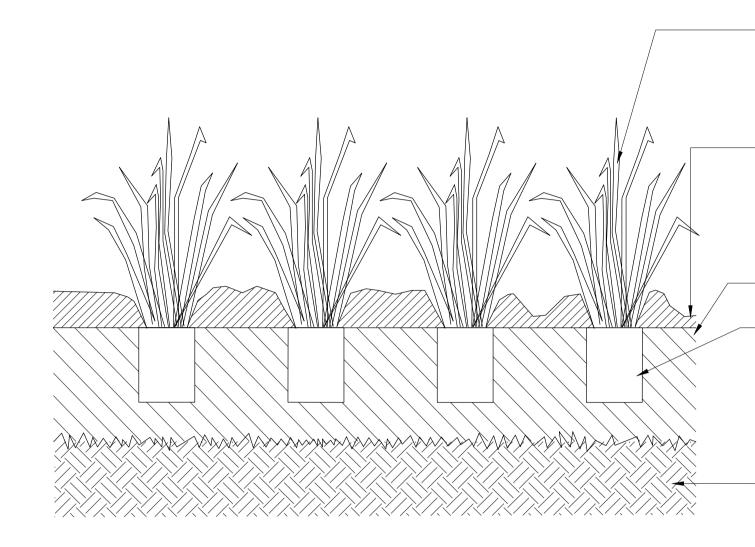


ROOTBALL



5 TYPICAL DETAIL - TREE STAKING TIES

SCALE 1:10 (A1), 1:20 (A3)



SHRUB AND GROUNDCOVER
PLANTING REFER TO PLANTING
PLANS AND SCHEDULE FOR
SPECIES AND INSTALLATION
SIZES

MULCH. MIN 100mm DEPTH TO LANDSCAPE SPECIFICATION OR APPROVED EQUIVALENT. ENSURE MULCH KEPT BACK FROM PLANT STEMS TO AVOID COLLAR ROT

- 300mm TOPSOIL

THE HOLE SHALL BE TWICE THE
ROOTBALL WIDTH AND 1.5 TIMES
THE DEPTH OF THE ROOTBALL.
HOLE TO BE BACKFILLED WITH 50%
TOP SOIL AND 50% SOIL
CONDITIONER. TO BE THOROUGHLY
MIXTURE PRIOR TO BACKFILLING

EXISTING SUBSOIL. TO BE SCARIFIED TO A DEPTH OF 200mm PRIOR TO ADDING TOPSOIL

 $\begin{pmatrix} 6 \\ - \end{pmatrix}$ 

TYPICAL DETAIL - PLANTING
SCALE 1:10 (A1), 1:20 (A3)

**Веса** 

WATERCARE

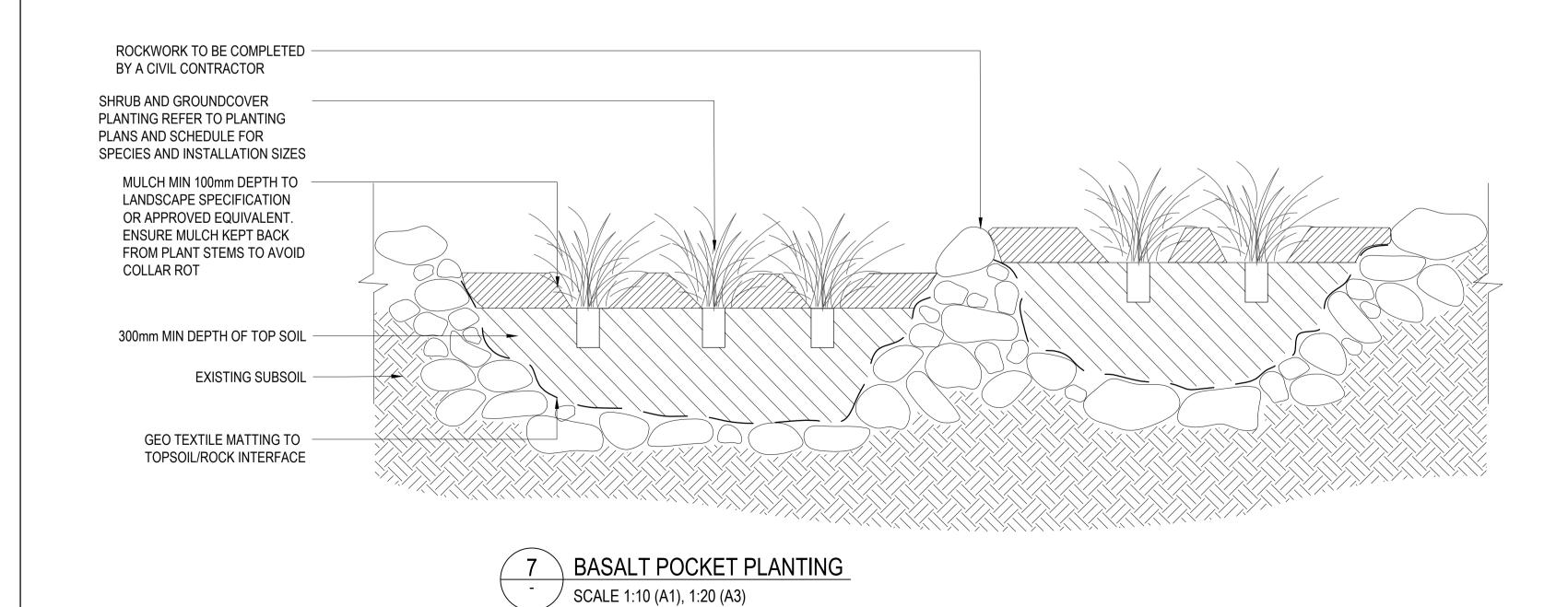
MAY ROAD STREAM
ECOLOGICAL ENHANCEMENT

TYPICAL DETAILS

LANDSCAPE ARCHITECTURE

Drawing No. Beca Project Number: Rev.

AL-007 A

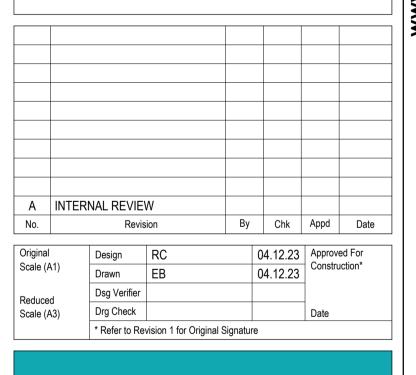


RESOURCE CONSENT NOT FOR CONSTRUCTION

Infill planting where reshaping and breaking out of basalt allows open 'pockets' between basalt to							
be planted. Suited for low-growing, small rooted plants only. Speculate 10% of area that may be able to be planted.							
Botanic name	Common name	Grade	Spacing	Density	Total Area (m2)	% Mix	Total
CD - Carex dussita	Purei	2.5L	0.5	4.6		25%	26
CS - Carex secta	Makura	2.5L	0.5	4.6	23	25%	26
CV - Carex virgata	Pukio	2.5L	0.5	4.6		25%	26
CU - Cyperus ustulatus	Toetoe Upoko-tangata	2.5L	1.5	0.51		25%	3
						100%	81
PLANT MIX 2 - HIGH FLOOD FREQUENCY PLANTING MIX							
Low-growing grasses and rushes to reduce friction and flow effects during flooding. Uses wet/dry tolerant native species.							
Botanic name	Common name	Grade	Spacing	Density	Total Area (m2)	% Mix	Total
AS - Apodasmia similis	Oioi	2.5L	1	1		15%	54
CD - Carex dussita	Purei	2.5L	0.5	4.6	361	15%	249
CS - Carex secta	Makura	2.5L	0.5	4.6		20%	332
CV - Carex virgata	Pukio	2.5L	0.5	4.6		20%	332
CU - Cyperus ustulatus	Toetoe Upoko-tangata	2.5L	1.5	0.51		15%	28
JS - Juncus sarophorus	Wiwi	2.5L	0.5	4.6		15%	249
						100%	1244
PLANT MIX 3 - LOWER STREAM TERRACE PLANTING MIX							
Low-growing grasses and rushes to creaye stream edge habitat during higher water levels, and							
provide localised shading of the stream.							
Botanic name	Common name	Grade	Spacing	Density	Total Area (m2)	% Mix	Total
AS - Apodasmia similis	Oioi	2.5L	1	1	216.6	20%	43
CS - Carex secta	Makura	2.5L	0.5	4.6		20%	199
CV - Carex virgata	Pukio	2.5L	0.5	4.6		20%	199
JS - Juncus sarophorus	Wiwi	2.5L	1.5	0.51		20%	22
MA - Machaerina articulata	Jointed twigrush	2.5L	1.5	0.51		20%	22
						4000/	485
						100%	
						100%	
PLANT MIX 4 - STREAM BANK PLANTING MIX						100%	
PLANT MIX 4 - STREAM BANK PLANTING MIX  A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank						100%	
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.		Grado	Snacing	Density	Total Area (m2)		Total
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name	Common name	Grade 2.51	Spacing 0.5	<b>Density</b>	Total Area (m2)	% Mix	Total
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita	Purei	2.5L	0.5	4.6	Total Area (m2)	% Mix 5%	120
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata	Purei Rautahi	2.5L 2.5L	0.5 0.5	4.6	Total Area (m2)	% Mix 5% 5%	120 120
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta	Purei Rautahi Makura	2.5L 2.5L 2.5L	0.5 0.5 0.5	4.6 4.6 4.6	Total Area (m2)	% Mix 5% 5% 9%	120 120 216
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata	Purei Rautahi Makura Pukio	2.5L 2.5L 2.5L 2.5L	0.5 0.5 0.5 0.5	4.6 4.6 4.6 4.6	Total Area (m2)	% Mix 5% 5% 9% 5%	120 120 216 120
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta	Purei Rautahi Makura Pukio Karamu	2.5L 2.5L 2.5L 2.5L 5L	0.5 0.5 0.5 0.5 1.5	4.6 4.6 4.6 4.6 0.51		% Mix 5% 5% 9% 5% 5%	120 120 216 120 13
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta  CA - Cordyline australis	Purei Rautahi Makura Pukio Karamu Ti kouka	2.5L 2.5L 2.5L 2.5L 5L	0.5 0.5 0.5 0.5 1.5 1.5	4.6 4.6 4.6 4.6 0.51 0.51	Total Area (m2)	% Mix 5% 5% 9% 5% 5%	120 120 216 120 13 13
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta  CA - Cordyline australis  CU - Cyperus ustulatus	Purei Rautahi Makura Pukio Karamu Ti kouka Toetoe Upoko-tangata	2.5L 2.5L 2.5L 2.5L 5L 5L 2.5L	0.5 0.5 0.5 0.5 1.5 1.5	4.6 4.6 4.6 4.6 0.51 0.51		% Mix 5% 5% 9% 5% 5% 5% 10%	120 120 216 120 13 13 27
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta  CA - Cordyline australis  CU - Cyperus ustulatus  GL - Griselinia lucida	Purei Rautahi Makura Pukio Karamu Ti kouka Toetoe Upoko-tangata Puka	2.5L 2.5L 2.5L 2.5L 5L 5L 2.5L 2.5L 2.5L	0.5 0.5 0.5 0.5 1.5 1.5 1.5 2.5	4.6 4.6 4.6 4.6 0.51 0.51 0.51 0.18		% Mix 5% 5% 9% 5% 5% 5% 10% 18%	120 120 216 120 13 13 27 17
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta  CA - Cordyline australis  CU - Cyperus ustulatus  GL - Griselinia lucida  HS - Hebe stricta	Purei Rautahi Makura Pukio Karamu Ti kouka Toetoe Upoko-tangata Puka Koromiko	2.5L 2.5L 2.5L 2.5L 5L 5L 2.5L 2.5L 2.5L	0.5 0.5 0.5 0.5 1.5 1.5 1.5 1.5	4.6 4.6 4.6 4.6 0.51 0.51 0.18 0.51		% Mix 5% 5% 9% 5% 5% 5% 10% 18% 15%	120 120 216 120 13 13 27 17 40
A mix of small to medium-sized shrubs and small-medium sized trees to create habitat variety, bank stabilisation and shading of the stream.  Botanic name  CD - Carex dussita  CG - Carex geminata  CS - Carex secta  CV - Carex virgata  CR - Coprosma robusta  CA - Cordyline australis  CU - Cyperus ustulatus  GL - Griselinia lucida	Purei Rautahi Makura Pukio Karamu Ti kouka Toetoe Upoko-tangata Puka	2.5L 2.5L 2.5L 2.5L 5L 5L 2.5L 2.5L 2.5L	0.5 0.5 0.5 0.5 1.5 1.5 1.5 2.5	4.6 4.6 4.6 4.6 0.51 0.51 0.51 0.18		% Mix 5% 5% 9% 5% 5% 5% 10% 18%	120 120 216 120 13 13 27 17

### PLANTING NOTES:

- 1. ALL PLANTS TO BE ECOSOURCED FROM THE AUCKLAND REGION.
- 2. PLANT CHOICES ARE SUBJECT TO AVAILABILITY. ANY SPECIES SUBSTITUTES TO BE APPROVED BY LANDSCAPE
- ARCHITECT AT TIME OF PLANTING.
- ALL TREES TO BE PLANTED IN GROUPS OF 3,5,7,9 OR 13 AS INDICATED ON SHEETS AL-004 AND AL005.
   SUITABLE DRAINAGE TO BE ACHIEVED IN TOPSOIL AND SUBSOIL LAYERS IN ALL TERRESTRIAL PLANTED AREAS TO ENSURE GOOD ESTABLISHMENT AND GROWTH OF PLANTS AND GRASS. THIS SHALL INCLUDE REMOVAL OF ALL COMPACTION, EXCLUDING STREAM CHANNEL BASE.
- 5. ANY PLANT SUBSTITUTIONS FROM THE SPECIES LISTED IN THE SCHEDULE ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT.
- 6. FOR ALL TERRESTRIAL PLANTING AREAS (ADD NAMES OF PLANT MIXES), ECOJUTE MATTING IS TO BE INSTALLED AS AN ALTERNATIVE TO MULCH. FOR ALL WETTED PLANTING AREAS (PM3), PLANTS ARE TO BE INSTALLED DIRECTLY INTO THE SOIL MEDIUM.
- 7. SITE PREPARATION FOR PLANTING INCLUDING VEGETATION REMOVAL IS ONLY PERMITTED WITHIN THE EXTENT OF WORKS BOUNDARY SHOWN ON THE LANDSCAPE PLANS.





WATERCARE

Project: MAY ROAD STREAM
ECOLOGICAL ENHANCEMENT

PLANTING SCHEDULE

Discipline

LANDSCAPE ARCHITECTURE

Drawing No.

Beca Project Number:

AL-007

A

RESOURCE CONSENT NOT FOR CONSTRUCTION