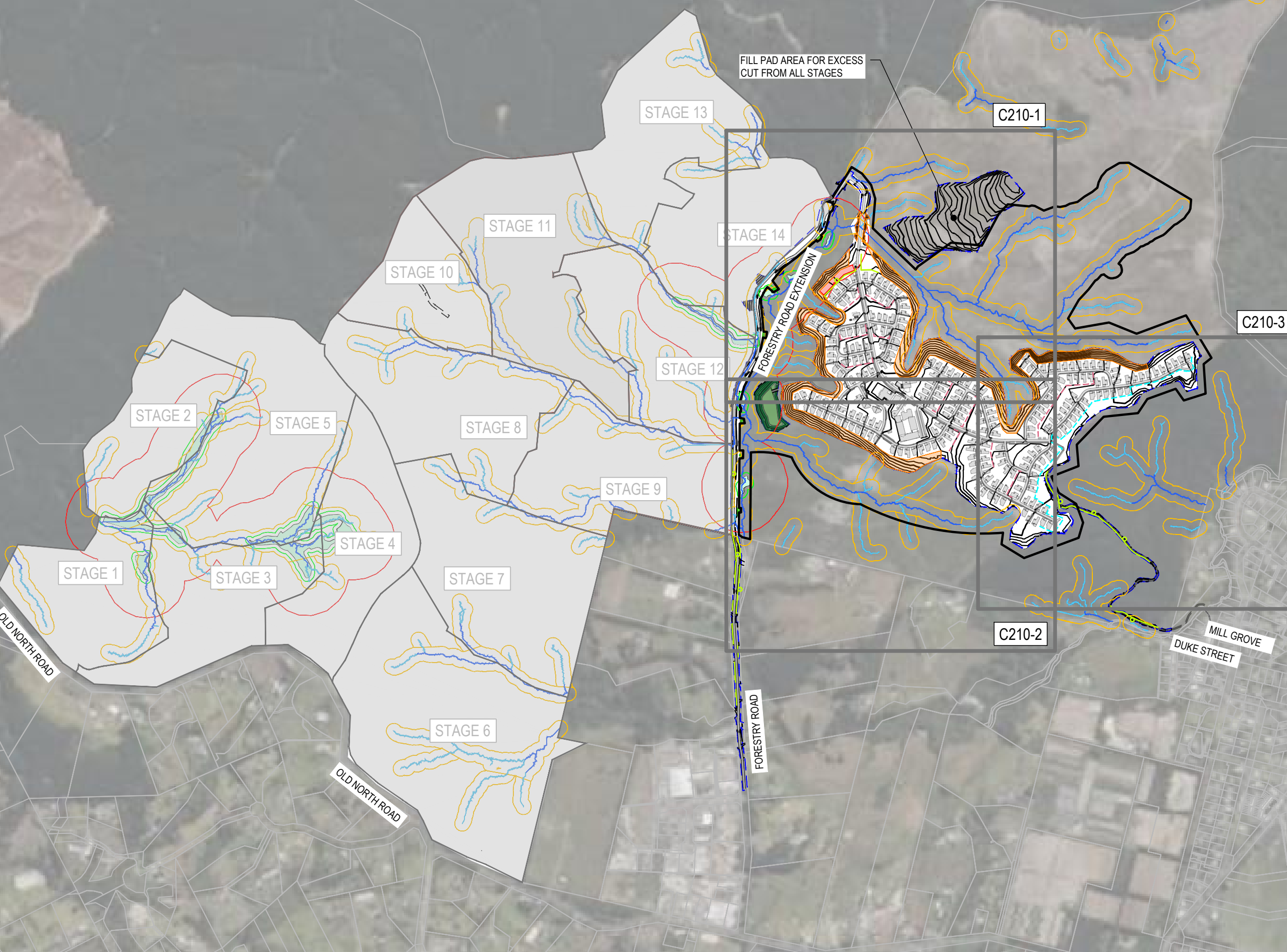




- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 3. THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT HEALTH AND SAFETY REQUIREMENTS.
 4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 5. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 6. CONTRACTOR SHALL PROVIDE AS-BUILT OF WORKING SEDIMENT CONTROL DEVICES AND CONFIRMATION OF POND/DECENT VOLUMES TO ENGINEER.
 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

LEGEND

---	EX BDY
---	PR BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PR MAJOR CONTOUR
---	PR MINOR CONTOUR
---	PR EXTENT WORK
---	RIPARIAN YARD 20m SETBACK
---	WETLAND AREA 100m SETBACK
---	WETLAND AREA 10m SETBACK
---	EX STREAMS
---	PR RET. WALL > 1.0m
---	PR LANDSCAPE RET. WALL < 1.0m
---	PR IN-GROUND PALISADE WALL
---	PR ENGINEERED EARTH WALL
---	PR SW POND

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

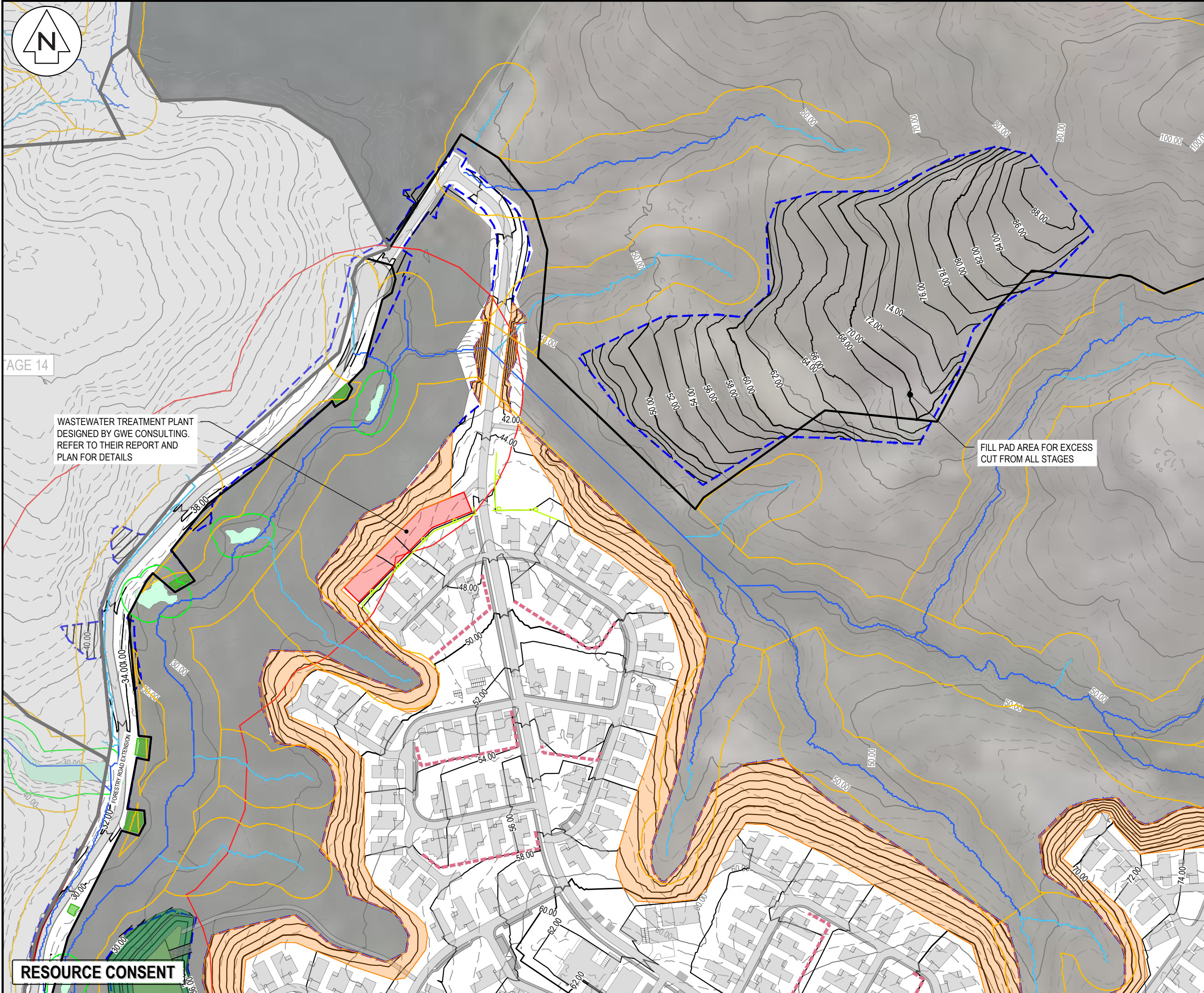
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED OVERVIEW
EARTHWORKS PLAN**

Project no.	147016
Scale	1:10,000 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C210-0
Rev	A

RESOURCE CONSENT



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
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 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

LEGEND

EX BDY	PR BDY
EX MAJOR CONTOUR	EX MINOR CONTOUR
PR MAJOR CONTOUR	PR MINOR CONTOUR
PR EX TENT WORK	PR EX TENT WORK
RIPARIAN YARD 20m SETBACK	WETLAND AREA 100m SETBACK
WETLAND AREA 10m SETBACK	EX STREAMS
PR RET. WALL > 1.0m	PR LANDSCAPE RET. WALL < 1.0m
PR IN-GROUND PALISADE WALL	PR ENGINEERED EARTH WALL
PR SW POND	

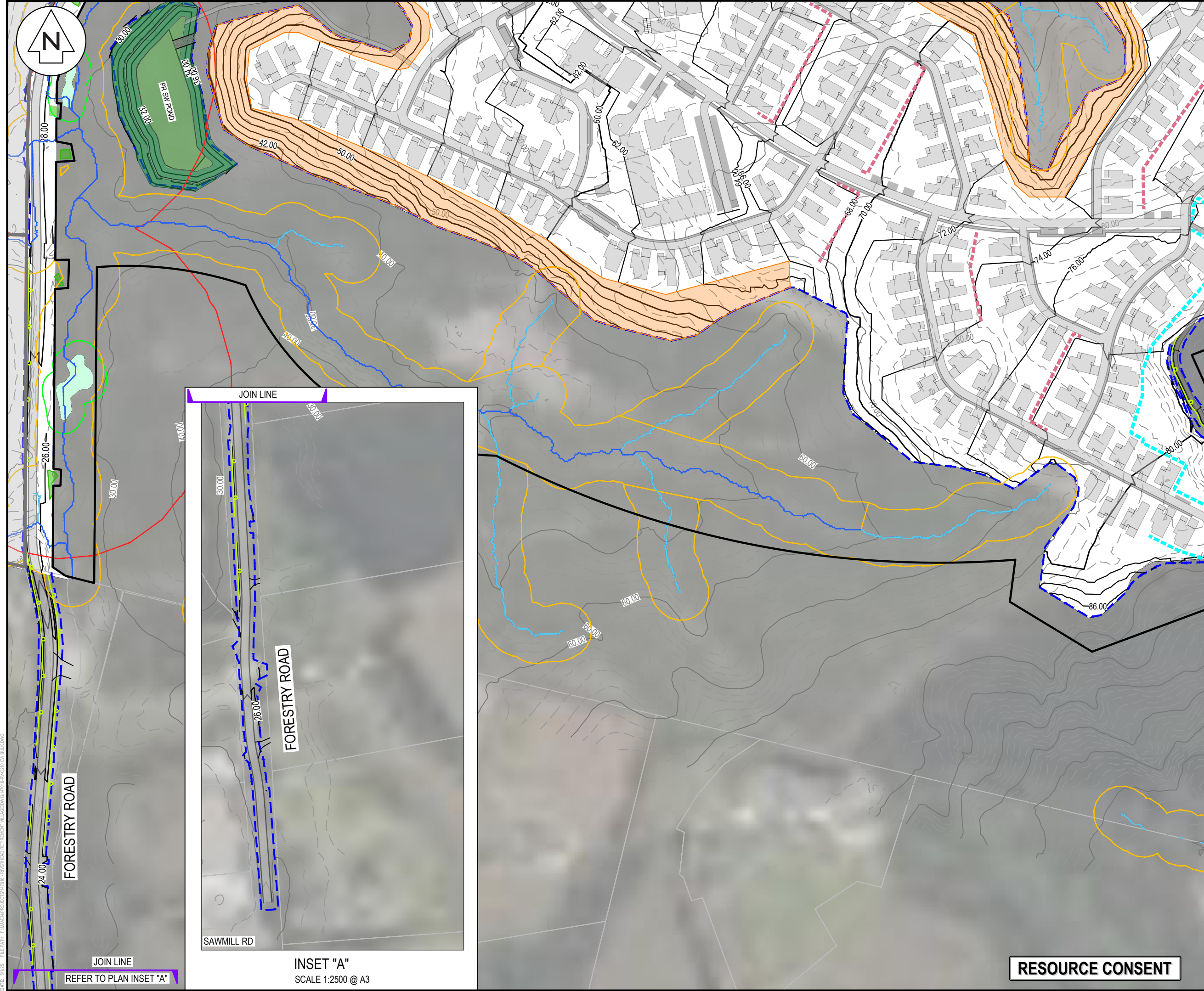
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED
EARTHWORKS PLAN**

Project no.	147016
Scale	1:2500 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C210-1
Rev	A



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

LEGEND

EX BDY	PR BDY
EX MAJOR CONTOUR	EX MINOR CONTOUR
PR MAJOR CONTOUR	PR MINOR CONTOUR
PR EXTENT WORK	PR RIPARIAN YARD 20m SETBACK
WETLAND AREA 100m SETBACK	WETLAND AREA 10m SETBACK
EX STREAMS	PR RET. WALL > 1.0m
PR LANDSCAPE RET. WALL < 1.0m	PR IN-GROUND PALISADE WALL
PR ENGINEERED EARTH WALL	PR SW POND

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025



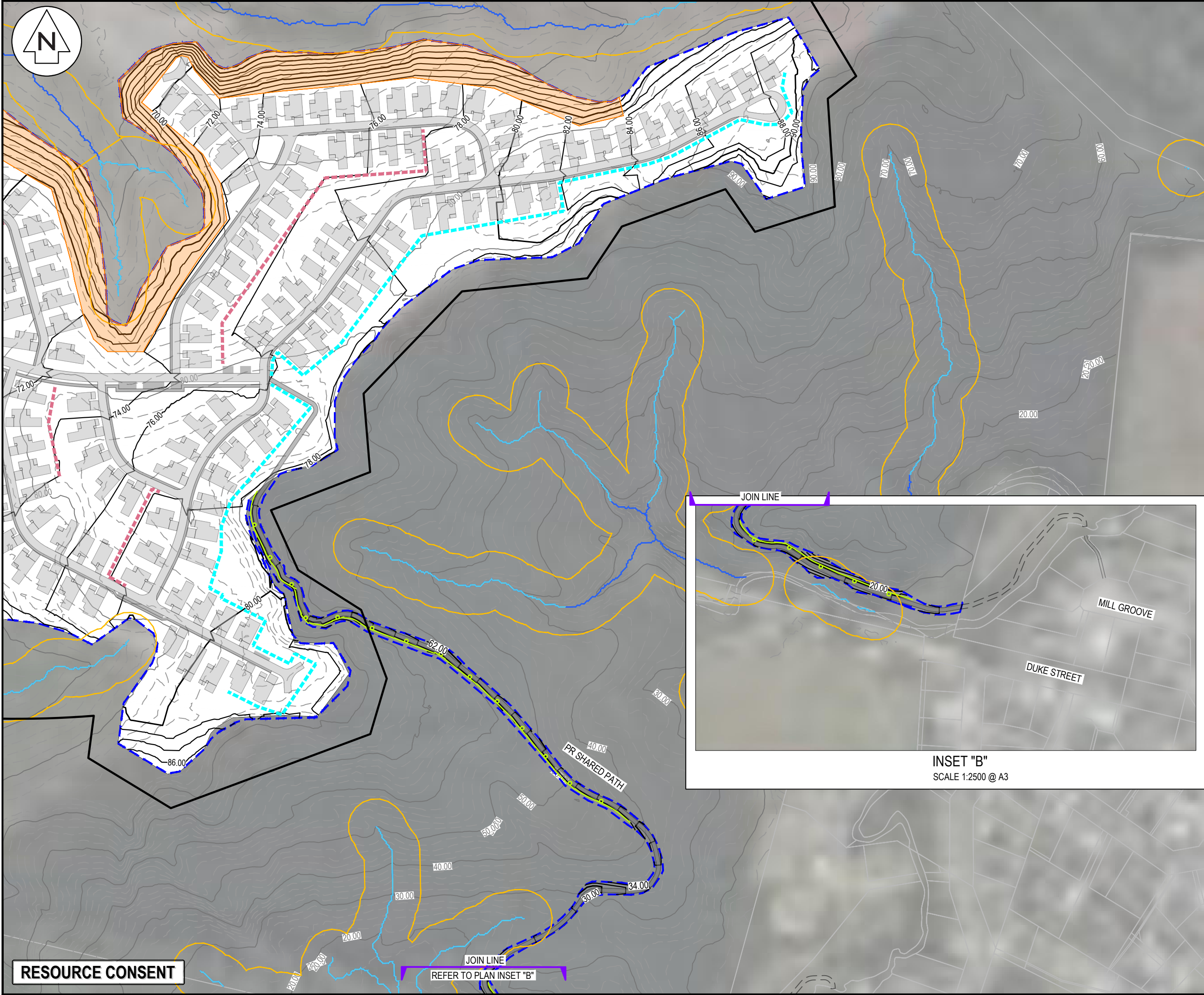
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED
EARTHWORKS PLAN**

Project no.	147016
Scale	1:2500 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C210-2
Rev	A

RESOURCE CONSENT



- NOTES
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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR RET. WALL > 1.0m
 - PR LANDSCAPE RET. WALL < 1.0m
 - PR IN-GROUND PALISADE WALL
 - PR ENGINEERED EARTH WALL
 - PR SW POND

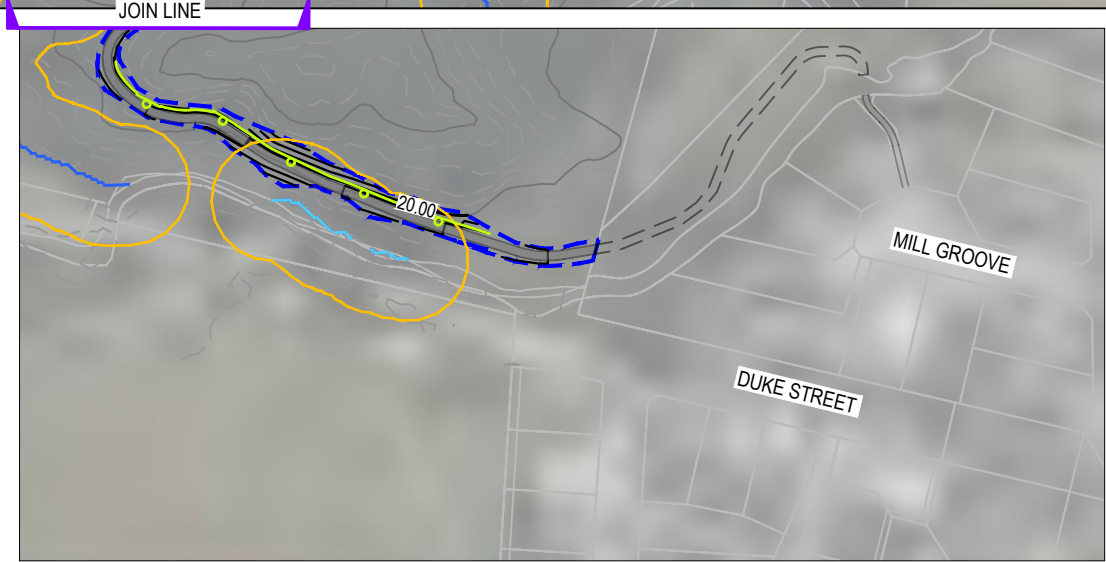
A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED
EARTHWORKS PLAN**

Project no.	147016
Scale	1:2500 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C210-3
Rev	A



INSET "B"
SCALE 1:2500 @ A3

RESOURCE CONSENT

JOIN LINE
REFER TO PLAN INSET "B"

DATE: 5/05 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C210 EW BULK.DWG



BULK EARTH WORKS (SURFACE PGL RV COMPARISON WITH SURFACE EGL)

CUT VOLUME	547,480 m³
FILL VOLUME	731,880 m³
NET FILL	184,400 m³
TOPSOIL STRIPPED (350mm)	140,920 m³
EARTHWORKS AREA	402,630m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES, VOLUMES ARE INCLUDE 10% AND IN SITU

CUT/FILL			
No.	ELEVATION (min.)	ELEVATION (max.)	COLOUR
1	-14.000	-12.000	Dark Red
2	-12.000	-10.000	Red
3	-10.000	-8.000	Brown
4	-8.000	-6.000	Dark Brown
5	-6.000	-4.000	Light Brown
6	-4.000	-2.000	Yellow
7	-2.000	0.000	Light Green
8	0.000	2.000	Green
9	2.000	4.000	Dark Green
10	4.000	6.000	Dark Green
11	6.000	8.000	Dark Green
12	8.000	10.000	Dark Green

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR RET. WALL > 1.0m
 - PR LANDSCAPE RET. WALL < 1.0m
 - PR IN-GROUND PALISADE WALL
 - PR ENGINEERED EARTH WALL
 - PR SW POND

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

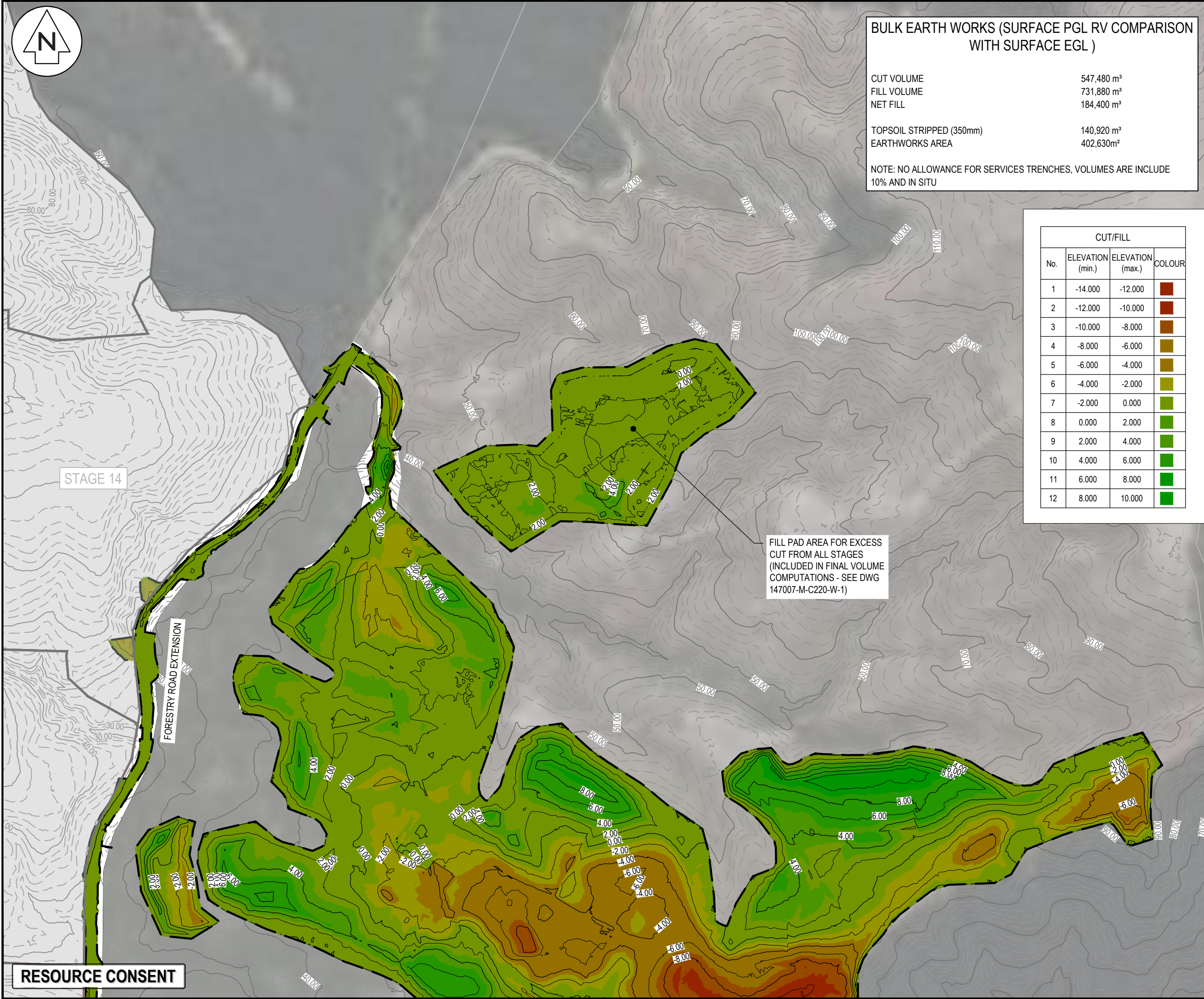


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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

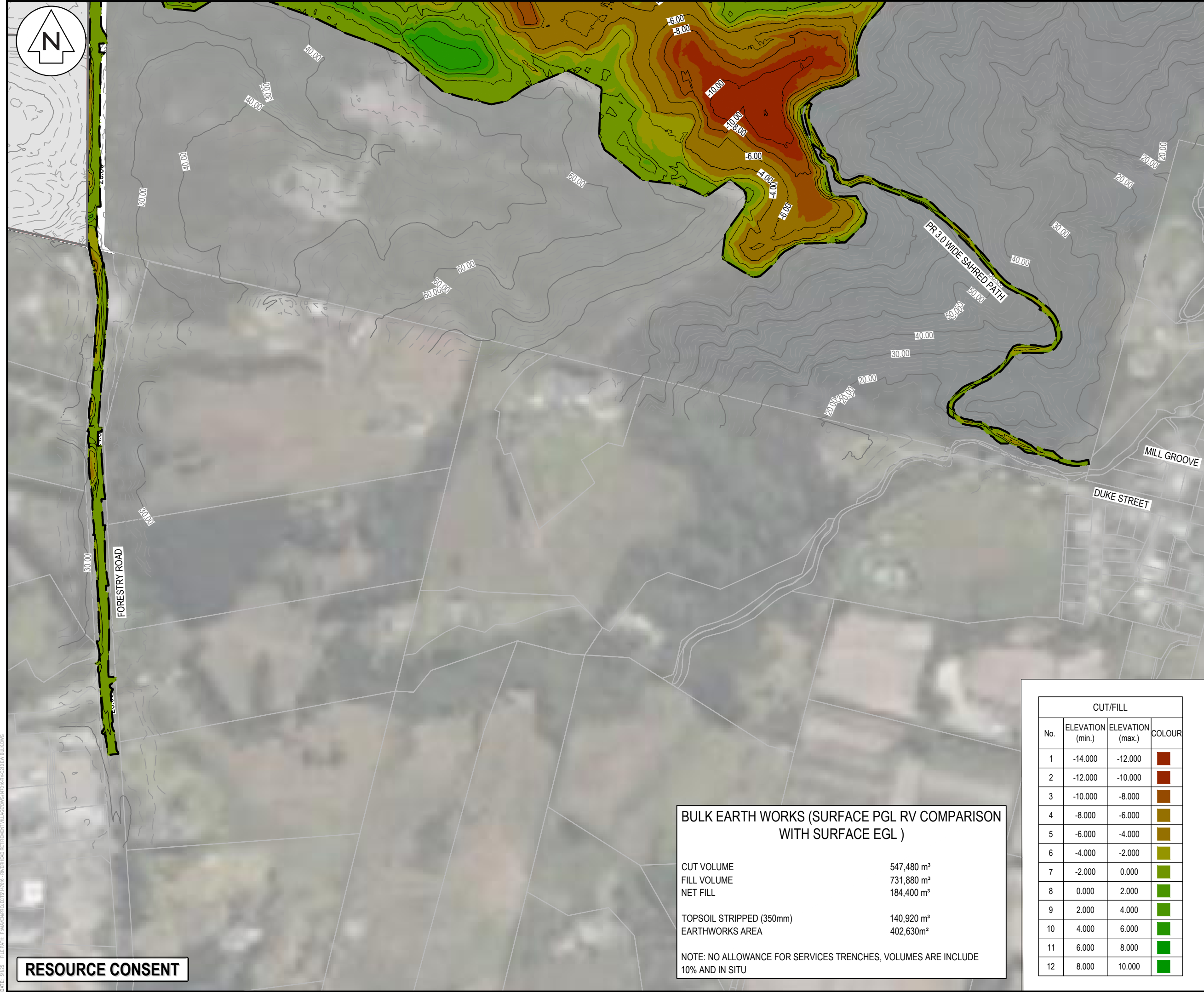
Title
RETIREMENT VILLAGE PROPOSED CUT/FILL PLAN

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C220-1
Rev	A



RESOURCE CONSENT

DATE: 5/02/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C210 EW BULK.DWG



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EX STREAMS
 - PR RET. WALL > 1.0m
 - PR LANDSCAPE RET. WALL < 1.0m
 - PR IN-GROUND PALISADE WALL
 - PR ENGINEERED EARTH WALL
 - PR SW POND

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	MA		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED
CUT/FILL PLAN**

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C210 EW BULK.DWG
Drawing no.	C220-2
Rev	A

**BULK EARTH WORKS (SURFACE PGL RV COMPARISON
WITH SURFACE EGL)**

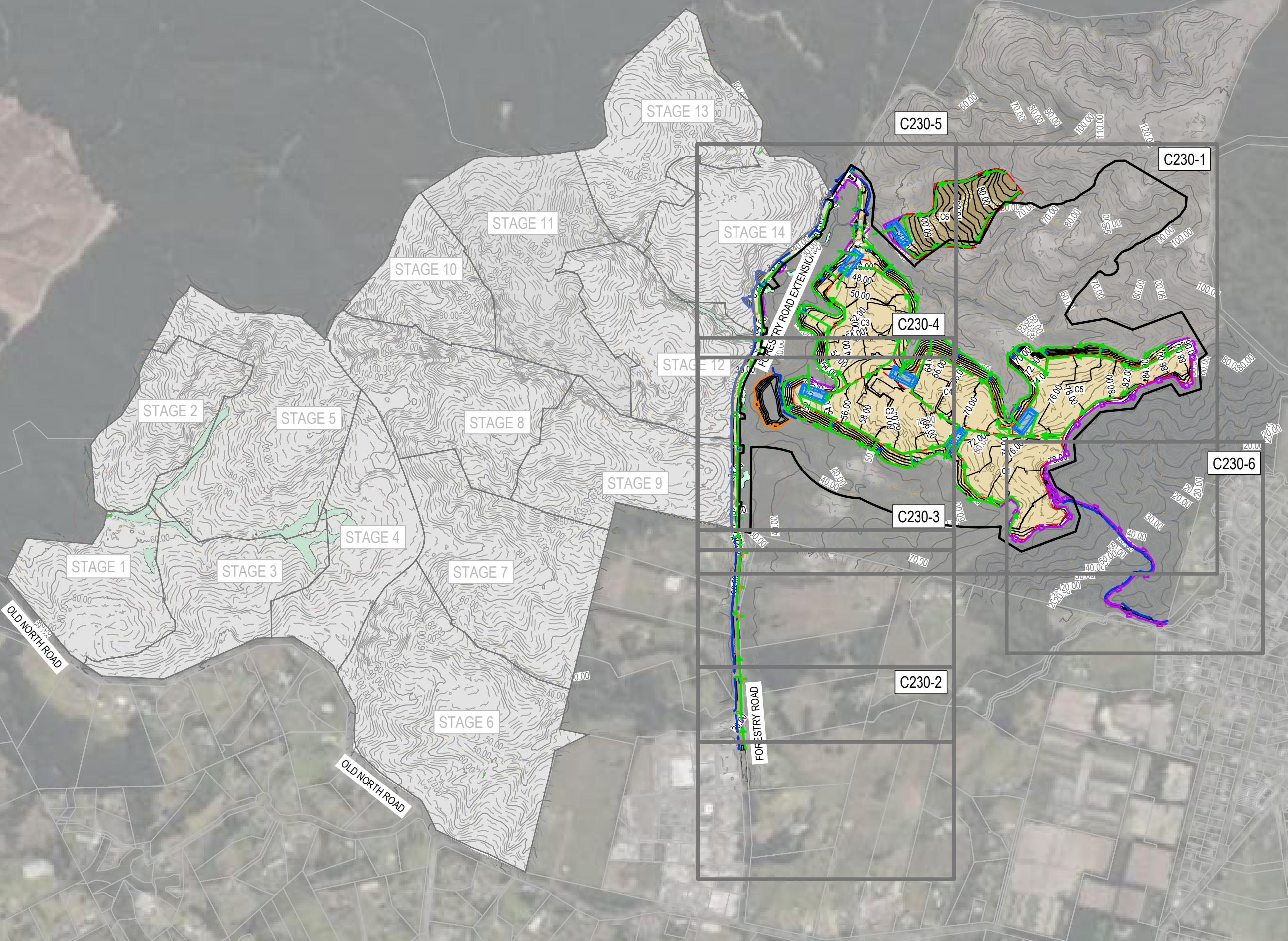
CUT VOLUME	547,480 m³
FILL VOLUME	731,880 m³
NET FILL	184,400 m³

TOPSOIL STRIPPED (350mm)	140,920 m³
EARTHWORKS AREA	402,630m²

NOTE: NO ALLOWANCE FOR SERVICES TRENCHES, VOLUMES ARE INCLUDE
10% AND IN SITU

CUT/FILL			
No.	ELEVATION (min.)	ELEVATION (max.)	COLOUR
1	-14.000	-12.000	
2	-12.000	-10.000	
3	-10.000	-8.000	
4	-8.000	-6.000	
5	-6.000	-4.000	
6	-4.000	-2.000	
7	-2.000	0.000	
8	0.000	2.000	
9	2.000	4.000	
10	4.000	6.000	
11	6.000	8.000	
12	8.000	10.000	

RESOURCE CONSENT



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
 3. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
 4. ORIGIN OF LEVELS = SM XXXX SO XXXX(XXXX)
PUBLISHED RL=XX.XX, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
 5. BOUNDARIES ARE SUBJECT TO FINAL SURVEY.

- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - PR CLEANWATER
 - PR DIRTYWATER
 - PR SILT FENCE
 - PR SUPER SILT FENCE
 - PR STOCKPILE
 - PR SRP POND
 - PR DEB POND
 - PR DECANT BAR
 - STAGE BOUNDARY
 - EX STREAM
 - EX WETLAND
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EARTHWORKS CATCHMENT AREA

A	RESOURCE CONSENT	HN	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	HN		05/2022
Drawn	HN		03/2025
Checked	RW/KH		03/2025



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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROP. EROSION & SEDIMENT
CONTROL OVERVIEW PLAN**

Project no.	147016		
Scale	1:4000 @ A3		
Cad file	147016-RV-C230 ESC.DWG		
Drawing no.	C230	Rev	A



PR DEB RV-DEB 11
CATCHMENT AREA: 1600m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 11
CATCHMENT AREA: 1600m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR SRP RV-P3
CATCHMENT AREA: 48,900m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

PR DEB RV-DEB 10
CATCHMENT AREA: 2650m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 10
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 9
CATCHMENT AREA: 2800m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 8
CATCHMENT AREA: 2450m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 7
CATCHMENT AREA: 2450m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR SRP RV-P2
CATCHMENT AREA: 50,000m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

PR DEB RV-DEB 6
CATCHMENT AREA: 2500m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 5
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR SRP RV-P4
CATCHMENT AREA: 35,100m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

PR DEB RV-DEB 4
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 3
CATCHMENT AREA: 2850m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 2
CATCHMENT AREA: 1700m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR SRP RV-P1
CATCHMENT AREA: 50,000m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

PR DEB RV-DEB 1
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

FILL PAD AREA FOR
EXCESS CUT FROM ALL
STAGES

CULVERT CONSTRUCTION
METHODOLOGY REFER TO
C245 FOR DETAILS

PR SRP RV-P6
CATCHMENT AREA: 44,100m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

PR DEB RV-DEB 13
CATCHMENT AREA: 1850m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 14
CATCHMENT AREA: 2450m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 15
CATCHMENT AREA: 2350m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 16
CATCHMENT AREA: 2650m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 17
CATCHMENT AREA: 2820m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 18
CATCHMENT AREA: 2830m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 19
CATCHMENT AREA: 2580m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 23
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 22
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 21
CATCHMENT AREA: 2660m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 20
CATCHMENT AREA: 3000m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB RV-DEB 19
CATCHMENT AREA: 2780m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR SRP RV-P5
CATCHMENT AREA: 50,000m²
FOREBAY: 2.0m W X 23.0m L X 1.0m D
MAIN POND BASE: 17.0m W X 51.0m L X 1.5m D
EMERGENCY SPILLWAY: 4.0m L X 3.0m W X 0.3m D

SUPER SILT FENCE & CWD
ALONG THE PR SHARED PATH

NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. COORDINATES IN TERMS OF NZ GEODETIC DATUM MT EDEN 2000.
3. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
4. ORIGIN OF LEVELS = SM XXXX SO XXXX(XXXX)
PUBLISHED RL=XX.XX, SOURCED FROM THE LINZ DIGITAL GEODETIC DATABASE.
5. BOUNDARIES ARE SUBJECT TO FINAL SURVEY.

LEGEND

	EX BDY
	PR BDY
	EX MAJOR CONTOUR
	EX MINOR CONTOUR
	PR MAJOR CONTOUR
	PR MINOR CONTOUR
	PR EXTENT WORK
	PR CLEANWATER
	PR DIRTYWATER
	PR SILT FENCE
	PR SUPER SILT FENCE
	PR STOCKPILE
	PR SRP POND
	PR DEB POND
	PR DECANT BAR
	STAGE BOUNDARY
	EX STREAM
	EX WETLAND
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EARTHWORKS CATCHMENT AREA

A	RESOURCE CONSENT	HN	03/2025
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Rev	Description	By	Date
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	By	Date
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Survey	LIDAR	03/2022
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Design	HN	05/2022
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Drawn	HN	03/2025
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Checked	RW/KH	03/2025
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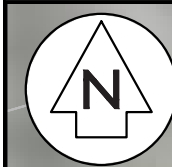


DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

RETIREMENT VILLAGE PROPOSED EROSION & SEDIMENT CONTROL PLAN

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C230 ESC.DWG
Drawing no.	C230-1
Rev	A

RESOURCE CONSENT



STABILISED VEHICLE
ENTRANCE

PR DEB FR-DEB 1
CATCHMENT AREA: 2,200m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

CULVERT CONSTRUCTION
METHODOLOGY REFER TO
C245 FOR DETAILS

FORESTRY ROAD

26.00%

RESOURCE CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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	EX MAJOR CONTOUR
	EX MINOR CONTOUR
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	PR DEB POND
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	EX STREAM
	EX WETLAND
	RIPARIAN YARD 20m SETBACK
	WETLAND AREA 100m SETBACK
	WETLAND AREA 10m SETBACK
	EARTHWORKS CATCHMENT AREA

A	RESOURCE CONSENT	HN	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	HN	05/2022	
Drawn	HN	03/2025	
Checked	RW/KH	03/2025	



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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED EROSION &
SEDIMENT CONTROL PLAN**

Project no.	147016		
Scale	1:4000 @ A3		
Cad file	147016-RV-C230 ESC.DWG		
Drawing no.	C230-2	Rev	A



PR DEB FR-DEB 4
CATCHMENT AREA: 1,070m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB FR-DEB 3
CATCHMENT AREA: 1,260m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

CULVERT CONSTRUCTION
METHODOLOGY REFER TO
C245 FOR DETAILS

PR DEB FR-DEB 2
CATCHMENT AREA: 2,180m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

PR DEB FR-DEB 1
CATCHMENT AREA: 2,200m²
MAIN DEB BASE: 4.0m W X 12.0m L X 1.0m D
EMERGENCY SPILLWAY: 0.5m W X 0.25m D

CULVERT CONSTRUCTION
METHODOLOGY REFER TO
C245 FOR DETAILS

RESOURCE CONSENT

- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - PR CLEANWATER
 - PR DIRTYWATER
 - PR SILT FENCE
 - PR SUPER SILT FENCE
 - PR STOCKPILE
 - PR SRP POND
 - PR DEB POND
 - PR DECANT BAR
 - STAGE BOUNDARY
 - EX STREAM
 - EX WETLAND
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EARTHWORKS CATCHMENT AREA

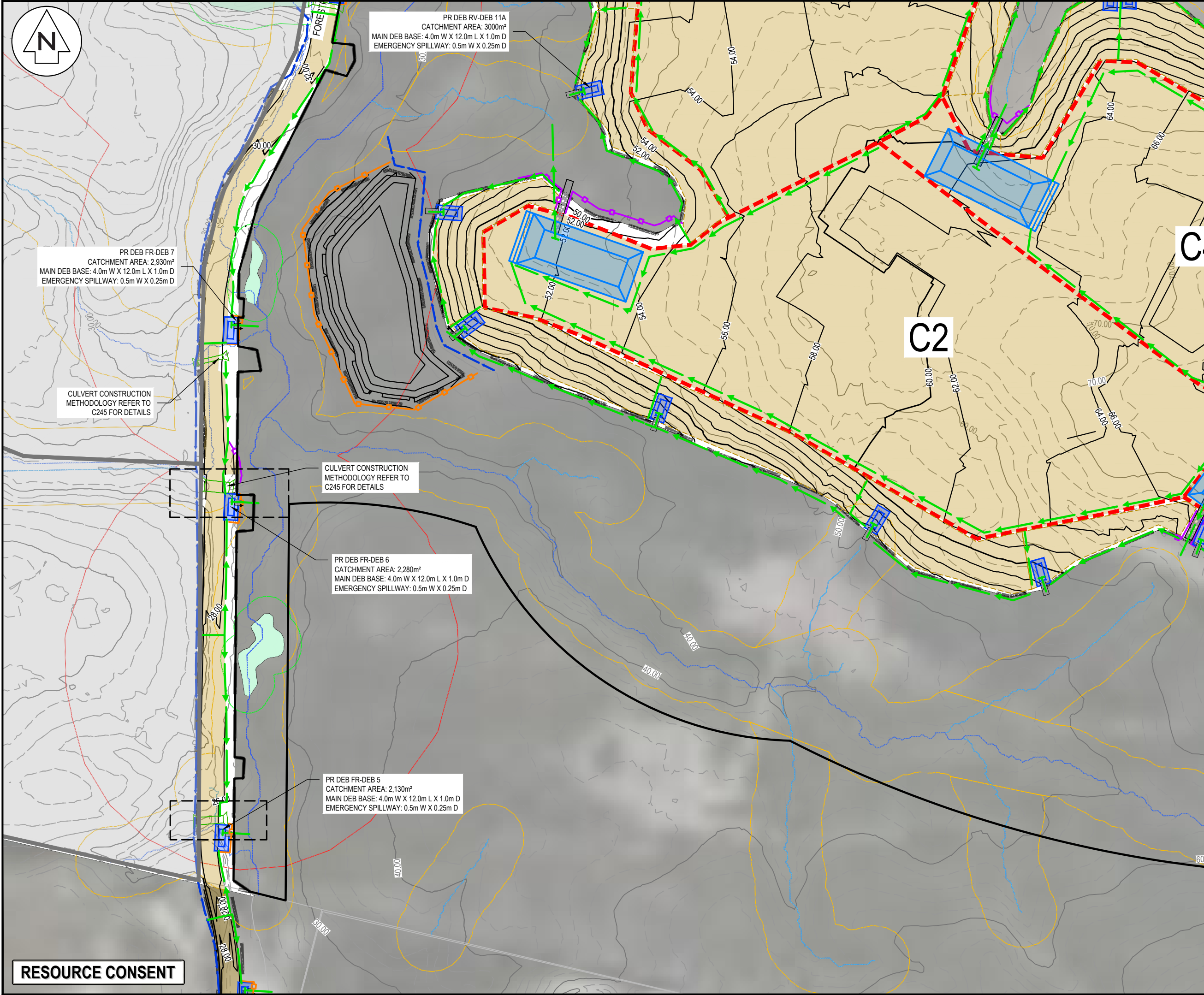
A	RESOURCE CONSENT	HN	03/2025
Rev	Description	By	Date
	By	Date	
Survey	LIDAR	03/2022	
Design	HN	05/2022	
Drawn	HN	03/2025	
Checked	RW/KH	03/2025	



Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
PROPOSED EROSION &
SEDIMENT CONTROL PLAN**

Project no.	147016		
Scale	1:4000 @ A3		
Cad file	147016-RV-C230 ESC.DWG		
Drawing no.	C230-3	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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	EX MINOR CONTOUR
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	RIPARIAN YARD 20m SETBACK
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	EARTHWORKS CATCHMENT AREA

Rev	Description	By	Date
A	RESOURCE CONSENT	HN	03/2025

Survey	LIDAR	03/2022
Design	HN	05/2022
Drawn	HN	03/2025
Checked	RW/KH	03/2025

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Project

DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

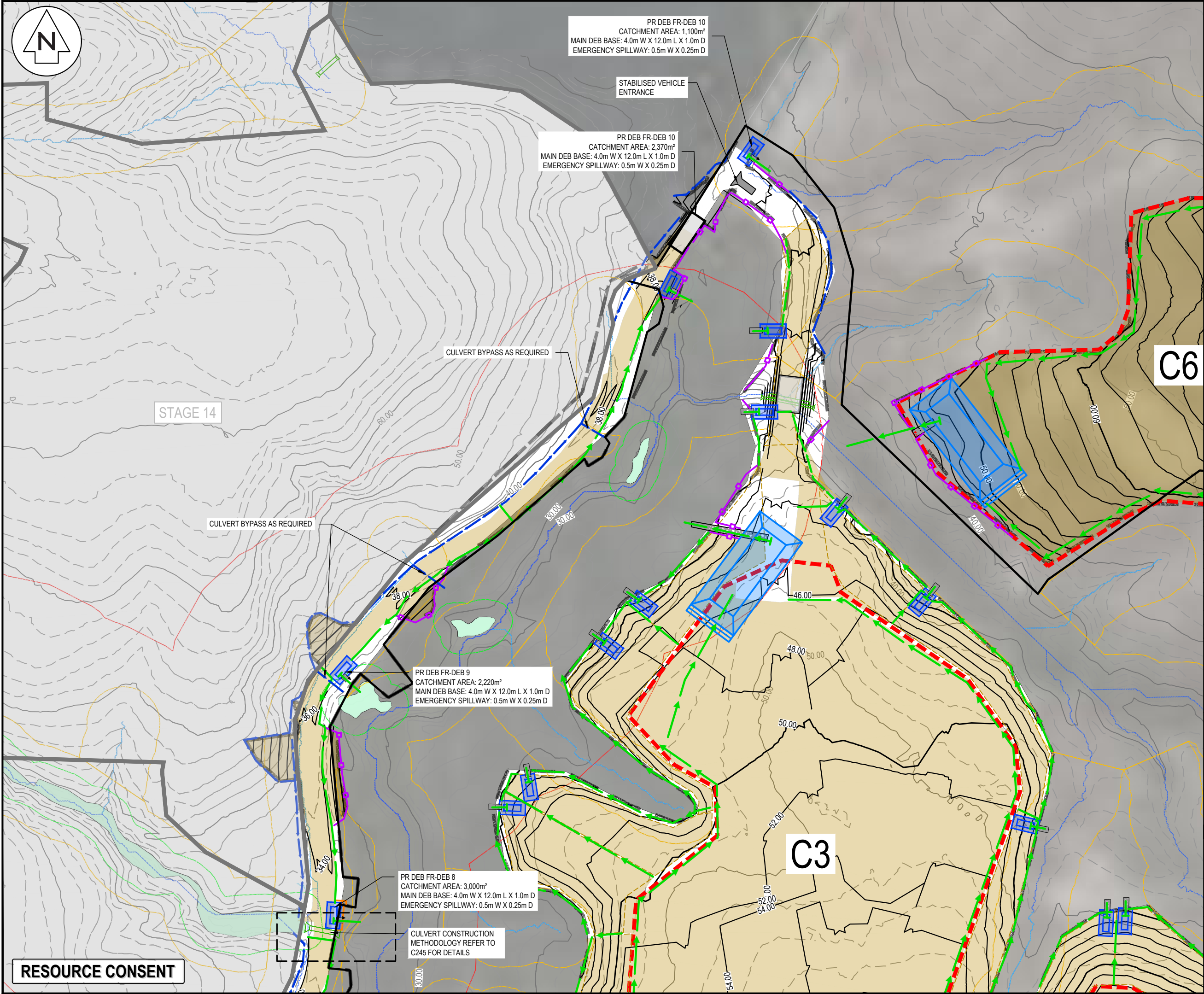
Title

RETIREMENT VILLAGE PROPOSED EROSION & SEDIMENT CONTROL PLAN

Project no.	147016		
Scale	1:4000 @ A3		
Cad file	147016-RV-C230 ESC.DWG		
Drawing no.	C230-4	Rev	A

RESOURCE CONSENT

DATE: 5/12/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C230 ESC.DWG



NOTES

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---	EX BDY
---	PR BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PR MAJOR CONTOUR
---	PR MINOR CONTOUR
---	PR EXTENT WORK
---	PR CLEANWATER
---	PR DIRTYWATER
---	PR SILT FENCE
---	PR SUPER SILT FENCE
---	PR STOCKPILE
---	PR SRP POND
---	PR DEB POND
---	PR DECANT BAR
---	STAGE BOUNDARY
---	EX STREAM
---	EX WETLAND
---	RIPARIAN YARD 20m SETBACK
---	WETLAND AREA 100m SETBACK
---	WETLAND AREA 10m SETBACK
---	EARTHWORKS CATCHMENT AREA

Rev	Description	By	Date
A	RESOURCE CONSENT	HN	03/2025
Survey	LIDAR		03/2022
Design	HN		05/2022
Drawn	HN		03/2025
Checked	RW/KH		03/2025

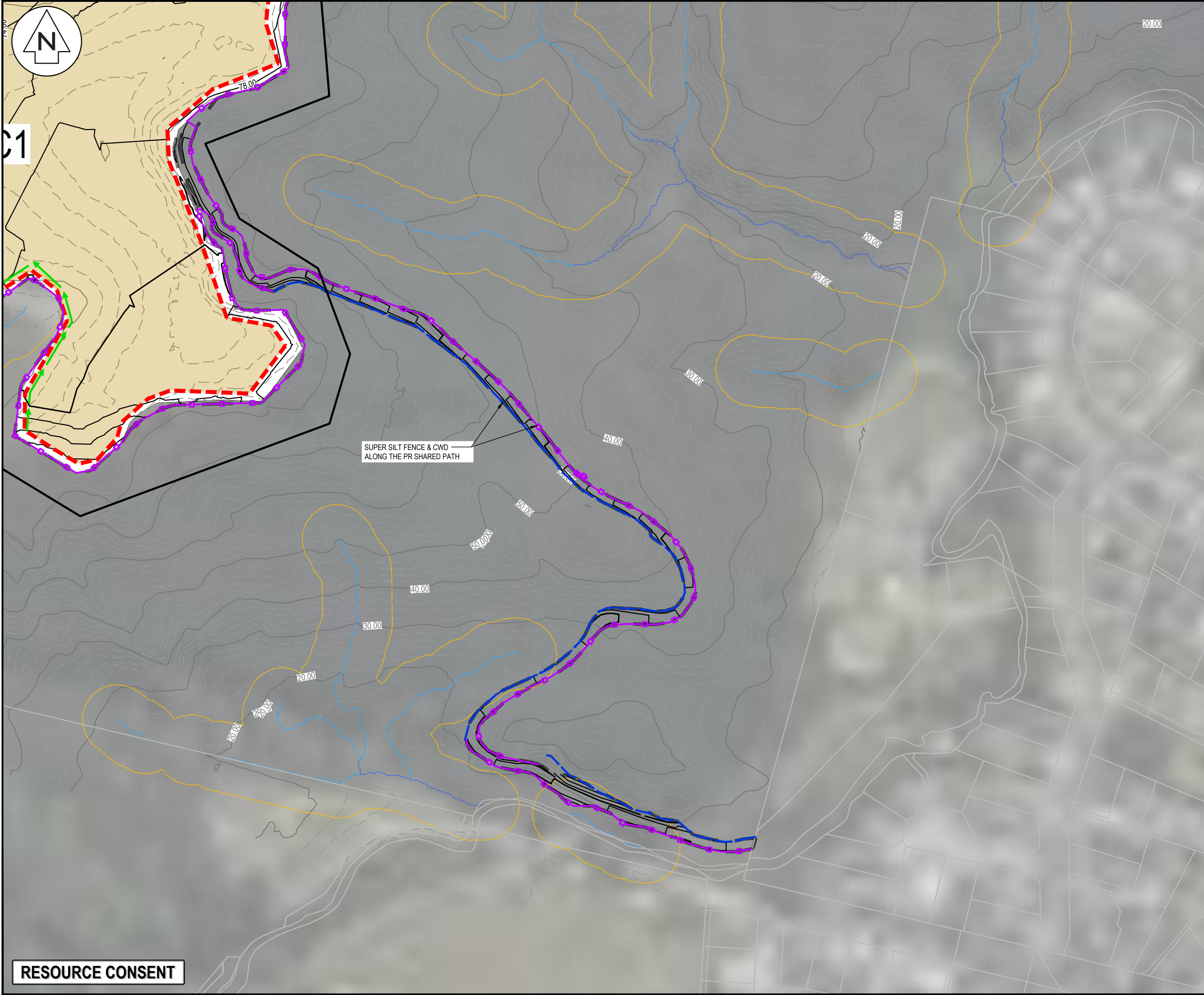
M **Maven Associates**
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Project
DEVELOPMENT OF RIVERHEAD FOREST FOR RANGITOOPUNI DEVELOPMENTS LIMITED PARTNERSHIP

Title
RETIREMENT VILLAGE PROPOSED EROSION & SEDIMENT CONTROL PLAN

Project no.	147016
Scale	1:4000 @ A3
Cad file	147016-RV-C230 ESC.DWG
Drawing no.	C230-5
Rev	A

DATE: 5/12/25 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C230 ESC.DWG



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
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3. LEVELS IN TERMS OF THE AUCKLAND VERTICAL DATUM 1946.
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LEGEND

---	EX BDY
---	PR BDY
---	EX MAJOR CONTOUR
---	EX MINOR CONTOUR
---	PR MAJOR CONTOUR
---	PR MINOR CONTOUR
---	PR EXTENT WORK
---	PR CLEANWATER
---	PR DIRTYWATER
---	PR SILT FENCE
---	PR SUPER SILT FENCE
---	PR STOCKPILE
---	PR SRP POND
---	PR DEB POND
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---	RIPARIAN YARD 20m SETBACK
---	WETLAND AREA 100m SETBACK
---	WETLAND AREA 10m SETBACK
---	EARTHWORKS CATCHMENT AREA

A	RESOURCE CONSENT	HN	03/2025
Rev	Description	By	Date
		By	Date
Survey	LIDAR		03/2022
Design	HN		05/2022
Drawn	HN		03/2025
Checked	RW/KH		03/2025

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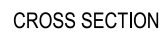
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title

**RETIREMENT VILLAGE
PROPOSED EROSION &
SEDIMENT CONTROL PLAN**

Project no.	147016		
Scale	1:4000 @ A3		
Cad file	147016-RV-C230 ESC.DWG		
Drawing no.	C230-6	Rev	A



NOTES

1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
3. THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT HEALTH AND SAFETY REQUIREMENTS.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
5. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
6. CONTRACTOR SHALL PROVIDE ABSULT OF WORKING SEDIMENT CONTROL DEVICES AND CONFIRMATION OF POND/DECENT VOLUMES TO ENGINEER.
7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
	By	Date	
Survey	--	--/--	
Design	--	-	
Drawn	SP	03/2025	
Checked	RW/KH	03/2025	



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 Auckland 1023

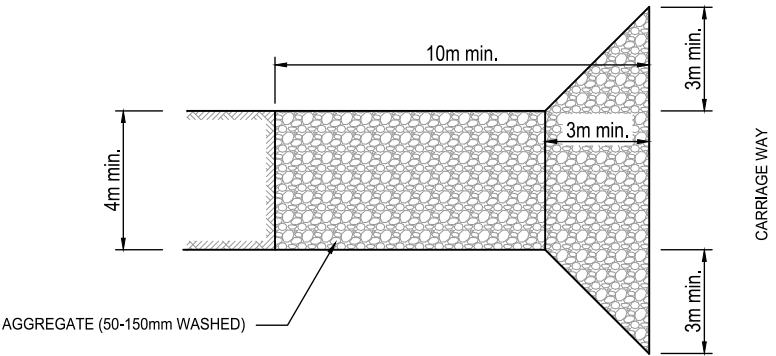
Project

**DEVELOPMENT OF
RIVERHEAD FOREST
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DEVELOPMENTS LIMITED
PARTNERSHIP**

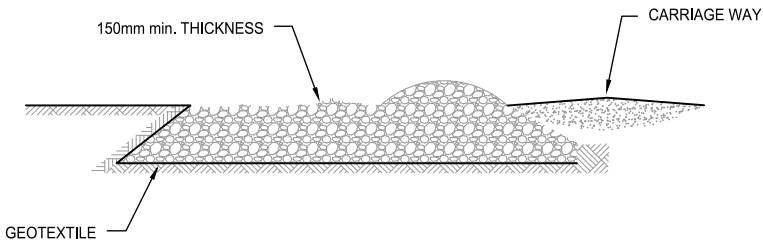
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RETIREMENT VILLAGE EROSION AND SEDIMENT CONTROL DETAILS

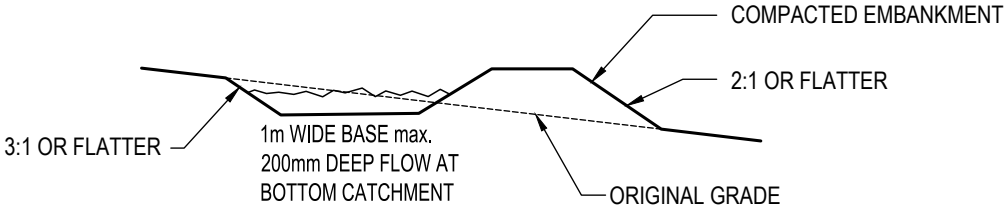
Project no.	147016		
Scale	N.T.S		
Cad file	147016-RV-C240 ESC STD DETAILS.DWG		
Drawing no.	C240	Rev	A



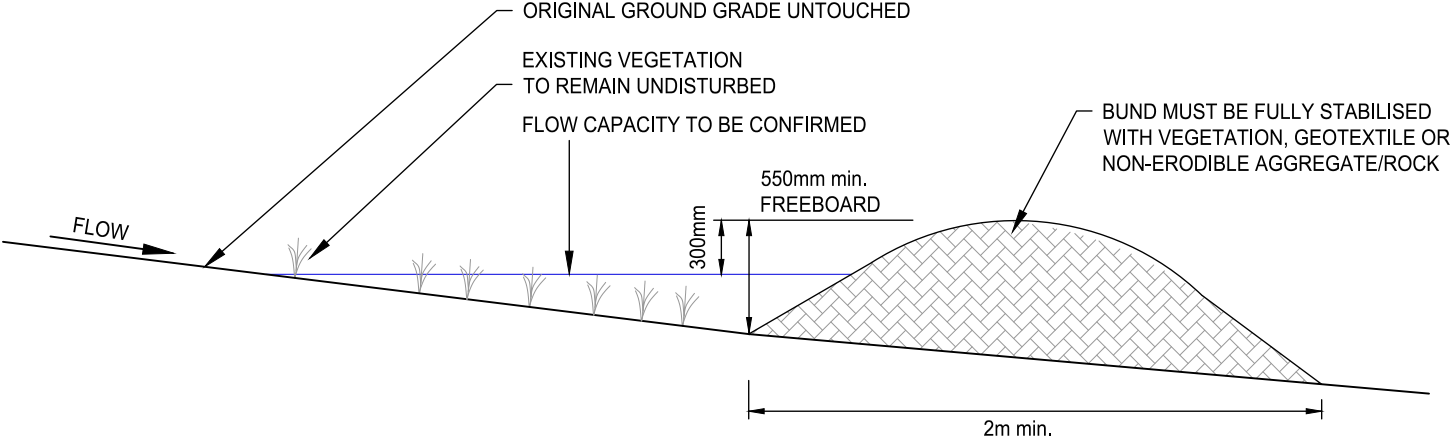
STABALISED VEHICLE ENTRANCE
PLAN VIEW



STABALISED VEHICLE ENTRANCE DETAIL
SIDE ELEVATION



TYPICAL CROSS SECTION OF A RUNOFF DIVERSION
TYPICAL DIMENSIONS UNLESS OTHERWISE NOTED



CLEAN WATER DIVERSION BUND DETAIL

- NOTES
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 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	--	--	----
Design	--	-	
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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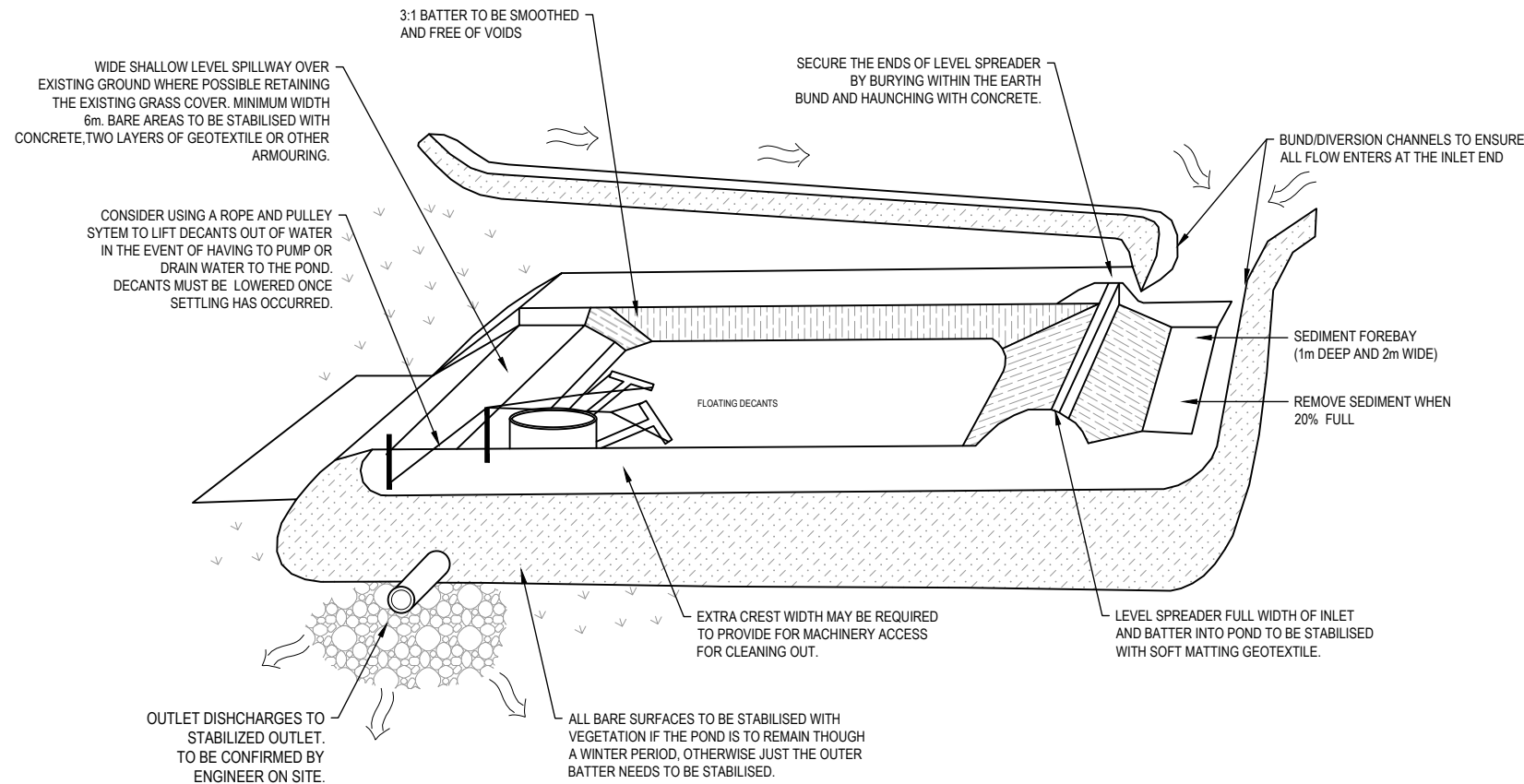
Maven Associates
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Project
**DEVELOPMENT OF
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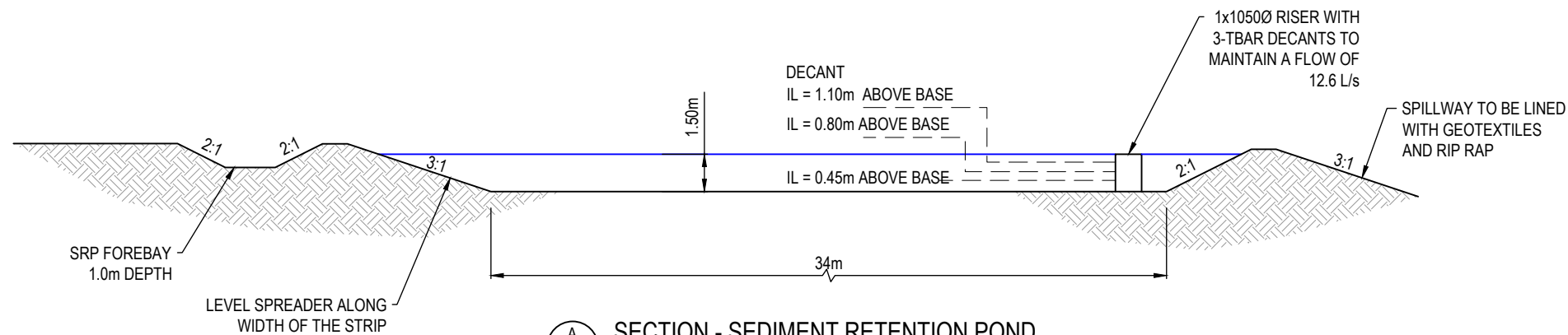
Title
**RETIREMENT VILLAGE
EROSION AND SEDIMENT
CONTROL DETAILS**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C240 ESC STD DETAILS.DWG
Drawing no.	C241
Rev	A

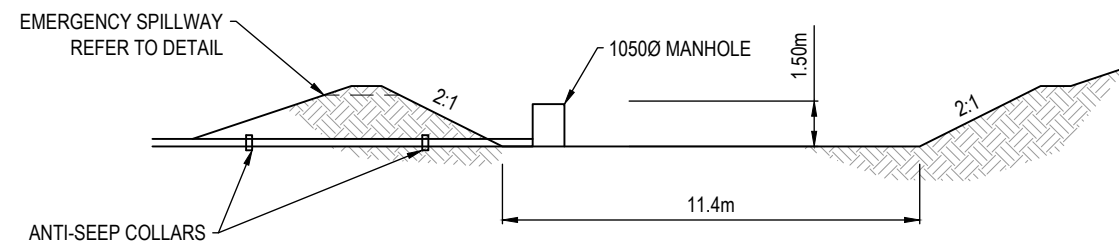
RESOURCE CONSENT



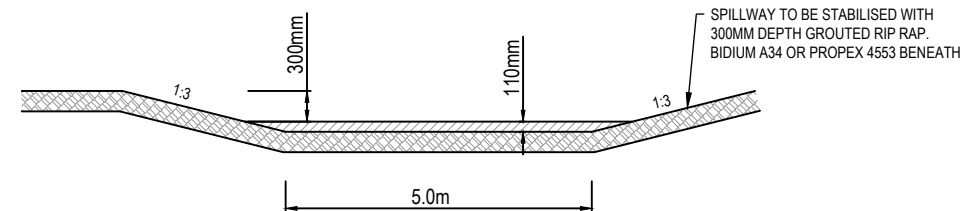
SEDIMENT POND DETAILS
(NTS)



A SECTION - SEDIMENT RETENTION POND
SCALE: N.T.S



B SECTION - SEDIMENT RETENTION POND
SCALE: N.T.S



DETAIL I
EMERGENCY SPILLWAY

- NOTES
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 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	--		--/--
Design	--		-
Drawn	SP		03/2025
Checked	RW/KH		03/2025

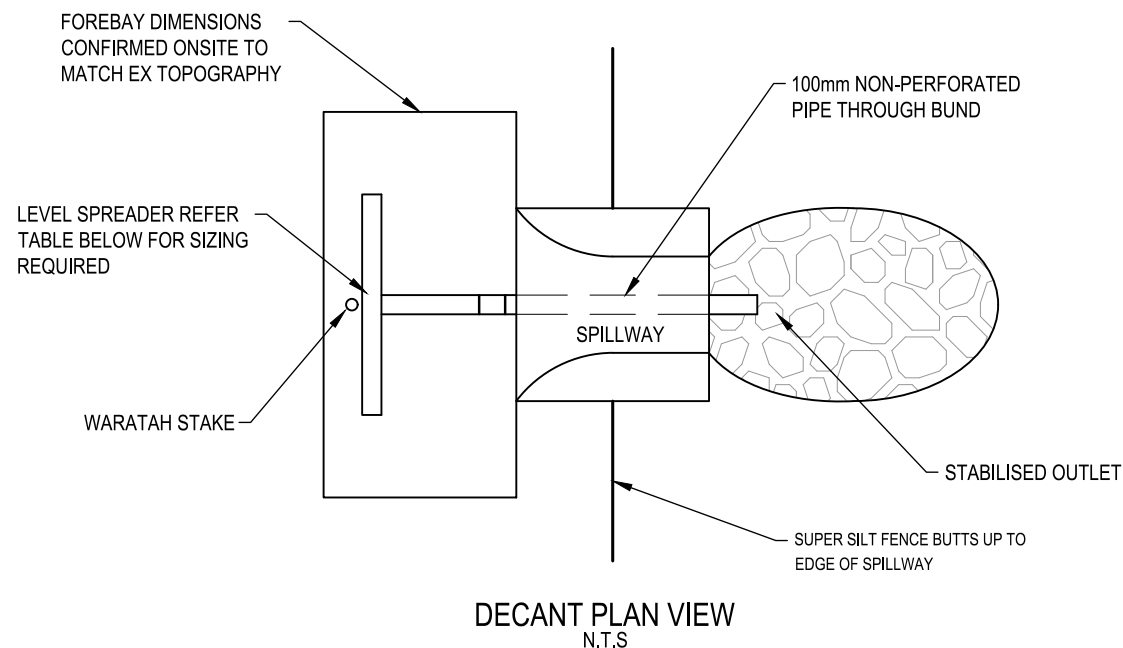
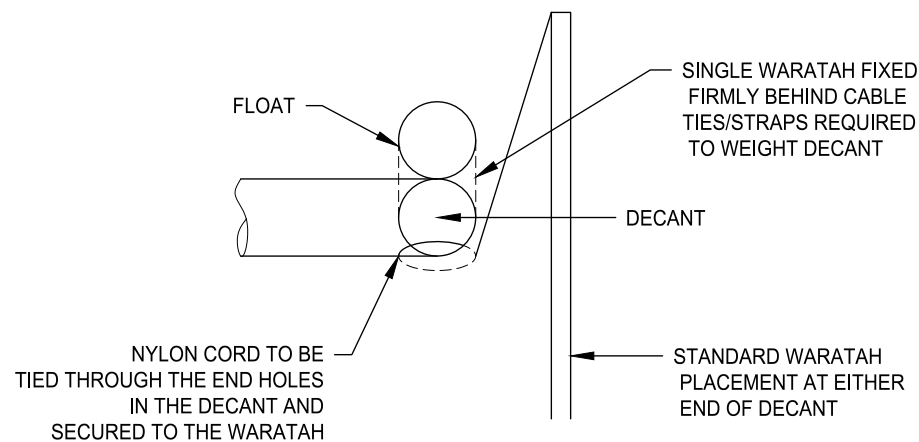
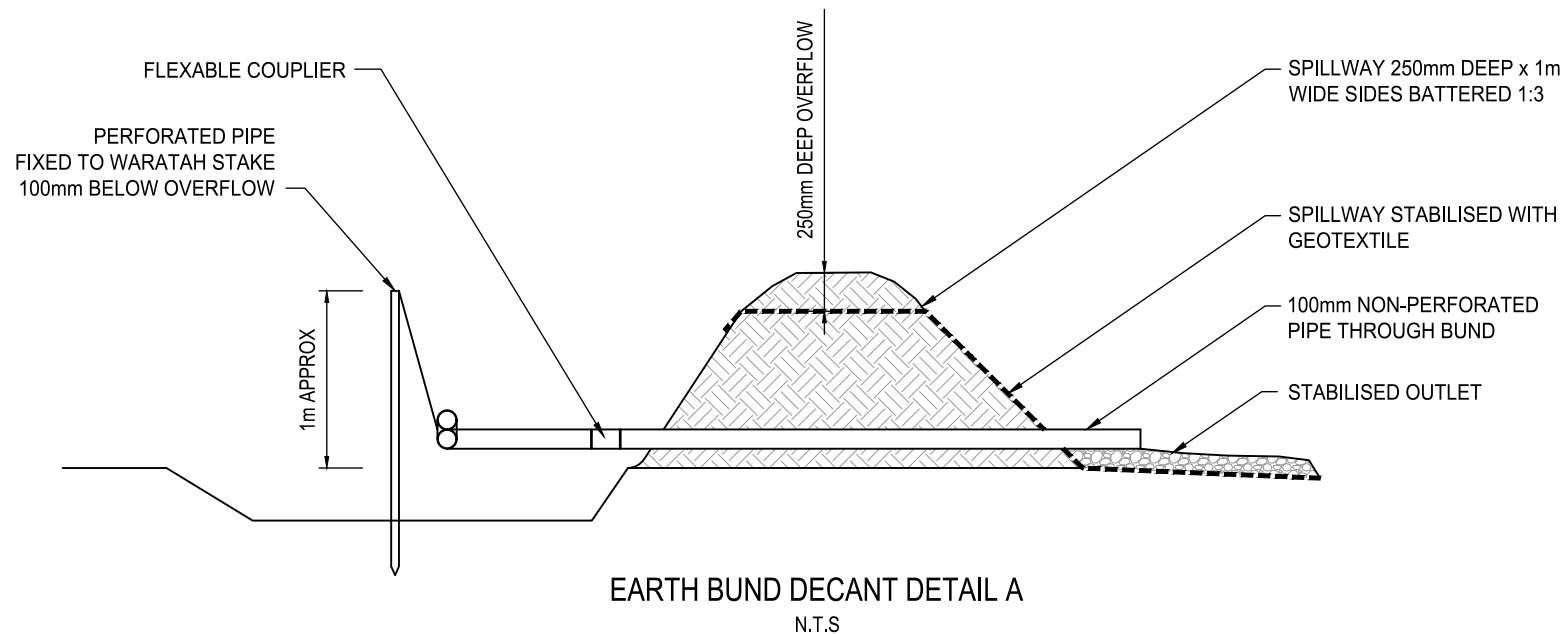
M Maven Associates
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Project
**DEVELOPMENT OF
RIVERHEAD FOREST
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DEVELOPMENTS LIMITED
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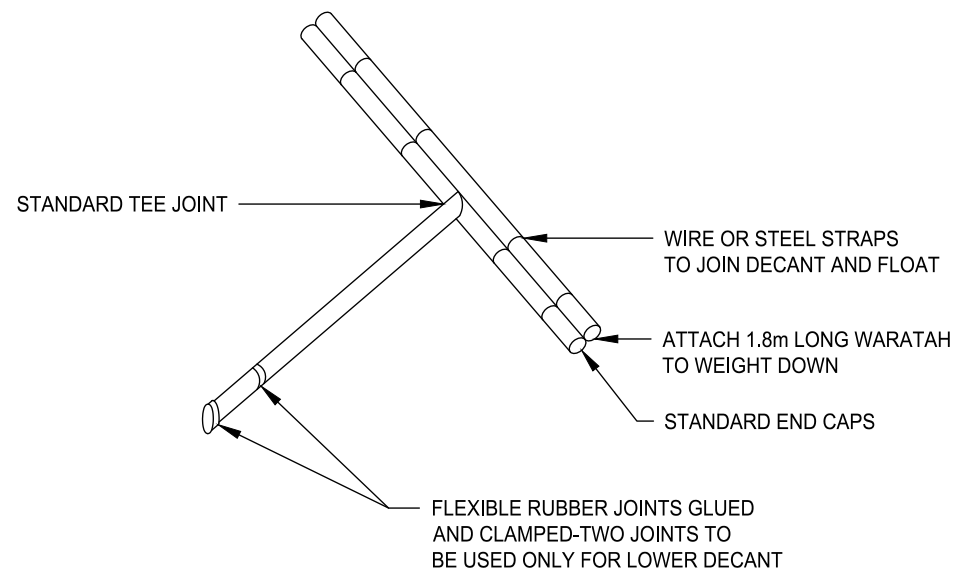
Title
**RETIREMENT VILLAGE
EROSION AND SEDIMENT
CONTROL DETAILS**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C240 ESC STD DETAILS.DWG
Drawing no.	C242
Rev	A

RESOURCE CONSENT



LEVEL SPREADER DESIGN CRITERIA (20 YEAR STORM EVENT)				
DESIGN FLOW (m ³ /sec)	INLET WIDTH (m)	DEPTH (m)	END WIDTH (m)	LENGTH (mm)
0-0.3	3	150	1	3
0.3-0.6	5	180	1	7
0.6-0.9	7	220	1	10



- NOTES**
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A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
Survey	--		--/--
Design	--		-
Drawn	SP		03/2025
Checked	RW/KH		03/2025



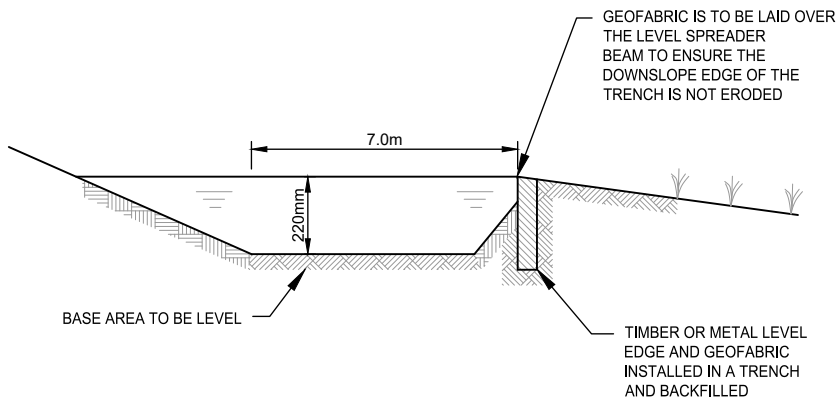
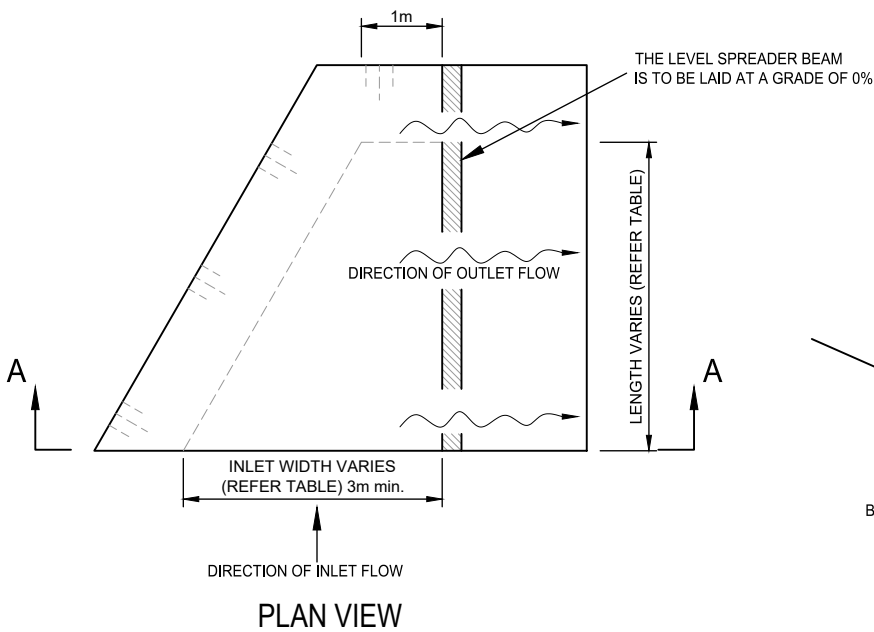
Project
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EROSION AND SEDIMENT
CONTROL DETAILS**

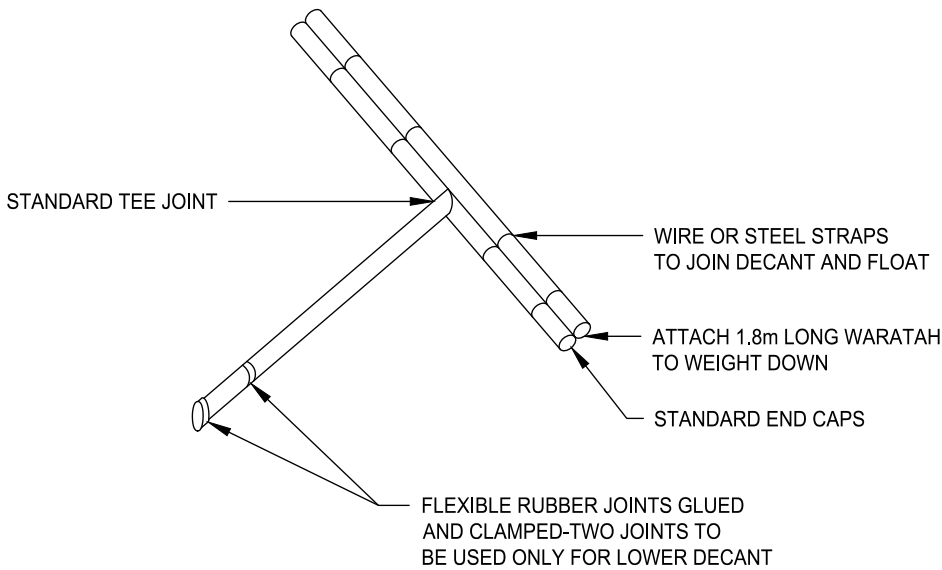
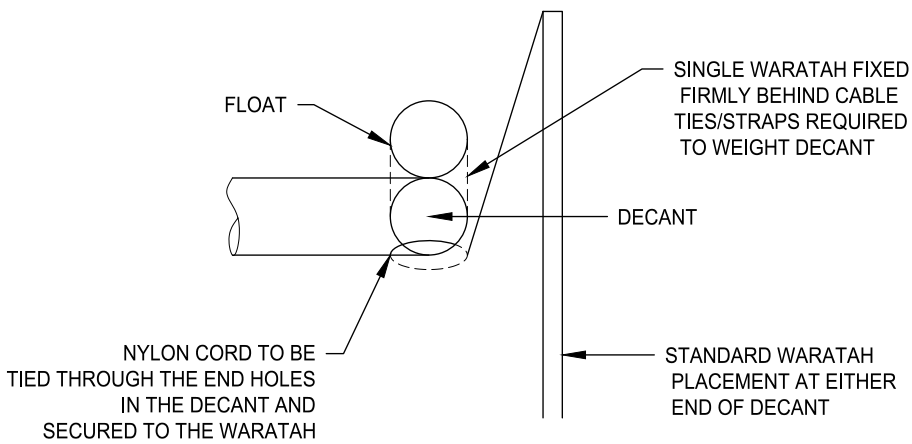
Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C240 ESC STD DETAILS.DWG
Drawing no.	C243
Rev	A

RESOURCE CONSENT

DATE: 4/2025 FILE PATH: F:\Maven\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C240-ESC STD DETAILS.DWG



LEVEL SPREADER DESIGN CRITERIA (20 YEAR STORM EVENT)				
DESIGN FLOW (m ³ /sec)	INLET WIDTH (m)	DEPTH (m)	END WIDTH (m)	LENGTH (mm)
0-0.3	3	150	1	3
0.3-0.6	5	180	1	7
0.6-0.9	7	220	1	10



- NOTES
1. ALL WORKS TO BE IN ACCORDANCE WITH AUCKLAND COUNCIL STANDARDS.
 2. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ALL SERVICES THAT MAY BE AFFECTED BY THEIR OPERATIONS.
 3. THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT HEALTH AND SAFETY REQUIREMENTS.
 4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY APPROVAL FROM UTILITY OPERATORS BEFORE COMMENCING WORK UNDER OR NEAR THEIR SERVICES.
 5. SEDIMENT CONTROL SHALL BE INSTALLED AND OPERATIONAL BEFORE EARTHWORKS START ONSITE IN ACCORDANCE WITH COUNCIL STANDARDS.
 6. CONTRACTOR SHALL PROVIDE ASBUILT OF WORKING SEDIMENT CONTROL DEVICES AND CONFIRMATION OF POND/DECENT VOLUMES TO ENGINEER.
 7. SEDIMENT CONTROL TO COMPLY WITH GD05 STANDARDS.

A	RESOURCE CONSENT	SP	03/2025
Rev	Description	By	Date
		By	Date
Survey	--	--	----
Design	--	-	
Drawn	SP		03/2025
Checked	RW/KH		03/2025

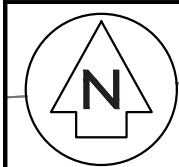
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Auckland 1023

Project
**DEVELOPMENT OF
RIVERHEAD FOREST
FOR RANGITOOPUNI
DEVELOPMENTS LIMITED
PARTNERSHIP**

Title
**RETIREMENT VILLAGE
EROSION AND SEDIMENT
CONTROL DETAILS**

Project no.	147016
Scale	N.T.S
Cad file	147016-RV-C240-ESC STD DETAILS.DWG
Drawing no.	C244
Rev	A

RESOURCE CONSENT



PUMP1 DISCHARGE CLEAN WATER TO DOWN STREAM
3mm SCREEN ON INLET

FISH EXCLUSION NET

UPSTREAM DAM - STEEL ROAD
PLATES DRIVEN INTO STREAM BED.
OVERLAP 300-400mm WIDTH TO
EXTEND 1m EITHER SIDE OF
CURRENT WATER LEVEL

PUMP2 DEWATER TO DEB

FISH EXCLUSION NET

DOWN STREAM DAM
STEEL ROAD PLATES DRIVEN INTO
STREAM BED 300-400mm OVERLAP
AS REQUIRED TO ACHIEVE WIDTH 1m
BEYOND CURRENT WATER LEVEL

UPGRADE EXISTING CULVERT
INDICATIVE

FORESTRY ROAD EXTENSION

PROPOSED STREAM WORKS METHODOLOGY PLAN

EARTHWORKS OF UPGRADING EXISTING CULVERT1 TO BOX CULVERT TO BE CARRIED OUT DURING DRY WEATHER SEASON

PUMP UPSTREAM WATER AND DEWATER UNDER SUPERVISION OF THE PROJECT ECOLOGIST INCLUDING ANY FISH RELOCATION NEEDED.

REMOVE EXISTING CULVERT, UNDERCUT THE STREAMBED AND BACKFILL WITH GAP 65 AS DIRECTED, PREP STREAMBED FOR PLACEMENT OF NEW CULVERT, INSTALL RIPRAP. CLOTH ANY SIDES OF THE STREAM WHICH ARE EARTHWORKED, AS TO ENSURE NO SEDIMENT RISK

IN 2-YR OR ABOVE RAINFALL EVENT, DAMS TO BE REMOVED. STREAM STABILISED AND WORKS TO COMMENCE AFTER EVENT HAS PASSED. ALL STREAMWORKS TO BE DONE IN ACCORDANCE WITH THE MAVEN ASSOCIATES STREAM WORKS MANAGEMENT PLAN, AND UNDER ENGINEER'S SUPERVISION

COFFERDAM TO BE REMOVED AFTER CULVERT REPLACED. AND REINSTATE NORMAL FLOWS TO THE STREAM

FINAL METHODOLOGY SUBJECT TO CONTRACTOR INPUT AND FINAL STREAM WORK MANAGEMENT AS PER CONDITION OF CONSENT GRANTED

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- LEGEND
- EX BDY
 - PR BDY
 - EX MAJOR CONTOUR
 - EX MINOR CONTOUR
 - PR MAJOR CONTOUR
 - PR MINOR CONTOUR
 - PR EXTENT WORK
 - PR CLEANWATER
 - PR DIRTYWATER
 - PR SILT FENCE
 - PR SUPER SILT FENCE
 - PR STOCKPILE
 - PR DECANT
 - PR DECANT BAR
 - STAGE BOUNDARY
 - EX STREAM
 - EX WETLAND
 - RIPARIAN YARD 20m SETBACK
 - WETLAND AREA 100m SETBACK
 - WETLAND AREA 10m SETBACK
 - EARTHWORKS CATCHMENT AREA

A	RESOURCE CONSENT	HN	03/2025
Rev	Description	By	Date
		By	Date
Survey	--	--	----
Design	HN		03/2025
Drawn	SP		03/2025
Checked	RW/KH		03/2025

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Title
**RETIREMENT VILLAGE
EROSION AND SEDIMENT
CONTROL DETAILS**

Project no.	147016
Scale	1:500 @ A3
Cad file	147016-RV-C245 ESC FOR CULVERT.DWG
Drawing no.	C245
Rev	A

RESOURCE CONSENT

DATE: 4/2025 FILE PATH: F:\MVEN\PROJECTS\147016 - RIVERHEAD RETIREMENT VILLAGE\DWG\147016-RV-C245 ESC FOR CULVERT.DWG