

HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH35

Project: Geotechnical Investigation

Date: 23/11/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RS

Coordinates: ,

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa) (refer notes for details)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
0.5		TOPSOIL; brownish grey. Some rootlets. [TOPSOIL]	23/11/2021	TS							3.20	4.0
		SILT with some clay; intermixed orange, grey and brownish orange. Stiff, dry, low plasticity. [FILL]		FILL						101	3.25	4.0
		Clayey SILT; orange and grey streaked. Stiff to very stiff, dry to moist, moderately plastic.								59	3.30	5.0
										110	3.35	4.0
		SILT with minor to some clay; grey with orange mottles and streaks. Very stiff, moist, low plasticity. Friable, occasional rootlets.								71	3.40	4.0
										113	3.45	6.0
		Sandy SILT; dark grey, highly oxidized.								81	3.50	10.0
										164	3.55	10.0
		SILT with some to minor clay; grey with orange mottles and streaks. Very stiff, moist, low plasticity. Occasional rootlets.								85	3.60	10.0
										120	3.65	10.0
	SILT with trace clay; grey with occasional dark orange streaks. Very stiff, dry, non-plastic. Friable.							71	3.70	6.0		
								186	3.75	8.0		
	Sandy SILT; dark grey. Wet.							186	3.80	10.0		
								85	3.85	8.0		
	SILT with some sand (fine to medium); grey with dark orange oxidization. Very stiff, wet, non plastic.							76	3.90	10.0		
								186	3.95	12.0		
	3.1m: Highly oxidized. 3.2m: End of Hole (Too dense to auger/ no recovery).							54	4.00	8.0		
								204	4.05	9.0		
								52	4.10	8.0		
								220	4.15	10.0		
								46	4.20	11.0		
								46	4.25	13.0		
								46	4.30	12.0		
								46	4.35	10.0		
								46	4.40	10.0		

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
▽ Water Level At Time Of Drilling	Vane No.:1428	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	-- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH36

Project: Geotechnical Investigation

Date: 23/11/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RMS

Coordinates: ,

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
0.0		TOPSOIL. [TOPSOIL]		T S							3.10	2.0
0.0		Intermixed SILT with some clay and minor gravels (fine); orangey brown, white with red flecks, light grey. Very stiff, dry to moist, low plasticity.									3.15	1.0
0.5											3.20	0.5
0.5											3.25	0.5
0.5											3.30	1.5
0.5											3.35	1.5
0.5											3.40	2.0
0.5											3.45	2.0
0.5											3.50	2.0
0.5											3.55	1.5
0.5											3.60	1.5
0.5											3.65	2.5
0.5											3.70	2.5
0.5											3.75	16.0
1.5		Clayey SILT; orangey brown. Stiff, moist, moderately plastic.									191	
1.5											71	
1.5											118	
1.5											30	
1.5											144	
1.5											83	
2.0		PEAT; black. Moist, low plasticity.									68	
2.0		Silty CLAY; orangey brown. Firm to stiff, moist to wet, moderately to highly plastic.									47	
2.6		2.6m: Some gravels (fine to coarse).									120	
2.6											17	
3.0		3.0m: End of Hole (No Recovery).										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
▽ Water Level At Time Of Drilling	Vane No.:DR4681	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: AH37

Project: Geotechnical Investigation

Date: 23/11/2021

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: RMS

Coordinates: ,

Ground Level: -

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)			
						50	100	150	200	Values	Depth (m)	Blows	
0.5		TOPSOIL intermixed with some clay and silt. [TOPSOIL]	Groundwater Not Encountered	TS							4.90	4.0	
		Clayey SILT; brownish orange with orange mottles. Stiff, moist, moderately plastic.								101	4.95	6.0	
1.0		0.9m: Minor gravels (fine to medium).	Groundwater Not Encountered								5.00	10.0	
		1.2m: Becomes orange with grey and red mottling.								54	5.05	10.0	
										85	5.15	9.0	
										47	5.20	5.0	
										530	5.30	6.0	
										88	5.35	10.0	
										49	5.40	10.0	
										545	5.45	8.0	
										550	5.50	8.0	
										78	5.55	8.0	
2.0		Clayey SILT; light grey with some orange mottles. Very stiff, moist, moderately plastic.	Groundwater Not Encountered								47	5.60	8.0
										565	5.65	8.0	
										570	5.70	8.0	
										98	5.75	8.0	
										61	5.80	8.0	
										585	5.85	8.0	
										91	5.90	7.0	
										51	5.95	6.0	
										600	6.00	6.0	
										605	6.05	7.0	
3.0		Silty CLAY; brownish grey. Very stiff, moist, moderately to highly plastic.	Groundwater Not Encountered								118	6.10	7.0
		3.0m: Minor limonitic streaks.								81	6.15	10.0	
		3.2m: Becomes wet, some cemented silt clasts.								620	6.20	13.0	
										625	6.25	14.0	
										74	6.30	16.0	
										186			
										85			
										135			
										41			
										186			
4.0		Sandy SILT (fine); light greyish brown. Moist, non plastic. Friable.	Groundwater Not Encountered								189		
		SILT with minor clay; light greyish brown. Very stiff, moist, non-low plasticity.								90			
		SILT; dark grey. Very stiff, moist, non plastic.								220			
		4.4m: Becomes friable.								237+			
										UTP			
										-			
										UTP			
										-			
										5.0m: End of Hole (Target Depth).			

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	Target Depth 5.0m.
▽ Water Level At Time Of Drilling	Vane No.:DR4681	
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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH1

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)				Values	Depth (m)	Blows
						50	100	150	200			
		Topsoil. [TOPSOIL]			TS							
0.5		Clayey SILT; orange light brown with grey mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered		TS							
1.0					WAITEMATA GROUP SOILS							
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH2

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]			TS							
0.5		SILT with some clay to clayey; light orange brown with grey mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered		WAITEMATA GROUP SOILS							
1.2		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level ▽ Water Level At Time Of Drilling ↶ Out Flow ↷ In Flow	Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH3

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)		
						(refer notes for details)					50	100	150
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS									
		SILT with some clay; dark brown. Firm to stiff, dry, low plasticity. [COLLUVIUM]				COLL.							
0.5		Clayey SILT; light grey with orange mottles. Stiff to very stiff, dry to moist, moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS									
1.0													
		1.2m: End of Hole (Target Depth Reached)											

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
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- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH4

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)			
						(refer notes for details)				Values	Depth (m)	Blows		
						50	100	150	200					
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS										
0.5		Silty CLAY intermixed with topsoil. Firm to stiff, dry to moist, moderate to high plasticity. [COLLUVIUM]				COLL								
		Clayey SILT; light grey with orange mottles. Stiff to very stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]						WAITEMATA GROUP SOILS						
		1.2m: End of Hole (Target Depth Reached)												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
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- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH5

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Values	Depth (m)
						50	100	150	200			
		Topsoil. [TOPSOIL]										
0.5		SILT with some clay; light brown with orange mottles. Stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	TS								
1.0		0.9m: becomes light grey with orange mottles and moist.		WAITEMATA GROUP SOILS								
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH6

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)			
						(refer notes for details)					50	100	150	200
0.5		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS										
		Clayey SILT with minor organics; brown with grey mottles. Firm to stiff, dry, moderate plasticity. [COLLUVIUM]		COLL.										
		SILT with some clay to clayey; light grey with orange mottles. Stiff to very stiff, moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS										
		1.2m: End of Hole (Target Depth Reached)												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH7

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]										
0.5		SILT with some clay; light brown with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered									
1.0		0.9m: becomes light grey with orange mottles.										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH8

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)				Values	Depth (m)	Blows
						50	100	150	200			
		Topsoil. [TOPSOIL]										
0.5		SILT with some clay; grey with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	TS								
		Clayey SILT; light grey with orange mottles. Stiff to very stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS								
1.0												
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH9

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
0.5		Fine SAND; light orange brown. Loose to medium dense, dry, moderately sorted. [WAITEMATA GROUP SOILS]		WGS								
1.0		0.7m: End of Hole (Obstruction encountered)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH10

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)					
						(refer notes for details)					50	100	150	200	Values	Depth (m)
		Topsoil. [TOPSOIL]			TS											
0.5		SILT with minor clay and trace fine sand; light brown with orange mottles. Stiff, dry, low plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	WAITEMATA GROUP SOILS												
1.0		SILT with some clay; light grey with orange mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]														
		1.2m: End of Hole (Target Depth Reached)														

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH11

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)				Values	Depth (m)	Blows
						50	100	150	200			
		Topsoil. [TOPSOIL]										
0.5		SILT with minor clay and minor fine sand; light brown with orange mottles. Stiff, dry, low plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	TS								
1.0		SILT with some clay to clayey; light brown with grey and orange mottles. Stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS								
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH12

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
		0.3m: End of Hole (Obstruction encountered)										
0.5												
1.0												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level ▽ Water Level At Time Of Drilling ⇐ Out Flow ⇨ In Flow	Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH13

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]	Water Not Encountered	TS								
		0.1m: End of Hole (Obstruction encountered)										
0.5												
1.0												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH14

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
0.5		SILT with some clay; grey to light grey with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]				WAITEMATA GROUP SOILS						
		0.8m: becomes Clayey SILT										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level ▽ Water Level At Time Of Drilling ↙ Out Flow ↘ In Flow	Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH1

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)				Values	Depth (m)	Blows
						50	100	150	200			
		Topsoil. [TOPSOIL]			TS							
0.5		Clayey SILT; orange light brown with grey mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered		TS							
1.0					WAITEMATA GROUP SOILS							
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH2

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]			TS							
0.5		SILT with some clay to clayey; light orange brown with grey mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered		WAITEMATA GROUP SOILS							
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH3

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)				Values	Depth (m)	Blows
						50	100	150	200			
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
		SILT with some clay; dark brown. Firm to stiff, dry, low plasticity. [COLLUVIUM]				COLL.						
0.5		Clayey SILT; light grey with orange mottles. Stiff to very stiff, dry to moist, moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS								
1.0												
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
∇ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH4

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)			
						(refer notes for details)				Values	Depth (m)	Blows		
						50	100	150	200					
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS										
0.5		Silty CLAY intermixed with topsoil. Firm to stiff, dry to moist, moderate to high plasticity. [COLLUVIUM]				COLLUVIUM								
		Clayey SILT; light grey with orange mottles. Stiff to very stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]						WAITEMATA GROUP SOILS						
1.0														
		1.2m: End of Hole (Target Depth Reached)												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH5

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]			TS							
0.5		SILT with some clay; light brown with orange mottles. Stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	WAITEMATA GROUP SOILS								
1.0		0.9m: becomes light grey with orange mottles and moist.										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level	Corrected as per NZGS Guidelines	
▽ Water Level At Time Of Drilling	Vane No.:	
↔ Out Flow ▷ In Flow	UTP = Unable To Penetrate	
	+ = Peak Exceeded	
	- = No Result	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH6

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)		
						(refer notes for details)					50	100	150
0.5		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS									
		Clayey SILT with minor organics; brown with grey mottles. Firm to stiff, dry, moderate plasticity. [COLLUVIUM]		COLL.									
		SILT with some clay to clayey; light grey with orange mottles. Stiff to very stiff, moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS									
		1.2m: End of Hole (Target Depth Reached)											

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH7

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]										
0.5		SILT with some clay; light brown with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered									
1.0		0.9m: becomes light grey with orange mottles.										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH8

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)						
						(refer notes for details)					50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]			TS												
0.5		SILT with some clay; grey with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered		TS												
		Clayey SILT; light grey with orange mottles. Stiff to very stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]		WAITEMATA GROUP SOILS													
1.0																	
		1.2m: End of Hole (Target Depth Reached)															

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ▽ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH9

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
0.5		Fine SAND; light orange brown. Loose to medium dense, dry, moderately sorted. [WAITEMATA GROUP SOILS]		WGS								
1.0		0.7m: End of Hole (Obstruction encountered)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH10

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]			TS							
0.5		SILT with minor clay and trace fine sand; light brown with orange mottles. Stiff, dry, low plasticity. [WAITEMATA GROUP SOILS]	Groundwater Not Encountered	WAITEMATA GROUP SOILS								
1.0		SILT with some clay; light grey with orange mottles. Stiff to very stiff, dry to moist, low to moderate plasticity. [WAITEMATA GROUP SOILS]										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH11

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
		SILT with minor clay and minor fine sand; light brown with orange mottles. Stiff, dry, low plasticity. [WAITEMATA GROUP SOILS]				WAITEMATA GROUP SOILS						
0.5		SILT with some clay to clayey; light brown with grey and orange mottles. Stiff, moist, moderate plasticity. [WAITEMATA GROUP SOILS]										
1.0												
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
<ul style="list-style-type: none"> ▼ Standing Water Level ▽ Water Level At Time Of Drilling ↔ Out Flow ▷ In Flow 	<ul style="list-style-type: none"> Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result 	

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Produced with Core-GS

HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH12

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)				Scala Penetrometer (blows / 50mm)		
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
0.3		0.3m: End of Hole (Obstruction encountered)										
0.5												
1.0												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH13

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						50	100	150	200	Values	Depth (m)	Blows
		Topsoil. [TOPSOIL]	Water Not Encountered	TS								
		0.1m: End of Hole (Obstruction encountered)										
0.5												
1.0												

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water

- ▼ Standing Water Level
- ∇ Water Level At Time Of Drilling
- ↔ Out Flow ▷ In Flow

Shear Vane

- Corrected as per NZGS Guidelines
- Vane No.:
- UTP = Unable To Penetrate
- + = Peak Exceeded
- = No Result

Other Comments

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HAND AUGER LOG

Job No.: K200826

Client: Goodland Developments Limited

Hole No.: WW AH14

Project: Geotechnical Investigation

Date: 1/02/2024

Location: 2127 Kaipara Coast Highway, Kakanui

Logged By: CD

Coordinates: See Site Plan

Sheet: 1 of 1

Depth (m)	RL	Subsurface Conditions	Groundwater	Geological Unit	Graphic Log	Vane Shear Strength (kPa)					Scala Penetrometer (blows / 50mm)	
						(refer notes for details)					Depth (m)	Blows
						50	100	150	200	Values		
		Topsoil. [TOPSOIL]	Groundwater Not Encountered	TS								
0.5		SILT with some clay; grey to light grey with orange mottles. Stiff to very stiff, dry, low to moderate plasticity. [WAITEMATA GROUP SOILS]				WAITEMATA GROUP SOILS						
1.0		0.8m: becomes Clayey SILT										
		1.2m: End of Hole (Target Depth Reached)										

Notes & Abbreviations

Soils logged in accordance with 'The guidelines for the classification and description of soil and rock for engineering purposes' December 2005, NZGS

Water	Shear Vane	Other Comments
▼ Standing Water Level ▽ Water Level At Time Of Drilling ↙ Out Flow ↘ In Flow	Corrected as per NZGS Guidelines Vane No.: UTP = Unable To Penetrate + = Peak Exceeded - = No Result	

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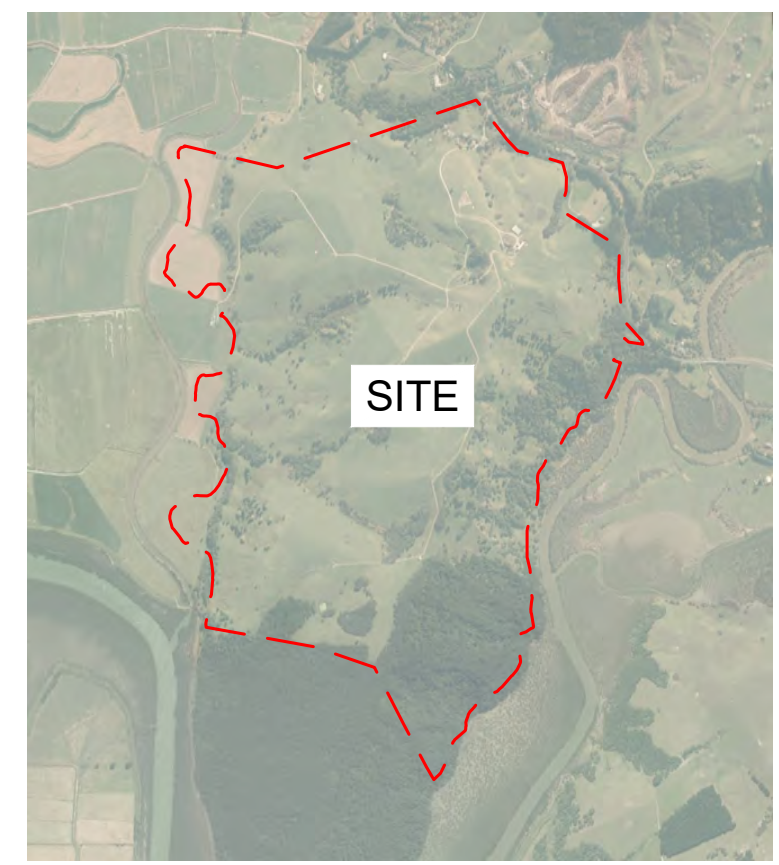
APPENDIX B

Third Party Information



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 WEB www.crangcivil.co.nz
 ADDRESS 1016a Great South Road, Penrose, Auckland
 POST PO Box 42-089, Orakei, Auckland 1745, NZ

GOODLAND GOODLAND COASTAL FARM



LOCALITY PLAN
SCALE A1 1:10000, A3 1:20000

CONSENT ISSUE

CLIENT	ABIB (OAMARU) LTD		1366							
PROJECT NAME	GOODLAND COASTAL FARM	29	9	18	13	20	21	31		
		10	11	11	12	12	07	01		
		21	21	21	21	21	23	24		

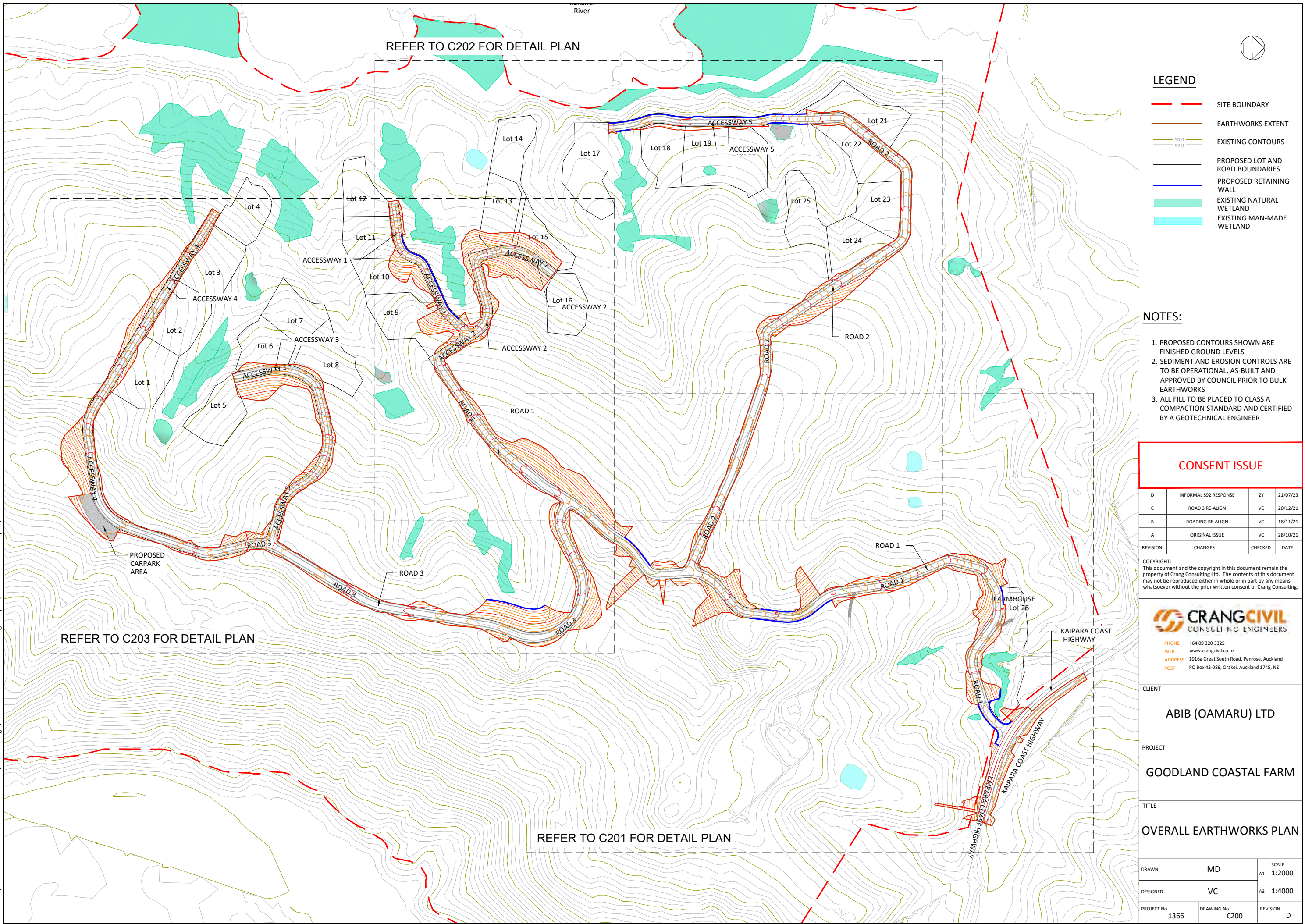
DRAWING INDEX											
DRAWING NO.	DRAWING TITLE	SUBMITTAL/REVISION									
C200	OVERALL EARTHWORKS PLAN	A		B	C			D			
C201	EARTHWORKS PLAN SHEET 1	A						C			
C202	EARTHWORKS PLAN SHEET 2	A		B	C			D			
C203	EARTHWORKS PLAN SHEET 3	A		B	C			D			
C210	OVERALL CUT & FILL LAYOUT PLAN	A						C			
C211	CUT & FILL LAYOUT PLAN SHEET 1							B			
C212	CUT & FILL LAYOUT PLAN SHEET 2							B			
C213	CUT & FILL LAYOUT PLAN SHEET 3	A						C			
C220	EROSION & SEDIMENT CONTROL OVERALL PLAN	A						C			
C221	EROSION & SEDIMENT CONTROL PLAN - SHEET 1	A						B			
C222	EROSION & SEDIMENT CONTROL PLAN - SHEET 2	A						B			
C223	EROSION & SEDIMENT CONTROL PLAN - SHEET 3	A	B					C			
C224	EROSION & SEDIMENT CONTROL DETAILS SHEET 1	A						B			
C225	EROSION & SEDIMENT CONTROL DETAILS SHEET 2	A						B			
C226	STORMWATER OUTFALL EROSION & SEDIMENT CONTROL PLAN							A			
C227	EROSION & SEDIMENT CONTROL ADJACENT TO WETLAND							A			
C240	RETAINING WALL LONGSECTIONS - SHEET 1	A					B	C			
C241	RETAINING WALL LONGSECTIONS - SHEET 2	A					B	C			
C242	RETAINING WALL LONGSECTIONS - SHEET 3	A					B	C			
C300	OVERALL ROADING LAYOUT PLAN	A	B	C				D			
C301	ROADING LAYOUT PLAN SHEET 1	A	B	C				D			
C302	ROADING LAYOUT PLAN SHEET 2	A	B					C			
C303	ROADING LAYOUT PLAN SHEET 3	A	B	C				D			
C304	KAIAPARA COAST HIGHWAY INTERSECTION PLAN							A			
C310	ROADING LONGSECTIONS SHEET 1	A						B			
C311	ROADING LONGSECTIONS SHEET 2	A						B			
C312	ROADING LONGSECTIONS SHEET 3	A						B			
C313	ROADING LONGSECTIONS SHEET 4	A	B					C			
C314	ROADING LONGSECTIONS SHEET 5	A	B					C			
C315	ROADING LONGSECTIONS SHEET 6	A						B			
C316	ROADING LONGSECTIONS SHEET 7	A						B			
C317	ROADING LONGSECTIONS SHEET 8	A						B			
C320	ROADING TYPICAL CROSS SECTIONS SHEET 1								A		
C321	ROADING TYPICAL CROSS SECTIONS SHEET 2	A	B					C	D		
C400	DRAINAGE OVERALL PLAN	A	B					C	D		
C401	DRAINAGE PLAN - SHEET 1	A						B	D		
C402	DRAINAGE PLAN - SHEET 2	A	B					C	D		
C403	DRAINAGE PLAN - SHEET 3	A						B	D		
C404	DRAINAGE PLAN - SHEET 4	A						B	D		
C405	DRAINAGE PLAN - SHEET 5	A						B	D		
C406	DRAINAGE PLAN - SHEET 6	A						B	D		
C407	DRAINAGE PLAN - SHEET 7	A						B	D		
C408	DRAINAGE PLAN - SHEET 8	A						B	D		
C409	DRAINAGE PLAN - SHEET 9	A						B	D		
C450	SCRUFFY DOME & TABLE DRAIN DETAILS							A	B		
C451	TABLE DRAIN SECTIONS							A	B		
C470	CULVERT OVERALL PLAN							A	B		
C471	CULVERT DETAIL PLAN AND LONG SECTION SHEET 1							A	B		
C472	CULVERT DETAIL PLAN AND LONG SECTION SHEET 2							A	B		
C473	CULVERT DETAIL PLAN AND LONG SECTION SHEET 3							A	B		
C474	CULVERT DETAIL PLAN AND LONG SECTION SHEET 4							A	B		
C475	CULVERT DETAIL PLAN AND LONG SECTION SHEET 5							A	B		

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REFER TO C202 FOR DETAIL PLAN

REFER TO C203 FOR DETAIL PLAN

REFER TO C201 FOR DETAIL PLAN



LEGEND

- SITE BOUNDARY
- EARTHWORKS EXTENT
- 50.0
--- 52.0 EXISTING CONTOURS
- PROPOSED LOT AND ROAD BOUNDARIES
- PROPOSED RETAINING WALL
- EXISTING NATURAL WETLAND
- EXISTING MAN-MADE WETLAND

- NOTES:**
1. PROPOSED CONTOURS SHOWN ARE FINISHED GROUND LEVELS
 2. SEDIMENT AND EROSION CONTROLS ARE TO BE OPERATIONAL, AS-BUILT AND APPROVED BY COUNCIL PRIOR TO BULK EARTHWORKS
 3. ALL FILL TO BE PLACED TO CLASS A COMPACTION STANDARD AND CERTIFIED BY A GEOTECHNICAL ENGINEER

CONSENT ISSUE

D	INFORMAL S92 RESPONSE	ZY	21/07/23
C	ROAD 3 RE-ALIGN	VC	20/12/21
B	ROADING RE-ALIGN	VC	18/11/21
A	ORIGINAL ISSUE	VC	28/10/21
REVISION	CHANGES	CHECKED	DATE

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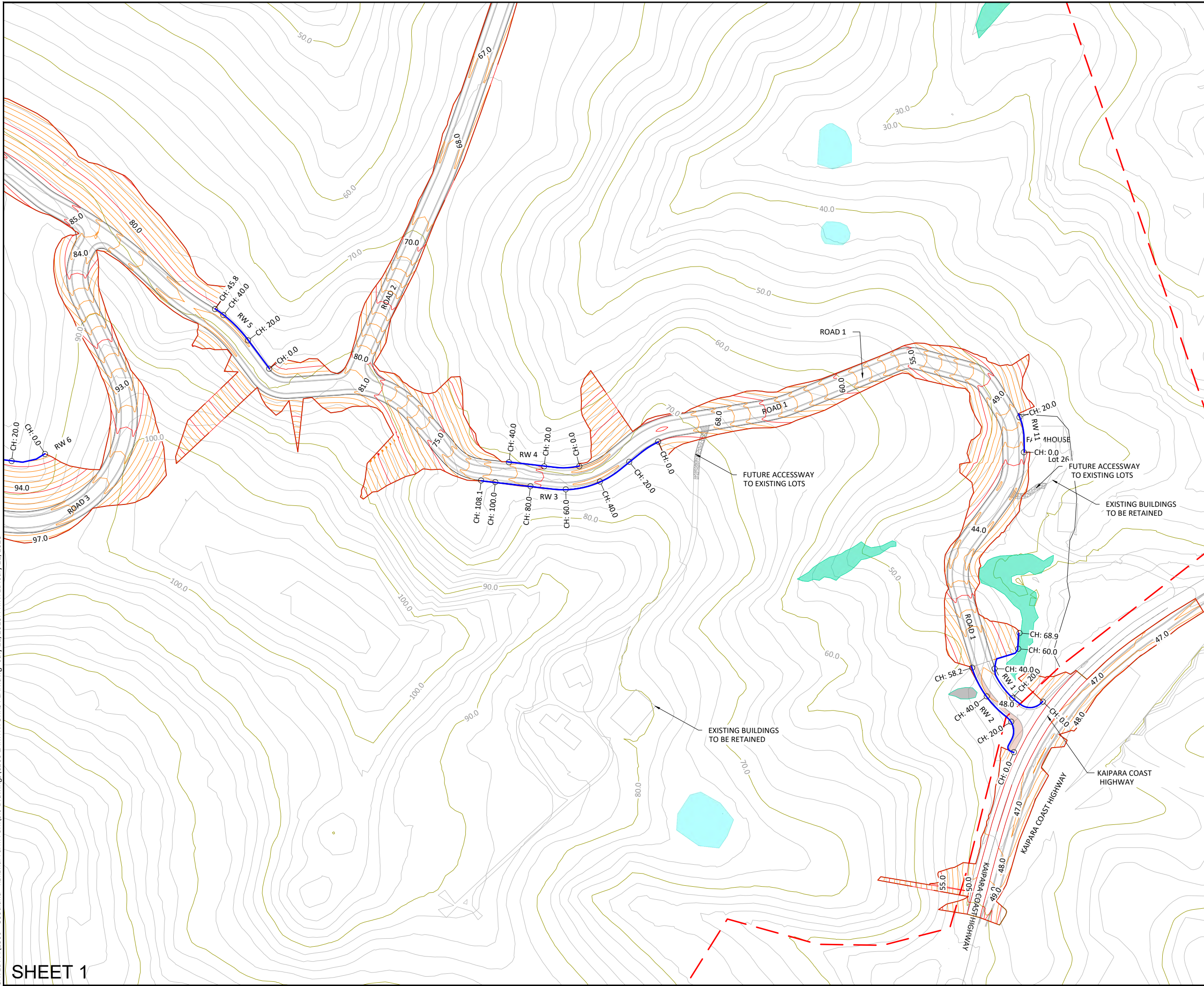
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PROJECT
GOODLAND COASTAL FARM

TITLE
OVERALL EARTHWORKS PLAN

DRAWN	MD	SCALE
DESIGNED	VC	A1 1:2000
PROJECT No	DRAWING No	REVISION
1366	C200	D

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LEGEND

- SITE BOUNDARY
- EARTHWORKS EXTENT
- EXISTING CONTOURS
50.0
52.0
- PROPOSED LOT AND ROAD BOUNDARIES
- PROPOSED RETAINING WALL
- EXISTING NATURAL WETLAND
- EXISTING MAN-MADE WETLAND

RETAINING WALL HEIGHTS:

- REFER TO DRAWINGS C240-C242 FOR RETAINING WALL LONG SECTIONS.

- RW 1 MAX. HEIGHT: 5.63m
- RW 2 MAX. HEIGHT: 4.31m
- RW 3 MAX. HEIGHT: 3.88m
- RW 4 MAX. HEIGHT: 0.83m
- RW 5 MAX. HEIGHT: 3.11m
- RW 6 MAX. HEIGHT: 4.04m
- RW 11 MAX. HEIGHT: 1.01m

NOTES:

1. PROPOSED CONTOURS SHOWN ARE FINISHED GROUND LEVELS
2. SEDIMENT AND EROSION CONTROLS ARE TO BE OPERATIONAL, AS-BUILT AND APPROVED BY COUNCIL PRIOR TO BULK EARTHWORKS
3. ALL FILL TO BE PLACED TO CLASS A COMPACTION STANDARD AND CERTIFIED BY A GEOTECHNICAL ENGINEER

CONSENT ISSUE

C	INFORMAL S92 RESPONSE	ZY	21/07/23
B	ROADING RE-ALIGN	VC	18/11/21
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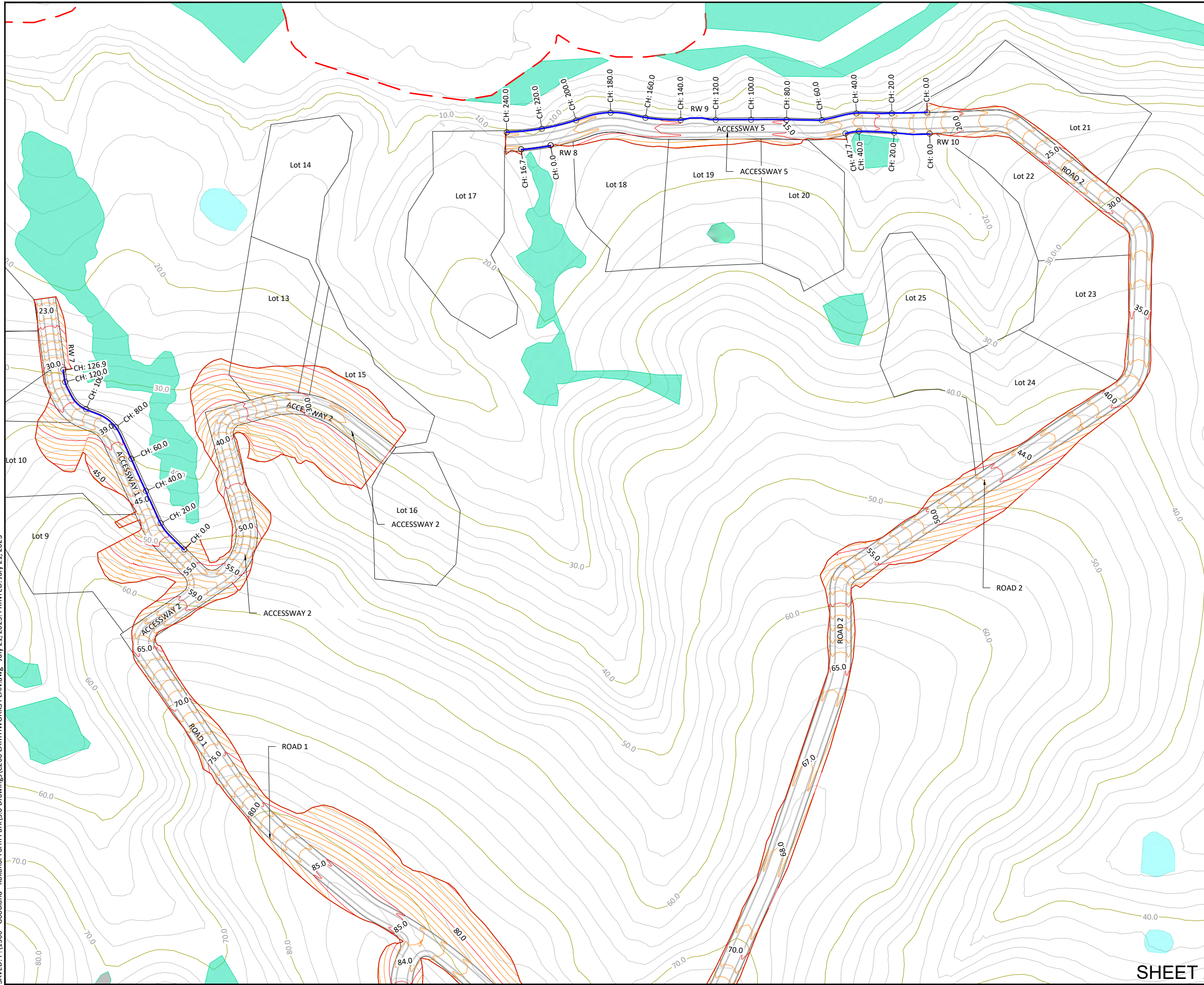
PROJECT
GOODLAND COASTAL FARM

TITLE
EARTHWORKS PLAN SHEET 1

DRAWN	MD	SCALE	A1 1:1000
DESIGNED	VC	SCALE	A3 1:2000
PROJECT No	1366	DRAWING No	C201
		REVISION	C

SHEET 1

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LEGEND

- SITE BOUNDARY
- EARTHWORKS EXTENT
- EXISTING CONTOURS
- PROPOSED LOT AND ROAD BOUNDARIES
- PROPOSED RETAINING WALL
- EXISTING NATURAL WETLAND
- EXISTING MAN-MADE WETLAND

RETAINING WALL HEIGHTS:

- REFER TO DRAWINGS C240-C242 FOR RETAINING WALL LONG SECTIONS.
- RW 7 MAX. HEIGHT: 1.77m
- RW 8 MAX. HEIGHT: 2.06m
- RW 9 MAX. HEIGHT: 4.55m
- RW 10 MAX. HEIGHT: 2.59m

NOTES:

1. PROPOSED CONTOURS SHOWN ARE FINISHED GROUND LEVELS
2. SEDIMENT AND EROSION CONTROLS ARE TO BE OPERATIONAL, AS-BUILT AND APPROVED BY COUNCIL PRIOR TO BULK EARTHWORKS
3. ALL FILL TO BE PLACED TO CLASS A COMPACTION STANDARD AND CERTIFIED BY A GEOTECHNICAL ENGINEER

CONSENT ISSUE

D	INFORMAL S92 RESPONSE	ZY	21/07/23
C	ROAD 3 RE-ALIGN	VC	20/12/21
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PROJECT

GOODLAND COASTAL FARM

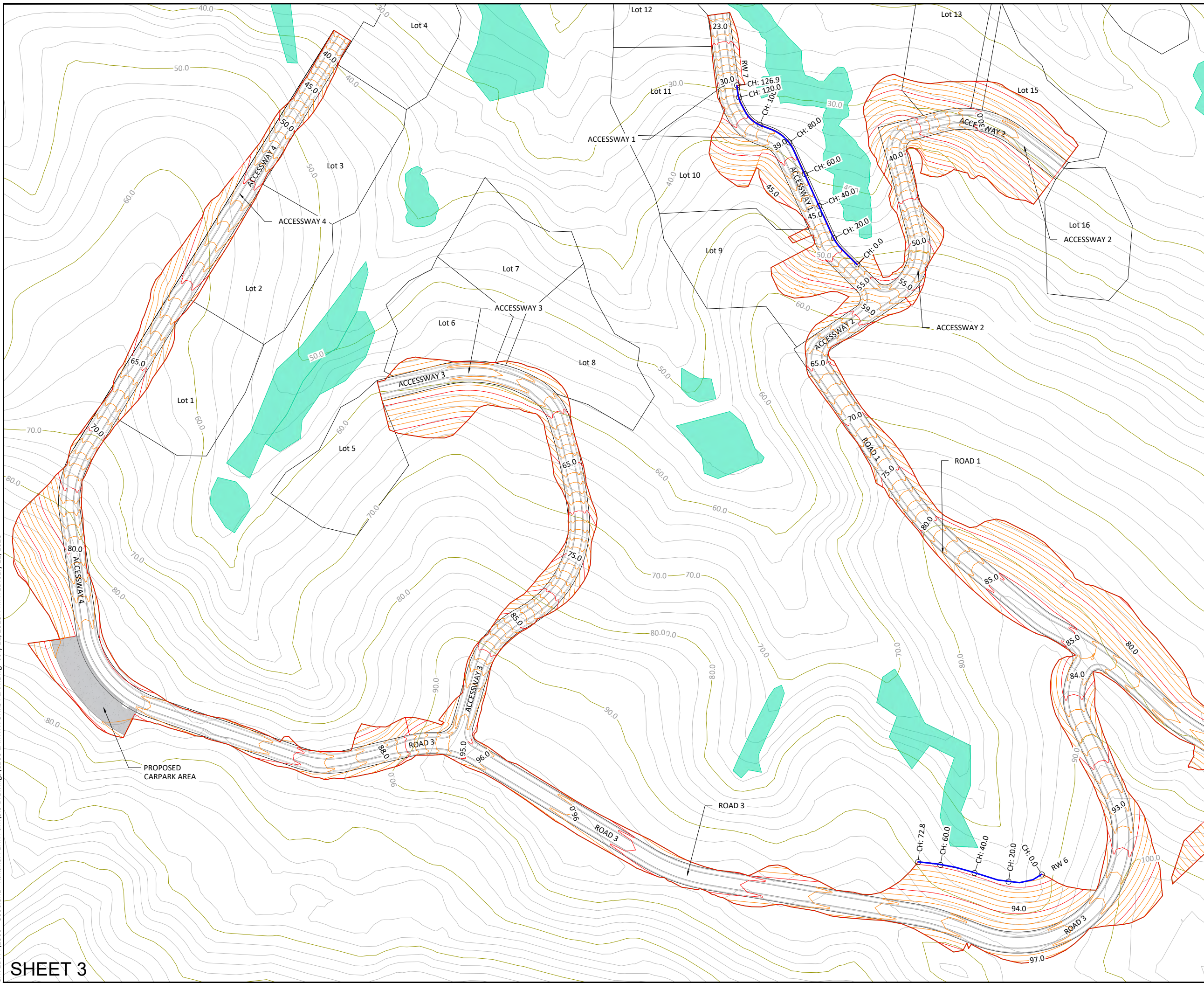
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EARTHWORKS PLAN SHEET 2

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PROJECT No	DRAWING No	REVISION	
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SHEET 2

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LEGEND

- SITE BOUNDARY
- EARTHWORKS EXTENT
- 50.0
— 52.0 EXISTING CONTOURS
- PROPOSED LOT AND ROAD BOUNDARIES
- PROPOSED RETAINING WALL
- EXISTING NATURAL WETLAND
- EXISTING MAN-MADE WETLAND



RETAINING WALL HEIGHTS:

REFER TO DRAWINGS C240-C242 FOR RETAINING WALL LONG SECTIONS.
 RW 6 MAX. HEIGHT: 4.04m
 RW 7 MAX. HEIGHT: 1.77m

NOTES:

1. PROPOSED CONTOURS SHOWN ARE FINISHED GROUND LEVELS
2. SEDIMENT AND EROSION CONTROLS ARE TO BE OPERATIONAL, AS-BUILT AND APPROVED BY COUNCIL PRIOR TO BULK EARTHWORKS
3. ALL FILL TO BE PLACED TO CLASS A COMPACTION STANDARD AND CERTIFIED BY A GEOTECHNICAL ENGINEER

CONSENT ISSUE

D	INFORMAL S92 RESPONSE	ZY	21/07/23
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PROJECT

GOODLAND COASTAL FARM

TITLE

EARTHWORKS PLAN SHEET 3

DRAWN	MD	SCALE	A1 1:1000
DESIGNED	VC	A3	1:2000
PROJECT No	DRAWING No	REVISION	
1366	C203	D	

REFER TO C212 FOR DETAIL PLAN



LEGEND

- SITE BOUNDARY
- EARTHWORKS EXTENT
- 50.0
--- 52.0 EXISTING CONTOURS
- PROPOSED LOT AND ROAD BOUNDARIES
- PROPOSED RETAINING WALL
- EXISTING NATURAL WETLAND
- EXISTING MAN-MADE WETLAND

NOTES:

1. CUT & FILL ELEVATION RANGES ARE FROM EXISTING SURFACE TO FINISHED GROUND LEVELS.
2. A SUMMARY OF THE ADJUSTED VOLUME IS AS FOLLOWS:
 - TOPSOIL STRIP = 22,385m³
 - TOPSOIL RESPREAD = 17,000m³
 - CUT TO FILL (CLAY/SILT) = 49,670m³
 - IMPORT CLAY FILL = 410m³
3. VOLUME SUMMARY ASSUMES THE FOLLOWING:
 - TOPSOIL STRIP: -0.25m
 - TOPSOIL RESPREAD: 0.25m
 - ROAD/ACCESSWAY SUBGRADE: -0.38m
 - COMPACTION FACTOR = 15%
4. SUMMARIES DO NOT INCLUDE UNSUITABLE MATERIALS/PEAT.

CONSENT ISSUE

C	INFORMAL S92 RESPONSE	ZY	21/07/23
B	ROAD 3 RE-ALIGN	VC	20/12/21
A	ORIGINAL ISSUE	VC	24/11/21
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PROJECT

GOODLAND COASTAL FARM

TITLE

OVERALL CUT & FILL LAYOUT PLAN

DRAWN	MD	SCALE	A1 1:2000
DESIGNED	VC	A3	1:4000
PROJECT No	DRAWING No	REVISION	
1366	C210	C	

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Number	Color	Minimum Elevation (m)	Maximum Elevation (m)
1	Blue	-4.500	-3.000
2	Light Blue	-3.000	-2.000
3	Cyan	-2.000	-1.000
4	Light Green	-1.000	0.000
5	White	0.000	1.000
6	Light Grey	1.000	2.000
7	Medium Grey	2.000	3.000
8	Dark Grey	3.000	4.000
9	Black	4.000	5.700

REFER TO C213 FOR DETAIL PLAN

REFER TO C211 FOR DETAIL PLAN

