

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1	
DRAWING No:		REV	
A2515591.00-4050		A	

FOR CONSENT

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 2 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H ; 1:100 V - A1 1:1000 H ; 1:200 V - A3	A
DRAWING No: A2515591.00-4051		REV

FOR CONSENT

NOTES:

- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- EXISTING LEVEL
- PROPOSED FINISHED LEVEL
- PROPOSED STORMWATER LINE
- HYDRAULIC GRADE LINE

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

AUCKLAND OFFICE
Level 4, 96 St Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 3 OF 64

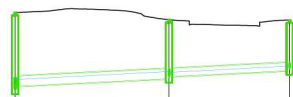
ORIGINATOR SCT	DATE 06/20/26	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05/20/26	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06/20/26	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06/20/26	SIGNED	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:

FAST TRACK CONSENT

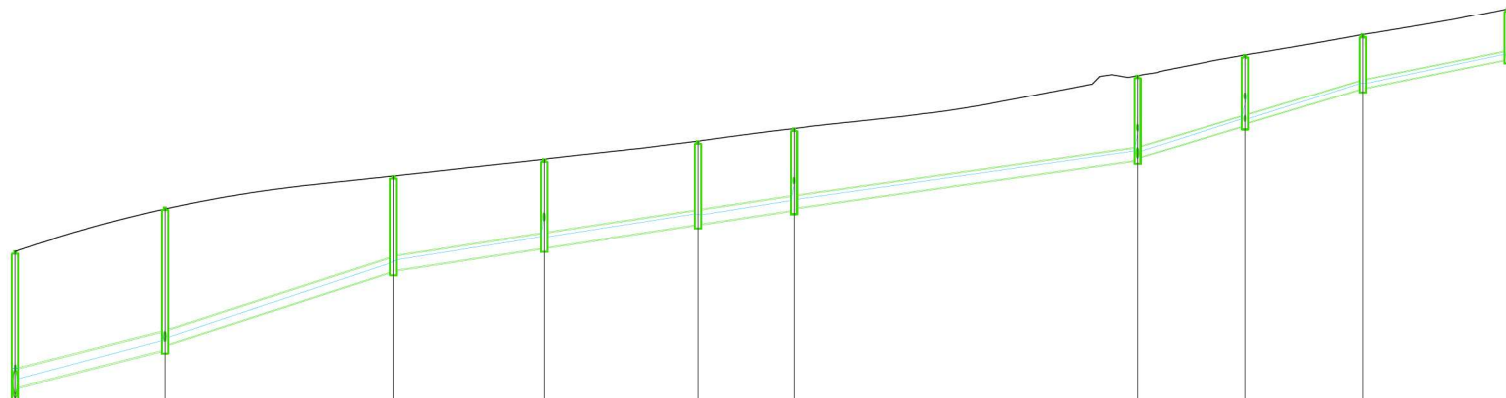
PROJECT No: A2515591.00	SCALE: 1500 H : 1100 V - A1 11000 H : 11200 V - A3	REV A1
DRAWING No: A2515591.00-4052	REV A	

FOR CONSENT



Datum R.L. 10.00				
DEPTH TO INVERT		2.74		1.98
INVERT LEVEL		14.96	15.25 15.02	15.55
LID LEVEL		14.70	14.44	14.43
GRADIENT & PIPE SIZE		1.00% 375mm RCRRJ Class 2	1.00% 300mm RCRRJ Class 2	
PIPE LENGTH & MH No.	MH4-1	28.8m	MH5-1	MH5-2
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)	0.11 1.4	0.05 1.2
	CAPACITY (0.80)	Q(m ³ /s) V(m/s)	0.17 1.8	0.10 1.6

SW Line 5



Datum R.L. 12.00									
DEPTH TO INVERT	5.10	5.26 5.10	3.98 3.83	3.30 3.30	3.11 3.11	3.05 2.91	3.17 3.09	2.64 2.57	2.01 2.01
INVERT LEVEL	13.86	15.26 15.43	16.21 16.24	19.09 19.09	19.95 19.95	20.49 20.56	22.36 22.43	23.65 23.73	25.05 25.05
LID LEVEL	16.96	20.59	21.77	22.39	23.06	23.53	25.52	26.29	27.05
GRADIENT & PIPE SIZE		5.10% 675mm RCRRJ Class 2	6.50% 525mm RCRRJ Class 2	3.00% 525mm RCRRJ Class 2	3.00% 525mm RCRRJ Class 2	3.00% 525mm RCRRJ Class 2	2.80% 450mm RCRRJ Class 2	6.00% 375mm RCRRJ Class 2	6.00% 300mm RCRRJ Class 2
PIPE LENGTH & MH No.	MH3-3	MH5-1	MH5-2	MH5-3	MH5-4	MH5-5	MH5-6	MH5-7	MH5-8
	28.0m	42.8m	28.3m	28.8m	18.0m	64.2m	20.3m	22.1m	27.1m
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)	0.64 4.9	0.61 3.4	0.46 2.6	0.45 2.8	0.41 3.2	0.23 3.0	0.15 3.3
	CAPACITY (0.80)	Q(m ³ /s) V(m/s)	1.86 6.0	1.07 5.8	0.73 3.9	0.73 3.8	0.47 3.4	0.42 4.4	0.23 3.8

SW Line 6



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- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 4 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
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A2515591 00-4053 A

AE515551.00	4035	7
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ECT FILES\01_DESIGN\02_CIVIL\04_SHEETS\A2515591_00-4050 STORMWATER L&D

FOR CONSENT



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**HARRISON
GRIERSON**

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BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 5 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: ##### #####	A	REV
DRAWING No: A2515591.00-4054		A	

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

TITLE:

STORMWATER LONGSECTIONS
SHEET 6 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4055		REV

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



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REF	REVISIONS	BY	DATE

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 7 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4056		REV

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

A2515591.00-4057 A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: LATE C:\AUTODESK\ACCDRAW\ACCDRAW\HARRISON GIBSON L\B\BEACHLANDS SOUTH EAST TRACK CONSENT\PROJECT FILES\01 DESIGN\02 CIVIL\04 SHEETS\A2515591.00-1050 STORMWATER L.S.DWG

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**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 9 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: C.I.M.	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: 1:500 H ; 1:100 V - A1 1:1000 H ; 1:200 V - A3	A	REV
DRAWING No:		A	
A2515591.00-4058		A	

FOR CONSENT

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE

[illegible]

SW Line 40



DEPTH TO INVERT		2.22		2.27	2.27		2.45	2.45		2.64	2.64		2.66	2.66		1.77	1.72
INVERT LEVEL		22.22		22.95	22.95		23.95	23.73		24.55	24.33		25.69	25.69		26.94	26.94
LID LEVEL		24.44		25.32			26.10			27.20			28.25			29.66	
GRADIENT & PIPE SIZE			450mm RCRRI Class 2		2.00% 450mm RCRRI Class 2			3.00% 375mm RCRRI Class 2		3.00% 300mm RCRRI Class 2			2.00% 225mm RCRRI Class 2		2.00% 225mm RCRRI Class 2		
PIPE LENGTH & MH No.		MH40-11	24.5m	MH40-12	34.9m	MH40-13		27.6m	MH40-14		35.4m	MH40-15		12.5m	MH40-16		31.7m
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.24 2.5	0.22 2.4		0.15 2.6		0.12 2.5		0.08 1.7		0.06 1.7		0.06 1.8		0.03 1.0	
	CAPACITY (L/S)	Q(m³/s) V(m/s)	0.46 3.5	0.39 2.9		0.30 3.1		0.18 2.7		0.08 1.8		0.06 1.8		0.06 1.8		0.03 1.0	

SW Line 40

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 10 OF 64

ORIGINATOR: SCT	DATE: 06,2026	SIGNED:	PLOT BY: SUT
DRAWN: SCT	DATE: 05,2026	SIGNED:	PLOT DATE: 04/06/26
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED BY
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS: **EAST TRACK CONSENT**

FAST TRACK CONSENT		
PROJECT No: A2515591.00	SCALES: 1:500 H ; 1:100 V - A1 1:1000 H ; 1:1200 V - A3	A1

DRAWING No:		REV
A2515591.00-4059		A

FOR CONSENT

 EXISTING LEVEL
 PROPOSED FINISHED LEVEL
 PROPOSED STORMWATER LINE
 HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT: BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 11 OF 64

ORIGINATOR SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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DRAWING No:	REV
A2515591.00-4060	A

FOR CONSENT



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- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20/2012
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 12 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED BY
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H ; 1:100 V - A1 1:1000 H ; 1:200 V - A3	A1
DRAWING No: A2515591.00-4061		REV A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DRAWING No:	REV
A2515591.00-4062	A

FOR CONSENT

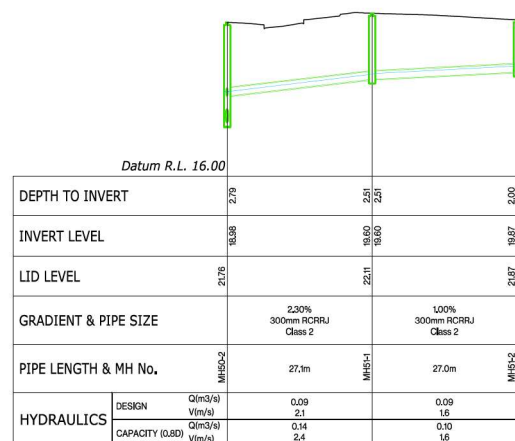
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NOTES:

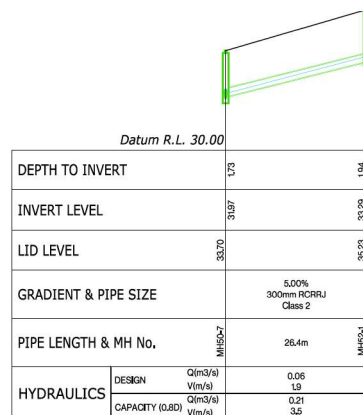
1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
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LEGEND:

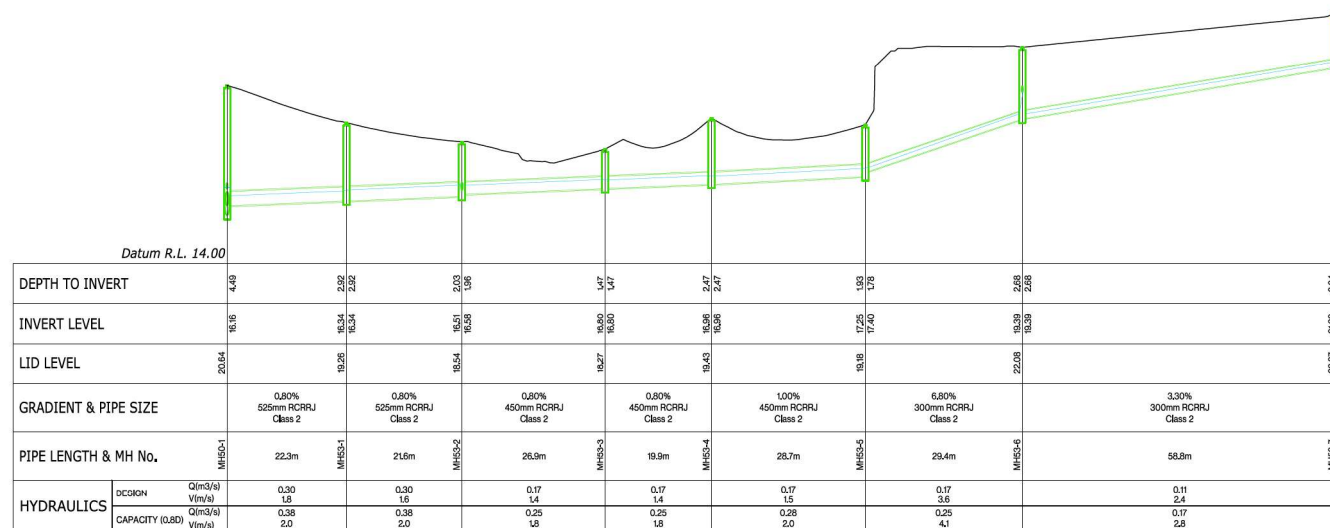
- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



SW Line 51



SW Line 52



SW Line 53

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 14 OF 64

ORIGINATOR: SCT	DATE: 06,2026	SIGNED:	PLOT BY: SU
DRAWN: SCT	DATE: 05,2026	SIGNED:	PLOT DATE: 04/06/2
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED B
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
A2515591.00-4063	A

FOR CONSENT



ISO 9001
QUALITY
ASSURED

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**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 15 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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A2515591.00-4064

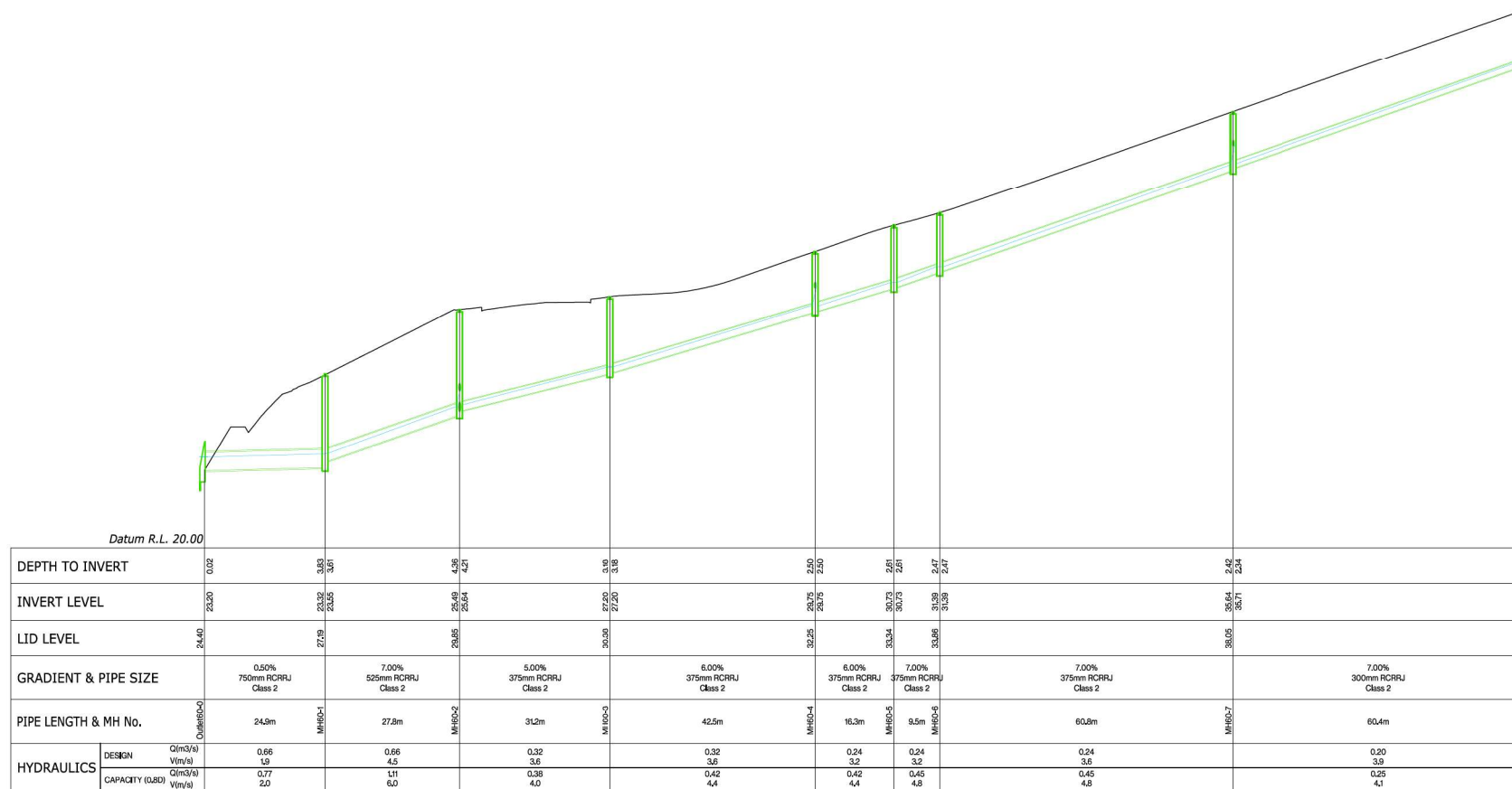
FOR CONSENT

NOTES:

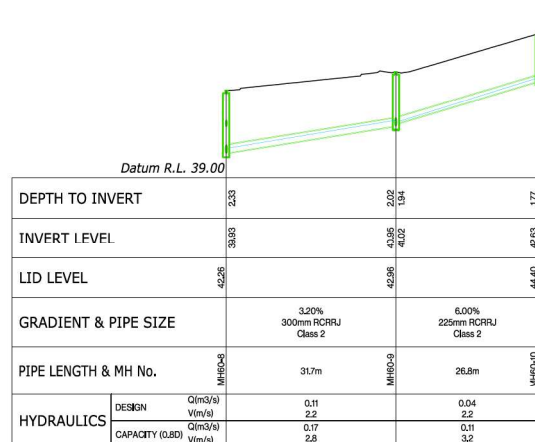
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LEGEND:

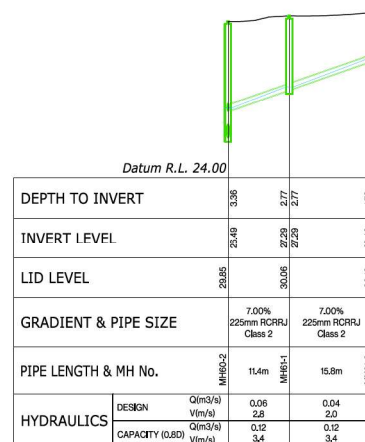
- EXISTING LEVEL
- PROPOSED FINISHED LEVEL
- PROPOSED STORMWATER LINE
- HYDRAULIC GRADE LINE



SW Line 60



SW Line 60



SW Line 61

FOR CONSENT

**HARRISON
GRIERSON**
AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

PROJECT:
BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:
STORMWATER LONGSECTIONS
SHEET 16 OF 64

ORIGINATOR SCT	DATE 06.2026	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05.2026	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06.2026	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06.2026	SIGNED	SURVEY DATE: SURVEYED DATE

FAST TRACK CONSENT			
PROJECT No: A2515591.00	SCALE: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	REV	A1
DRAWING No: A2515591.00-4065	REV	A	



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**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 17 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H ; 1:100 V - A1 1:1000 H ; 1:200 V - A3	A
DRAWING No:		REV
A2515591.00-4066		A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



A2515591.00-4067 A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

A2515591.00-4068 A

FOR CONSENT

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DEPTH TO INVERT		2.62	2.68 2.51	3.34 3.34	3.58 3.58	3.64 3.66	3.59 3.59	2.89 2.81	2.14 1.99
INVERT LEVEL		26.61	26.94 27.01	27.44 27.44	27.59 27.59	27.64 26.92	26.17 26.17	26.33 26.11	26.65 26.81
LID LEVEL		29.43	29.52	30.78	31.17	31.68	31.96	31.22	30.79
GRADIENT & PIPE SIZE		1.00% 600mm RCRRJ Class 2	1.00% 525mm RCRRJ Class 2	1.00% 525mm RCRRJ Class 2	1.00% 525mm RCRRJ Class 2	0.80% 450mm RCRRJ Class 2	0.80% 450mm RCRRJ Class 2	0.60% 375mm RCRRJ Class 2	1.50% 225mm RCRRJ Class 2
PIPE LENGTH & MH No.		MHTD-2 32.6m	MHTD-1 42.2m	MHTD-2 15.8m	MHTD-3 35.1m	MHTD-4 18.5m	MHTD-5 20.4m	MHTD-6 42.4m	MHTD-7 27.3m
HYDRAULICS	DESIGN Q(m³/s) V(m/s)	0.31 2.0	0.23 1.9	0.23 1.7	0.23 1.7	0.16 1.6	0.14 1.3	0.10 1.1	0.03 1.3
	CAPACITY (0.8D) Q(m³/s) V(m/s)	0.65 2.5	0.42 2.3	0.42 2.3	0.42 2.3	0.28 1.8	0.25 1.8	0.13 1.4	0.06 1.6

SW Line 73



DEPTH TO INVERT		3.41	2.92	2.92	1.98
INVERT LEVEL		28.17	28.45	28.46	28.27
LID LEVEL		31.58	31.37		30.54
GRADIENT & PIPE SIZE			120% 300mm RCPRI Class 2	100% 300mm RCPRI Class 2	
PIPE LENGTH & MH No.		MHT-4	23.4m	MHT-1	MHT-2
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)	0.08 1.5		0.08 1.4
	CAPACITY (QSD)	Q(m ³ /s) V(m/s)	0.10 1.7		0.10 1.6

SW Line 74



DEPTH TO INVERT		2.66
INVERT LEVEL		28.56
LID LEVEL		31.22
GRADIENT & PIPE SIZE		3.80% 225mm RCP Class 2
PIPE LENGTH & MH No.		MH73-6 9.8m
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)
	CAPACITY (L/D)	Q(m ³ /s) V(m/s)
		0.03 1.5
		0.08 2.5

SW Line 75



DEPTH TO INVERT		2.09
INVERT LEVEL		27.85
LID LEVEL		29.94
GRADIENT & PIPE SIZE		1.00% 300mm RCP Class 2
PIPE LENGTH & MH No.		MHTD-4 11.2m
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)
	CAPACITY (0.80)	Q(m³/s) V(m/s)
		0.06 1.3 0.10 1.6

SW Line 76

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT: **BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 20 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A251550100	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1000 V - A2	A1
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A2015591.00	1:1000 H; 1:200 V • A3	
DRAWING No:		REV

A2515591.00-4069 A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 21 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
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A2515591 00-4070 A

	AES15551.00	4070	70
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FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



A	FOR CONSENT			CJM	06/20
REF	REVISIONS			BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 22 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **EAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
DRAWING No:		REV
A2515591.00-4071		A

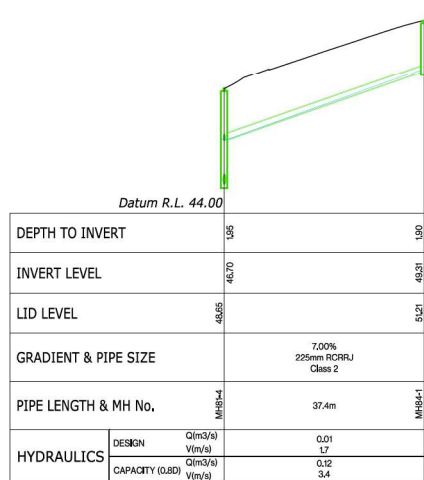
FOR CONSENT

NOTES:

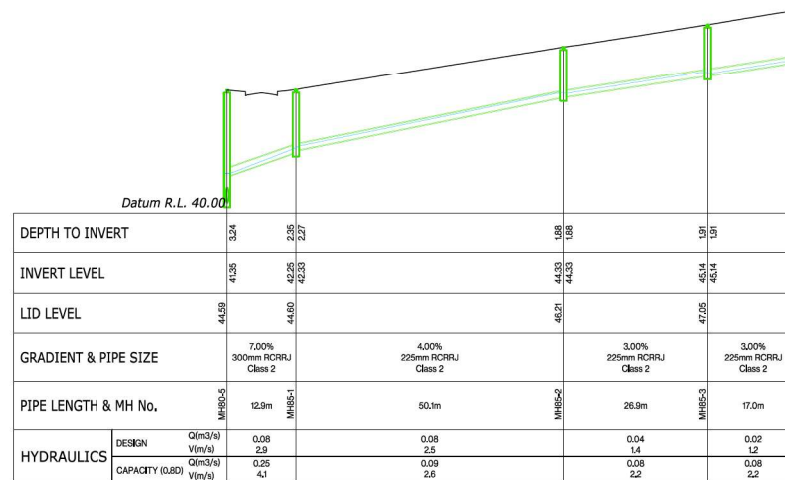
- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

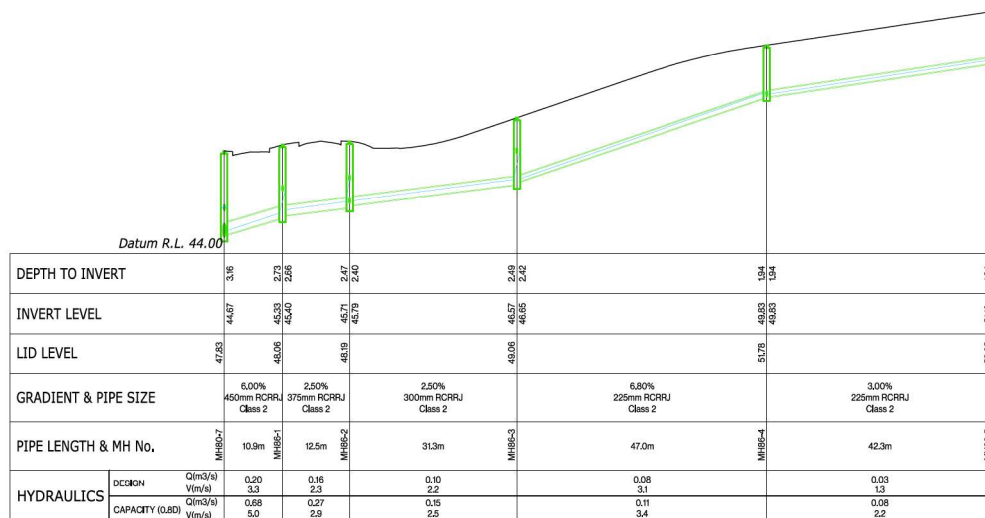
-  EXISTING LEVEL
-  PROPOSED FINISHED LEVEL
-  PROPOSED STORMWATER LINE
-  HYDRAULIC GRADE LINE



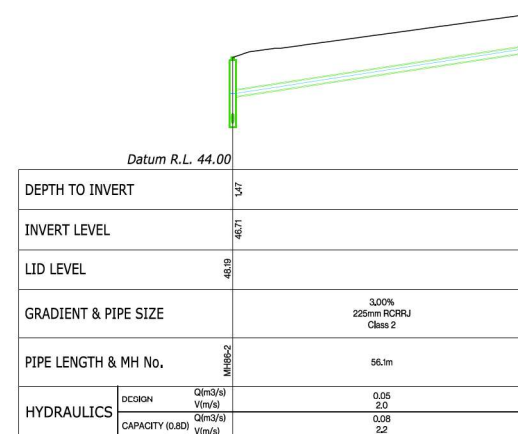
SW Line 84



SW Line 85



SW Line 86



SW Line 87

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

HARRISON GRIERSON
AUCKLAND OFFICE
Level 4, 96 St Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

PROJECT:
**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:
**STORMWATER LONGSECTIONS
SHEET 24 OF 64**

ORIGINATOR SCT	DATE 06/2026	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05/2026	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06/2026	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06/2026	SIGNED	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00
SCALES: 1500 H; 1:100 V - A1
1:1000 H; 1:1200 V - A3

DRAWING No: A2515591.00-4073
REV

A

FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT: BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 25 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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DRAWING No:	REV
A2515591.00-4074	A

FOR CONSENT

NOTES:

- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- EXISTING LEVEL
--- PROPOSED FINISHED LEVEL
--- PROPOSED STORMWATER LINE
--- HYDRAULIC GRADE LINE

Datum R.L. 12.00

DEPTH TO INVERT	0.76	3.92	4.76	5.83	4.82	4.77	5.13	5.08	4.90
INVERT LEVEL	14.20	14.28	14.24	16.20	16.18	16.20	16.15	16.27	16.41
LID LEVEL	15.96	17.77	19.10	21.03	20.58	20.66	21.28	21.36	21.31
GRADIENT & PIPE SIZE	0.50% 825mm RCRJU Class 2	0.80% 825mm RCRJU Class 2	0.60% 675mm RCRJU Class 2	2.00% 675mm RCRJU Class 2	0.80% 675mm RCRJU Class 2	0.80% 675mm RCRJU Class 2	0.80% 675mm RCRJU Class 2	0.80% 675mm RCRJU Class 2	0.80% 675mm RCRJU Class 2
PIPE LENGTH & MH No.	0.0m MH90-0	11.4m MH90-1	10.3m MH90-2	88.6m	51.7m	17.5m	31.9m	15.3m	16.8m
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.92 2.0	0.92 1.8	0.62 1.9	0.62 2.0	0.52 1.6	0.50 1.6	0.48 1.5
	CAPACITY (0.8D)	Q(m³/s) V(m/s)	0.99 2.2	1.26 2.7	0.74 2.4	0.73 2.4	0.74 2.4	0.74 2.4	0.74 2.4

SW Line 90

Datum R.L. 12.00

DEPTH TO INVERT	4.22	3.24	2.70	1.96	2.65	1.44	1.41
INVERT LEVEL	16.48	17.08	17.36	17.65	19.59	21.90	22.26
LID LEVEL	21.31	20.33	20.06	19.61	22.64	23.35	23.67
GRADIENT & PIPE SIZE		0.80% 600mm RCRJU Class 2	1.00% 525mm RCRJU Class 2	0.90% 525mm RCRJU Class 2	0.80% 525mm RCRJU Class 2	4.00% 375mm RCRJU Class 2	2.30% 225mm RCRJU Class 2
PIPE LENGTH & MH No.	0.0m MH90-10	75.0m	20.2m	32.2m	8.0m	53.0m	17.9m
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.47 2.0	0.37 2.0	0.36 1.7	0.24 2.9	0.04 1.7
	CAPACITY (0.8D)	Q(m³/s) V(m/s)	0.54 2.2	0.42 2.3	0.40 2.1	0.34 3.6	0.06 1.8

SW Line 90

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

HARRISON GRIERSON AUCKLAND OFFICE
Level 4, 96 St Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisongrierson.com

PROJECT:
BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:
STORMWATER LONGSECTIONS
SHEET 26 OF 64

ORIGINATOR	DATE	SIGNED	PLOT BY	SUT
SCT	06.20.26			
DRAWN	DATE	SIGNED	PLOT DATE	04/06/26
SCT	05.20.26			
CHECKED	DATE	SIGNED	SURVEY BY	
PZS	06.20.26			
APPROVED	DATE	SIGNED	SURVEY DATE	
CJM	06.20.26			

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00 SCALES: 1500 H; 1:100 V - A1

DRAWING No: A2515591.00-4075

REV A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A	
DRAWING No:		REV	
A2515591.00-4076		A	

FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 _____ PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20/2012
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 28 OF 64

ORIGINATOR: SCT	DATE: 06,2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05,2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED BY
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No.	SCALE: 1:500 U - 1:100 V - A1	
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PROJECT NO: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
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A 051550-1 00 1077 A

A2515591.00-4077 A

[illegible]

PROJECT FILES\01_DESIGN\02_CIVIL\04_SHEETS\A251669\00-1060 STORMWATER LS.DWG

FOR CONSENT

 EXISTING LEVEL
 PROPOSED FINISHED LEVEL
 PROPOSED STORMWATER LINE
 HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:			
STORMWATER LONGSECTIONS SHEET 29 OF 64			
ORIGINATOR SCT	DATE: 06.20.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.20.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PTZ	DATE: 06.20.2026	SIGNED:	SURVEY BY:
APPROVED: CJM	DATE: 06.20.2026	SIGNED:	SURVEY DATE: SURVEYED DATA

ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1	
DRAWING No:		REV	
A2515591.00-4078		A	

FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisingrierson.com

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 30 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: SU
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED B
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
A2515591.00-4079	A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



FOR CONSENT



- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

TITLE:

STORMWATER LONGSECTIONS SHEET 3

OF 64

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00		SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
DRAWING No:			REV
A2515591.00-4082			A

FOR CONSENT



- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 34 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: G.M.A.	DATE: 06.2026	SIGNED:	SURVEY DATE: 06.2026

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No:	SCALES: 1:500 H; 1:100 V - A1	A1
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A2515591.00	1:1000 H; 1:200 V - A3	7
DRAWING No:		REV

A2515591.00-4083 A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

A2515591.00-4084 A

FOR CONSENT



	ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND	ISO 9001 QUALITY ASSURED
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NOTES:

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 36 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No:	SCALES: 1:500 H; 1:100 V - A1	A1
-------------	-------------------------------	----

A2515591.00	1:1000 H; 1:1200 V • A3	A
DRAWING No:		REV

A2515591.00-4085 A

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE





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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 38 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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DRAWING No:	REV
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A2515591.00-4087	A
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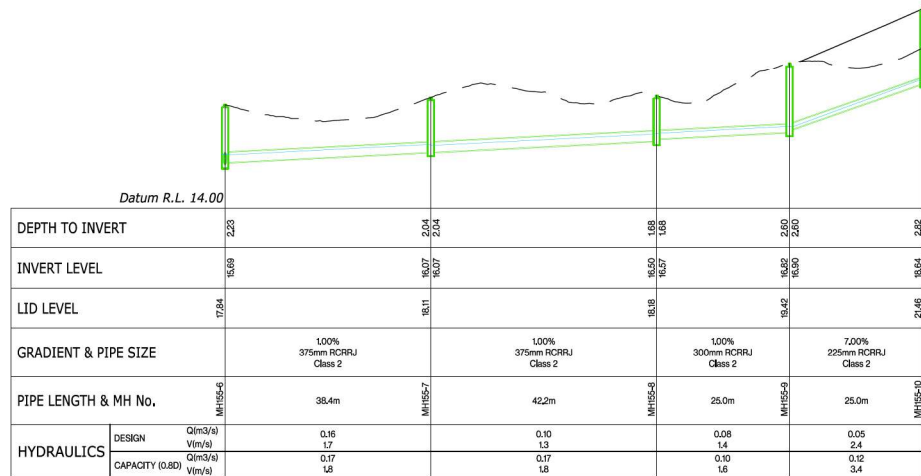
FOR CONSENT

NOTES:

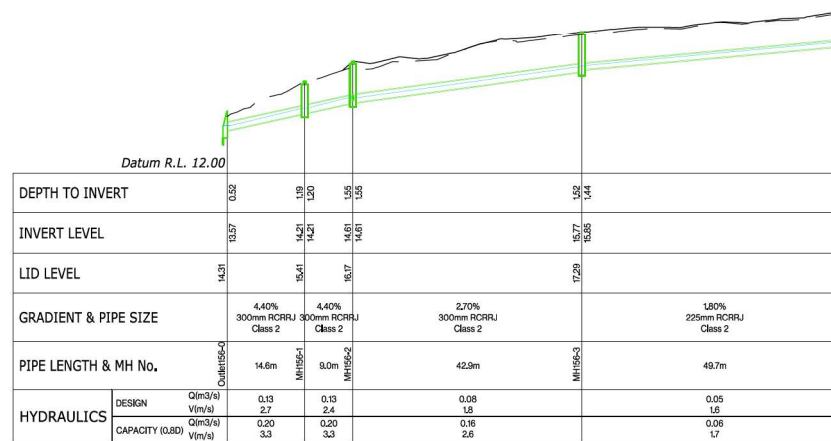
- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

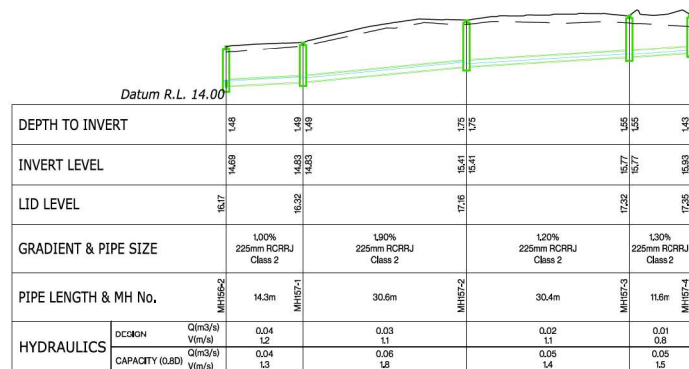
-  EXISTING LEVEL
-  PROPOSED FINISHED LEVEL
-  PROPOSED STORMWATER LINE
-  HYDRAULIC GRADE LINE



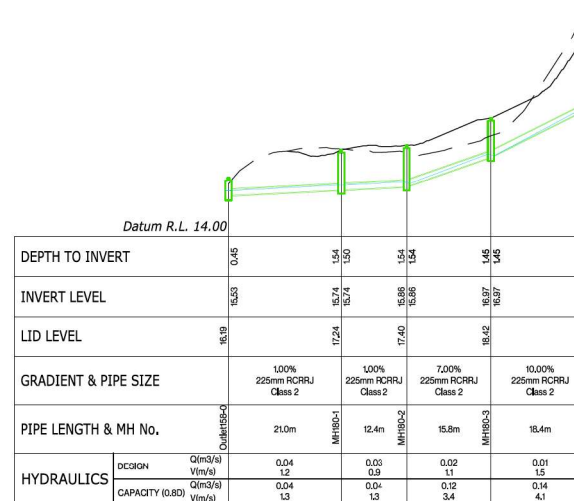
SW Line 155



SW Line 156



SW Line 157



SW Line 158

FOR CONSENT

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
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W www.harrisongrierson.com

PROJECT:
BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:
STORMWATER LONGSECTIONS
SHEET 39 OF 64

ORIGINATOR SCT	DATE 06.2026	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05.2026	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06.2026	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06.2026	SIGNED	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:
FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALE: 1500 H : 1100 V - A1 11000 H : 11200 V - A3	REV A1
DRAWING No: A2515591.00-4088	REV A	

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DRAWING No:	REV
A2515591.00-4089	A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DRAWING No:	REV
A2515591.00-4090	A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DEPTH TO INVERT		3.01	
INVERT LEVEL		19.96	
LID LEVEL		22.57	
GRADIENT & PIPE SIZE		3.50% 375mm RCPRI Class 2	
PIPE LENGTH & MH No.		MH160-3	90.2m
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)	0.19 2.6
	CAPACITY (0.8D)	Q(m ³ /s) V(m/s)	0.32 3.4

SW Line 166



DEPTH TO INVERT		2.06	3.14	2.14
INVERT LEVEL		20.11	22.06	23.06
LID LEVEL		22.67	25.20	
GRADIENT & PIPE SIZE		7.00% 225mm RCPRI Class 2		7.00% 225mm RCPRI Class 2
PIPE LENGTH & MH No.		MH16D-3	28.0m	MH16F-1 49.9m
HYDRAULICS	DESIGN	Q(m³/s) Q(m³/s)	0.07 3.0	0.03 2.5
	CAPACITY (0.8D)	Q(m³/s) V(m/s)	0.2 3.4	0.2 3.4

SW Line 167



DEPTH TO INVERT		2.10
INVERT LEVEL		8.30
LID LEVEL		8.15
GRADIENT & PIPE SIZE		8.70% 1050mm RCRU Class 2
PIPE LENGTH & MH No.		55.5m
HYDRAULICS	DESIGN Q(lm ³ /s) V(m/s)	1.74 5.7
	CAPACITY (0.8D) Q(lm ³ /s) V(m/s)	7.81 19.6

SW Line 168

FOR CONSENT

**HARRISON
GRIERSON**

PROJECT: **BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 42 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **EAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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DRAWING No:	REV
A2515591.00-4091	A



NOTES:

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 _____ PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE

A	FOR CONSENT	CJM	0620
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

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PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 43 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: SU
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED B
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS

FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
----------------------------	--	----

DRAWING No:	REV
A2515591.00-4092	A

FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DEPTH TO INVERT		0.86				1.78	1.69		1.65	1.65
INVERT LEVEL		41.80		41.96	42.86		45.40	45.48	48.32	48.32
LID LEVEL		42.69		45.32		47.17			47.97	
GRADIENT & PIPE SIZE		0.40% 450mm RCR/J Class 2				3.20% 300mm RCR/J Class 2			4.50% 225mm RCR/J Class 2	5.00% 225mm RCR/J Class 2
PIPE LENGTH & MH No.		14.3m	MHTF-1		79.6m		MHTF-2	18.8m	MHTF-3	27.5m
HYDRAULICS	DESIGN	Q(m³/s) Q(m³/s) V(m/s)	0.15 1.3		0.09 2.4			0.03 2.0		0.03 2.1
	CAPACITY	Q(m³/s) Q(m³/s) V(m/s)	0.18 1.3		0.17 2.8			0.09 2.7		0.10 2.9

SW Line 175



DEPTH TO INVERT		0.90
INVERT LEVEL		34.34
LID LEVEL		35.88
GRADIENT & PIPE SIZE		15.00%
		450mm RCPRIJ Class 2
PIPE LENGTH & MH No.		32.4m
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)
	CAPACITY (0.80)	Q(m ³ /s) V(m/s)
		0.15 4.7 1.08 7.9

SW Line 177



DEPTH TO INVERT		1.69
INVERT LEVEL		45.48
LID LEVEL		47.17
GRADIENT & PIPE SIZE		3.00% 225mm RCPRI Class 2
PIPE LENGTH & MH No.		MH14-2 17.6m
HYDRAULICS	DESIGN	Q(m ³ /s) 0.03
	CAPACITY (0.8D)	Q(m ³ /s) 0.08

SW Line 176

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DAT

**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 44 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4093		REV

FOR CONSENT



- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

DRAWING No:	REV
A2515591.00-4095	A

FOR CONSENT

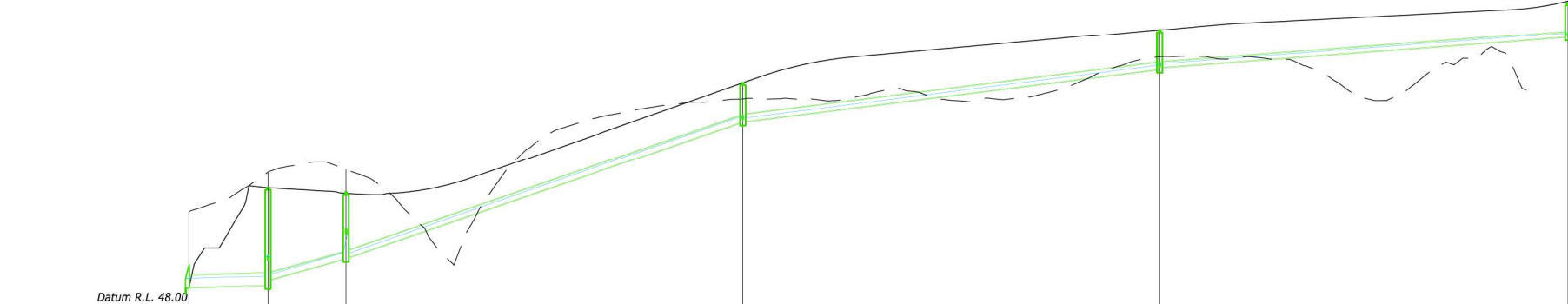
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NOTES:

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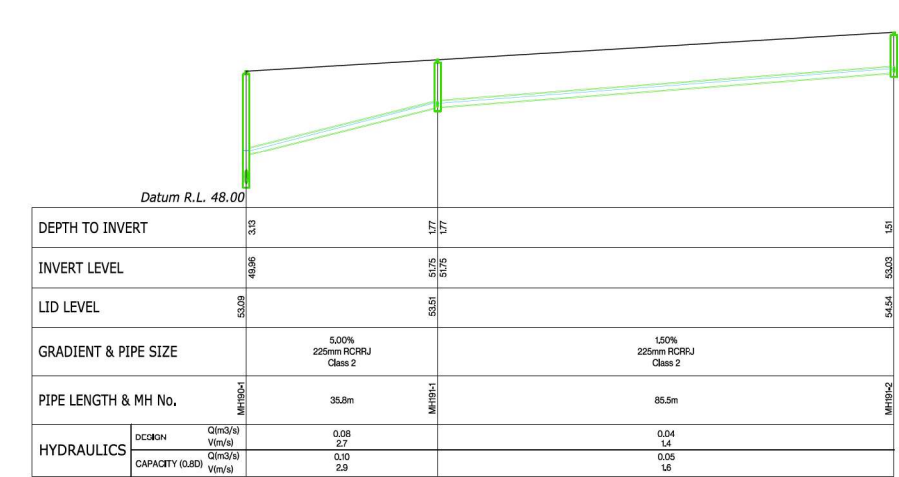
LEGEND:

- EXISTING LEVEL
- PROPOSED FINISHED LEVEL
- PROPOSED STORMWATER LINE
- HYDRAULIC GRADE LINE



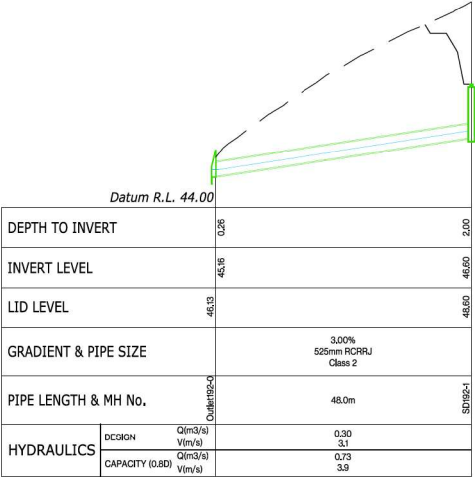
DEPTH TO INVERT		-0.04	4.20	2.79	1.66	1.71	1.56
INVERT LEVEL		48.80	48.88	50.05	55.85	55.99	59.59
LID LEVEL		48.77	53.09	59.89	57.61	59.50	61.06
GRADIENT & PIPE SIZE		0.50% 525mm RCRRJ Class 2	5.60% 300mm RCRRJ Class 2	6.90% 300mm RCRRJ Class 2	2.50% 300mm RCRRJ Class 2	1.50% 225mm RCRRJ Class 2	
PIPE LENGTH & MH No.		0+00 to 17+00 MH190-1	17+00 to 33+80 MH190-2	33+80 to 85+70 MH190-3	85+70 to 99+70 MH190-4	99+70 to 107+90 MH190-5	
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.28 1.6	0.20 3.2	0.14 2.6	0.10 2.3	0.05 1.5
	CAPACITY (0.80)	Q(m³/s) V(m/s)	0.30 1.6	0.22 3.7	0.25 4.1	0.15 2.9	0.05 1.6

SW Line 190



DEPTH TO INVERT		3.13	1.77	1.51
INVERT LEVEL		48.86	51.75	50.03
LID LEVEL		53.09	53.51	54.54
GRADIENT & PIPE SIZE		5.00% 225mm RCRRJ Class 2	1.50% 225mm RCRRJ Class 2	
PIPE LENGTH & MH No.		MH191-1 35.8m	MH191-2 85.5m	MH191-3 1.51
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.08 2.7	0.04 1.4
	CAPACITY (0.80)	Q(m³/s) V(m/s)	0.10 2.9	0.05 1.6

SW Line 191



DEPTH TO INVERT		0.26	2.00
INVERT LEVEL		45.16	46.60
LID LEVEL		46.13	48.60
GRADIENT & PIPE SIZE		3.00% 525mm RCRRJ Class 2	
PIPE LENGTH & MH No.		0+00 to 48.00 MH192-1	
HYDRAULICS	DESIGN	Q(m³/s) V(m/s)	0.30 3.1
	CAPACITY (0.80)	Q(m³/s) V(m/s)	0.73 3.9

SW Line 192

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

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Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisingrierson.com

PROJECT:
**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:
**STORMWATER LONGSECTIONS
SHEET 47 OF 64**

ORIGINATOR SCT	DATE 06/2026	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05/2026	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06/2026	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06/2026	SIGNED	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:
FAST TRACK CONSENT

PROJECT No: A2515591.00
SCALES: 1500 H; 1:100 V - A1
1:1000 H; 1:1200 V - A3

DRAWING No: A2515591.00-4096
REV A

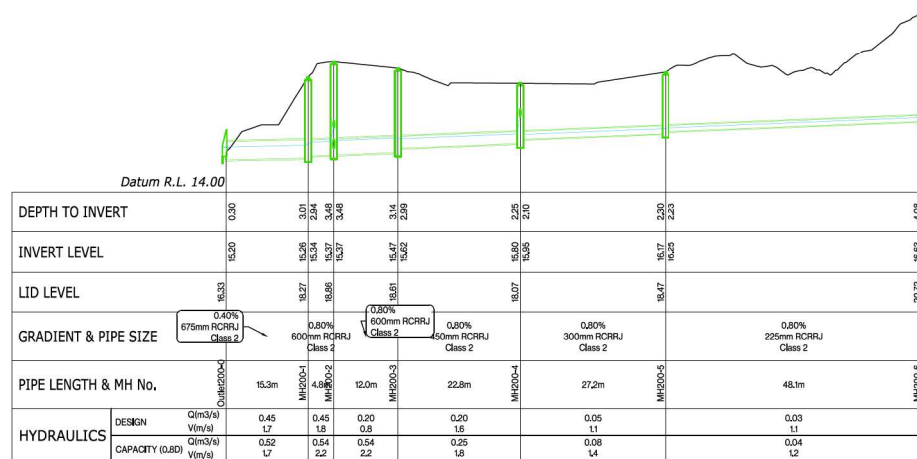
FOR CONSENT

NOTES:

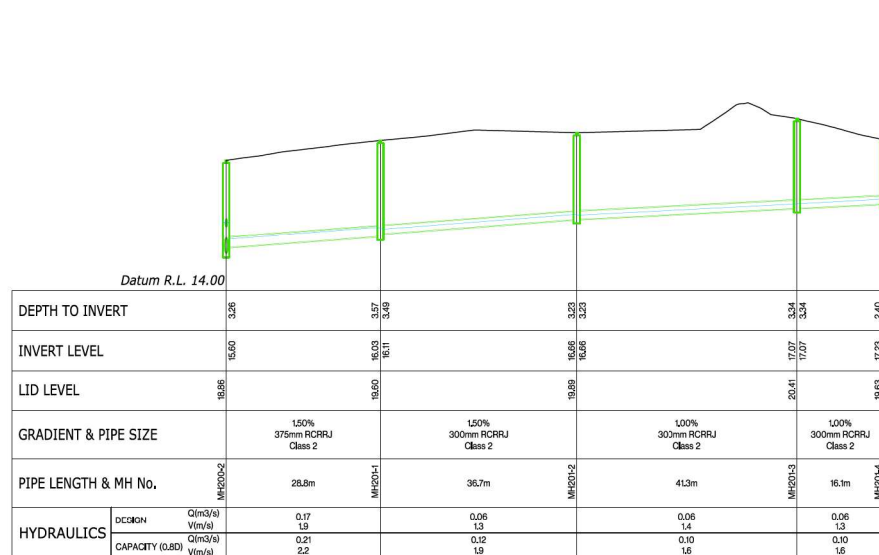
1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

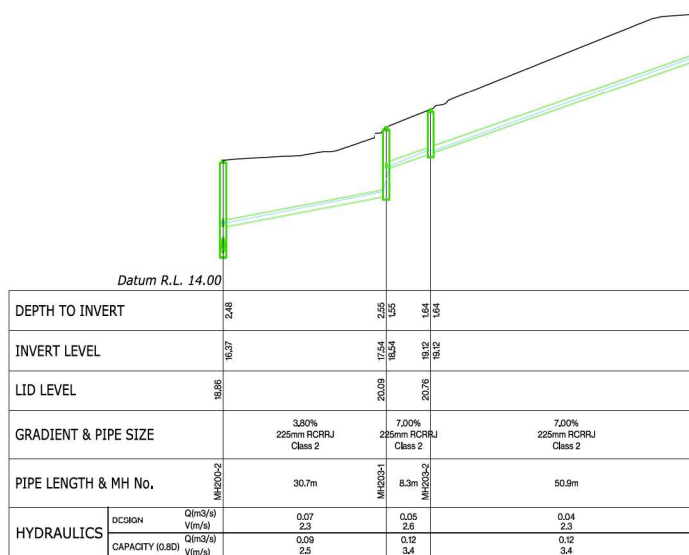
-  EXISTING LEVEL
-  PROPOSED FINISHED LEVEL
-  PROPOSED STORMWATER LINE
-  HYDRAULIC GRADE LINE



SW Line 200



SW Line 201



SW Line 203

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

TITLE:

STORMWATER LONGSECTIONS
SHEET 49 OF 64

ISSUE STATUS: **FAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4098		REV A

FOR CONSENT

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

 EXISTING LEVEL
 PROPOSED FINISHED LEVEL
 PROPOSED STORMWATER LINE
 HYDRAULIC GRADE LINE

SW Line 210SW Line 210

AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisingrierson.com

A 0515501 00 1000 A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: LATE C:\AUTODESK\ACCDRAW\ACCDRAW\HARRISON GIBSON L\B\BEACHLANDS SOUTH EAST TRACK CONSENT\PROJECT FILES\01 DESIGN\02 CIVIL\04 SHEETS\A2515591.00-1050 STORMWATER L.S.DWG

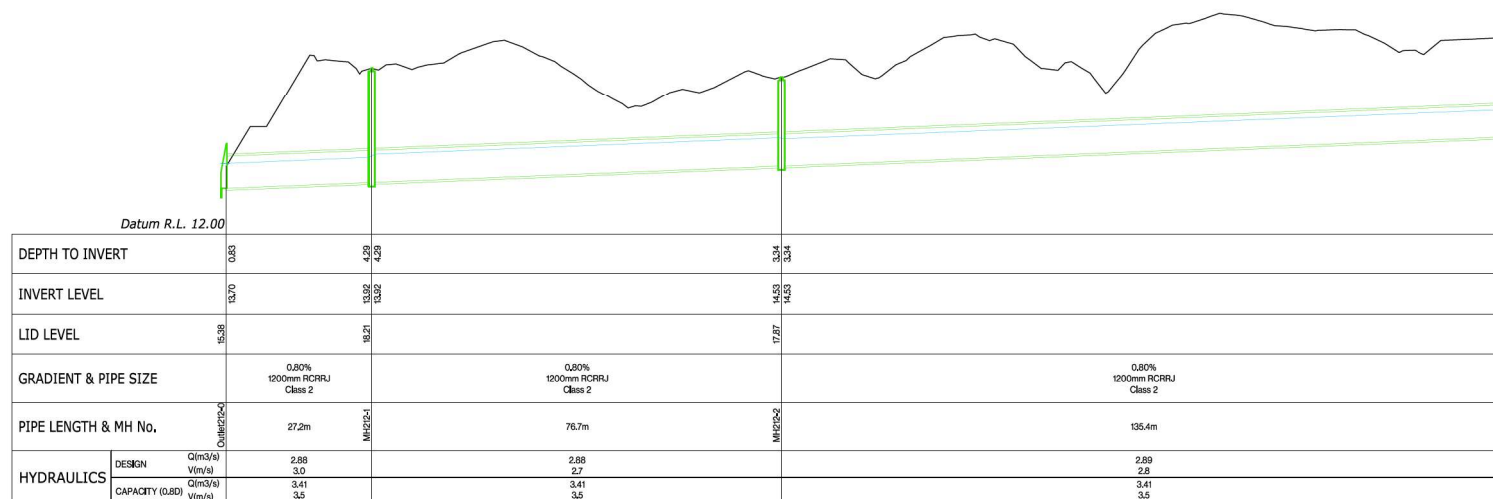
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NOTES:

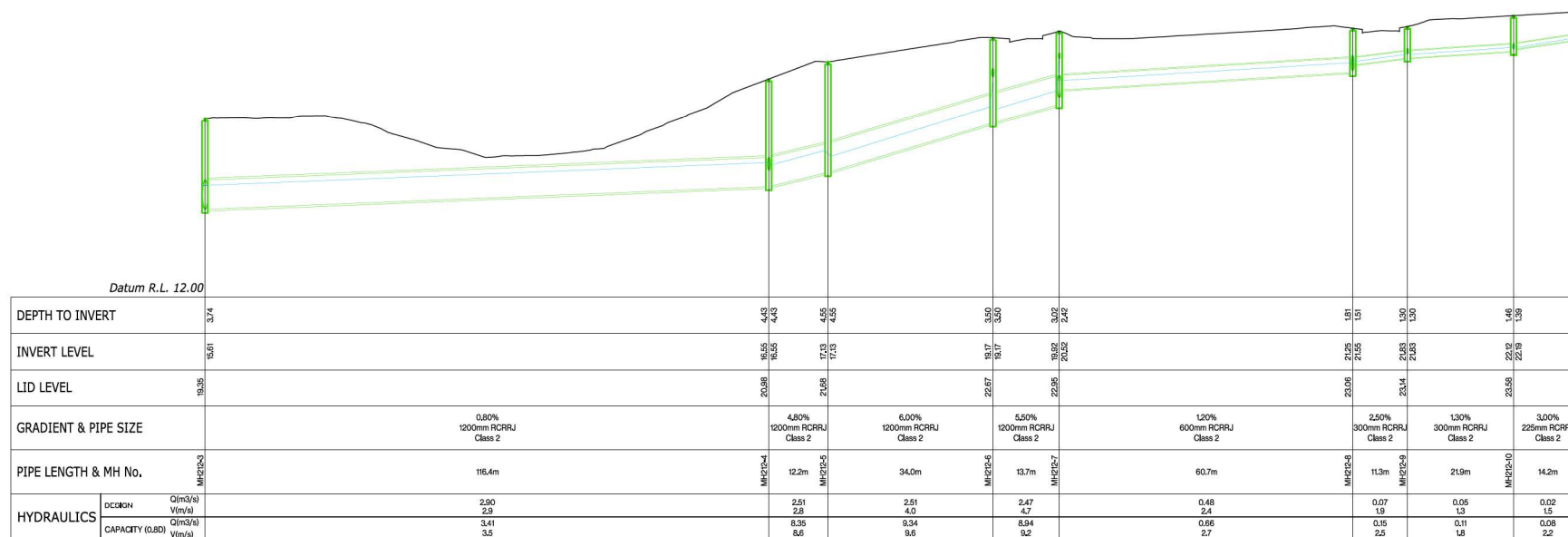
1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



SW Line 212



SW Line 212

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 52 OF 64

ORIGINATOR: SCT	DATE: 06/20/26	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05/20/26	SIGNED:	PLOT DATE: 04/06/26
CHECKED: PZS	DATE: 06/20/26	SIGNED:	SURVEY BY: SURVEYED
APPROVED: C.I.M.	DATE: 06/20/26	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS: **EAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A
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DRAWING No:	REV
A2515591.00-4101	A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

SW Line 214SW Line 214

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4102		REV A

FOR CONSENT

1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



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FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:200 V - A3	A
DRAWING No: A2515591.00-4103		REV

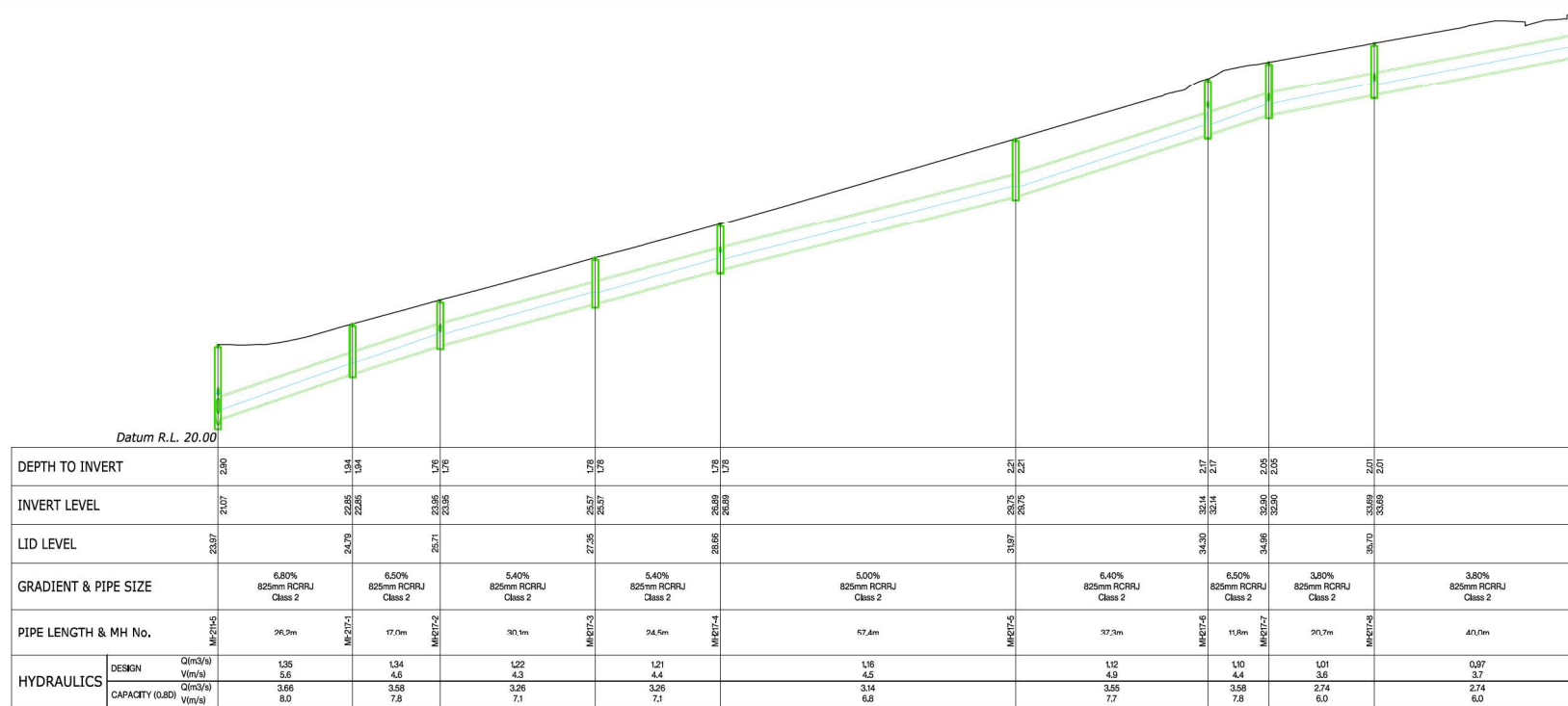
FOR CONSENT

NOTES:

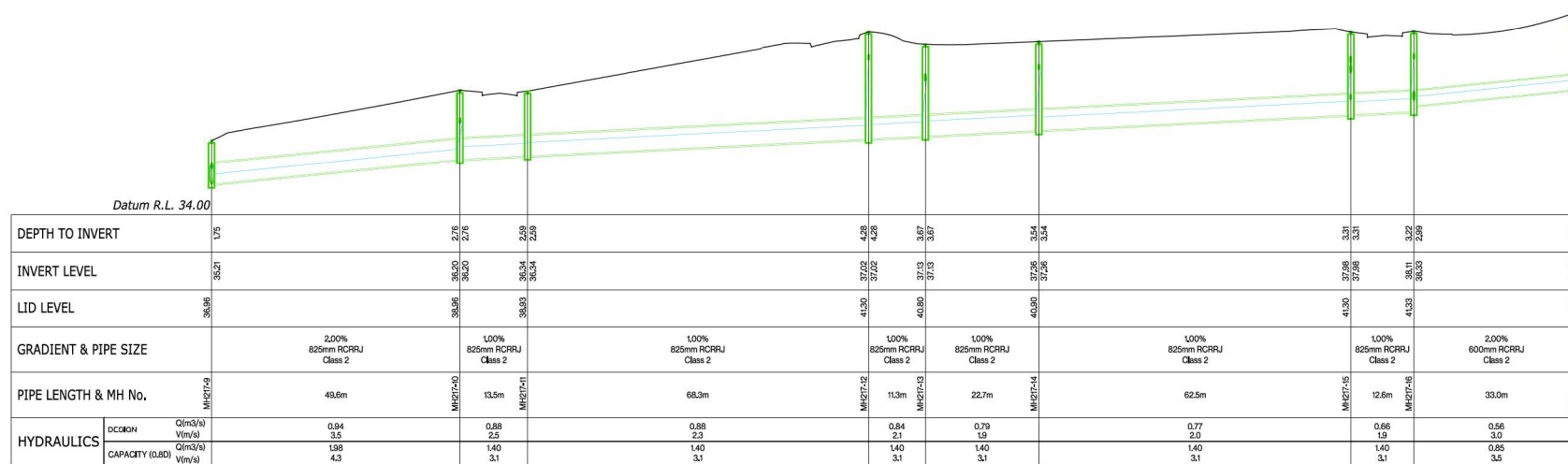
- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

- EXISTING LEVEL
--- PROPOSED FINISHED LEVEL
--- PROPOSED STORMWATER LINE
--- HYDRAULIC GRADE LINE



SW Line 217



SW Line 217

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

HARRISON GRIERSON AUCKLAND OFFICE
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Parnell, Auckland 1052
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W www.harrisingrierson.com

PROJECT: **BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE: **STORMWATER LONGSECTIONS
SHEET 55 OF 64**

ORIGINATOR	DATE	SIGNED	PLOT BY:	SUT
SCT	06.2026			
DRAWN	DATE	SIGNED	PLOT DATE:	04/06/26
SCT	05.2026			
CHECKED	DATE	SIGNED	SURVEY BY:	
PZS	06.2026			
APPROVED	DATE	SIGNED	SURVEY DATE:	
CJM	06.2026			

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No: A2515591.00 SCALES: 1500 H: 1:100 V - A1
1:1000 H: 1:1200 V - A3

DRAWING No: A2515591.00-4104

REV A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



PROJECT FILES\01_DESIGN\02_CIVIL\04_SHEETS\A2515591.00-4050 STORMWATER L.S.D

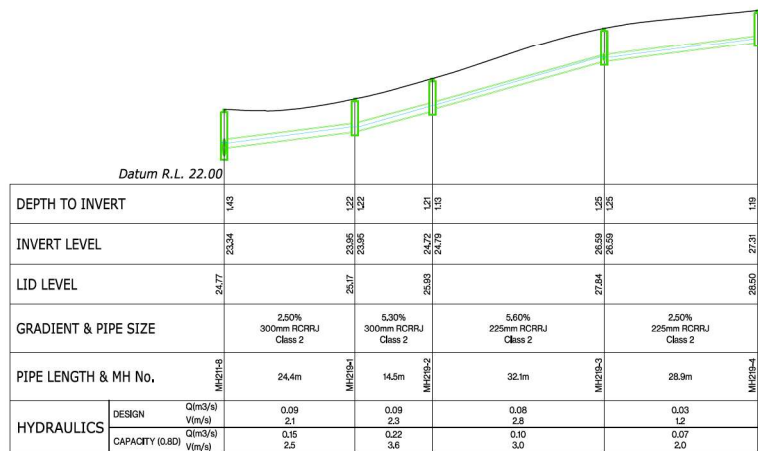
REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: LATE C:\AUTODESK\ACCDRAW\ACCDRAW\HARRISON GIBSON L\B\BEACHLANDS SOUTH EAST TRACK CONSENT\PROJECT FILES\01 DESIGN\02 CIVIL\04 SHEETS\A2515591.00-1050 STORMWATER L.S.DWG

NOTES:

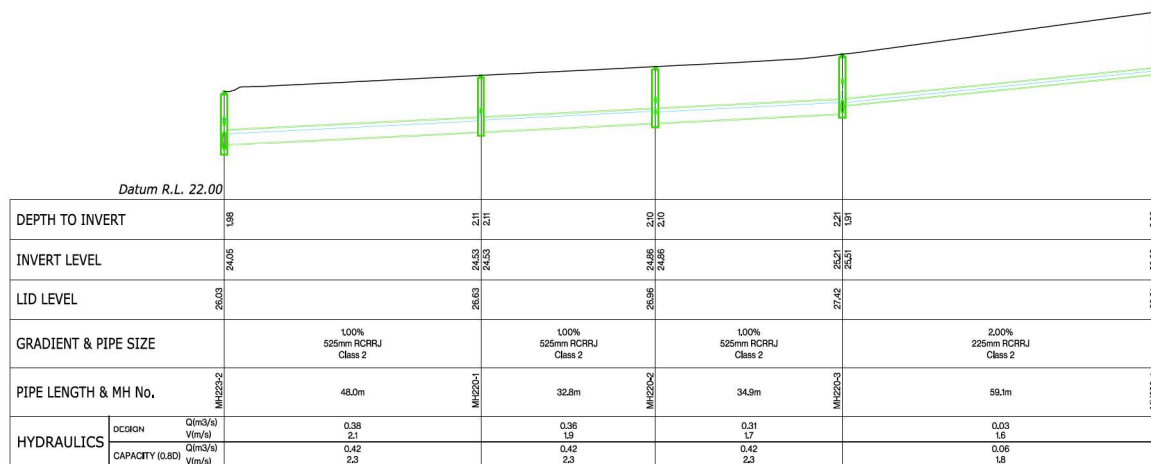
- LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
- ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

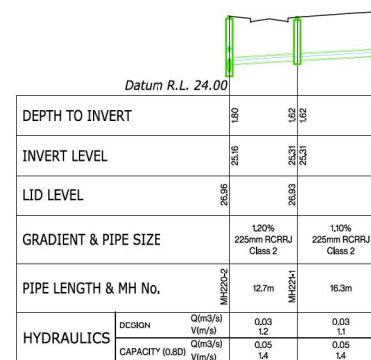
- EXISTING LEVEL
- PROPOSED FINISHED LEVEL
- PROPOSED STORMWATER LINE
- HYDRAULIC GRADE LINE



SW Line 219



SW Line 220



SW Line 221

A	FOR CONSENT	CJM	06/2026
REF	REVISIONS	BY	DATE

HARRISON GRIERSON
AUCKLAND OFFICE
Level 4, 96 St. Georges Bay Road
Parnell, Auckland 1052
T +64 9 917 5000
W www.harrisingrierson.com

PROJECT:
**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:
**STORMWATER LONGSECTIONS
SHEET 57 OF 64**

ORIGINATOR SCT	DATE 06.2026	SIGNED	PLOT BY: SUT
DRAWN SCT	DATE 05.2026	SIGNED	PLOT DATE: 04/06/26
CHECKED PZS	DATE 06.2026	SIGNED	SURVEY BY: SURVEYED BY
APPROVED CJM	DATE 06.2026	SIGNED	SURVEY DATE: SURVEYED DATE

ISSUE STATUS:

FAST TRACK CONSENT			
PROJECT No: A2515591.00	SCALE: 1500 H : 1:100 V - A1 1:1000 H : 1:1200 V - A3	A1	
DRAWING No: A2515591.00-4106	REV		A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



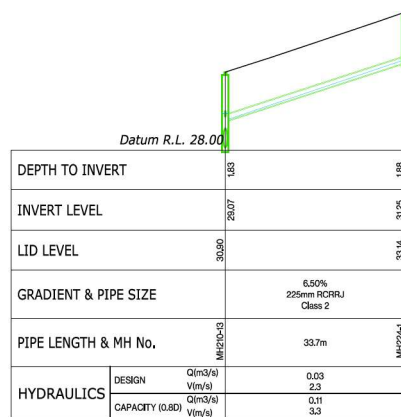
A2515591.00-4107 | A

REFER TO APPROVED MASTER DRAWINGS FOR ORIGINAL SIGNATURES File: LATE C:\AUTODESK\ACCDRAW\ACCDRAW\HARRISON GIBSON L\B\BEACHLANDS SOUTH EAST TRACK CONSENT\PROJECT FILES\01 DESIGN\02 CIVIL\04 SHEETS\A2515591.00-1050 STORMWATER L.S.DWG

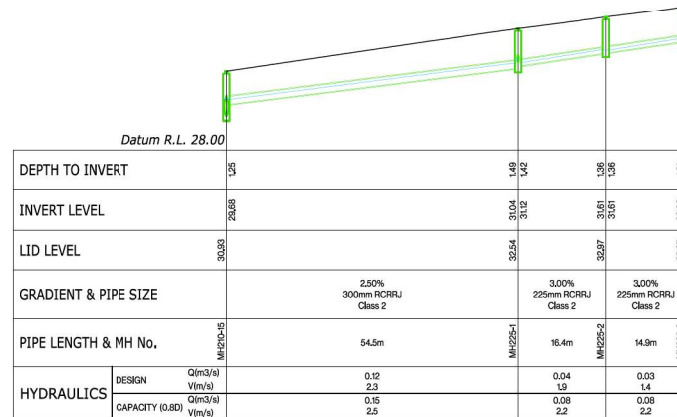
1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARDFILL BACKFILLED TO ROAD SUBGRADE LEVEL.

LEGEND:

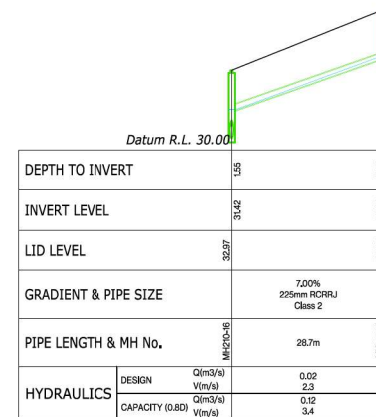
- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



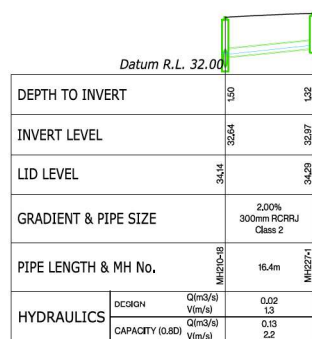
SW Line 224



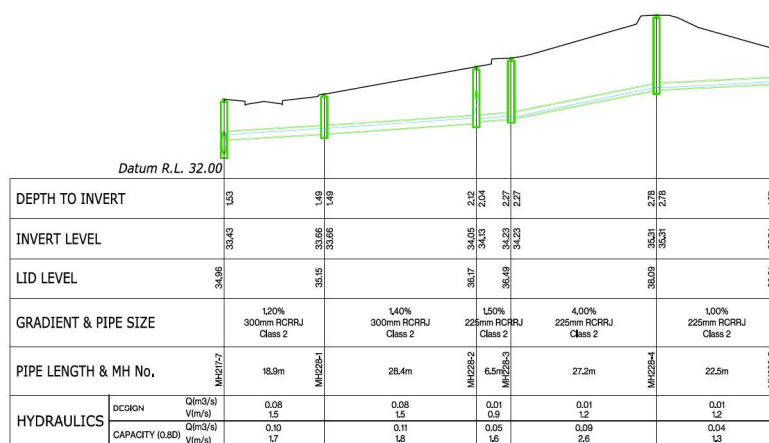
SW Line 225



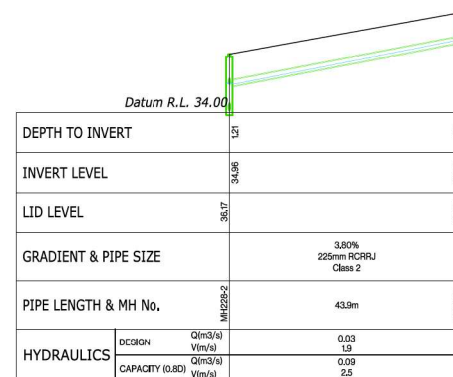
SW Line 226



SW Line 227



SW Line 228



SW Line 229

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

**BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND**

TITLE:

STORMWATER LONGSECTIONS
SHEET 59 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS:

FAST TRACK CONSENT

PROJECT No:	SCALES: 1:500 H; 1:100 V - A1	A
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A2515591.00	1:1000 H; 1:1200 V • A3	A
DRWING No.		REV

DRAWING No: _____ REV _____

A2515591.00-4108 A

PROJECT FILES\01_DESIGN\02_CIVIL\04_SHEETS\A2515591,00-4050 STORMWATER L&D

FOR CONSENT



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1. LONGITUDINAL SECTIONS ARE SHOWN WITH A 5x VERTICAL EXAGGERATION.
2. ALL ROAD CROSSINGS TO BE HARD FILL BACKFILLED TO ROAD SUBGRADE LEVEL.

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



DEPTH TO INVERT		1.58	1.13	1.13	1.36	1.35
INVERT LEVEL		46.38	47.49	47.49	49.77	49.76
LID LEVEL		47.94	48.62		51.13	
GRADIENT & PIPE SIZE		8,00% 225mm RCRJU Class 2		8,00% 225mm RCRJU Class 2		8,00% 225mm RCRJU Class 2
PIPE LENGTH & MH No.		MH214-26 14.2m	MH250-1 28.6m	MH210-2 24.7m		
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)	0.09 3.2	0.09 3.1	0.03 1.8	
	CAPACITY (0.8D)	Q(m ³ /s) V(m/s)	0.12 3.6	0.12 3.6	0.12 3.6	

SW Line 230



DEPTH TO INVERT		2.71
INVERT LEVEL		38.68
LID LEVEL		41.90
GRADIENT & PIPE SIZE		4.50% 225mm HCRPJ Class 2
PIPE LENGTH & MH No.		45.6m
HYDRAULICS	DESIGN	Q(m ³ /s) V(m/s)
		0.02 2.0
	CAPACITY (0.8D)	Q(m ³ /s) V(m/s)
		0.08 2.7

SW Line 232



DEPTH TO INVERT		1.04	1.50 1.50
INVERT LEVEL		46.38	47.03 47.03
LID LEVEL		46.32	46.33
GRADIENT & PIPE SIZE		5.00% 300mm RCHRJ Class 2	1.30% 300mm RCHRJ Class 2
PIPE LENGTH & MH NO.		13.0m MH214-20	80.4m MH203-1
HYDRAULICS	DESIGN	Q(m ³ /s) Q(m ³ /s)	0.08 2.6
	CAPACITY (0.8D)	Q(m ³ /s) V(m/s)	0.21 3.5
			0.06 1.7 0.11 1.5

SW Line 231



DEPTH TO INVERT		2.77	2.80 2.82	2.78 2.76		2.25 2.25 1.74
INVERT LEVEL		38.56	38.76 38.83	38.98 38.88		39.57 39.57 39.64 39.54
LID LEVEL		41.33	41.65	41.76		41.83 41.37
GRADIENT & PIPE SIZE		1.00% 375mm RCR/J Class 2	1.00% 300mm RCR/J Class 2	1.00% 300mm RCR/J Class 2	1.00% 300mm RCR/J Class 2	1.00% 300mm RCR/J Class 2
PIPE LENGTH & MH NO.		MH217-16 19.1m	MH253-1 14.9m	MH253-2 59.8m	MH253-3 6.5m	MH253-4 52.1m
HYDRAULICS	DESIGN Q(m ³ /s) l/s	0.08 1.4	0.08 1.4	0.10 1.6	0.08 1.4	0.04 0.9
	CAPACITY (0.8D) Q(m ³ /s) l/s	0.17 2.8	0.17 2.8	0.10 1.6	0.10 1.6	0.10 1.6

SW Line 233

A	FOR CONSENT	CJM	06/20
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 60 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY: S
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

ISSUE STATUS: **FAST TRACK CONSENSUS**

	FAST TRACK CONSENT

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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DRAWING No:	REV
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A2515591 00-4109 A

7/20/2009 1:00 - 4:00	
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FOR CONSENT

- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DA

A2515591.00	1:1000 H; 1:1200 V-A3	A
DRAWING No:		REV
A2515591.00-4110		A

FOR CONSENT

- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE

A2515591.00-4111 A

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- - - - - EXISTING LEVEL
 ————— PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 ————— HYDRAULIC GRADE LINE



**HARRISON
GRIERSON**

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE:
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY:
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE:

ISSUE STATUS:		FAST TRACK CONSENT	
PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A	
DRAWING No: A2515591.00-4112		REV	A

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- - - - - EXISTING LEVEL
 _____ PROPOSED FINISHED LEVEL
 ===== PROPOSED STORMWATER LINE
 _____ HYDRAULIC GRADE LINE



A	FOR CONSENT	CJM	06/20/2012
REF	REVISIONS	BY	DATE

**HARRISON
GRIERSON**

PROJECT:

BEACHLANDS
FAST TRACK CONSENT APPLICATION
BEACHLANDS SOUTH, AUCKLAND

TITLE:

STORMWATER LONGSECTIONS
SHEET 64 OF 64

ORIGINATOR: SCT	DATE: 06.2026	SIGNED:	PLOT BY:
DRAWN: SCT	DATE: 05.2026	SIGNED:	PLOT DATE: 04/06/2026
CHECKED: PZS	DATE: 06.2026	SIGNED:	SURVEY BY: SURVEYED BY
APPROVED: CJM	DATE: 06.2026	SIGNED:	SURVEY DATE: SURVEYED DATE

ISSUE STATUS: **EAST TRACK CONSENT**

PROJECT No: A2515591.00	SCALES: 1:500 H; 1:100 V - A1 1:1000 H; 1:1200 V - A3	A1
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A2515591.00-4113	A
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FOR CONSENT