

AS-BUILT NOTES:

1. Designer: Calibre Consulting.
2. Contractor: Rapid Earthworks. Constructed 2020-2021
3. Surveyed: Rapid Earthworks, 2020-2021.
4. Coordinates in terms of WLG2000. Origin of coordinates: B385 816,957.016mN, 405,200.472mE
5. Levels reduced in terms of Wellington Datum 1953. Origin of levels: B385 Height: 10.778m

KEY:

Original stormwater:

- Pipe
- Manhole
- Sump

New Stormwater:

- Main
- Size and material as shown
- Sump lead
- Single sump: 225mmØ uPVC
- Double sump: 300mmØ uPVC
- Super sump: 525mmØ uPVC
- Lateral
- 100mmØ uPVC
- Subsoil
- 100mmØ perforated pipe

Original wastewater:

- Pipe
- Manhole

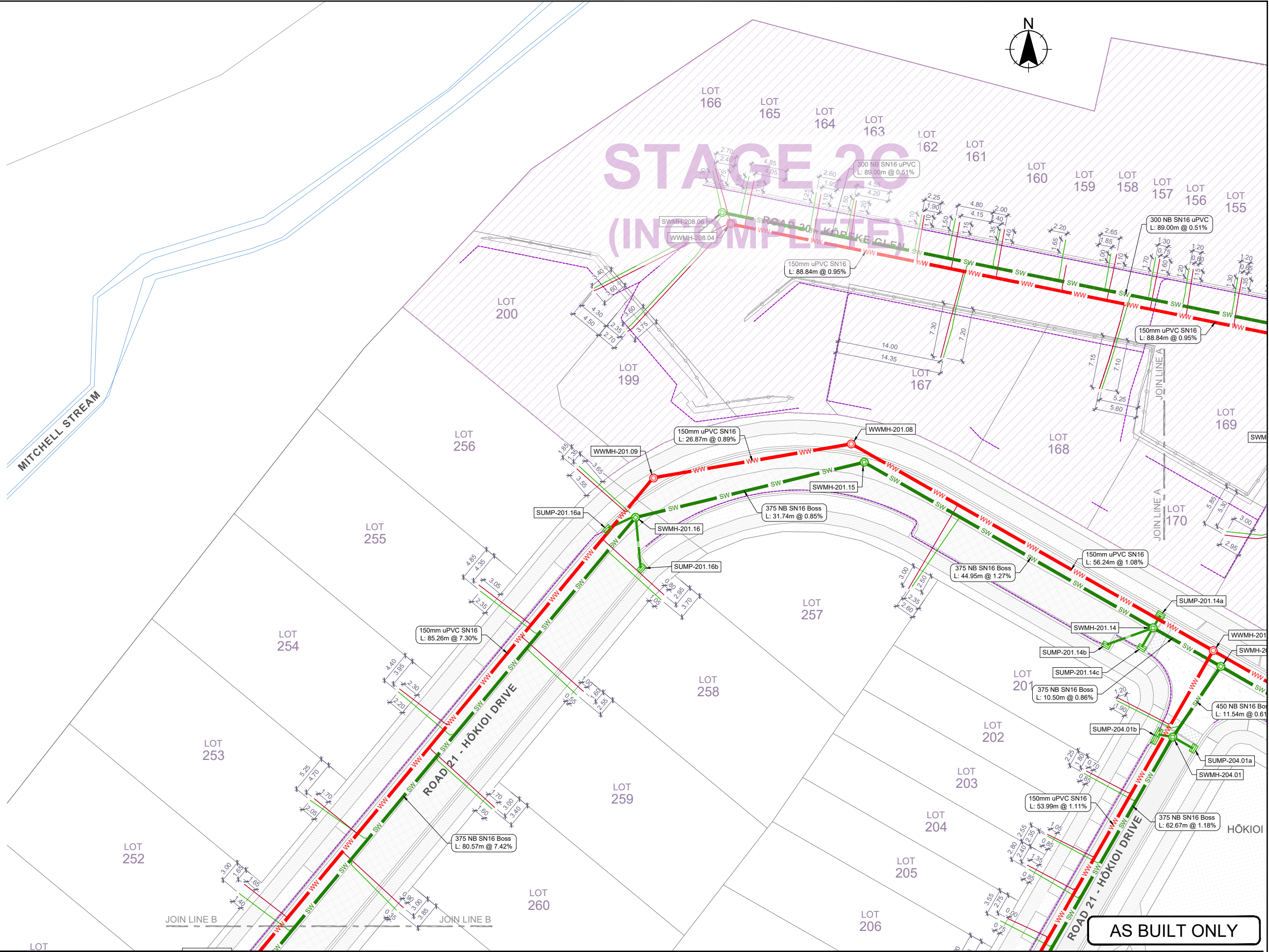
New wastewater:

- Main
- Size and material as shown
- Lateral
- 100mm uPVC
- Manhole
- End cap

Legend:

- SWMH - Manhole
- S1 - Sump
- OUTLET - Outlet
- SSMH - Manhole
- End cap

SHEET LAYOUT
Scale 1:5000 @ A1
1:10,000 @ A3



AS BUILT ONLY

1	STAGE 2C EXTENTS, SUBSOIL DIA	BDG	20/07/21	RAPID	Client	06/21
0	FIRST ISSUE	BDG	22/06/21	KD / PCV	06/21	
	Revision	App	Date	Reviewed	SP	06/21
		Approved	BDG	22/06/21		

Kenepuru LANDING
STAGE 2

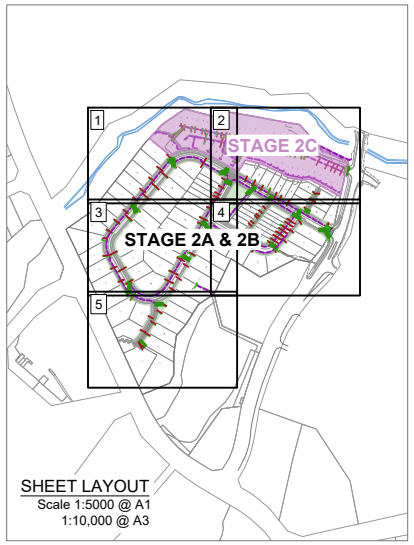
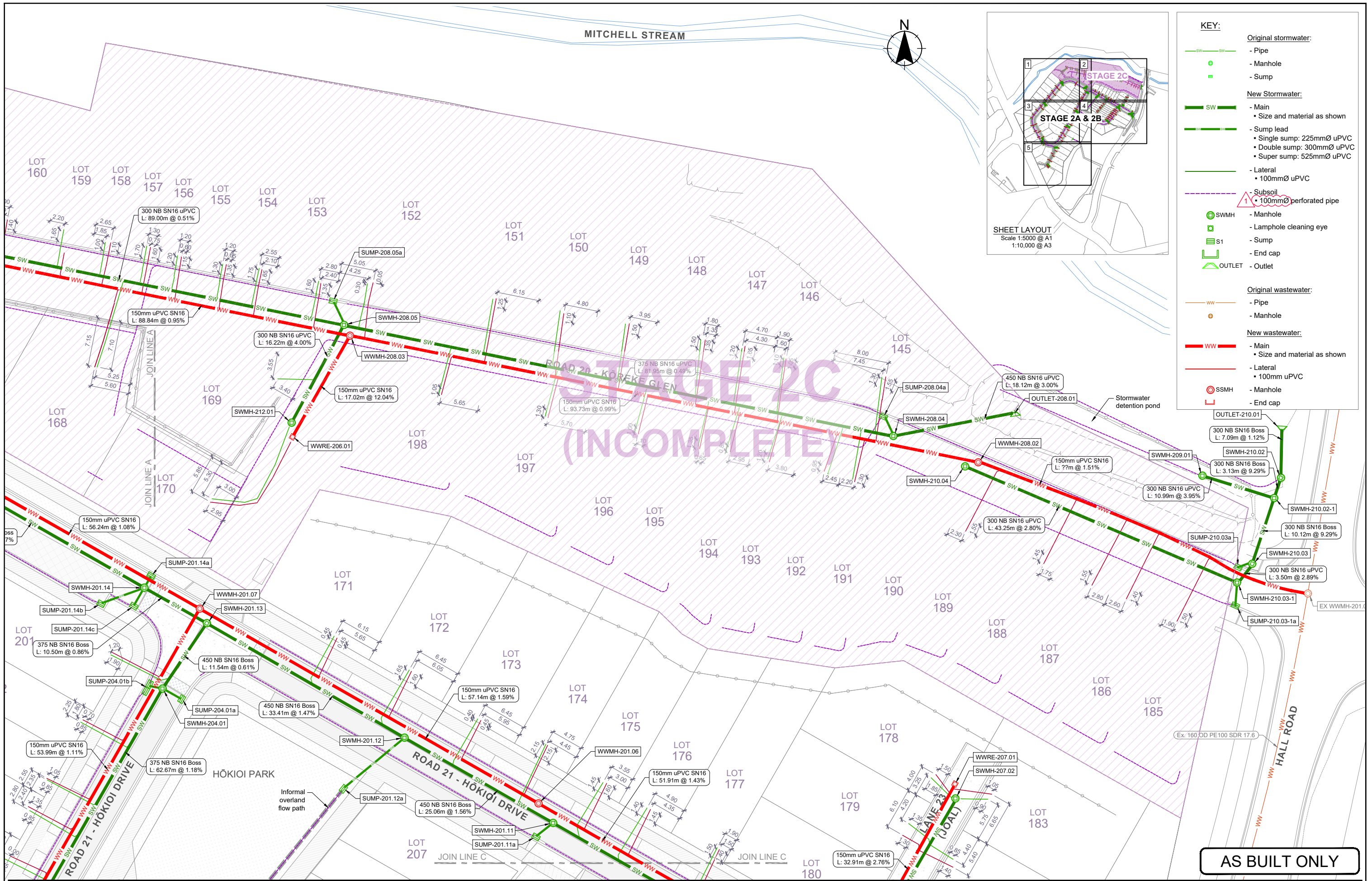
Project Title
KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING

Sheet Title
AS-BUILT
DRAINAGE PLAN
SHEET 1 OF 5

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250 (A3) 1:500

Project No: 709306.006
Sheet: C7400
Revision: 1



AS BUILT ONLY

1	STAGE 2C EXTENTS, SUBSOIL DIA	BDG	20/07/21	Designed	RAPID	Client	
0	FIRST ISSUE	BDG	22/06/21	Drawn	KD / PCV		06/21
		App		Reviewed	SP		06/21
		Date		Approved	BDG		22/06/21



Project Title
KENEPURU LANDING STAGE 2
INFRASTRUCTURE & SURVEYING

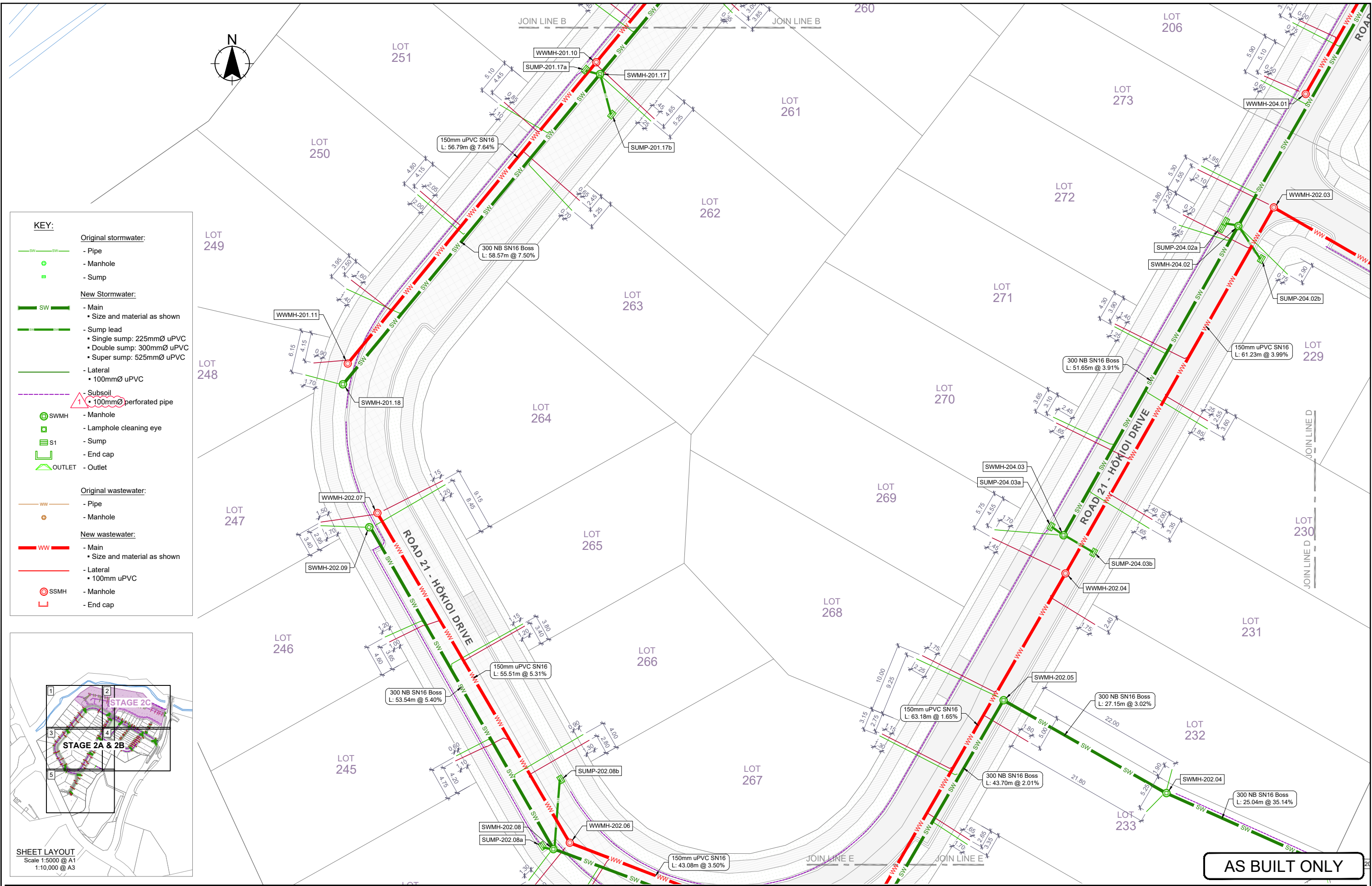
Sheet Title
AS-BUILT
DRAINAGE PLAN
SHEET 2 OF 5

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

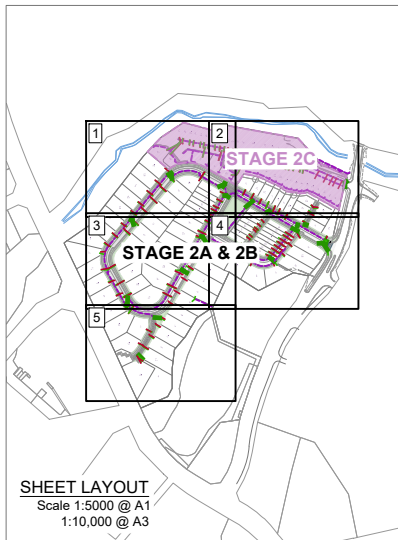


Scale (A1 Original)	1:250	(A3) 1:500
Project No	709306.006	Sheet
Sheet	C7401	Revision
		1

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



- KEY:**
- Original stormwater:**
- Pipe
 - Manhole
 - Sump
- New Stormwater:**
- Main
 - Size and material as shown
 - Sump lead
 - Single sump: 225mmØ uPVC
 - Double sump: 300mmØ uPVC
 - Super sump: 525mmØ uPVC
 - Lateral
 - 100mmØ uPVC
 - Subsoil
 - 100mmØ perforated pipe
- Original wastewater:**
- Pipe
 - Manhole
- New wastewater:**
- Main
 - Size and material as shown
 - Lateral
 - 100mm uPVC
- Legend:**
- SWMH - Manhole
 - S1 - Sump
 - OUTLET - Outlet
 - SSMH - Manhole
 - End cap



AS BUILT ONLY

1 SUBSOIL DIAMETER	BDG 20/07/21	Designed	RAPID	Client	Kenepuru LANDING
0 FIRST ISSUE	BDG 22/06/21	Drawn	KD / PCV	Project Title	KENEPURU LANDING STAGE 2
Revision	App Date	Reviewed	SP	Sheet Title	AS-BUILT DRAINAGE PLAN SHEET 3 OF 5
	Approved	App Date	BDG	Level 13	Kordia House
				109-125 Willis Street	Wellington 6141
				+64 4 384 2029	calibregroup.com



Kenepuru LANDING STAGE 2

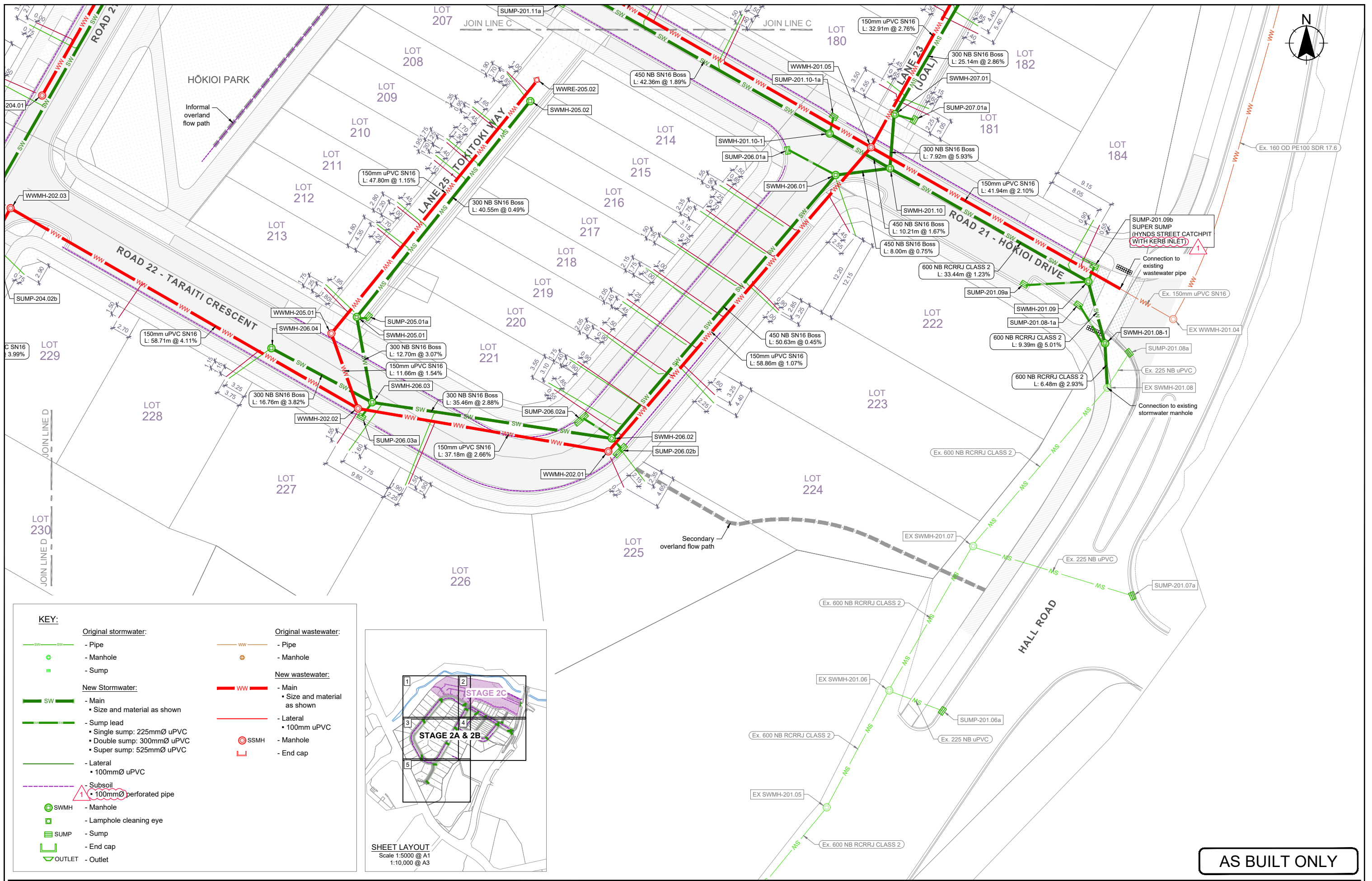
AS-BUILT DRAINAGE PLAN SHEET 3 OF 5

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:250	(A3) 1:500
5 2.5 0 5 10 15 m	
Project No	709306.006
Sheet	C7402
Revision	1

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



AS BUILT ONLY

1	SUBSOIL DIAMETER	BDG	20/07/21	Designed	RAPID	
0	FIRST ISSUE	BDG	22/06/21	Drawn	KD / PCV	06/21
	Revision	App	Date	Reviewed	SP	06/21
		App	Date	Approved	BDG	22/06/21

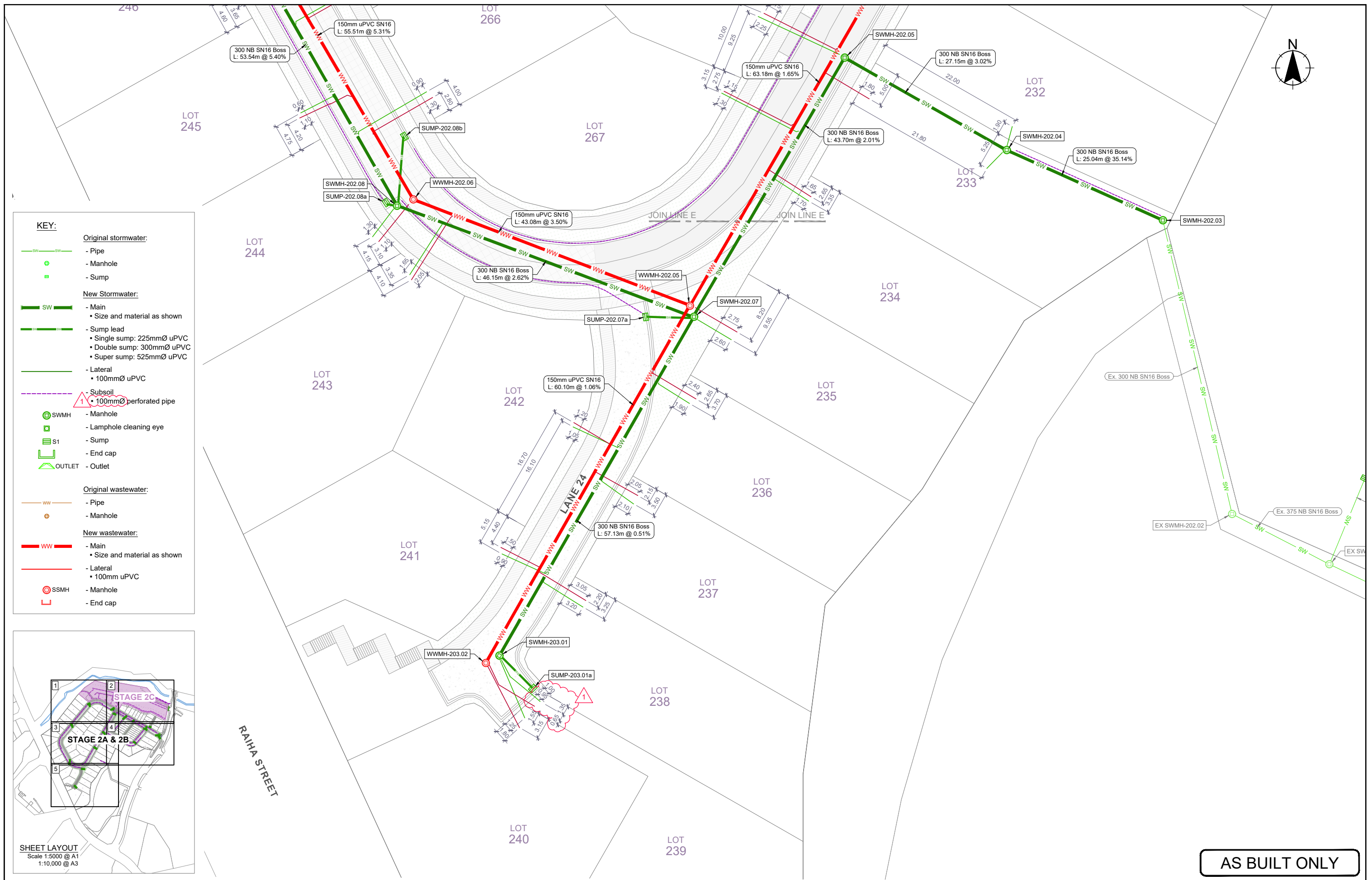
Client

Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

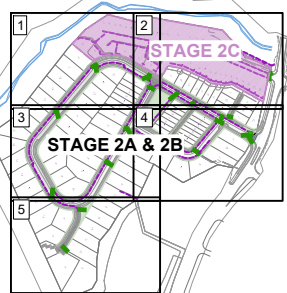
Sheet Title
**AS-BUILT
DRAINAGE PLAN
SHEET 4 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250		(A3) 1:500
Project No	Sheet	Revision
709306.006	C7403	1



- KEY:**
- Original stormwater:**
- Pipe
 - Manhole
 - Sump
- New Stormwater:**
- Main
 - Size and material as shown
 - Sump lead
 - Single sump: 225mmØ uPVC
 - Double sump: 300mmØ uPVC
 - Super sump: 525mmØ uPVC
 - Lateral
 - 100mmØ uPVC
 - Subsoil
 - 100mmØ perforated pipe
- Original wastewater:**
- Pipe
 - Manhole
- New wastewater:**
- Main
 - Size and material as shown
 - Lateral
 - 100mm uPVC
- Legend:**
- SWMH - Manhole
 - S1 - Lamphole cleaning eye
 - S1 - Sump
 - End cap
 - OUTLET - Outlet
 - SSMH - Manhole
 - End cap



SHEET LAYOUT
 Scale 1:5000 @ A1
 1:10,000 @ A3

AS BUILT ONLY

1 LOT 239 LATERALS UPDATED	BDG	20/07/21	Designed	RAPID	Client	06/21
0 FIRST ISSUE	BDG	22/06/21	Drawn	KD / PCV		06/21
	App		Reviewed	SP		06/21
	Date		Approved	BDG		22/06/21

Kenepuru LANDING
STAGE 2

Project Title
 KENEPURU LANDING STAGE 2
 INFRASTRUCTURE &
 SURVEYING

Sheet Title
 AS-BUILT
 DRAINAGE PLAN
 SHEET 5 OF 5

Level 13
 Kordia House
 109-125 Willis Street
 Wellington 6141
 +64 4 384 2029
 calibregroup.com

Scale (A1 Original) 1:250 (A3) 1:500

Project No	709306.006
Sheet	C7404
Revision	1

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

STORMWATER MANHOLES									
NAME	DESCRIPTION	AS-BUILT COORDS	LID LEVEL	DEPTH [m]	INLET PIPE	UPSTREAM MH	INLET INV.	OUTLET PIPE	OUTLET INV.
EX SWMH-201.02	1,200 dia Concrete Manhole	E: 404,698.83m N: 817,074.91m	23.78m	2.31m	Ex. 525 NB RCRRJ CLASS 2 450 NB RCRRJ CLASS 2	Ex. SWMH-201.03	21.87m 21.70m	675 NB RCRRJ CLASS 2	21.47m
EX SWMH-201.04	1,500 dia Concrete Manhole	E: 404,762.11m N: 817,210.79m	30.75m	2.60m	600 NB RCRRJ CLASS 2	EX SWMH-201.05	28.45m	600 NB RCRRJ CLASS 2	28.14m
EX SWMH-201.05	1,050 dia Concrete Manhole	E: 404,779.99m N: 817,232.66m	31.01m	1.61m	600 NB RCRRJ CLASS 2	EX SWMH-201.06	29.45m	600 NB RCRRJ CLASS 2	29.40m
EX SWMH-201.06	1,200 dia Concrete Manhole	E: 404,789.16m N: 817,249.78m	31.71m	1.87m	600 NB RCRRJ CLASS 2 225 NB uPVC	EX SWMH-201.07	30.14m 30.22m	600 NB RCRRJ CLASS 2	29.84m
EX SWMH-201.07	1,200 dia Concrete Manhole	E: 404,801.43m N: 817,270.94m	33.58m	2.62m	600 NB RCRRJ CLASS 2 225 NB uPVC	EX SWMH-201.08	31.26m 31.34m	600 NB RCRRJ CLASS 2	30.96m
EX SWMH-201.08	1,350 dia Concrete Manhole	E: 404,821.07m N: 817,294.13m	33.80m	1.77m	600 NB RCRRJ CLASS 2 225 NB uPVC	SWMH-201.08-1	32.03m 32.61m	600 NB RCRRJ CLASS 2	32.61m
EX SWMH-202.01	1,050 dia Concrete Manhole	E: 404,692.09m N: 817,174.74m	30.00m	1.66m	375 NB SN16 Boss 300 NB SN16 Boss	EX SWMH-202.02	28.64m 28.63m	375 NB SN16 Boss	28.34m
EX SWMH-202.02	1,050 dia Concrete Manhole	E: 404,677.86m N: 817,182.08m	30.00m	1.28m	300 NB SN16 Boss	SWMH-202.03	28.77m	375 NB SN16 Boss	28.72m
EX SWMH-201.03	1,350 dia Concrete Manhole	E: 404,731.63m N: 817,156.12m	27.76m	2.42m	375 NB SN16 Boss 600 NB RCRRJ CLASS 2 225 NB uPVC	EX SWMH-202.01 EX SWMH-201.04	26.54m 25.64m 26.48m	Ex. 525 NB RCRRJ CLASS 2	25.34m
OUTLET-201.01	Wingwall	E: 404,692.75m N: 817,059.68m	21.47m	1.18m	675 NB RCRRJ CLASS 2	EX SWMH-201.02	20.29m		
OUTLET-208.01	Outfall (End Network Node)	E: 404,811.22m N: 817,412.41m	30.39m	1.19m	450 NB SN16 uPVC	SWMH-208.04	29.20m		
OUTLET-210.01	Wingwall	E: 404,850.24m N: 817,409.98m	28.00m	0.86m	300 NB SN16 Boss	SWMH-210.02	27.13m		
SWMH-201.08-1	1,200 dia Concrete Manhole	E: 404,820.74m N: 817,300.60m	33.78m	1.56m	600 NB RCRRJ CLASS 2	SWMH-201.09	32.22m	600 NB RCRRJ CLASS 2	32.22m
SWMH-201.09	1,200 dia Concrete Manhole	E: 404,818.29m N: 817,309.67m	34.06m	1.38m	600 NB RCRRJ CLASS 2	SWMH-201.10	32.69m	600 NB RCRRJ CLASS 2	32.69m
SWMH-201.10	1,500 dia Energy Dissipating Manhole	E: 404,789.25m N: 817,326.25m	35.73m	3.10m	450 NB SN16 Boss 300 NB SN16 Boss 450 NB SN16 Boss	SWMH-201.10-1 SWMH-207.01 SWMH-206.01	34.24m 33.38m 33.06m	600 NB RCRRJ CLASS 2	33.10m
SWMH-201.10-1	1,050 dia Concrete Manhole	E: 404,780.41m N: 817,331.35m	36.06m	1.64m	450 NB SN16 Boss	SWMH-201.11	34.44m	450 NB SN16 Boss	34.42m
SWMH-201.11	1,050 dia Concrete Manhole	E: 404,743.66m N: 817,352.42m	36.82m	1.58m	450 NB SN16 Boss	SWMH-201.12	35.28m	450 NB SN16 Boss	35.24m
SWMH-201.12	1,050 dia Concrete Manhole	E: 404,721.92m N: 817,364.89m	37.20m	1.54m	450 NB SN16 Boss	SWMH-201.13	35.68m	450 NB SN16 Boss	35.66m
SWMH-201.13	1,200 dia Concrete Manhole	E: 404,693.01m N: 817,381.63m	37.69m	1.52m	375 NB SN16 Boss 450 NB SN16 Boss	SWMH-201.14 SWMH-204.01	36.43m 36.28m	450 NB SN16 Boss	36.18m
SWMH-201.14	1,200 dia Concrete Manhole	E: 404,683.88m N: 817,386.82m	37.84m	1.32m	375 NB SN16 Boss	SWMH-201.15	36.62m	375 NB SN16 Boss	36.52m
SWMH-201.15	1,050 dia Concrete Manhole	E: 404,644.89m N: 817,409.18m	38.50m	1.30m	375 NB SN16 Boss	SWMH-201.16	37.25m	375 NB SN16 Boss	37.19m
SWMH-201.16	1,050 dia Concrete Manhole	E: 404,614.04m N: 817,401.73m	39.35m	1.83m	375 NB SN16 Boss	SWMH-201.17	37.72m	375 NB SN16 Boss	37.52m
SWMH-201.17	1,050 dia Concrete Manhole	E: 404,562.52m N: 817,339.78m	45.39m	1.69m	300 NB SN16 Boss	SWMH-201.18	43.87m	375 NB SN16 Boss	43.70m
SWMH-201.18	1,050 dia Concrete Manhole	E: 404,525.11m N: 817,294.71m	49.44m	1.19m				300 NB SN16 Boss	48.26m
SWMH-202.03	1,500 dia Energy Dissipating Manhole	E: 404,667.73m N: 817,225.00m	32.16m	2.51m	300 NB SN16 Boss	SWMH-202.04	30.76m	300 NB SN16 Boss	29.65m
SWMH-202.04	1,050 dia Concrete Manhole	E: 404,644.90m N: 817,235.27m	41.80m	2.25m	300 NB SN16 Boss	SWMH-202.05	39.61m	300 NB SN16 Boss	39.56m
SWMH-202.05	1,050 dia Concrete Manhole	E: 404,621.20m N: 817,248.77m	41.75m	1.32m	300 NB SN16 Boss	SWMH-202.07	40.62m	300 NB SN16 Boss	40.43m
SWMH-202.07	1,200 dia Concrete Manhole	E: 404,599.16m N: 817,210.91m	43.66m	2.16m	300 NB SN16 Boss 300 NB SN16 Boss	SWMH-202.08 SWMH-203.01	42.08m 41.56m	300 NB SN16 Boss	41.50m
SWMH-202.08	1,200 dia Concrete Manhole	E: 404,555.72m N: 817,227.12m	45.56m	2.27m	300 NB SN16 Boss	SWMH-202.09	43.40m	300 NB SN16 Boss	43.29m
SWMH-202.09	1,200 dia Concrete Manhole	E: 404,528.94m N: 817,273.92m	48.94m	2.65m				300 NB SN16 Boss	46.29m

STORMWATER MANHOLES									
NAME	DESCRIPTION	AS-BUILT COORDS	LID LEVEL	DEPTH [m]	INLET PIPE	UPSTREAM MH	INLET INV.	OUTLET PIPE	OUTLET INV.
SWMH-203.01	1,200 dia Concrete Manhole	E: 404,570.70m N: 817,161.38m	43.99m	2.14m				300 NB SN16 Boss	41.85m
SWMH-204.01	1,200 dia Concrete Manhole	E: 404,686.53m N: 817,372.08m	37.63m	1.28m	375 NB SN16 Boss	SWMH-204.02	36.39m	450 NB SN16 Boss	36.34m
SWMH-204.02	1,050 dia Concrete Manhole	E: 404,655.34m N: 817,317.72m	39.01m	2.34m	300 NB SN16 Boss	SWMH-204.03	37.69m	375 NB SN16 Boss	37.13m
SWMH-204.03	1,050 dia Concrete Manhole	E: 404,629.92m N: 817,272.76m	40.90m	1.19m				300 NB SN16 Boss	39.71m
SWMH-205.01	1,200 dia Concrete Manhole	E: 404,711.19m N: 817,304.48m	36.58m	1.24m	300 NB SN16 Boss	SWMH-205.02	35.39m	300 NB SN16 Boss	35.34m
SWMH-205.02	1,050 dia Concrete Manhole	E: 404,736.59m N: 817,336.09m	36.85m	2.26m				300 NB SN16 Boss	35.59m
SWMH-206.01	1,200 dia Concrete Manhole	E: 404,781.31m N: 817,325.27m	35.85m	2.73m	450 NB SN16 Boss	SWMH-206.02	33.14m	450 NB SN16 Boss	33.12m
SWMH-206.02	1,200 dia Concrete Manhole	E: 404,748.52m N: 817,286.70m	35.01m	1.64m	300 NB SN16 Boss	SWMH-206.03	33.59m	450 NB SN16 Boss	33.38m
SWMH-206.03	1,200 dia Concrete Manhole	E: 404,713.46m N: 817,291.98m	36.04m	1.43m	300 NB SN16 Boss 300 NB SN16 Boss	SWMH-205.01 SWMH-206.04	34.95m 34.91m	300 NB SN16 Boss	34.61m
SWMH-206.04	1,050 dia Concrete Manhole	E: 404,698.69m N: 817,299.92m	36.74m	1.19m				300 NB SN16 Boss	35.55m
SWMH-207.01	1,200 dia Concrete Manhole	E: 404,789.97m N: 817,334.15m	35.93m	2.08m	300 NB SN16 Boss	SWMH-207.02	34.12m	300 NB SN16 Boss	33.85m
SWMH-207.02	1,050 dia Concrete Manhole	E: 404,802.50m N: 817,356.01m	36.05m	1.21m				300 NB SN16 Boss	34.84m
SWMH-208.04	1,050 dia Concrete Manhole	E: 404,793.42m N: 817,409.00m	31.20m	1.45m	375 NB SN16 uPVC	SWMH-208.05	30.26m	450 NB SN16 uPVC	29.74m
SWMH-208.05	1,200 dia Concrete Manhole	E: 404,713.07m N: 817,425.24m	31.68m	1.15m	300 NB SN16 uPVC 300 NB SN16 uPVC	SWMH-212.01 SWMH-208.06	30.53m 30.71m	375 NB SN16 uPVC	30.67m
SWMH-208.06	1,050 dia Concrete Manhole	E: 404,625.74m N: 817,442.87m	32.12m	1.36m				300 NB SN16 uPVC	31.17m
SWMH-209.01	1,050 dia Concrete Manhole	E: 404,838.63m N: 817,403.19m	30.60m	2.95m				300 NB SN16 uPVC	28.05m
SWMH-210.02	1,050 dia Concrete Manhole	E: 404,850.11m N: 817,402.88m	28.63m	1.42m	300 NB SN16 Boss	SWMH-210.02-1	27.24m	300 NB SN16 Boss	27.21m
SWMH-210.02-1	1,200 dia Concrete Manhole	E: 404,849.12m N: 817,399.91m	29.54m	2.01m	300 NB SN16 Boss 300 NB SN16 uPVC	SWMH-210.03 SWMH-209.01	27.53m 27.61m	300 NB SN16 Boss	27.53m
SWMH-210.03	1,200 dia Concrete Manhole	E: 404,845.91m N: 817,390.32m	29.64m	1.17m	300 NB SN16 uPVC	SWMH-210.03-1	28.82m	300 NB SN16 Boss	28.47m
SWMH-210.03-1	1,050 dia Concrete Manhole	E: 404,843.69m N: 817,387.57m	29.63m	1.01m	300 NB SN16 uPVC	SWMH-210.04	28.67m	300 NB SN16 uPVC	28.92m
SWMH-210.04	1,050 dia Concrete Manhole	E: 404,803.93m N: 817,404.57m	30.98m	1.10m				300 NB SN16 uPVC	29.88m
SWMH-212.01	1,050 dia Concrete Manhole	E: 404,705.42m N: 817,410.95m	32.57m	1.39m				300 NB SN16 uPVC	31.17m

STAGE 2C
(INCOMPLETE)

AS BUILT ONLY

0 FIRST ISSUE	BDG 22/06/21	App	Date	Approved	BDG	22/06/21
Revision						



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
DRAINAGE SCHEDULE
STORMWATER**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com





Scale (A1 Original)		
Project No	Sheet	Revision
709306.006	C7406	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre.
This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

Stormwater Sumps			
NAME	DESCRIPTION	AS-BUILT COORDS	LID LEVEL
EX SUMP-201.03a	Single Sump	E: 404,731.28m N: 817,172.35m	29.03m
EX SUMP-202.01a	Single Sump	E: 404,697.30m N: 817,187.26m	29.98m
SUMP-201.02a	Single Sump	E: 404,710.44m N: 817,075.70m	23.21m
SUMP-201.06a	Single Sump	E: 404,796.94m N: 817,246.82m	32.02m
SUMP-201.07a	Single Sump	E: 404,824.75m N: 817,263.64m	32.72m
SUMP-201.08-1a	Single Sump	E: 404,816.84m N: 817,306.25m	34.09m
SUMP-201.08a	Single Sump	E: 404,824.29m N: 817,299.24m	33.58m
SUMP-201.09a	Single Sump	E: 404,808.94m N: 817,309.28m	34.17m
SUMP-201.09b	Hynds Street Catchpit Super Sump (kerb inlet 1.5m long)	E: 404,819.21m N: 817,311.92m	33.98m
SUMP-201.10-1a	Single Sump	E: 404,781.04m N: 817,333.82m	35.96m
SUMP-201.11a	Single Sump	E: 404,741.16m N: 817,350.38m	36.84m
SUMP-201.12a	Yard Sump	E: 404,713.00m N: 817,357.42m	37.34m
SUMP-201.14a	Single Sump	E: 404,684.88m N: 817,388.58m	37.83m
SUMP-201.14b	Single Sump	E: 404,677.54m N: 817,384.47m	37.61m
SUMP-201.14c	Single Sump	E: 404,682.33m N: 817,384.13m	37.52m
SUMP-201.16a	Single Sump	E: 404,610.22m N: 817,400.14m	39.25m
SUMP-201.16b	Single Sump	E: 404,614.85m N: 817,394.85m	39.31m
SUMP-201.17a	Single Sump	E: 404,560.41m N: 817,340.43m	45.12m
SUMP-201.17b	Single Sump	E: 404,564.23m N: 817,333.91m	45.28m
SUMP-202.07a	Single Sump	E: 404,592.11m N: 817,210.88m	43.49m
SUMP-202.08a	Single Sump	E: 404,554.14m N: 817,227.59m	45.16m
SUMP-202.08b	Single Sump	E: 404,556.82m N: 817,237.27m	45.67m
SUMP-203.01a	Single Sump	E: 404,575.58m N: 817,156.58m	44.14m
SUMP-204.01a	Single Sump	E: 404,689.35m N: 817,370.53m	37.49m
SUMP-204.01b	Double Sump	E: 404,684.36m N: 817,372.20m	37.57m
SUMP-204.02a	Double Sump	E: 404,653.22m N: 817,317.87m	38.80m
SUMP-204.02b	Single Sump	E: 404,658.71m N: 817,312.92m	38.77m
SUMP-204.03a	Single Sump	E: 404,628.12m N: 817,274.03m	41.18m
SUMP-204.03b	Single Sump	E: 404,634.32m N: 817,270.24m	41.10m
SUMP-205.01a	Single Sump	E: 404,712.86m N: 817,304.54m	36.51m

Stormwater Sumps			
NAME	DESCRIPTION	AS-BUILT COORDS	LID LEVEL
SUMP-206.01a	Single Sump	E: 404,774.28m N: 817,328.88m	36.41m
SUMP-206.02a	Double Sump	E: 404,744.06m N: 817,289.52m	35.03m
SUMP-206.02b	Double Sump	E: 404,749.77m N: 817,284.92m	34.76m
SUMP-206.03a	Single Sump	E: 404,711.90m N: 817,289.87m	35.64m
SUMP-207.01a	Single Sump	E: 404,792.81m N: 817,333.36m	35.50m
SUMP-208.04a	2 x Double Sumps	E: 404,791.99m N: 817,411.85m	31.15m
SUMP-208.05a	Double Sump	E: 404,711.49m N: 817,428.72m	31.57m
SUMP-210.03-1a	Single Sump	E: 404,843.45m N: 817,384.21m	29.70m
SUMP-210.03a	Single Sump	E: 404,843.68m N: 817,389.83m	29.57m

AS BUILT ONLY

1 DESCRIPTIONS FIXED	BDG 20/07/21	Surveyed	RAPID	Client		Project Title	KENEPURU LANDING STAGE 2	Sheet Title	AS-BUILT	Level 13		Scale (A1 Original)
0 FIRST ISSUE	BDG 22/06/21	Designed	KD / PCV	06/21		Infrastructure & Surveying	AS-BUILT	Level 13				
Revision	App Date	Reviewed	SP	06/21			AS-BUILT	Level 13				
		Approved	BDG	22/06/21			AS-BUILT	Level 13				

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

Project No	709306.006	Sheet	C7407	Revision	1
------------	------------	-------	-------	----------	---

WASTEWATER MANHOLES									
NAME	DESCRIPTION	AS-BUILT COORDS	LID LEVEL	DEPTH [m]	INLET PIPE	UPSTREAM MH	INLET INV.	OUTLET PIPE	OUTLET INV.
EX WWMH-201.02	1,050 dia Concrete Manhole	E: 404,854.05m N: 817,385.97m	29.43m	1.81m	150mm uPVC SN16 160 OD PE100 SDR 17.6	SSMH-208.02 SSMH-201.04	27.70m 28.11m	160 OD PE100 SDR 17.6	27.61m
EX WWMH-201.04	1,200 dia Concrete Manhole	E: 404,830.72m N: 817,304.17m	33.73m	2.42m	150mm uPVC SN16	SSMH-201.05	31.39m	160 OD PE100 SDR 17.6	31.31m
WWMH-201.05	1,200 dia Concrete Manhole with Drop Structure	E: 404,786.49m N: 817,329.33m	35.82m	3.61m	150mm uPVC SN16 150mm uPVC SN16 150mm uPVC SN16	WWMH-201.06 WWMH-202.01 WVRE-207.01	33.97m 32.26m 33.48m	150mm uPVC SN16	32.22m
WWMH-201.06	1,200 dia Concrete Manhole	E: 404,741.53m N: 817,355.28m	36.84m	2.14m	150mm uPVC SN16	WWMH-201.07	34.71m	150mm uPVC SN16	34.71m
WWMH-201.07	1,200 dia Concrete Manhole	E: 404,691.98m N: 817,383.75m	37.70m	2.08m	150mm uPVC SN16 150mm uPVC SN16	WWMH-201.08 WWMH-204.01	35.62m 35.62m	150mm uPVC SN16	35.62m
WWMH-201.08	1,200 dia Concrete Manhole	E: 404,643.14m N: 817,411.64m	38.63m	2.41m	150mm uPVC SN16	WWMH-201.09	36.38m	150mm uPVC SN16	36.23m
WWMH-201.09	1,200 dia Concrete Manhole	E: 404,616.47m N: 817,407.05m	39.21m	2.59m	150mm uPVC SN16	WWMH-201.10	36.75m	150mm uPVC SN16	36.62m
WWMH-201.10	1,200 dia Concrete Manhole	E: 404,561.96m N: 817,341.52m	45.26m	2.30m	150mm uPVC SN16	WWMH-201.11	43.17m	150mm uPVC SN16	42.97m
WWMH-201.11	1,050 dia Concrete Manhole	E: 404,525.81m N: 817,297.72m	49.38m	1.87m				150mm uPVC SN16	47.51m
WWMH-202.01	1,200 dia Concrete Manhole	E: 404,748.01m N: 817,284.80m	34.97m	2.08m	150mm uPVC SN16	WWMH-202.02	33.13m	150mm uPVC SN16	32.89m
WWMH-202.02	1,050 dia Concrete Manhole	E: 404,711.36m N: 817,291.08m	36.00m	1.88m	150mm uPVC SN16 150mm uPVC SN16	WWMH-202.03 WWMH-205.01	34.36m 34.31m	150mm uPVC SN16	34.12m
WWMH-202.03	1,200 dia Concrete Manhole	E: 404,660.50m N: 817,320.41m	38.83m	2.06m	150mm uPVC SN16	WWMH-202.04	36.94m	150mm uPVC SN16	36.77m
WWMH-202.04	1,050 dia Concrete Manhole	E: 404,630.20m N: 817,267.21m	41.02m	1.64m	150mm uPVC SN16	WWMH-202.05	39.68m	150mm uPVC SN16	39.38m
WWMH-202.05	1,200 dia Concrete Manhole	E: 404,598.58m N: 817,212.51m	43.58m	2.86m	150mm uPVC SN16 150mm uPVC SN16	WWMH-202.06 WWMH-203.02	41.23m 40.76m	150mm uPVC SN16	40.72m
WWMH-202.06	1,200 dia Concrete Manhole	E: 404,558.11m N: 817,228.04m	45.45m	2.72m	150mm uPVC SN16	WWMH-202.07	42.85m	150mm uPVC SN16	42.74m
WWMH-202.07	1,200 dia Concrete Manhole	E: 404,530.13m N: 817,275.99m	48.97m	3.17m				150mm uPVC SN16	45.80m
WWMH-203.02	1,200 dia Concrete Manhole	E: 404,568.71m N: 817,160.30m	44.02m	2.62m				150mm uPVC SN16	41.40m
WWMH-204.01	1,050 dia Concrete Manhole	E: 404,665.13m N: 817,336.91m	38.43m	2.21m				150mm uPVC SN16	36.22m
WWMH-205.01	1,200 dia Concrete Manhole	E: 404,707.48m N: 817,302.08m	36.54m	2.06m	150mm uPVC SN16	WVRE-205.02	34.52m	150mm uPVC SN16	34.49m
WWMH-208.02	1,200 dia Concrete Manhole	E: 404,805.84m N: 817,405.16m	30.90m	2.26m	150mm uPVC SN16	WWMH-208.03	28.73m	150mm uPVC SN16	28.64m
WWMH-208.03	1,200 dia Concrete Manhole	E: 404,713.95m N: 817,423.67m	31.71m	2.10m	150mm uPVC SN16 150mm uPVC SN16	WWMH-208.04 WVRE-206.01	29.69m 29.62m	150mm uPVC SN16	29.66m
WWMH-208.04	1,050 dia Concrete Manhole	E: 404,626.88m N: 817,441.34m	32.15m	1.62m				150mm uPVC SN16	30.53m
WVRE-205.02	RODDING EYE	E: 404,737.55m N: 817,339.19m	36.91m	1.84m				150mm uPVC SN16	35.07m
WVRE-206.01	RODDING EYE	E: 404,705.55m N: 817,408.86m	32.81m	1.14m				150mm uPVC SN16	31.67m
WVRE-207.01	RODDING EYE	E: 404,802.44m N: 817,358.12m	36.09m	1.71m				150mm uPVC SN16	34.39m

STAGE 2C (INCOMPLETE)

STAGE 2C (INCOMPLETE)

AS BUILT ONLY

0 FIRST ISSUE	BDG 22/06/21	App	Date	Approved	BDG	22/06/21
Surveyed		RAPID		Client		
Designed		KD / PCV		Project Title		KENEPURU LANDING STAGE 2
Drawn		SP		Sheet Title		AS-BUILT DRAINAGE SCHEDULE WASTEWATER
Reviewed		SP		Level 13		Kordia House
App		Date		109-125 Willis Street		Wellington 6141
Approved		22/06/21		+64 4 384 2029		calibre
				calibregroup.com		Scale (A1 Original)



Client
KENEPURU LANDING STAGE 2
INFRASTRUCTURE & SURVEYING

Project Title
KENEPURU LANDING STAGE 2
INFRASTRUCTURE & SURVEYING

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Project No	709306.006	Sheet	C7408	Revision	0
------------	------------	-------	-------	----------	---

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
SW LOT 145	404,791.8	817,417.6	1.1
SW LOT 146	404,777.4	817,420.4	1.0
SW LOT 147	404,771.3	817,421.7	1.3
SW LOT 148	404,765.5	817,423.2	1.2
SW LOT 152	404,716.5	817,431.3	1.2
SW LOT 153	404,709.4	817,431.6	1.1
SW LOT 154	404,700.7	817,433.5	1.2
SW LOT 155	404,695.3	817,434.1	1.1
SW LOT 156	404,688.7	817,435.4	1.2
SW LOT 157	404,684.2	817,436.8	1.2
SW LOT 158	404,678.2	817,437.3	1.1
SW LOT 159	404,672.1	817,439.2	1.3
SW LOT 160	404,663.3	817,440.7	1.1
SW LOT 161	404,657.2	817,442.1	1.3
SW LOT 162	404,652.7	817,442.5	1.4
SW LOT 163	404,643.6	817,444.8	1.2
SW LOT 164	404,638.4	817,445.6	1.2
SW LOT 165	404,629.4	817,447.7	1.1
SW LOT 166	404,624.5	817,448.4	1.0
SW LOT 167	404,655.6	817,423.3	2.3
SW LOT 168	404,677.0	817,419.1	2.1
SW LOT 169	404,703.4	817,417.4	0.9
SW LOT 170	404,693.8	817,399.8	2.0
SW LOT 171	404,711.6	817,379.7	1.0
SW LOT 172	404,722.6	817,374.8	1.1
SW LOT 173	404,732.6	817,367.6	1.2
SW LOT 174	404,742.6	817,363.9	1.3
SW LOT 175	404,751.0	817,358.3	1.3
SW LOT 176	404,757.4	817,354.6	1.5
SW LOT 177	404,767.7	817,348.8	1.5
SW LOT 178	404,799.0	817,359.0	1.2
SW LOT 179	404,795.7	817,352.3	1.2
SW LOT 180	404,788.9	817,339.0	1.4
SW LOT 181	404,795.0	817,335.0	1.3
SW LOT 182	404,802.2	817,347.1	1.2
SW LOT 183	404,807.2	817,355.9	1.1
SW LOT 184	404,819.1	817,318.7	1.3
SW LOT 199	404,612.9	817,427.2	4.8
SW LOT 200	404,608.5	817,432.7	3.4
SW LOT 201	404,679.0	817,377.0	1.0
SW LOT 202	404,674.6	817,367.2	1.1
SW LOT 203	404,669.7	817,358.7	1.0
SW LOT 204	404,667.1	817,354.2	1.0
SW LOT 205	404,663.3	817,347.3	1.0
SW LOT 206	404,658.6	817,338.9	1.1
SW LOT 207	404,733.2	817,340.1	1.0
SW LOT 208	404,728.2	817,335.3	1.1
SW LOT 209	404,724.4	817,330.6	1.0
SW LOT 210	404,722.7	817,328.2	1.1

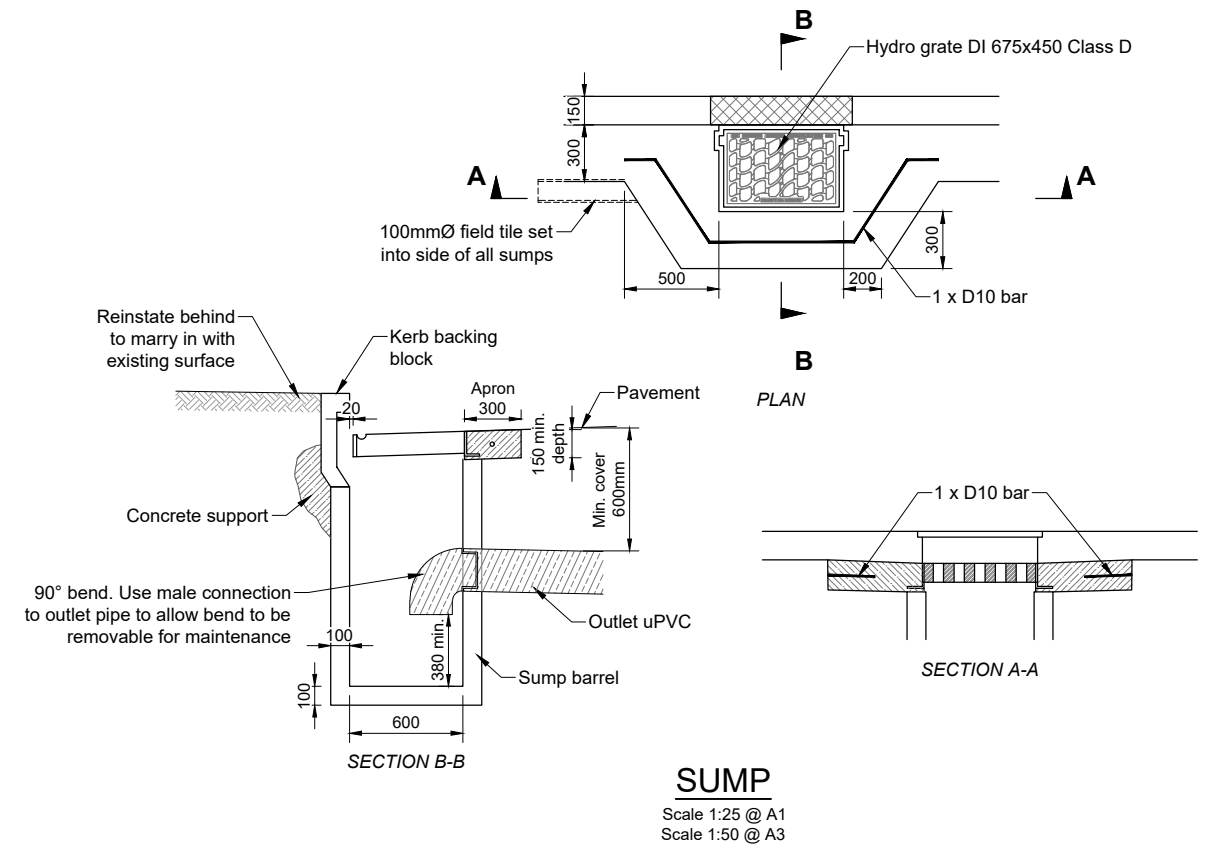
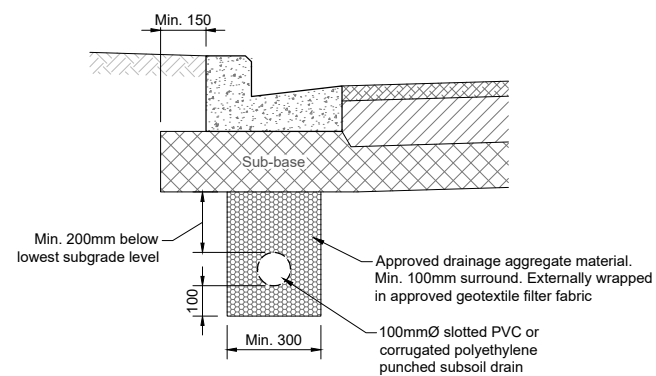
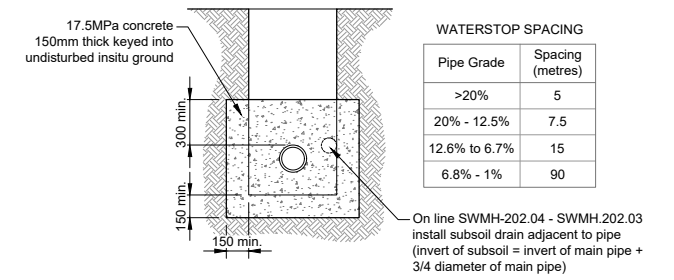
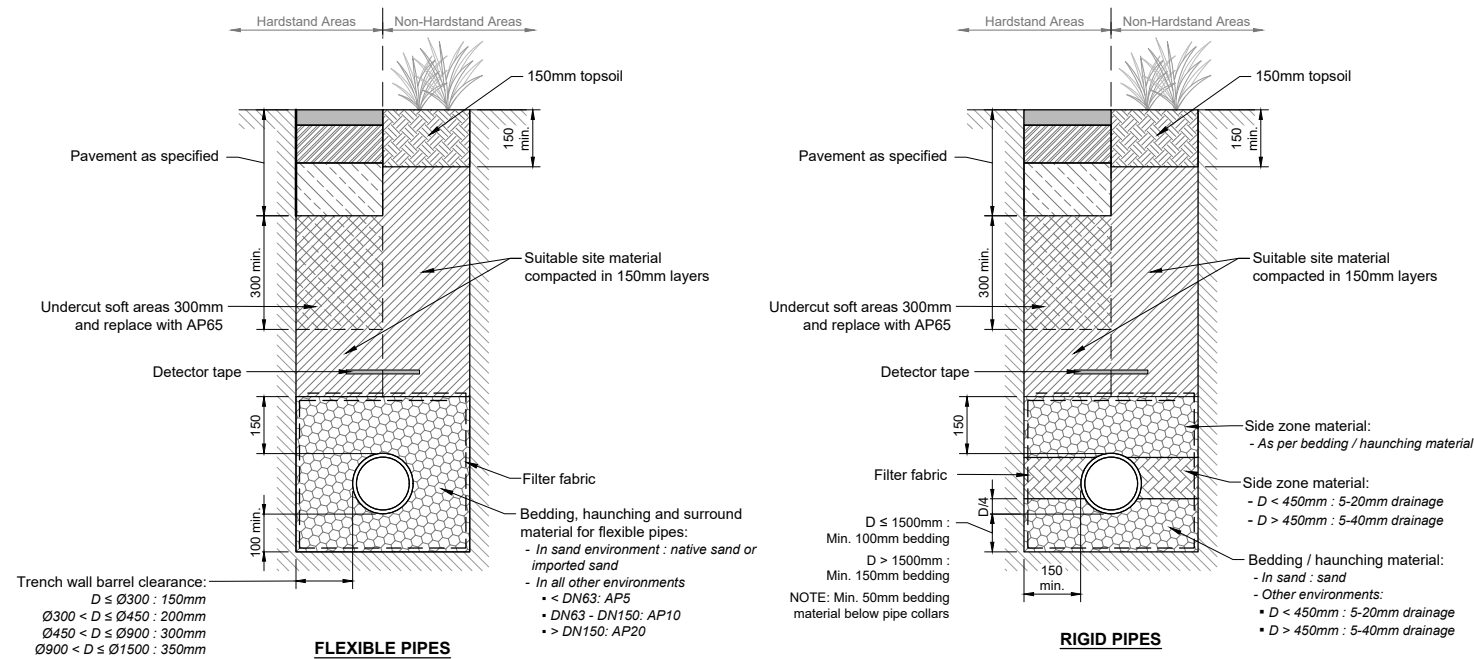
Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
SW LOT 211	404,717.1	817,321.3	1.2
SW LOT 212	404,714.2	817,318.0	1.2
SW LOT 213	404,706.7	817,309.2	1.2
SW LOT 214	404,764.4	817,323.8	2.0
SW LOT 215	404,761.5	817,320.0	1.7
SW LOT 216	404,755.9	817,316.3	1.3
SW LOT 217	404,753.5	817,311.6	1.5
SW LOT 218	404,750.1	817,306.7	1.5
SW LOT 219	404,747.1	817,302.2	1.4
SW LOT 220	404,742.4	817,298.2	1.2
SW LOT 221	404,739.3	817,294.8	1.6
SW LOT 222	404,784.3	817,316.3	1.6
SW LOT 223	404,772.8	817,305.1	1.4
SW LOT 224	404,763.4	817,291.9	1.4
SW LOT 225	404,753.3	817,280.4	1.3
SW LOT 226	404,718.3	817,279.9	1.1
SW LOT 227	404,710.1	817,285.0	1.2
SW LOT 228	404,692.5	817,295.5	1.3
SW LOT 229	404,662.5	817,310.7	1.4
SW LOT 230	404,650.9	817,288.2	1.0
SW LOT 231	404,642.4	817,273.8	1.0
SW LOT 232	404,645.7	817,238.7	1.5
SW LOT 233	404,642.0	817,232.6	1.7
SW LOT 234	404,615.9	817,227.8	1.4
SW LOT 235	404,604.6	817,207.6	1.8
SW LOT 236	404,598.5	817,198.2	1.8
SW LOT 237	404,590.3	817,183.6	1.4
SW LOT 238	404,582.9	817,168.5	1.3
SW LOT 239	404,576.7	817,154.7	1.4
SW LOT 240	404,574.4	817,152.3	1.1
SW LOT 241	404,571.1	817,176.2	1.6
SW LOT 242	404,581.5	817,194.8	1.5
SW LOT 243	404,557.6	817,217.1	0.5
SW LOT 244	404,552.2	817,222.6	1.8
SW LOT 245	404,541.7	817,240.7	1.4
SW LOT 246	404,531.3	817,258.0	1.2
SW LOT 247	404,521.9	817,274.1	1.5
SW LOT 248	404,519.7	817,296.1	1.0
SW LOT 249	404,525.7	817,308.6	1.0
SW LOT 250	404,536.0	817,322.3	1.4
SW LOT 251	404,548.0	817,335.3	1.3
SW LOT 252	404,560.6	817,351.0	1.5
SW LOT 253	404,570.1	817,363.6	1.1
SW LOT 254	404,582.0	817,378.2	1.3
SW LOT 255	404,593.1	817,391.8	1.4
SW LOT 256	404,606.4	817,408.6	1.2
SW LOT 257	404,651.4	817,392.4	1.1
SW LOT 258	404,617.5	817,390.6	1.3
SW LOT 259	404,606.1	817,377.8	1.3

Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
SW LOT 260	404,594.7	817,362.4	1.1
SW LOT 261	404,581.8	817,348.7	1.2
SW LOT 262	404,569.9	817,333.0	1.3
SW LOT 263	404,558.4	817,320.0	1.2
SW LOT 264	404,540.0	817,280.1	1.7
SW LOT 265	404,551.3	817,259.9	1.5
SW LOT 266	404,560.0	817,243.8	1.8
SW LOT 267	404,603.2	817,243.6	1.6
SW LOT 268	404,608.6	817,254.8	1.2
SW LOT 269	404,619.9	817,273.6	1.3
SW LOT 270	404,628.5	817,289.9	1.2
SW LOT 271	404,637.4	817,303.1	1.1
SW LOT 272	404,646.8	817,317.8	1.4
SW LOT 273	404,650.0	817,326.5	1.2

Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
WW LOT 145	404,792.3	817,417.6	1.5
WW LOT 146	404,777.7	817,420.3	1.6
WW LOT 147	404,771.7	817,422.1	1.7
WW LOT 148	404,765.9	817,423.0	1.9
WW LOT 149	404,754.8	817,425.4	1.6
WW LOT 150	404,745.2	817,426.9	1.8
WW LOT 151	404,735.3	817,429.1	1.7
WW LOT 152	404,717.3	817,431.4	1.2
WW LOT 153	404,709.7	817,431.3	1.6
WW LOT 154	404,701.1	817,433.3	1.3
WW LOT 155	404,695.9	817,434.1	1.3
WW LOT 156	404,689.3	817,435.2	1.5
WW LOT 157	404,684.8	817,436.6	1.3
WW LOT 158	404,679.0	817,437.2	1.2
WW LOT 160	404,663.8	817,440.6	1.6
WW LOT 161	404,657.8	817,441.6	1.7
WW LOT 162	404,653.0	817,442.5	1.6
WW LOT 163	404,643.8	817,444.5	1.6
WW LOT 164	404,639.0	817,445.3	1.6
WW LOT 165	404,630.0	817,447.2	1.5
WW LOT 166	404,624.8	817,448.8	1.4
WW LOT 167	404,655.2	817,423.3	2.1
WW LOT 168	404,676.6	817,419.1	2.0
WW LOT 170	404,693.6	817,399.3	2.1
WW LOT 171	404,712.1	817,379.5	1.3
WW LOT 172	404,722.9	817,374.6	1.2
WW LOT 173	404,733.1	817,367.4	1.4
WW LOT 174	404,742.9	817,363.8	1.4
WW LOT 175	404,751.5	817,358.2	1.8
WW LOT 176	404,757.9	817,354.4	1.8
WW LOT 177	404,768.0	817,348.5	1.9
WW LOT 178	404,799.7	817,359.5	1.5
WW LOT 179	404,794.8	817,350.6	1.4
WW LOT 180	404,787.7	817,338.6	1.5
WW LOT 181	404,795.0	817,334.0	1.6
WW LOT 182	404,802.1	817,346.0	1.4
WW LOT 183	404,807.8	817,356.6	1.5
WW LOT 184	404,820.0	817,317.9	2.1
WW LOT 185	404,834.9	817,381.9	1.4
WW LOT 186	404,827.5	817,385.2	1.6
WW LOT 187	404,822.5	817,387.2	1.6
WW LOT 188	404,815.4	817,390.4	1.7
WW LOT 189	404,804.0	817,395.1	1.7
WW LOT 191	404,787.8	817,402.3	1.2
WW LOT 192	404,783.3	817,403.9	1.6
WW LOT 193	404,775.3	817,405.2	1.6
WW LOT 194	404,769.6	817,406.7	1.7
WW LOT 195	404,765.1	817,407.2	1.6
WW LOT 196	404,756.1	817,409.3	1.7

Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
WW LOT 197	404,742.9	817,411.7	1.6
WW LOT 198	404,727.3	817,415.1	1.7
WW LOT 199	404,613.0	817,426.8	5.0
WW LOT 200	404,608.4	817,432.3	3.6
WW LOT 201	404,679.1	817,377.4	1.4
WW LOT 202	404,674.9	817,367.5	1.6
WW LOT 203	404,669.6	817,358.9	1.8
WW LOT 204	404,666.9	817,354.8	1.4
WW LOT 205	404,664.3	817,347.6	1.4
WW LOT 206	404,659.2	817,339.5	1.5
WW LOT 207	404,733.2	817,340.4	1.7
WW LOT 208	404,728.1	817,334.9	1.6
WW LOT 209	404,724.4	817,330.0	1.5
WW LOT 210	404,722.6	817,327.4	1.6
WW LOT 211	404,717.2	817,320.6	1.7
WW LOT 212	404,714.2	817,317.4	1.5
WW LOT 213	404,706.5	817,308.7	1.6
WW LOT 214	404,765.4	817,324.0	1.7
WW LOT 215	404,762.4	817,320.2	1.6
WW LOT 216	404,758.2	817,315.1	1.7
WW LOT 217	404,754.7	817,311.4	1.6
WW LOT 218	404,750.8	817,307.1	1.6
WW LOT 219	404,746.9	817,302.9	1.8
WW LOT 220	404,743.5	817,298.0	1.6
WW LOT 221	404,740.1	817,293.8	1.7
WW LOT 222	404,783.4	817,316.9	1.2
WW LOT 223	404,773.0	817,305.5	1.4
WW LOT 224	404,763.6	817,293.1	1.3
WW LOT 225	404,750.3	817,279.6	1.7
WW LOT 226	404,718.8	817,280.1	1.2
WW LOT 227	404,708.3	817,286.0	1.6
WW LOT 228	404,692.1	817,295.8	1.9
WW LOT 229	404,676.3	817,304.4	1.8
WW LOT 230	404,650.9	817,289.4	1.4
WW LOT 231	404,642.8	817,275.1	1.4
WW LOT 232	404,634.5	817,259.8	1.3
WW LOT 233	404,624.8	817,242.8	1.4
WW LOT 234	404,616.3	817,228.5	1.5
WW LOT 235	404,605.5	817,208.7	1.5
WW LOT 236	404,599.4	817,198.9	1.5
WW LOT 237	404,590.9	817,184.8	1.3
WW LOT 238	404,583.3	817,169.4	1.1
WW LOT 239	404,575.8	817,154.0	1.4
WW LOT 240	404,573.6	817,150.9	1.2
WW LOT 241	404,570.9	817,177.2	1.5
WW LOT 242	404,581.6	817,195.4	1.7
WW LOT 243	404,557.8	817,216.3	1.5
WW LOT 244	404,553.1	817,221.9	1.8
WW LOT 245	404,541.5	817,240.0	1.4

Lateral Terminus Depths			
Lateral	Easting (m)	Northing (m)	Depth to Invert (m)
WW LOT 246	404,531.9	817,257.3	1.7
WW LOT 247	404,521.9	817,274.7	1.6
WW LOT 248	404,520.9	817,297.8	1.5
WW LOT 249	404,526.3	817,309.9	1.4
WW LOT 250	404,536.4	817,322.8	1.5
WW LOT 251	404,548.6	817,335.7	1.4
WW LOT 252	404,561.2	817,352.2	1.5
WW LOT 253	404,570.7	817,363.7	1.6
WW LOT 254	404,582.2	817,378.6	1.7
WW LOT 255	404,592.9	817,392.6	1.5
WW LOT 256	404,606.1	817,408.3	1.2
WW LOT 257	404,650.9	817,392.1	1.4
WW LOT 258	404,617.9	817,391.3	1.6
WW LOT 259	404,607.0	817,378.2	1.6
WW LOT 260	404,595.0</		



AS BUILT ONLY

Revision	App	Date	Approved	BDG	22/06/21
0 FIRST ISSUE	BDG	22/06/21			

Client



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

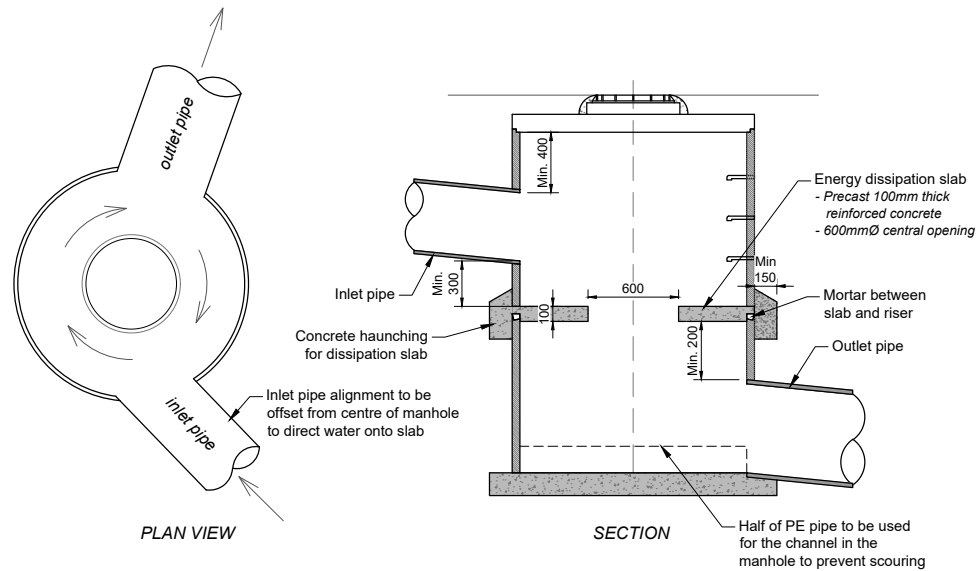
Sheet Title
**AS-BUILT
DRAINAGE DETAILS
SHEET 1 OF 2**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Project No	Sheet	Revision
709306.006	C7410	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



ENERGY DISSIPATING MANHOLE

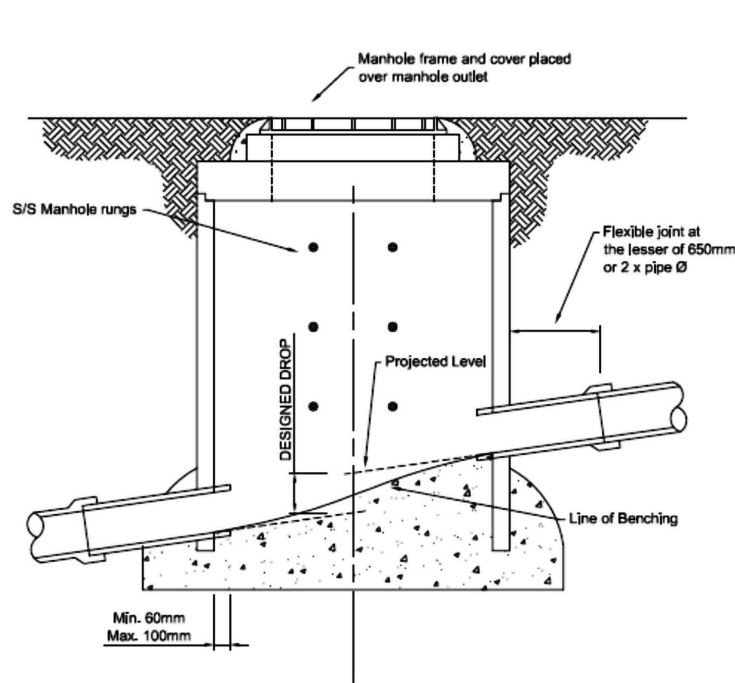
Scale 1:25 @ A1
Scale 1:50 @ A3

Notes:

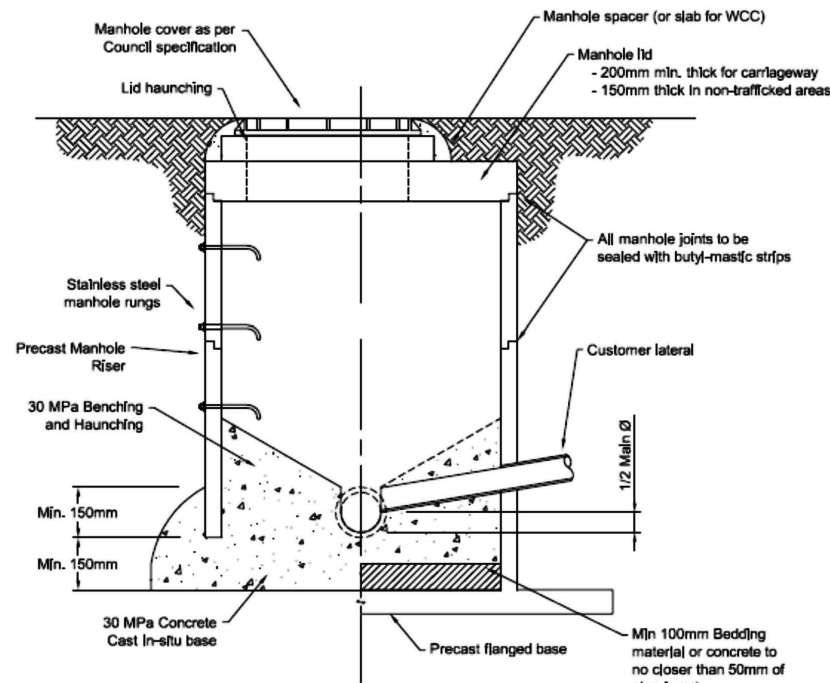
1. Manholes and bases to be designed against floatation with a safety factor of 1.25 in areas of high water table or liquefaction potential.
2. Manhole benching and base to be poured to a minimum 150 mm below lowest pipe invert. This includes minimum depth between lowest pipe invert and precast flanged base.

Notes:

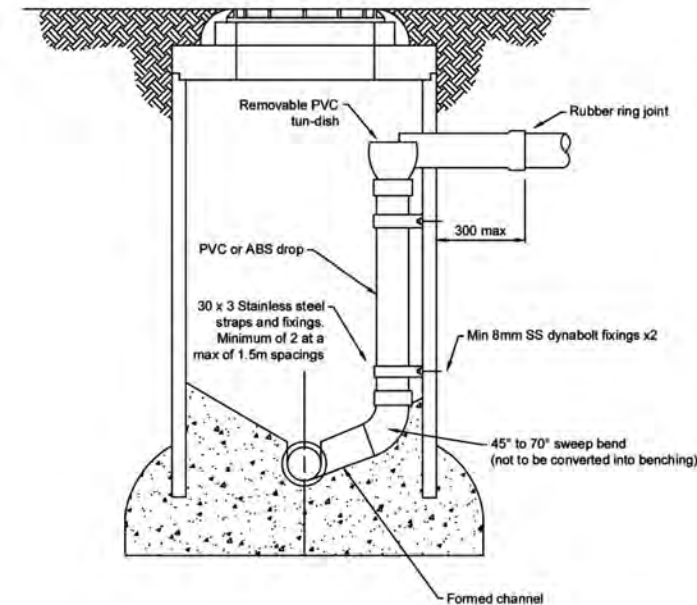
1. Minimum internal clearance between drop structure and opposite manhole wall shall be 1000mm.
2. All metallic fixings shall be stainless steel.
3. Internal drop shall be for a maximum NB of 225mm (or 150mm for UHCC).



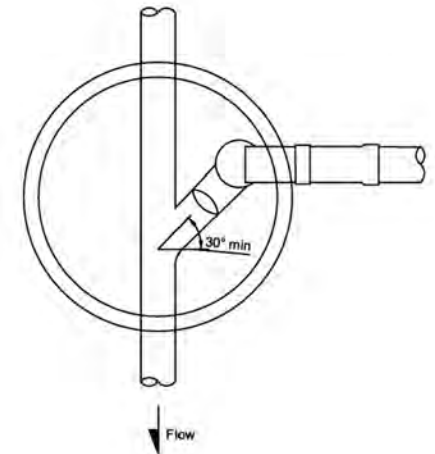
Cross Section through Standard Manhole



Typical Manhole Benching and Haunching Details



Typical Internal Drop Details



Plan View

MANHOLE

(Wellington Regional Standard for Water Services - Standard Detail DR01)
Not to Scale

MANHOLE INTERNAL DROP STRUCTURE

(Wellington Regional Standard for Water Services - Standard Detail DR02)
Not to Scale

AS BUILT ONLY

0 FIRST ISSUE	BDG 22/06/21	App	Date	Approved	BDG	22/06/21
Revision						

Client



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
DRAINAGE DETAILS
SHEET 2 OF 2**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original)

SCALE AS NOTED

Project No	Sheet	Revision
709306.006	C7411	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



STAGE 2C (INCOMPLETE)

AS-BUILT NOTES:

1. Designer: Calibre Consulting.
2. Contractor: Rapid Earthworks. Constructed 2020-2021
3. Surveyed: Rapid Earthworks / Calibre Consulting, 2020-2021.
4. Coordinates in terms of WLG2000. Origin of coordinates: B385 816,957.016mN, 405,200.472mE
5. Levels reduced in terms of Wellington Datum 1953. Origin of levels: B385 Height: 10.778m

KEY:

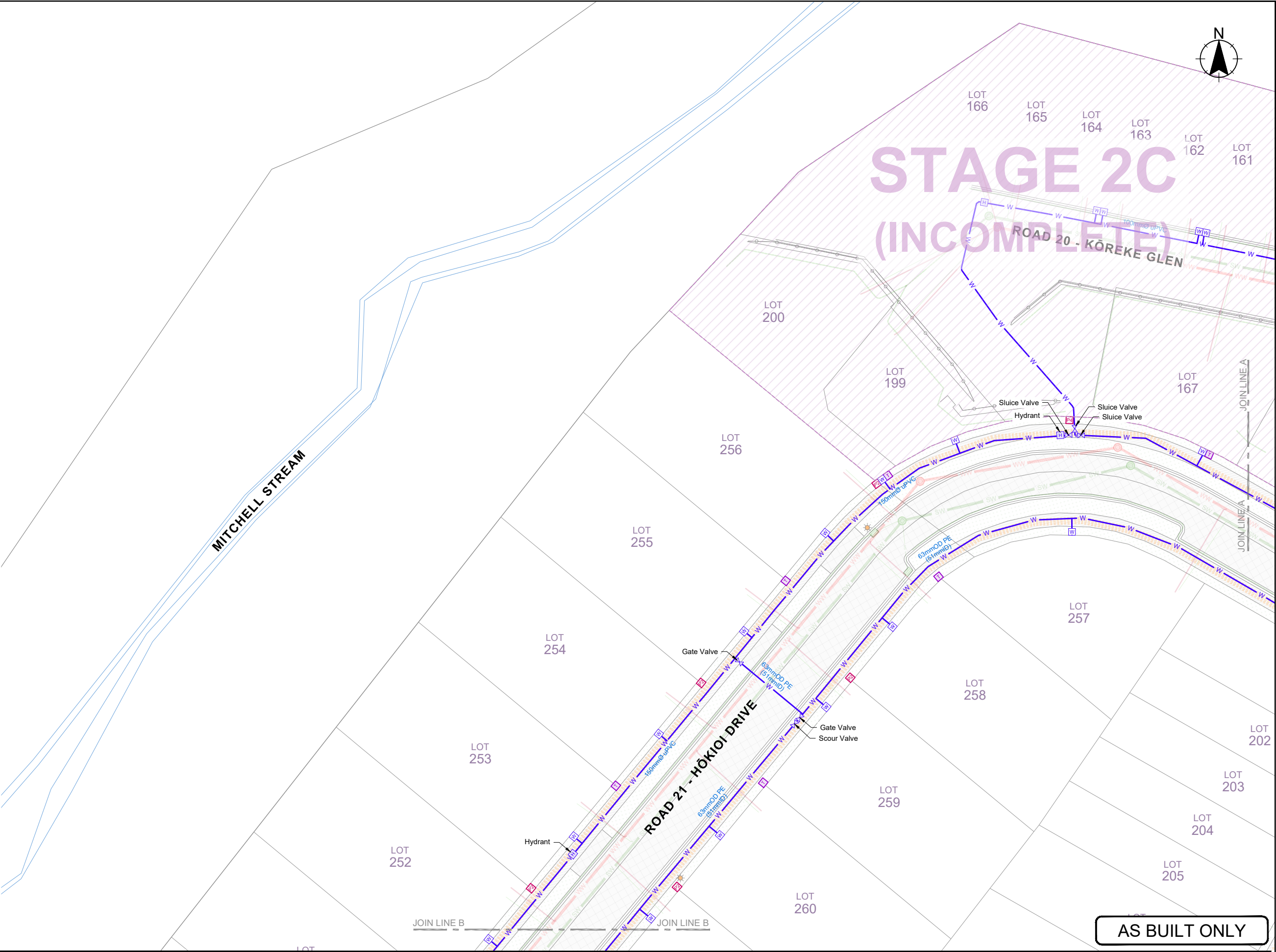
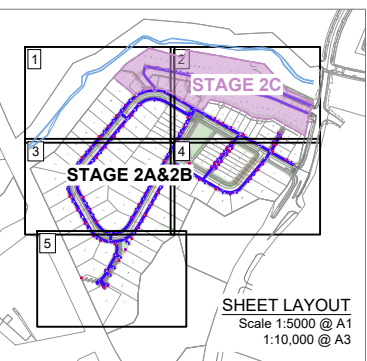
New utilities:

- Gas
 - Pipe
 - Dimension from terminus to boundary
- Power
 - Duct
 - TUD
 - Pillar (EP6)
 - Pillar (EP103)
 - Pillar (streetlight demarcation)
 - Dimension from terminus to boundary
- Telecom
 - Duct
 - Hand Hole
 - Chamber
- Water
 - Pipe
 - Valve
 - Toby
 - Hydrant

- Shared Trench

New Drainage:
(refer to drawings C7400-C7406)

- Stormwater
- Subsoil drain
- Wastewater



AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Revision						

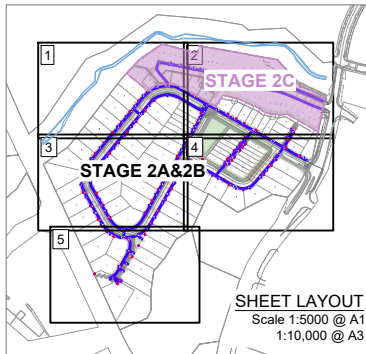
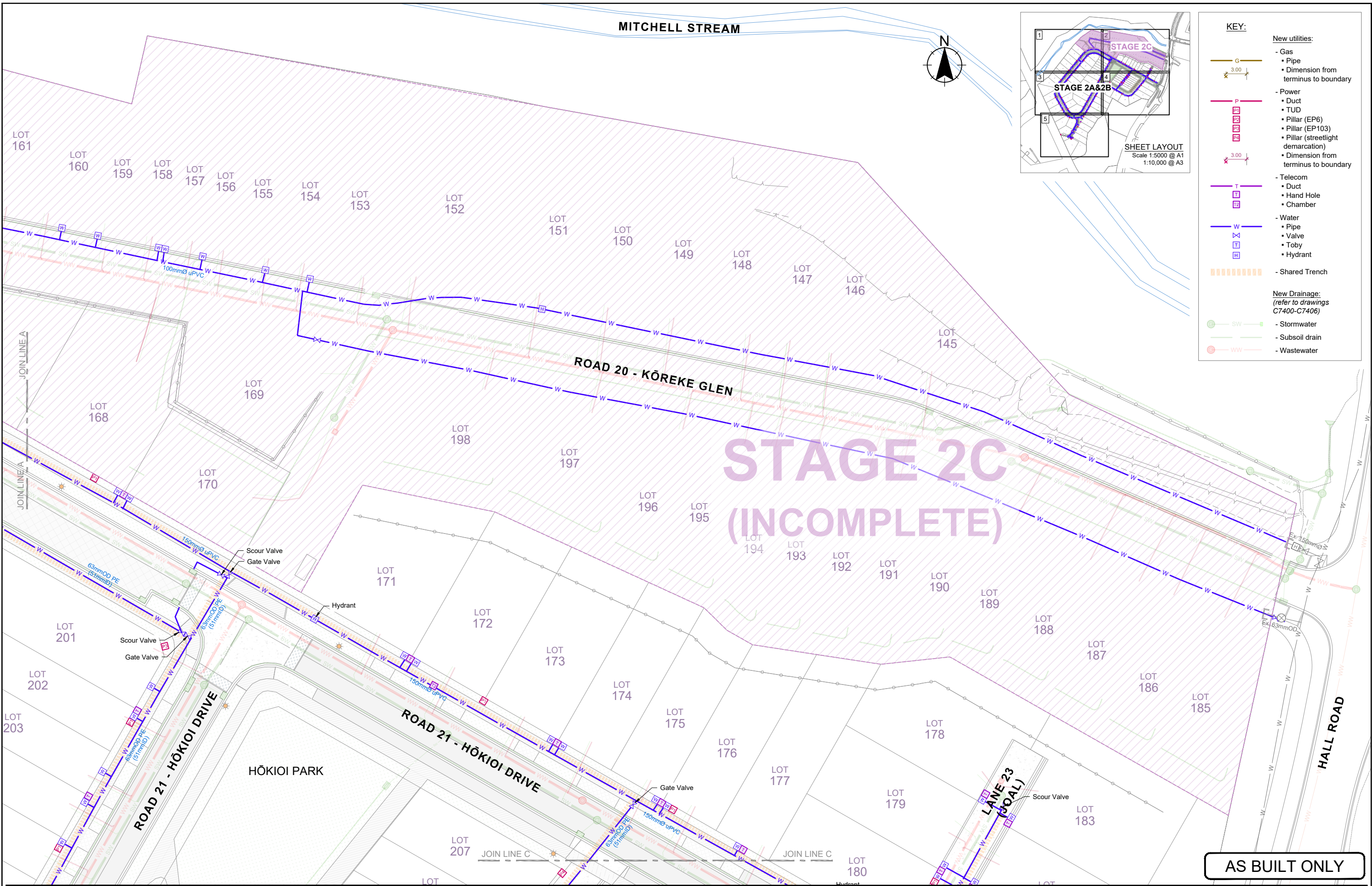
Client

Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
WATER SUPPLY PLAN
SHEET 1 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250	(A3) 1:500	
5 2.5 0 5 10 15 m		
Project No	Sheet	Revision
709306.006	C7500	0



KEY:

	G	- Gas
	P	- Power
	T	- Telecom
	W	- Water
	SW	- Stormwater
	WW	- Wastewater

New utilities:

- Gas
 - Pipe
 - Dimension from terminus to boundary
- Power
 - Duct
 - TUD
 - Pillar (EP6)
 - Pillar (EP103)
 - Pillar (streetlight demarcation)
 - Dimension from terminus to boundary
- Telecom
 - Duct
 - Hand Hole
 - Chamber
- Water
 - Pipe
 - Valve
 - Toby
 - Hydrant
- Shared Trench

New Drainage:
(refer to drawings C7400-C7406)

- Stormwater
- Subsoil drain
- Wastewater

AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Surveyed RAPID Designed PCV 07/21 Drawn SCP 07/21 Reviewed SCP 07/21 App Date Approved BDG 20/07/21						

Client

Project Title
**KENEPURU LANDING STAGE 2
 INFRASTRUCTURE &
 SURVEYING**

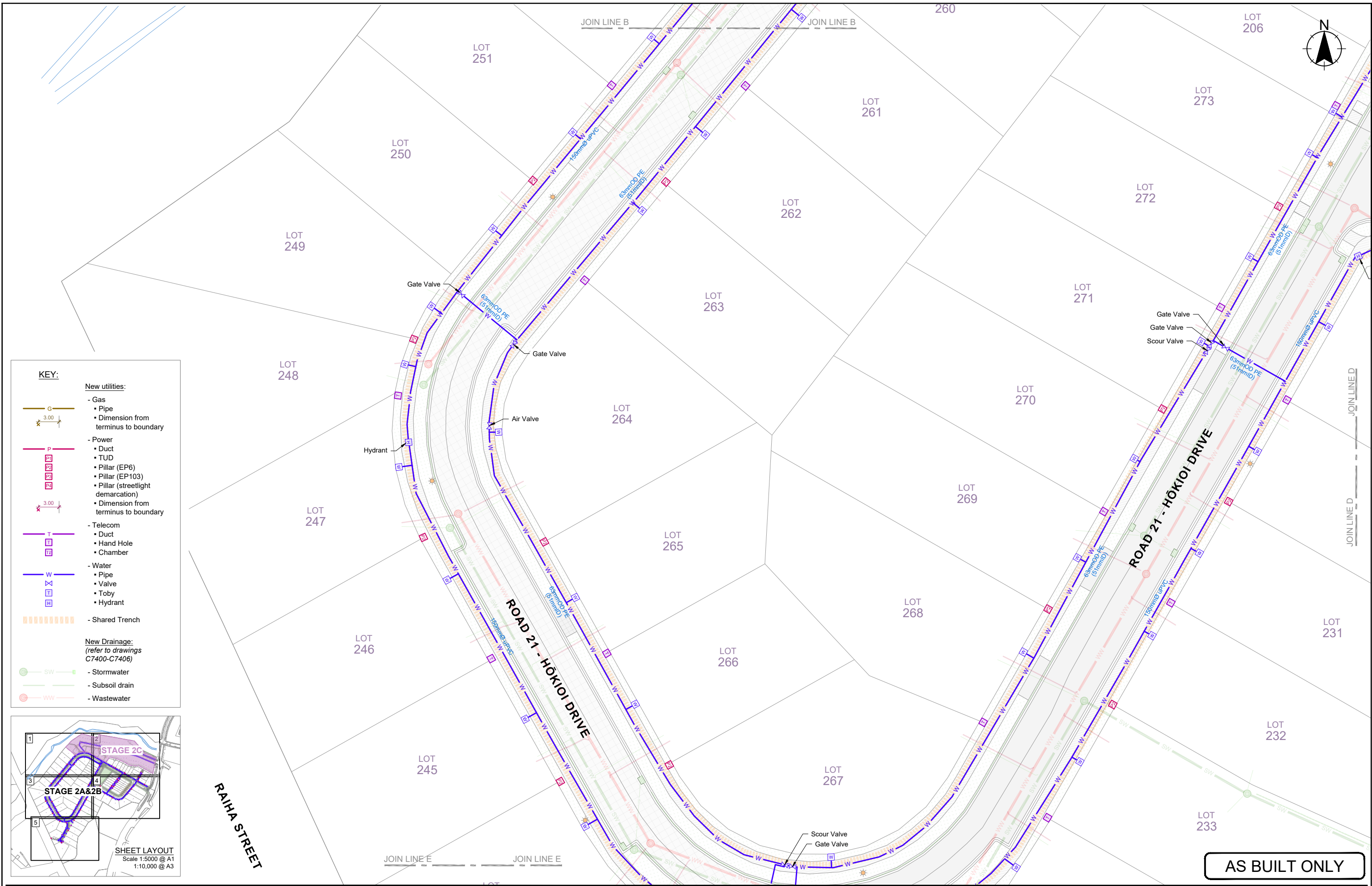
Sheet Title
**AS-BUILT
 WATER SUPPLY PLAN
 SHEET 2 OF 5**

Level 13
 Kordia House
 109-125 Willis Street
 Wellington 6141
 +64 4 384 2029
 calibregroup.com

Scale (A1 Original) 1:250 (A3) 1:500

Project No	Sheet	Revision
709306.006	C7501	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



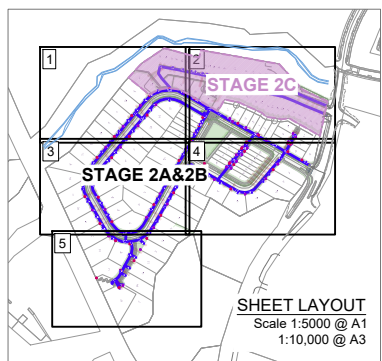
KEY:

New utilities:

- Gas
 - Pipe
 - Dimension from terminus to boundary
- Power
 - Duct
 - TUD
 - Pillar (EP6)
 - Pillar (EP103)
 - Pillar (streetlight demarcation)
 - Dimension from terminus to boundary
- Telecom
 - Duct
 - Hand Hole
 - Chamber
- Water
 - Pipe
 - Valve
 - Toby
 - Hydrant
- Shared Trench

New Drainage:
(refer to drawings C7400-C7406)

- Stormwater
- Subsoil drain
- Wastewater



AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Surveyed RAPID Designed PCV 07/21 Drawn SCP 07/21 Reviewed SCP 07/21 App Date Approved BDG 20/07/21						

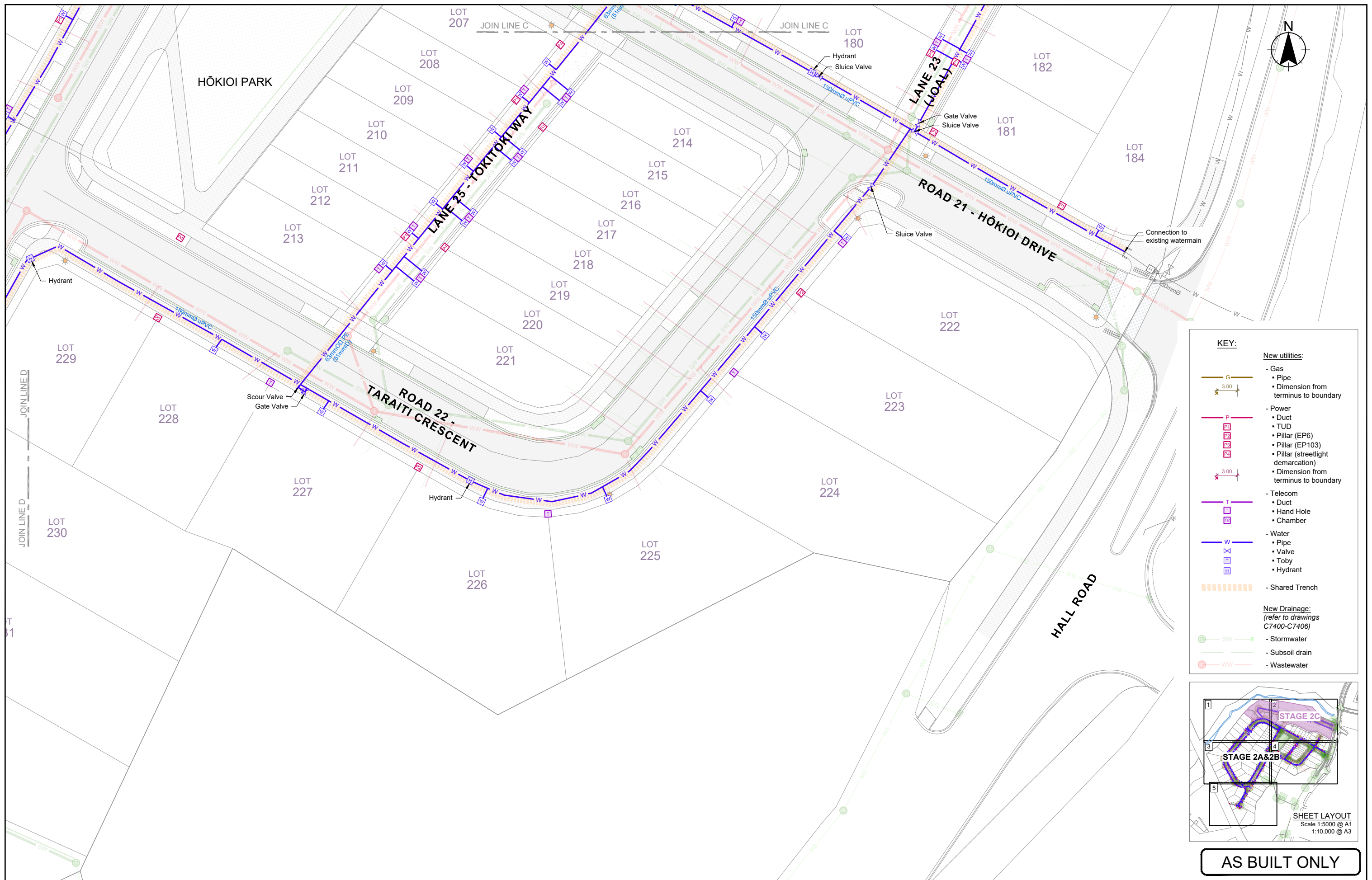
Client

Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
WATER SUPPLY PLAN
SHEET 3 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250	(A3) 1:500	
Project No	Sheet	Revision
709306.006	C7502	0



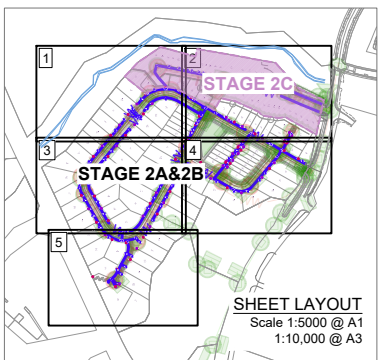
KEY:

New utilities:

- Gas
 - Pipe
 - Dimension from terminus to boundary
- Power
 - Duct
 - TUD
 - Pillar (EP6)
 - Pillar (EP103)
 - Pillar (streetlight demarcation)
 - Dimension from terminus to boundary
- Telecom
 - Duct
 - Hand Hole
 - Chamber
- Water
 - Pipe
 - Valve
 - Toby
 - Hydrant
- Shared Trench

New Drainage: (refer to drawings C7400-C7406)

- Stormwater
- Subsoil drain
- Wastewater



AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Revision						

Client



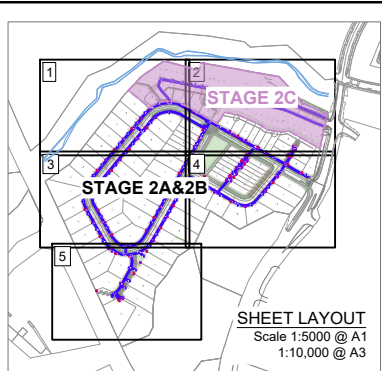
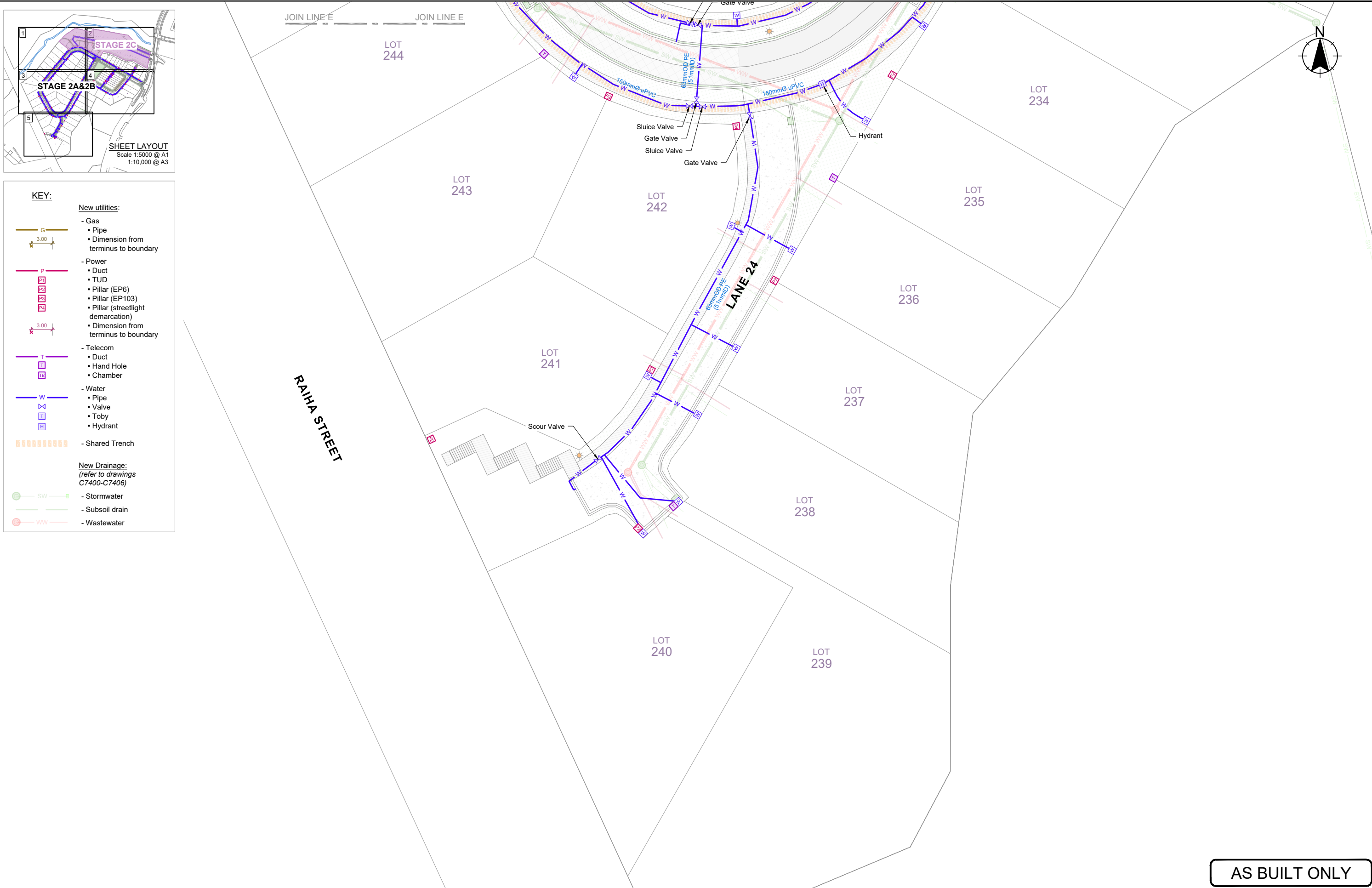
Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
WATER SUPPLY PLAN
SHEET 4 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:250	(A3) 1:500	
5 2.5 0 5 10 15 m		
Project No	Sheet	Revision
709306.006	C7503	0



KEY:

New utilities:

- Gas
 - Pipe
 - Dimension from terminus to boundary
- Power
 - Duct
 - TUD
 - Pillar (EP6)
 - Pillar (EP103)
 - Pillar (streetlight demarcation)
 - Dimension from terminus to boundary
- Telecom
 - Duct
 - Hand Hole
 - Chamber
- Water
 - Pipe
 - Valve
 - Toby
 - Hydrant
- Shared Trench

New Drainage:
(refer to drawings C7400-C7406)

- Stormwater
- Subsoil drain
- Wastewater

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Surveyed		RAPID		Client		
Designed		PCV		07/21		
Drawn		SCP		07/21		
Reviewed		BDG		20/07/21		



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
WATER SUPPLY PLAN
SHEET 5 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

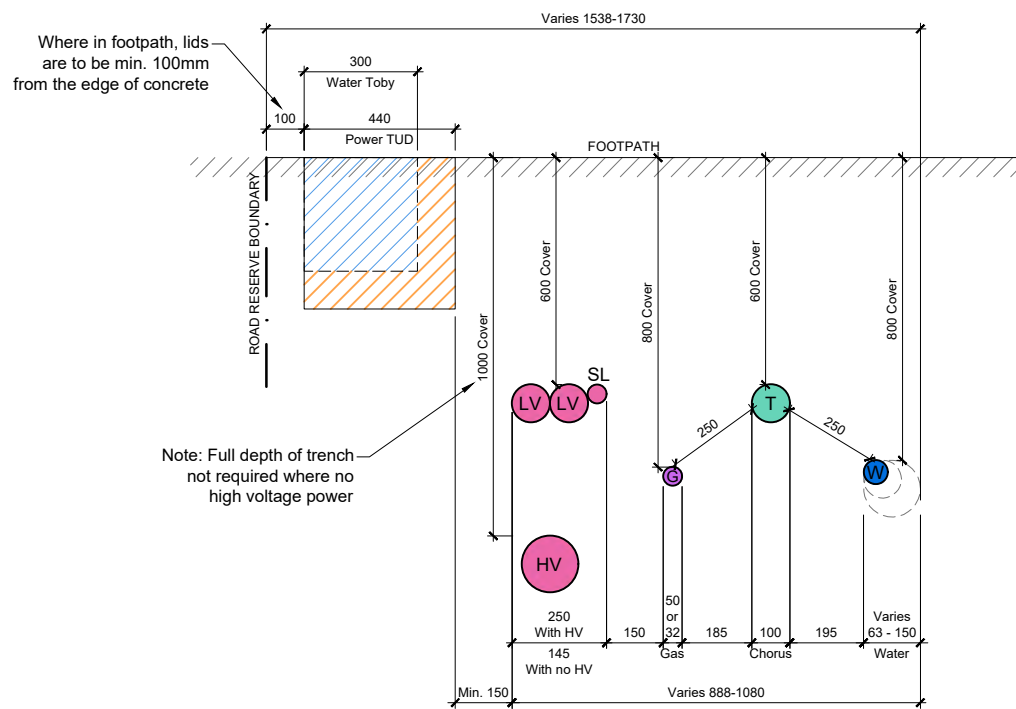


AS BUILT ONLY

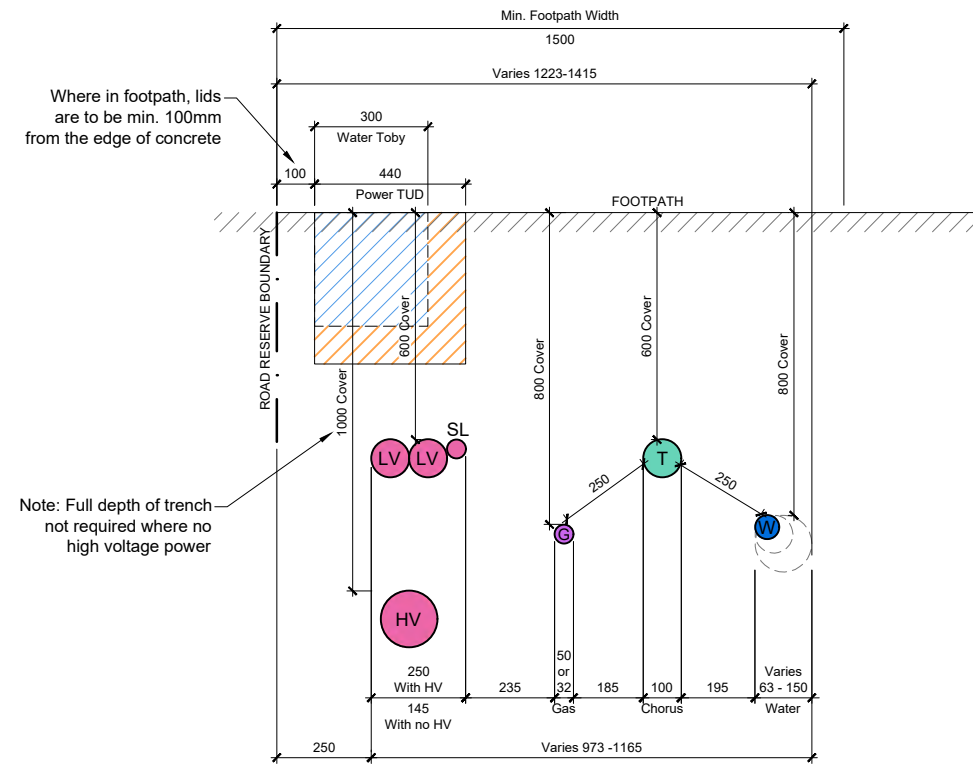
Scale (A1 Original) 1:250 (A3) 1:500

Project No	Sheet	Revision
709306.006	C7504	0

- COMMON SERVICE TRENCH NOTES:**
1. Number and diameters of power ducts and cables to be confirmed by Vector (power).
 2. Number and diameters of telecommunications ducts and cables to be confirmed by Chorus (comms).
 3. A min. clearance between the watermain and comms ducts is 250mm, to be confirmed with Chorus.
 4. A min. clearance between the watermain and power ducts is 500mm, to be confirmed with Vector.
 5. Ducting configuration and clearance to be confirmed with Vector and Chorus.
 6. 11kva cable installation in common service trench only in designated positions and not all roads. Refer Vector design for details of cable route/ position/ alignment and extents of 11kva trenching.
 7. If footpath is against the boundary, install water meter in footpath.
 8. For power and telecom connection details refer service provider's specification.
 9. Refer to drawing 709306.006-C513 for typical trench bedding and backfill details.



**INDICATIVE COMMON TRENCH LAYOUT
TYPE A - ADJACENT TO TOBY/TUD**
SCALE 1:10



**INDICATIVE COMMON TRENCH LAYOUT
TYPE B - UNDER TOBY/TUD**
SCALE 1:10

Roads 20 (east end) to use 'Type B' trench.
All other roads to use 'Type A'.

AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	20/07/21
Surveyed	Designed	Drawn	Reviewed	Approved
	PCV	SCP	BDG	
	07/21	07/21	20/07/21	

Client



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

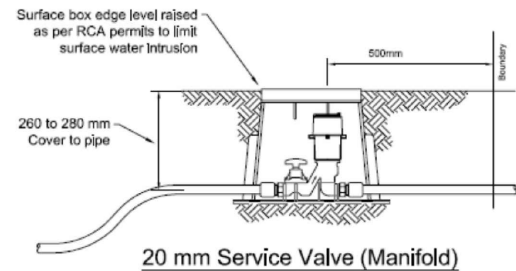
Sheet Title
**AS-BUILT
COMMON SERVICES TRENCH**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original)		
SCALE AS NOTED		
Project No	Sheet	Revision
709306.006	C7510	0

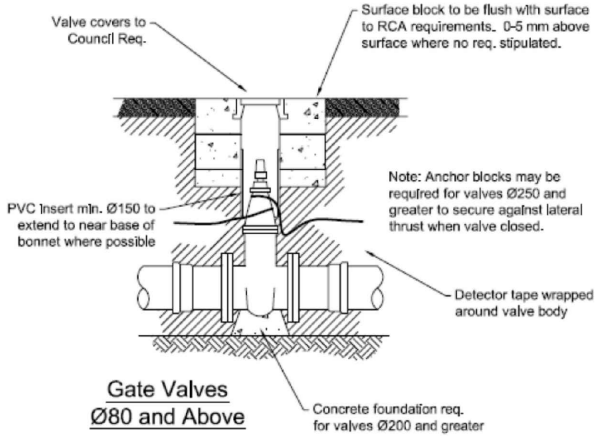
Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



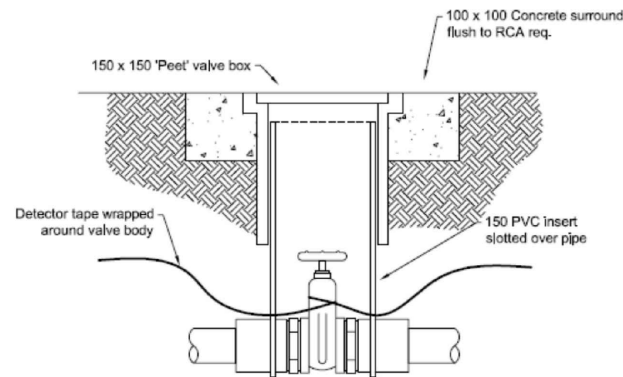
20 mm Service Valve (Manifold)

Notes:

1. Nominal depth of between 100 and 380 mm from ground level to top of gate valve.
2. Metallic detector/warning tape to be laid 200 to 300 mm above pipe and continue through valve enclosure whilst maintaining tape conductivity.
3. Plastic manifold bases to be used with manifold installations.
4. A minimum of 1m PE80b service pipe is to be provided on the customer side of the manifold in new developments. The service shall be secure plugged.



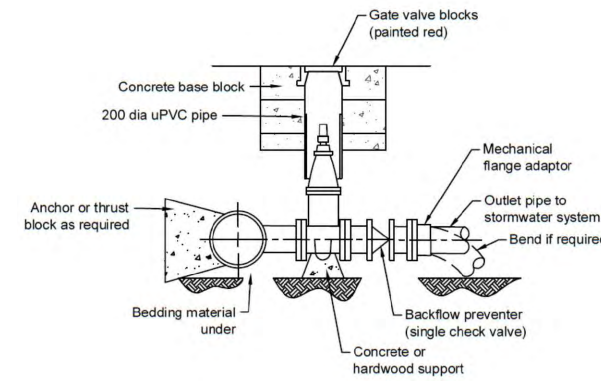
Gate Valves
Ø80 and Above



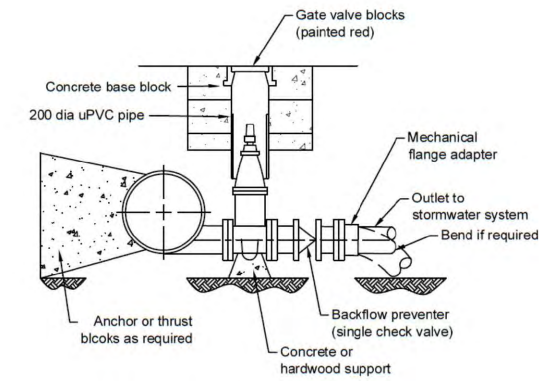
Gate Valves Ø50 or Less

TYPICAL VALVES

(Wellington Regional Standard for Water Services - Standard Detail WS05)
Not to Scale



For Mains 80mm TO DN 250mm

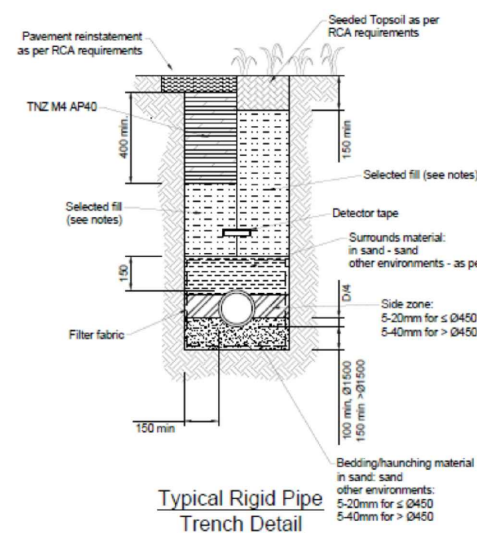


For Mains DN 300mm and Larger

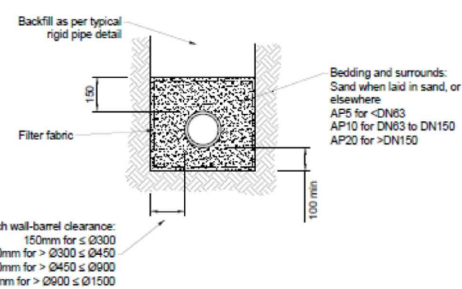
SCOUR VALVES

(Wellington Regional Standard for Water Services - Standard Detail WS06)
Not to Scale

- Notes:
- Diameter of scour to be designed to produce scouring velocity of 2.0 metres per second.
 - Downstream stormwater conditions to be considered.



Typical Rigid Pipe
Trench Detail



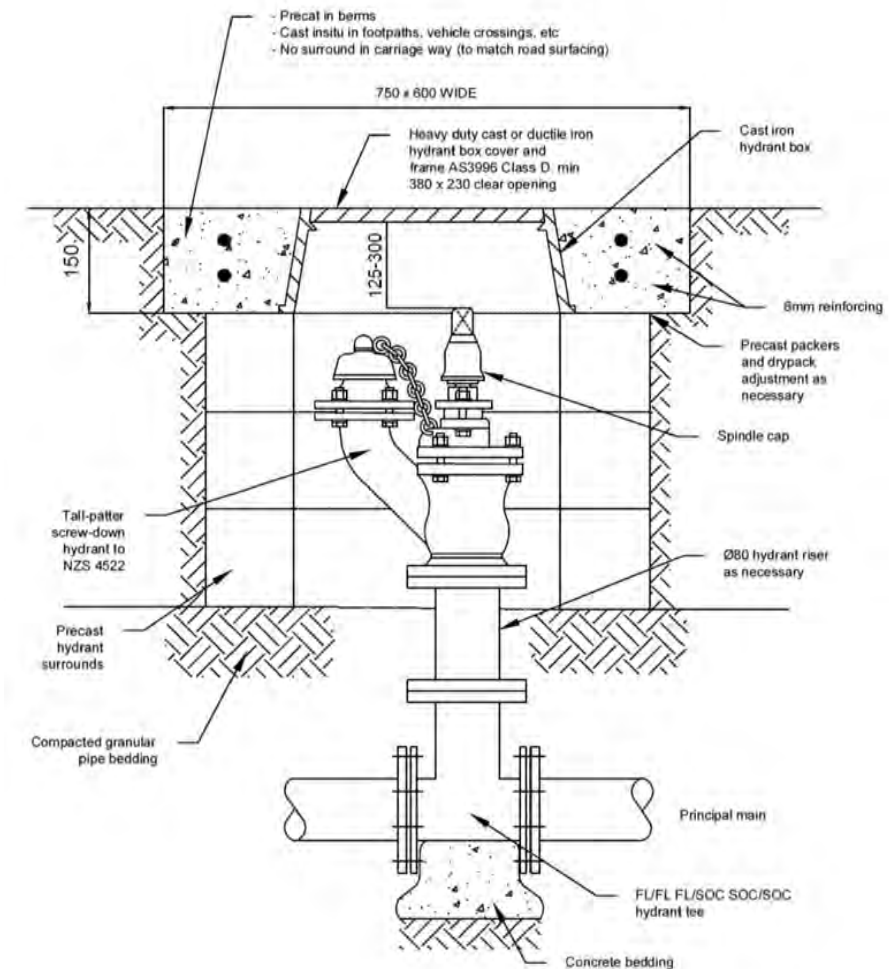
Typical Flexible Pipe
Bedding and Surrounds Detail

Notes:

1. Selected fill is generally AP40. The RCA may require other materials in certain areas.
2. All material to be compacted in 150mm layers.
3. Rigid pipes include concrete pipes and earthenware pipes.
4. Flexible pipes include all PVC pipes, all polyethylene pipes, copper, polybutylene, corrugated steel and aluminium pipe, steel and ductile iron pipes.

TRENCH AND WATERSTOP DETAILS

(Wellington Regional Standard for Water Services - Standard Detail DR03)
Not to Scale



FIRE HYDRANT BOX

(Wellington Regional Standard for Water Services - Standard Detail WS08)
Not to Scale

AS BUILT ONLY

0 FIRST ISSUE	BDG 20/07/21	App	Date	Approved	BDG	20/07/21
Revision						

Client



Project Title
KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING

Sheet Title
AS-BUILT
WATER SUPPLY
TYPICAL DETAILS
SHEET 1 OF 2

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original)

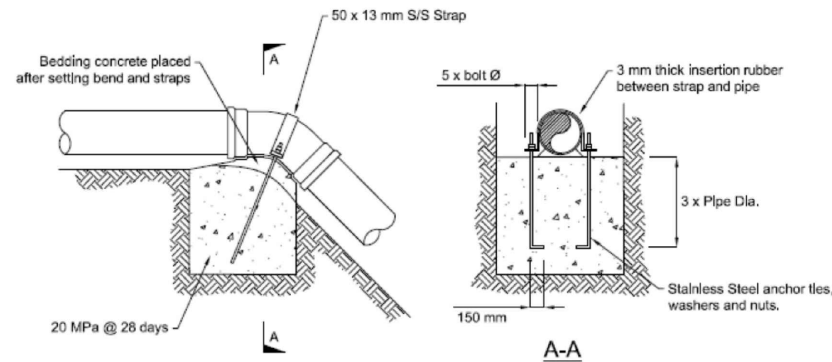
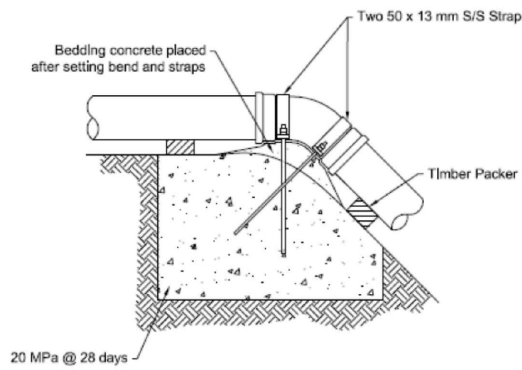
Project No	Sheet	Revision
709306.006	C7511	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

Pipe DN	Minimum Anchor Volume (cu.m) for 1500 kPa Test Pressure			No. of Straps	Ø of Anchor Ties (mm)
	11.25°	22.5°	45°		
Ø100			0.36	1	13
Ø150		0.41	0.80	1	13
Ø200	0.35	0.70	1.37	2	13
Ø250	0.53	1.06	2.09	2	20
Ø300	0.78	1.55	3.04	2	20
Ø375	1.19	2.36	4.63	2	25

Notes:

1. Thrust blocks to be poured against firm, clean and undisturbed native ground.
2. Thrust blocks for larger mains to be specifically designed by a chartered professional engineer.
3. All concrete to be clear of sockets.
4. All dimensions in millimetres unless specified otherwise.
5. Alternative methods are acceptable when designed by a chartered professional engineer and approved by Council.
6. Anchor block volumes are for a 1500 kPa test pressure. Adjust volumes for higher test pressures.

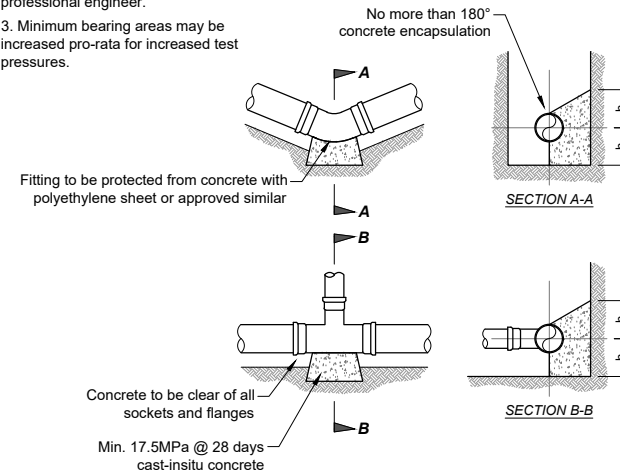


TYPICAL ANCHOR BLOCK

(Wellington Regional Standard for Water Services - Standard Detail WS04)
Not to Scale

THRUST BLOCK NOTES:

1. Thrust blocks to be poured against firm, clean and undisturbed native ground.
2. Thrust blocks for larger mains to be specifically designed by a chartered professional engineer.
3. Minimum bearing areas may be increased pro-rata for increased test pressures.



TYPICAL THRUST BLOCK

(Wellington Regional Standard for Water Services - Standard Detail WS03)
Not to Scale

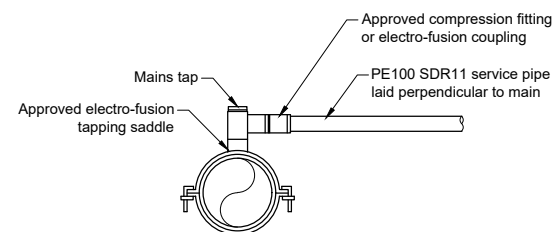
Pipe DN	MIN. BEARING AREA (sq.m) FOR 1500kPa TEST PRESSURE FOR AS2280 DICL OR SERIES 1 PIPE AT 75kPa SBP				
	11.25°	22.5°	45°	90°	End cap / tee
Ø100	0.10	0.10	0.18	0.34	0.24
Ø150	0.10	0.20	0.38	0.70	0.50
Ø200	0.17	0.33	0.65	1.20	0.85
Ø250	0.26	0.51	0.99	1.82	1.29
Ø300	0.37	0.73	1.44	2.65	1.87
Ø375	0.56	1.12	2.19	4.04	2.86

Alternatively, the following formulae can be used to calculate min. bearing areas:

$$\text{For bends} = \frac{A P^2 \sin^2 \left(\frac{\Theta}{2} \right)}{SBP} m^2$$

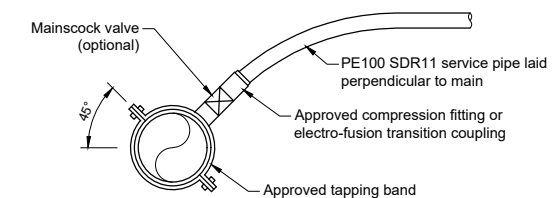
$$\text{For end caps/tees} = \frac{A P}{SBP} m^2$$

Where: A = Area of pipe (m², using outside dia. of pipe)
P = Test pressure of pipe (kPa)
Θ = Angle of bend
SBP = Safe bearing pressure of insitu soil (kPa)



TYPICAL TAPPING TO PE PIPE

(Wellington Regional Standard for Water Services - Standard Detail WS02)
Not to Scale



TYPICAL TAPPING TO PVC / DICL PIPE

(Wellington Regional Standard for Water Services - Standard Detail WS02)
Not to Scale

AS BUILT ONLY

Revision	Date	App	Reviewed	Drawn	Designed	Surveyed
0 FIRST ISSUE	20/07/21	BDG	SCP	PCV		
			BDG	SCP		07/21
			BDG	SCP		07/21
			BDG	SCP		07/21

Client



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
WATER SUPPLY
TYPICAL DETAILS
SHEET 2 OF 2**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original)

Project No	Sheet	Revision
709306.006	C7512	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



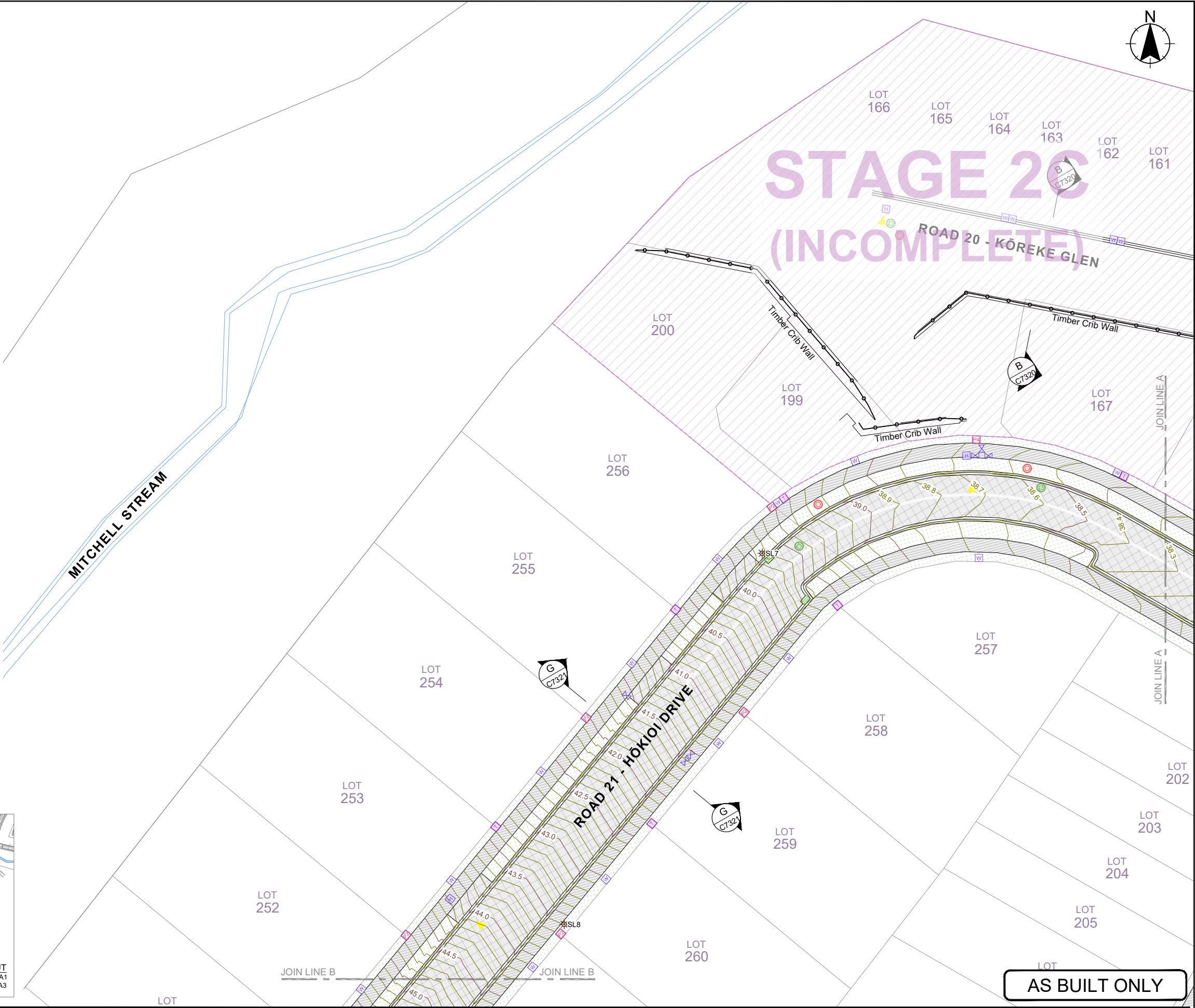
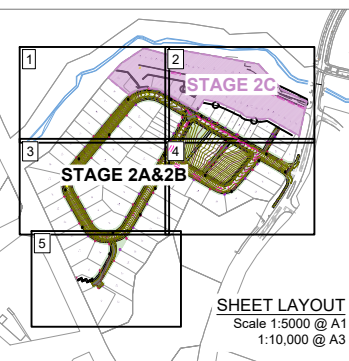
NOTES:
 1. Road signs, bollard streetlights and trees are incomplete and are to be as-built in later revision.

AS-BUILT NOTES:
 1. Designer: Calibre Consulting.
 2. Contractor: Rapid Earthworks. Constructed 2020-2021.
 3. Surveyed: Rapid Earthworks / Calibre Consulting, 2020-2021.
 4. Coordinates in terms of WLG2000. Origin of coordinates: B385 816,957.016mN, 405,200.472mE
 5. Levels reduced in terms of Wellington Datum 1953. Origin of levels: B385 Height: 10.778m

- KEY:**
- Contours**
- 50.0 Major (0.5m)
 - 50.0 Minor (0.1m)
- Construction**
- Carriageway (asphalt with subgrade CBR 4%)
 - Carriageway (asphalt with subgrade CBR 7%)
 - Carriageway (concrete with exposed aggregate finish)
 - Carriageway (concrete with brushed finish)
 - Footpath
 - Driveway
 - Grass berm / garden
 - Retaining Wall
 - Carriageway undercut (backfilled with 300mm hardfill unless otherwise noted)

- Street Furniture & Planting**
- *SL Street light
 - Tree (to be added later)
- Service Lids**
- Stormwater:**
- Manhole
 - Sump
 - Outlet
- Wastewater:**
- Manhole
 - Lampole cleaning eye
- Power:**
- TUD
 - Pillars
- Telecom:**
- Hand hole
 - Chamber
- Water:**
- Valve
 - Hydrant
 - Toby

- CONSTRUCTION DETAILS:**
- Carriageway (asphalt with CBR 4%)**
- 30mm DG7 asphalt
 - 1.0 L/m² residual Grade 5 chip membrane seal (cationic emulsion CAT60)
 - 100mm standard AP40 basecourse
 - 250mm AP65 sub-base
 - Subgrade CBR to be a minimum of 4%
- Carriageway (asphalt with CBR 7%)**
- 30mm DG7 asphalt
 - 1.0 L/m² residual Grade 5 chip membrane seal (cationic emulsion CAT60)
 - 100mm standard AP40 basecourse
 - 140mm AP65 sub-base
 - Subgrade CBR to be a minimum of 7%
- Carriageway (exposed aggregate concrete)**
- 180mm 35MPa concrete
 - Exposed aggregate finish
 - SE82 reinforcing mesh centrally located
 - HD12 trimmer bars top and bottom along edges
 - 150mm AP40 sub-base
 - Subgrade CBR to be a minimum of 4%
 - Refer to drawings C7302 & C7341 for details
- Carriageway (brushed concrete)**
- 180mm 35MPa concrete
 - Black oxide brushed finish
 - SE82 reinforcing mesh centrally located
 - HD12 trimmer bars top and bottom along edges
 - 150mm AP40 sub-base
 - Subgrade CBR to be a minimum of 4%
 - Refer to drawings C7302 & C7341 for details
- Footpath**
- 100mm 20MPa concrete
 - Brushed finish
 - Banding border
 - 75mm AP40 basecourse
 - Saw-cuts (25mm deep x 6mm width) at 4m spacings. Construction joints at 8m spacings. Joints/cuts to align with adjacent kerb cuts
- Driveway**
- 150mm 32MPa concrete
 - Exposed aggregate finish
 - SE82 reinforcing mesh
 - 100mm AP40 basecourse
 - Subgrade CBR to be a minimum of 7%
 - Construct to boundary
 - Maintain full trafficable construction through footpaths. Refer to detail on drawing C7340



AS BUILT ONLY

0 FIRST ISSUE	TM	17/06/21	Client
Revision	Designed	07/21	
BDG 15/07/21	Drawn	PCV	
App	Reviewed	SCP	15/07/21
Date	Approved	BDG	15/07/21



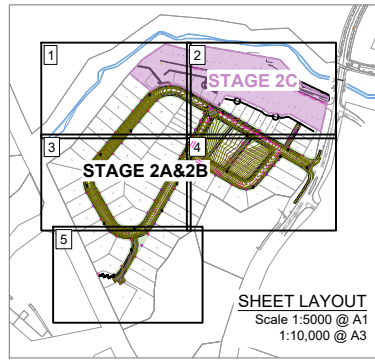
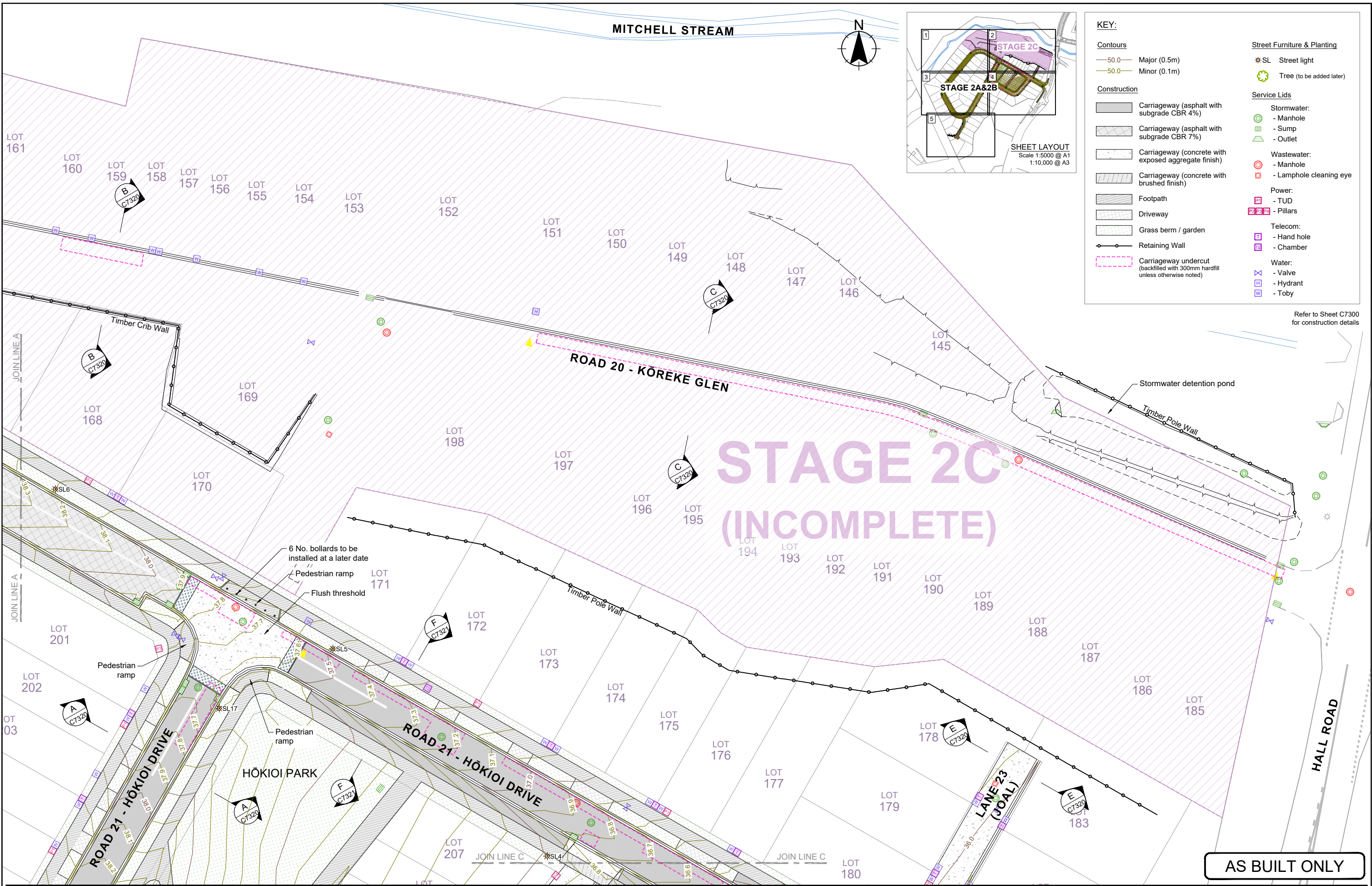
Project Title
**KENEPURU LANDING STAGE 2
 INFRASTRUCTURE &
 SURVEYING**

Sheet Title
**AS-BUILT
 ROADING PLAN
 SHEET 1 OF 5**

Level 13
 Kordia House
 109-125 Willis Street
 Wellington 6141
 +64 4 384 2029
 calibregroup.com



Scale (A1 Original) 1:250	(A3) 1:500	
5 2.5 0 5 10 15 m		
Project No	Sheet	Revision
709306.006	C7300	0



KEY:

Contours	Street Furniture & Planting
— 50.0 — Major (0.5m)	*SL Street light
— 50.0 — Minor (0.1m)	Tree (to be added later)
Construction	Service Lids
Carriageway (asphalt with subgrade CBR 4%)	Stormwater:
Carriageway (asphalt with subgrade CBR 7%)	- Manhole
Carriageway (concrete with exposed aggregate finish)	- Sump
Carriageway (concrete with brushed finish)	- Outlet
Footpath	Wastewater:
Driveway	- Manhole
Grass berm / garden	- Lamphole cleaning eye
Retaining Wall	Power:
Carriageway undercut (backfilled with 300mm hardfill unless otherwise noted)	- TUD
	- Pillars
	Telecom:
	- Hand hole
	- Chamber
	Water:
	- Valve
	- Hydrant
	- Toby

Refer to Sheet C7300 for construction details

AS BUILT ONLY

0 FIRST ISSUE	BDG 15/07/21	App	Date	Approved	BDG	15/07/21
Revision						

Client

Kenepuru LANDING STAGE 2

Project Title

KENEPURU LANDING STAGE 2 INFRASTRUCTURE & SURVEYING

Sheet Title

AS-BUILT ROADING PLAN SHEET 2 OF 5

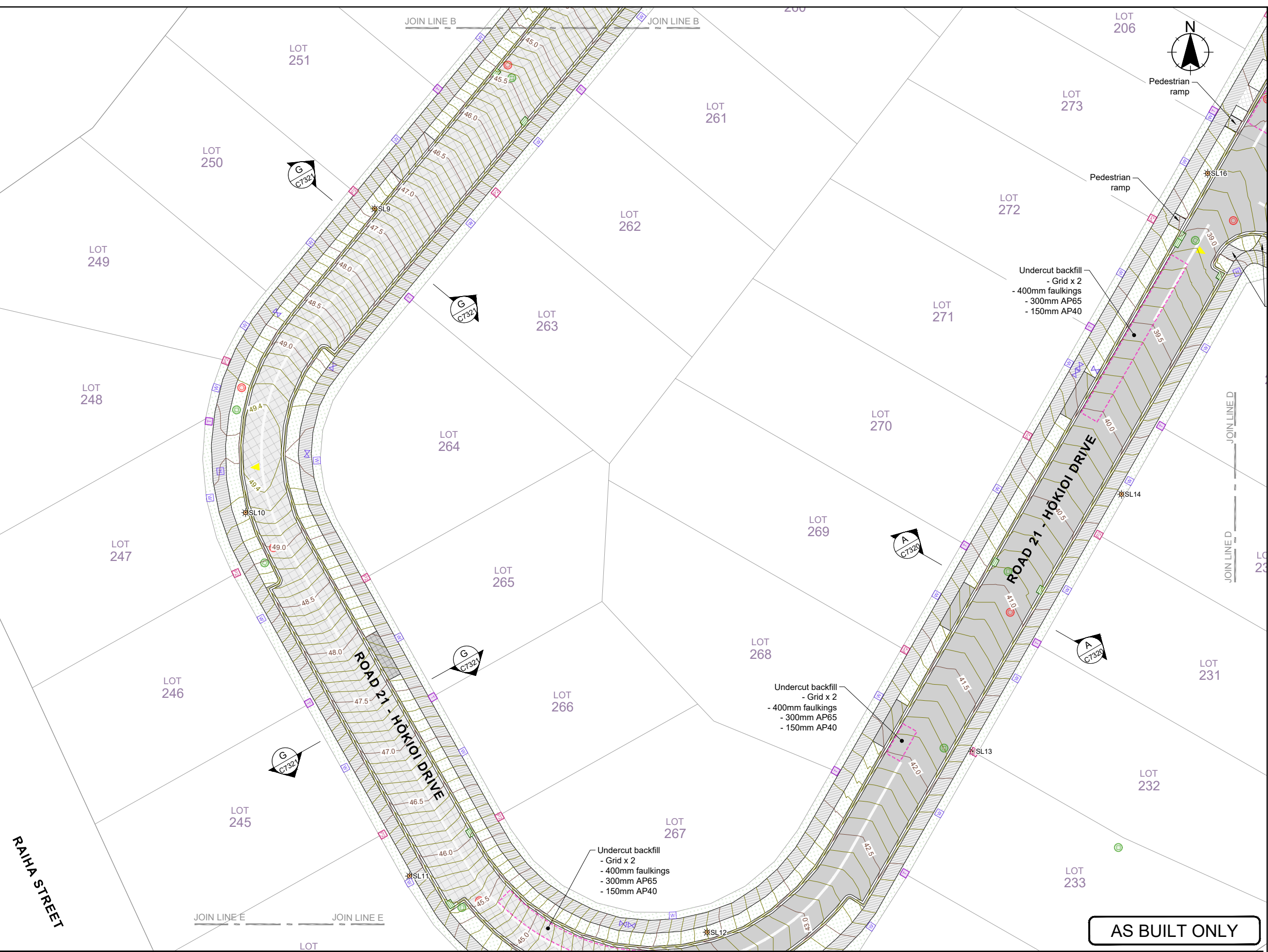
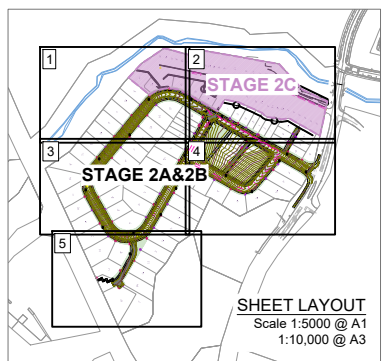
Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250 (A3) 1:500

Project No 709306.006 Sheet C7301 Revision 0

Refer to Sheet C7300
for construction details

- KEY:**
- Contours**
- 50.0 Major (0.5m)
 - 50.0 Minor (0.1m)
- Construction**
- Carriageway (asphalt with subgrade CBR 4%)
 - Carriageway (asphalt with subgrade CBR 7%)
 - Carriageway (concrete with exposed aggregate finish)
 - Carriageway (concrete with brushed finish)
 - Footpath
 - Driveway
 - Grass berm / garden
 - Retaining Wall
 - Carriageway undercut (backfilled with 300mm hardfill unless otherwise noted)
- Street Furniture & Planting**
- *SL Street light
 - Tree (to be added later)
- Service Lids**
- Stormwater:**
- Manhole
 - Sump
 - Outlet
- Wastewater:**
- Manhole
 - Lamp hole cleaning eye
- Power:**
- TUD
 - Pillars
- Telecom:**
- Hand hole
 - Chamber
- Water:**
- Valve
 - Hydrant
 - Toby



AS BUILT ONLY

0 FIRST ISSUE	BDG 15/07/21	App	Date	Approved	BDG	15/07/21
Revision						



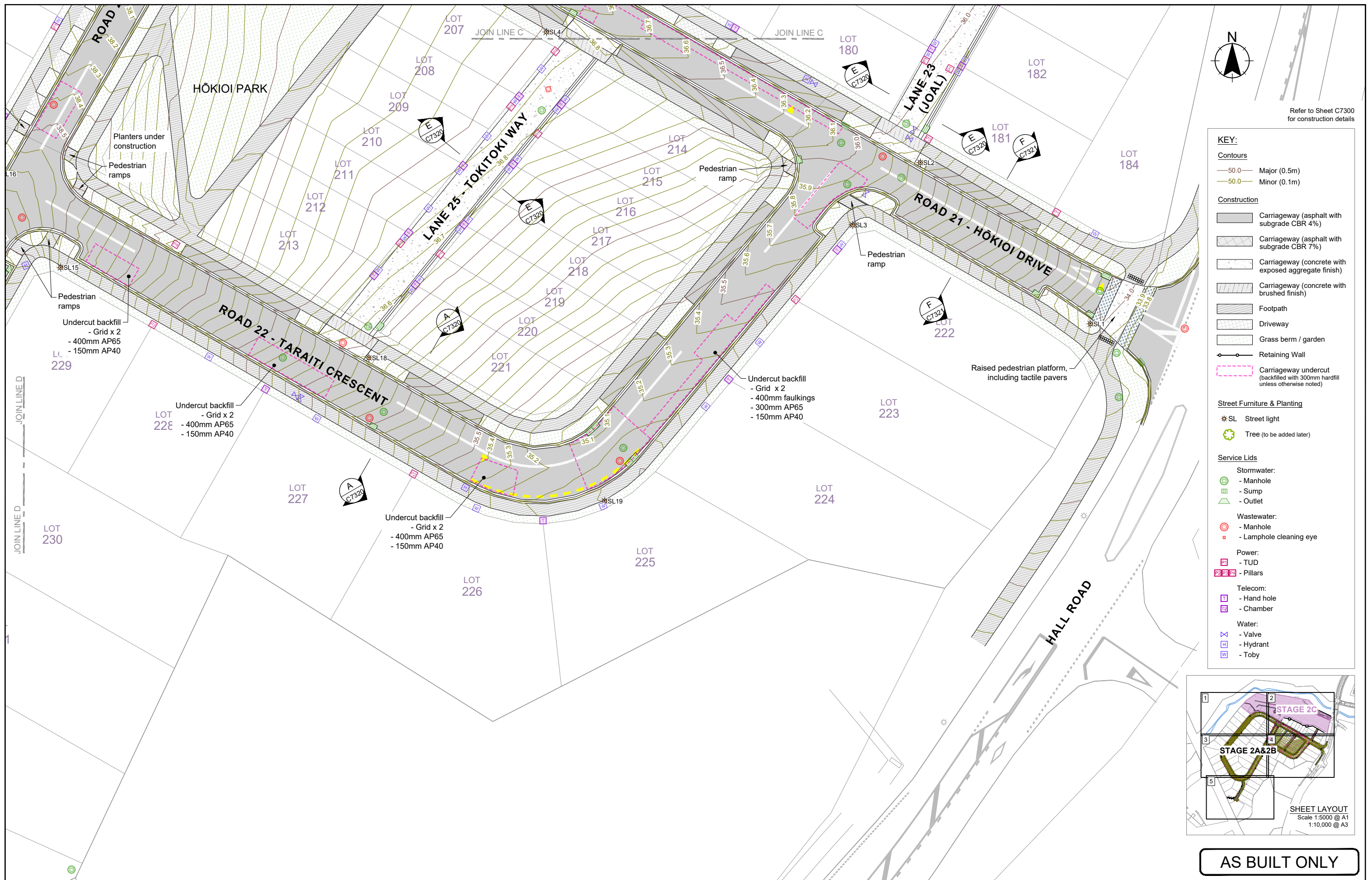
Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
ROADING PLAN
SHEET 3 OF 5**

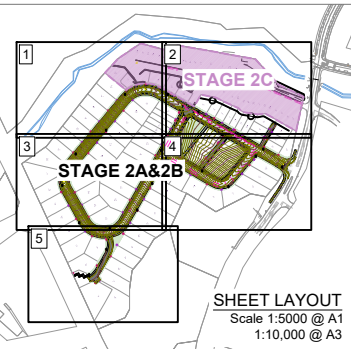
Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:250	(A3) 1:500	
5 2.5 0 5 10 15 m		
Project No	Sheet	Revision
709306.006	C7302	0



- KEY:**
- Contours**
- 50.0 Major (0.5m)
 - 50.0 Minor (0.1m)
- Construction**
- Carriageway (asphalt with subgrade CBR 4%)
 - Carriageway (asphalt with subgrade CBR 7%)
 - Carriageway (concrete with exposed aggregate finish)
 - Carriageway (concrete with brushed finish)
 - Footpath
 - Driveway
 - Grass berm / garden
 - Retaining Wall
 - Carriageway undercut (backfilled with 300mm hardfill unless otherwise noted)
- Street Furniture & Planting**
- *SL Street light
 - Tree (to be added later)
- Service Lids**
- Stormwater:**
- Manhole
 - Sump
 - Outlet
- Wastewater:**
- Manhole
 - Lamphole cleaning eye
- Power:**
- TUD
 - Pillars
- Telecom:**
- Hand hole
 - Chamber
- Water:**
- Valve
 - Hydrant
 - Toby



AS BUILT ONLY

0 FIRST ISSUE	BDG 15/07/21	App	Date	Approved	BDG	15/07/21
<p>Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.</p>						

Client

Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
ROADING PLAN
SHEET 4 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com

Scale (A1 Original) 1:250 (A3) 1:500

Project No 709306.006 Sheet C7303 Revision 0



Refer to Sheet C7300 for construction details

KEY:

Contours

- 50.0— Major (0.5m)
- 50.0— Minor (0.1m)

Construction

- Carriageway (asphalt with subgrade CBR 4%)
- Carriageway (asphalt with subgrade CBR 7%)
- Carriageway (concrete with exposed aggregate finish)
- Carriageway (concrete with brushed finish)
- Footpath
- Driveway
- Grass berm / garden
- Retaining Wall
- Carriageway undercut (backfilled with 300mm hardfill unless otherwise noted)

Street Furniture & Planting

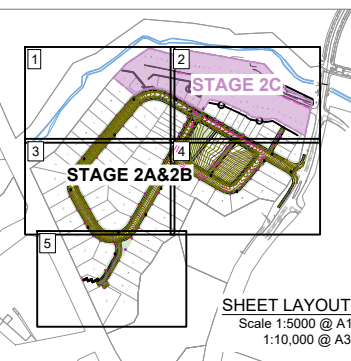
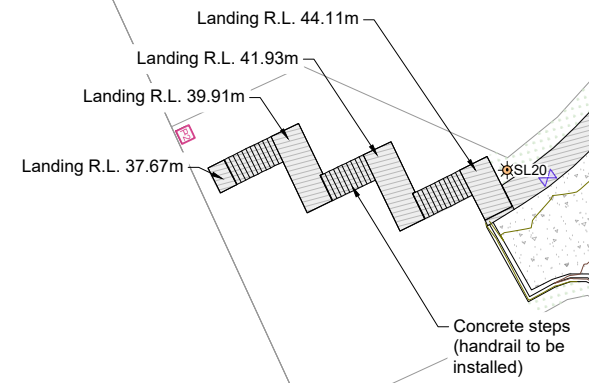
- *SL Street light
- Tree (to be added later)

Service Lids

- Stormwater:**
 - Manhole
 - Sump
 - Outlet
- Wastewater:**
 - Manhole
 - Lamp hole cleaning eye
- Power:**
 - TUD
 - Pillars
- Telecom:**
 - Hand hole
 - Chamber
- Water:**
 - Valve
 - Hydrant
 - Toby

RAIHA STREET

LANE 24



AS BUILT ONLY

0 FIRST ISSUE	BDG	15/07/21	App	Date	Approved	BDG	15/07/21																				
<table border="1"> <tr> <td>Surveyed</td> <td>TM</td> <td>17/06/21</td> <td>Client</td> <td></td> </tr> <tr> <td>Designed</td> <td>PCV</td> <td>07/21</td> <td></td> <td></td> </tr> <tr> <td>Drawn</td> <td>SCP</td> <td>15/07/21</td> <td></td> <td></td> </tr> <tr> <td>Reviewed</td> <td>BDG</td> <td>15/07/21</td> <td></td> <td></td> </tr> </table>								Surveyed	TM	17/06/21	Client		Designed	PCV	07/21			Drawn	SCP	15/07/21			Reviewed	BDG	15/07/21		
Surveyed	TM	17/06/21	Client																								
Designed	PCV	07/21																									
Drawn	SCP	15/07/21																									
Reviewed	BDG	15/07/21																									



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
ROADING PLAN
SHEET 5 OF 5**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:250		(A3) 1:500
Project No	Sheet	Revision
709306.006	C7304	0

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

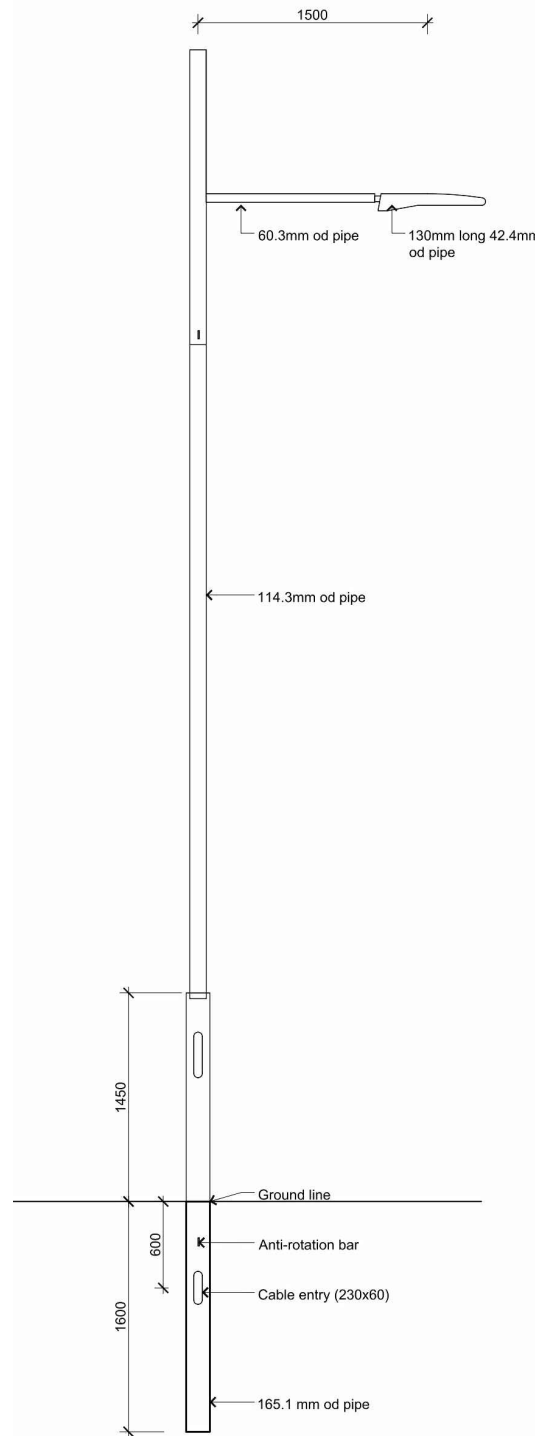
Streetlights			
Name	Description	Easting	Northing
SL1	Type A	404,816.9	817,304.9
SL2	Type A	404,792.0	817,328.4
SL3	Type A	404,782.1	817,319.3
SL4	Type A	404,737.3	817,347.6
SL5	Type A	404,706.1	817,377.7
SL6	Type A	404,665.7	817,400.9
SL7	Type A	404,609.3	817,400.8
SL8	Type A	404,584.1	817,353.5
SL9	Type A	404,543.9	817,322.0
SL10	Type A	404,526.4	817,280.8
SL11	Type A	404,548.6	817,231.4
SL12	Type A	404,589.0	817,223.8
SL13	Type A	404,625.1	817,248.3
SL14	Type A	404,645.3	817,283.3
SL15	Type A	404,666.2	817,313.1
SL16	Type A	404,657.0	817,326.8
SL17	Type A	404,689.6	817,369.0
SL18	Type A	404,711.3	817,299.9
SL19	Type A	404,745.8	817,278.9
SL20	Type B	404,561.7	817,162.7
SL21	Type B	404,584.5	817,196.2

STREETLIGHT TYPES:

TYPE A - ROADS 21 & 22
 - P3 lighting standard
 - 20W LED Philips Roadgrace lantern
 - Light pole with one reach arm
 - 8m tall pole (6.85m to light) with 1.5m outreach arm
 - Max. 65m spacing on each side

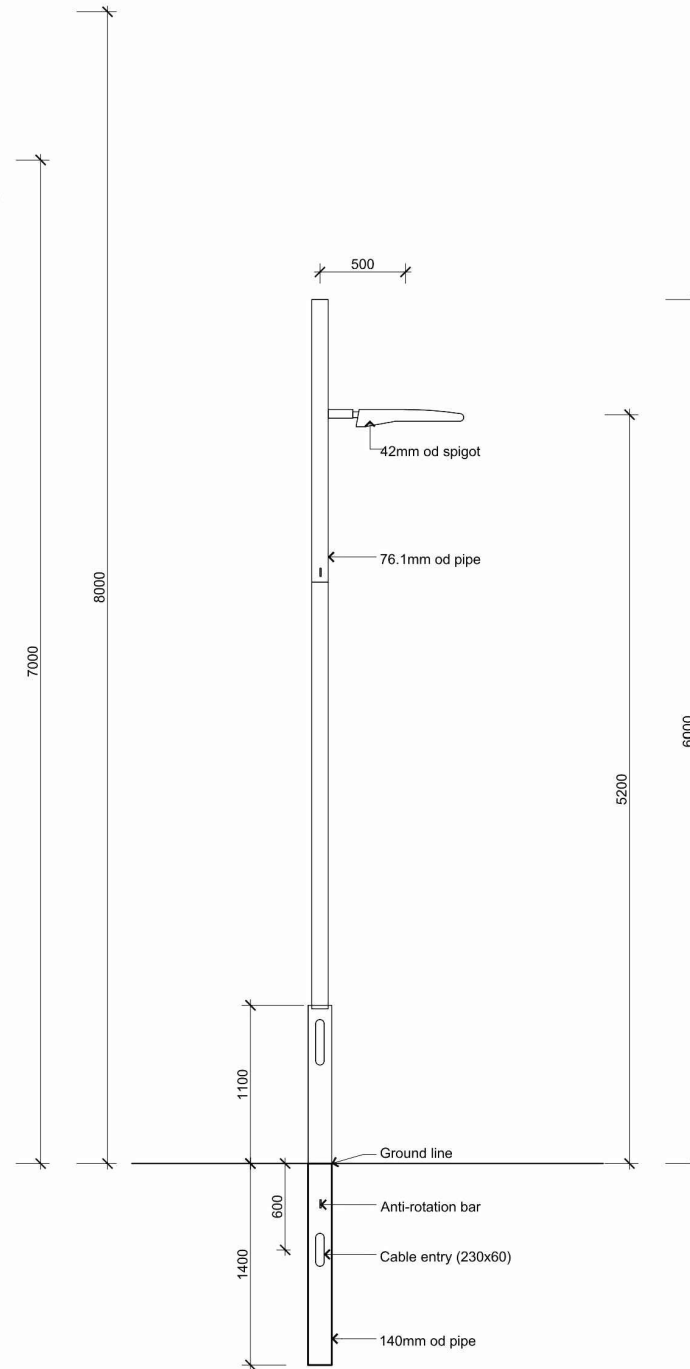
TYPE B - ROADS 20 & 24
 - P4 lighting standard
 - 20W LED Philips Roadgrace lantern
 - Light pole with square headed fitting
 - 6m tall pole (5.2m to light) with 0.5m outreach arm
 - Max. 53.5m spacing

TYPE C - LANEWAYS AND PARK
 - P4 lighting standard
 - Low level bollard / accent lighting
 - Max. 1m tall bollard
 - At entries / driveways in garden beds and at gates
 - Located in Lane Ways or reserves (not private property)
(NOT INSTALLED JULY 2021)



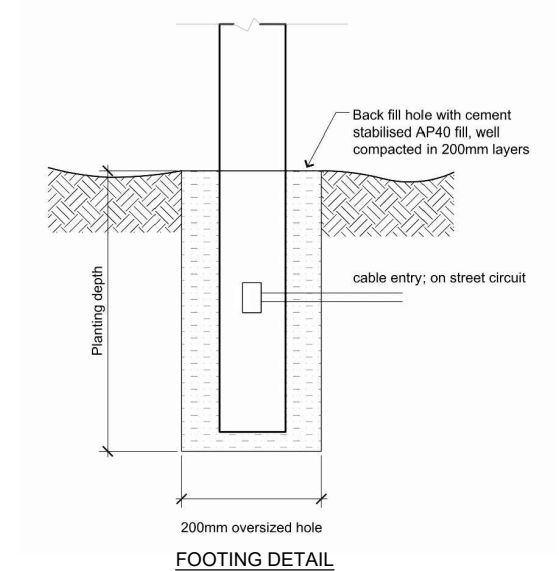
8.0m Stepped column with a 1.5m 90° arm & a 42mm 0 degree spigot for a Philips RoadGrace 20W LED lantern

TYPE A DETAIL



6.0m Stepped column with a 0.5m 90° arm & a 42mm 0 degree spigot for a Philips RoadGrace 20W LED lantern

TYPE B DETAIL



FOOTING DETAIL

AS BUILT ONLY

Revision	App	Date	Approved	BDG	15/07/21
0 FIRST ISSUE	BDG	15/07/21			

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.

Client



Project Title
**KENEPURU LANDING STAGE 2
 INFRASTRUCTURE &
 SURVEYING**

Sheet Title
**AS-BUILT
 ROADING
 STREETLIGHT SCHEDULE**

Level 13
 Kordia House
 109-125 Willis Street
 Wellington 6141
 +64 4 384 2029
 calibregroup.com

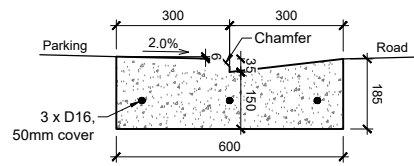


Scale (A1 Original)

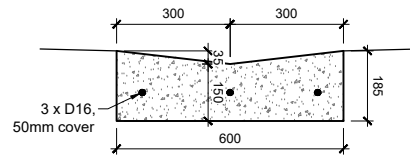
Project No	Sheet	Revision
709306.006	C7307	0

KERB NOTES:

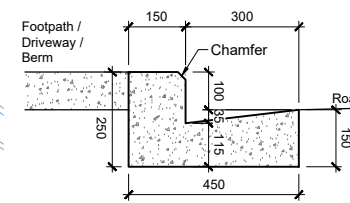
1. Kerbs with vehicular traffic are 30MPa reinforced concrete. All other kerbs are 20MPa unreinforced concrete.
2. Kerbs on minimum 150mm AP40 basecourse. Basecourse extends minimum 300mm behind kerb.
3. Saw-cuts at max. 6.0m intervals. Where adjacent to concrete footpath or carriageway, align with footpath / carriageway saw-cuts.
4. Concrete edges chamfered 20 x 20mm where noted.
5. All pedestrian crossings flush with no nib.



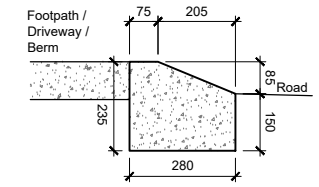
DROPPED MOUNTABLE KERB AND CHANNEL
(30MPa concrete)
1:10 @ A1



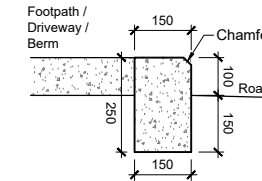
DISH CHANNEL
(30MPa concrete)
1:10 @ A1



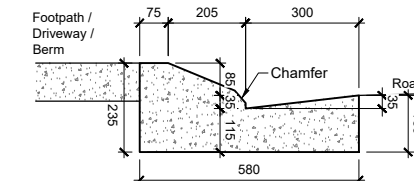
KERB AND CHANNEL
(20MPa concrete)
1:10 @ A1



MOUNTABLE KERB
(30MPa concrete)
1:10 @ A1

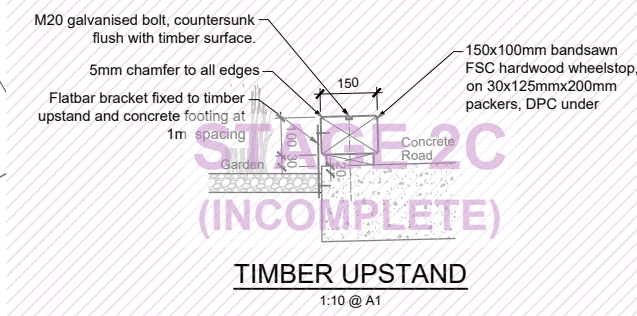
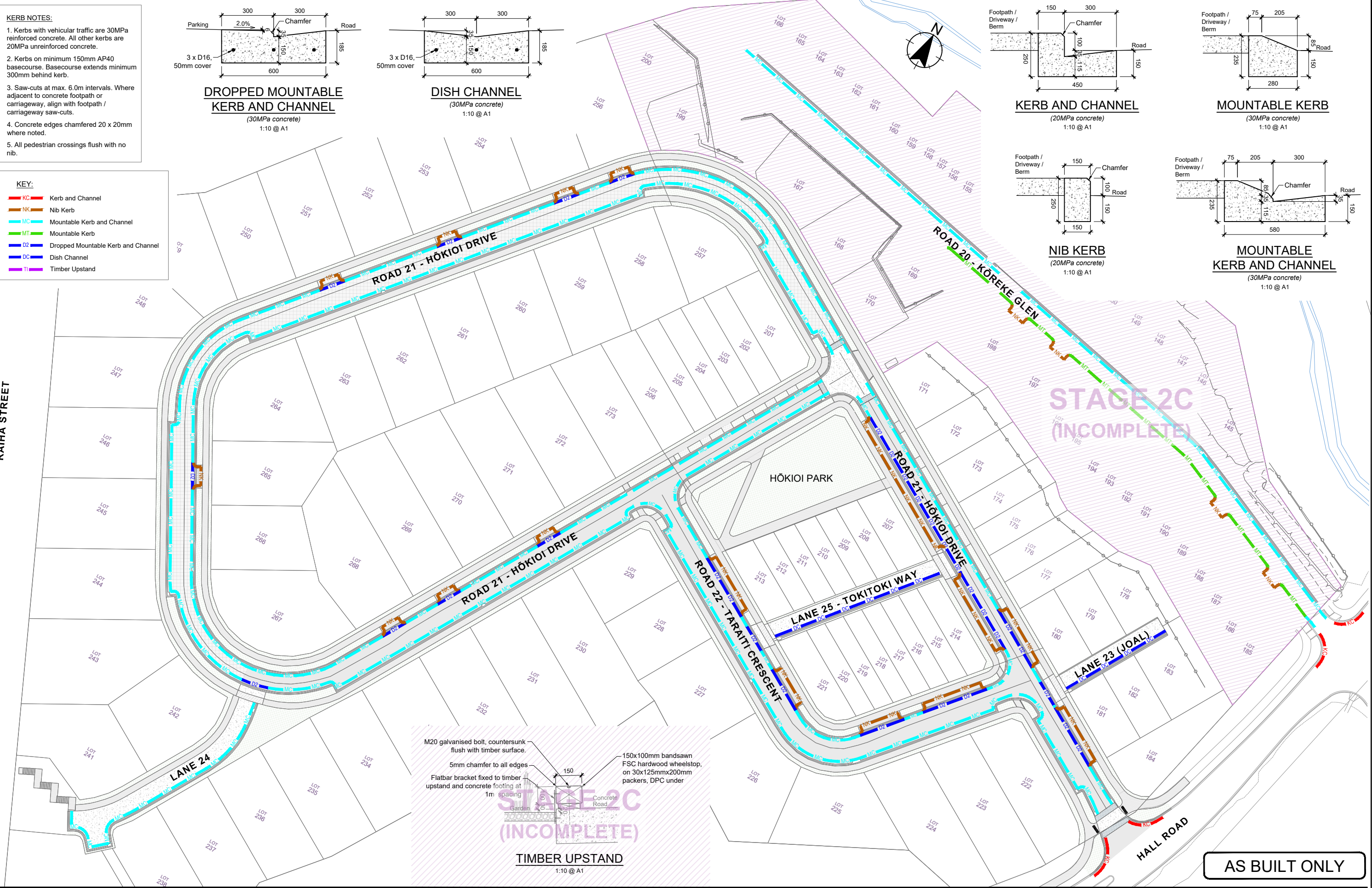


NIB KERB
(20MPa concrete)
1:10 @ A1



MOUNTABLE KERB AND CHANNEL
(30MPa concrete)
1:10 @ A1

- KEY:**
- KC Kerb and Channel
 - NK Nib Kerb
 - MC Mountable Kerb and Channel
 - MT Mountable Kerb
 - D2 Dropped Mountable Kerb and Channel
 - DC Dish Channel
 - TI Timber Upstand



TIMBER UPSTAND
1:10 @ A1

AS BUILT ONLY

0 FIRST ISSUE	Surveyed	TM	17/06/21	Client
Revision	Designed	PCV	07/21	
	Drawn	SCP	15/07/21	
	Reviewed	BDG	15/07/21	
	App	Approved	BDG	15/07/21



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
KERB PLAN**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:500	(A3) 1:1000	
10 5 0 10 20 30 m		
Project No	Sheet	Revision
709306.006	C7310	0



KEY:

- ✦ Beam test location

Beam test results (mm) with date undertaken:

1.0 (A)	26 February 2021
1.0 (B)	02 March 2021
1.0 (C)	05 March 2021
1.0 (D)	12 March 2021
1.0 (E)	17 March 2021
1.0 (F)	26 March 2021
1.0 (G)	09 April 2021

AS BUILT ONLY

0 FIRST ISSUE	BDG 06/07/21	App	Date	Approved	BDG	06/07/21
<p>Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.</p>						



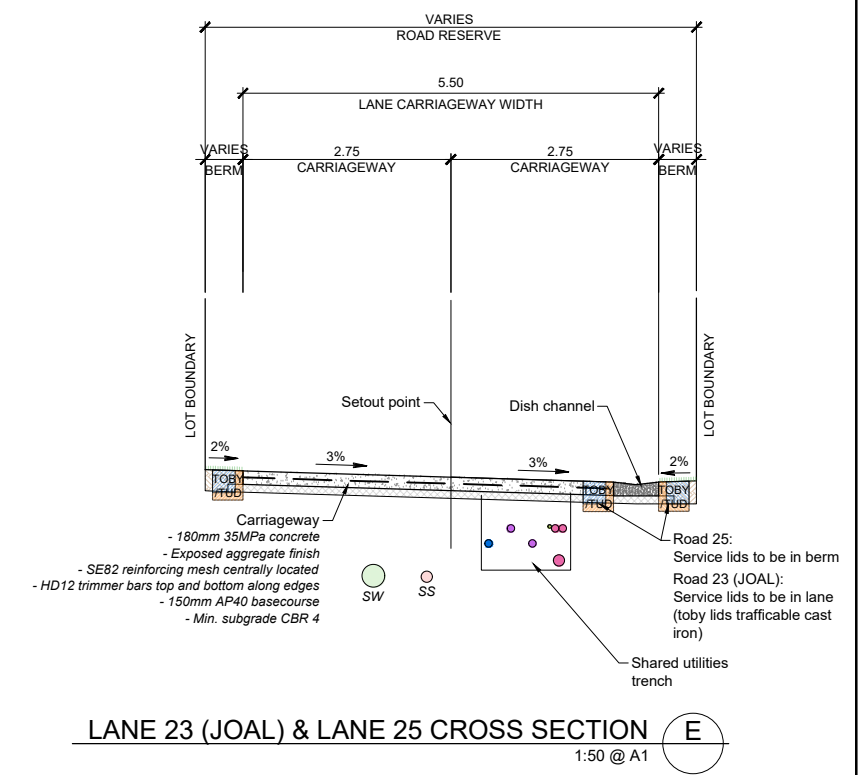
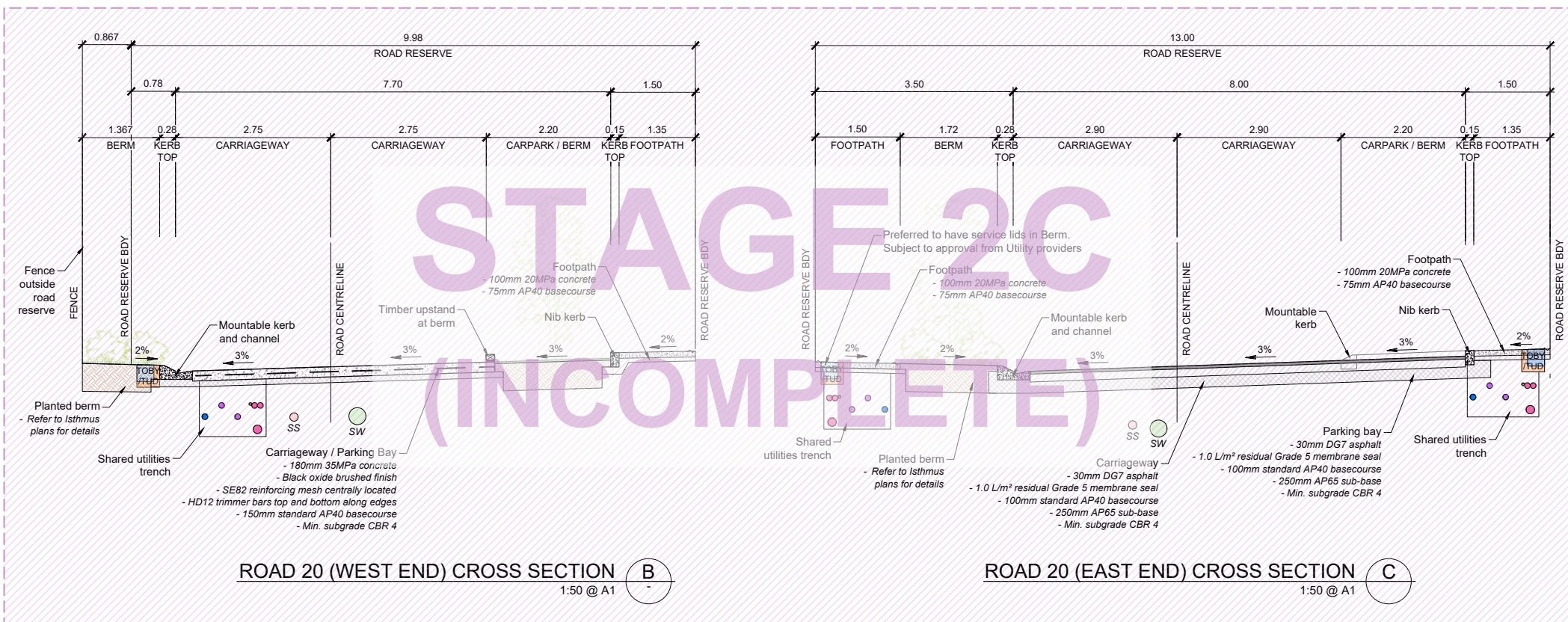
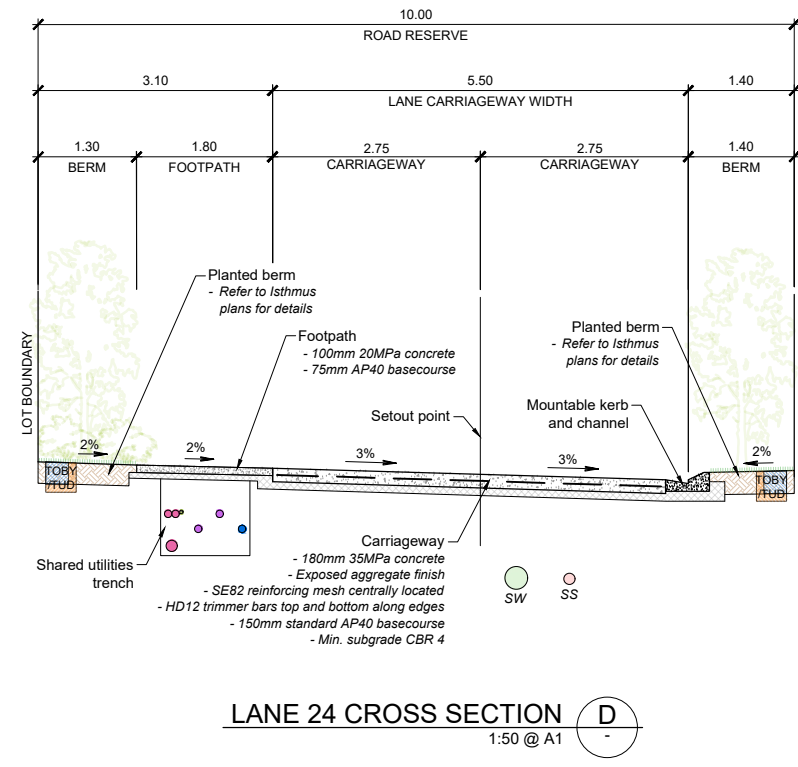
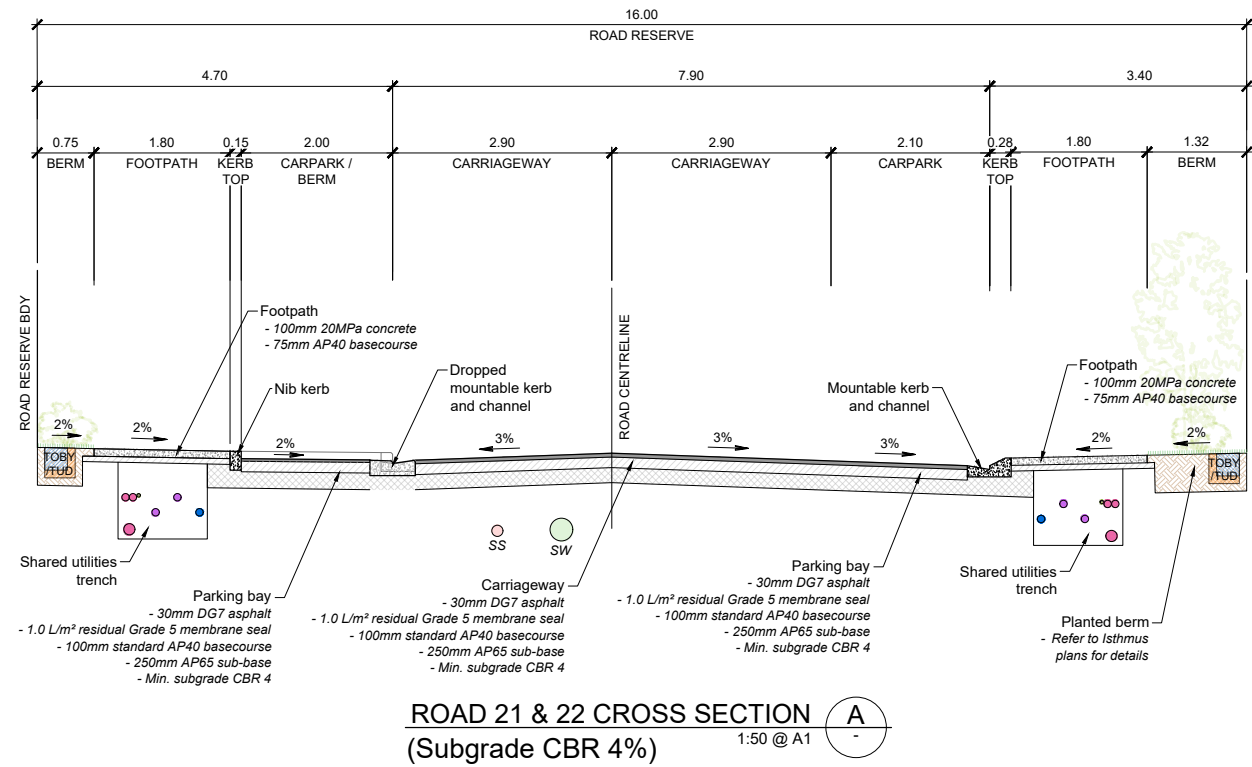
Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
ROADING
BENKELMAN BEAM TESTS**

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:500	(A3) 1:1000
Project No	709306.006
Sheet	C7315
Revision	0



AS BUILT ONLY

0 FIRST ISSUE	TM	17/06/21	Client
BDG 15/07/21	Designed	PCV	07/21
App	Drawn	SCP	15/07/21
Date	Reviewed	BDG	15/07/21
Approved	App		



Project Title
**KENEPURU LANDING STAGE 2
INFRASTRUCTURE &
SURVEYING**

Sheet Title
**AS-BUILT
TYPICAL ROAD
CROSS SECTIONS
SHEET 1 OF 2**

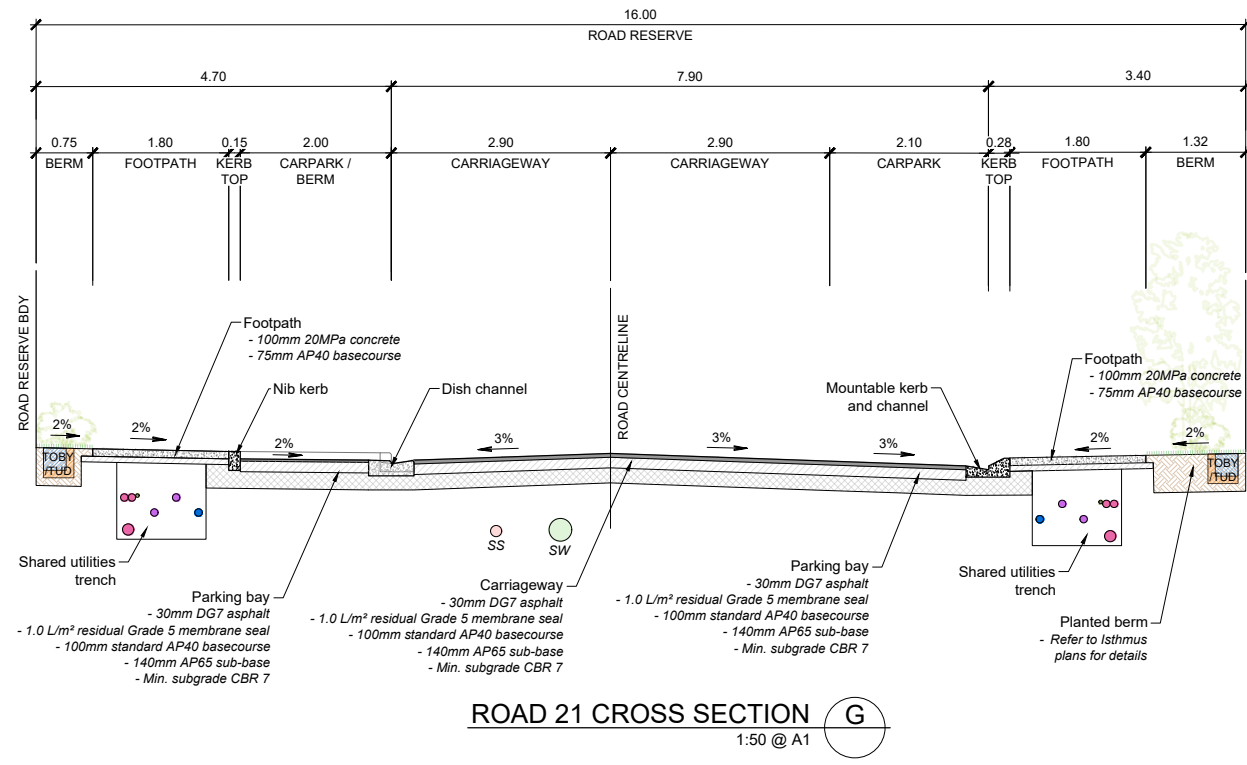
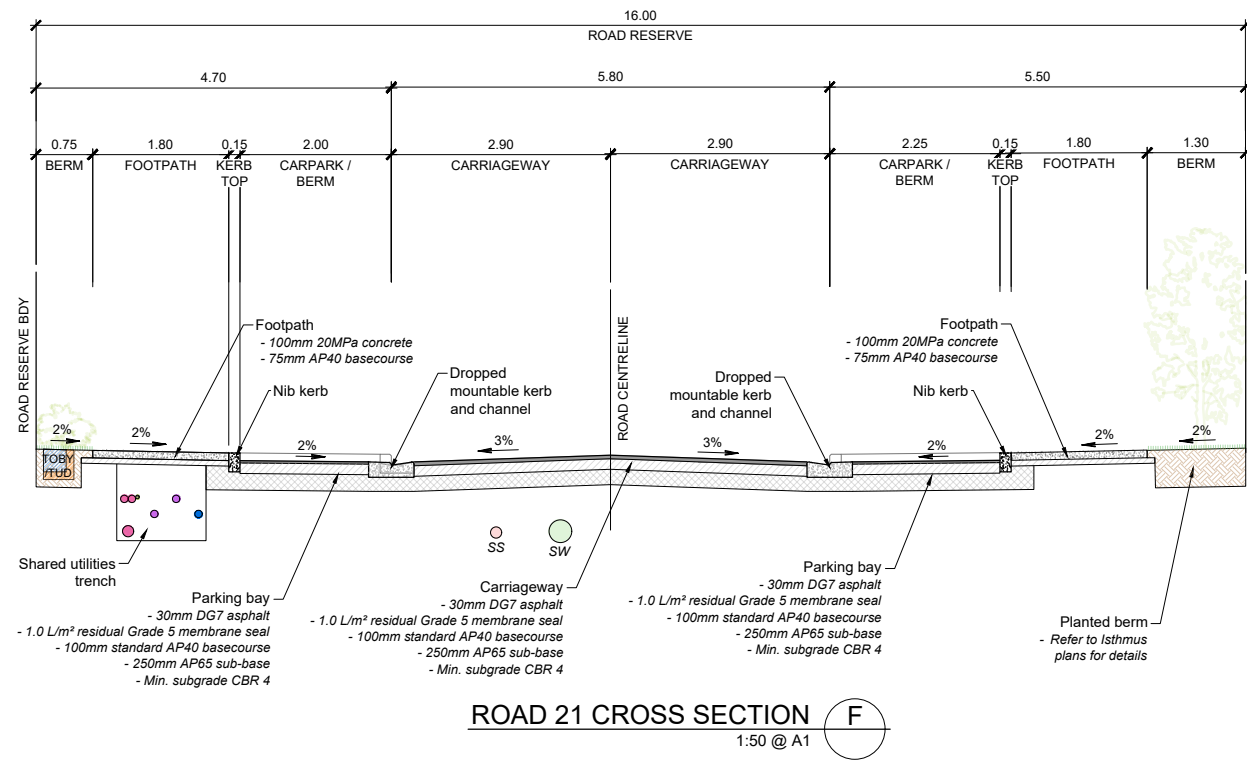
Level 13
Kordia House
103-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original) 1:50 (A3) 1:100

Project No: 709306.006 Sheet: C7320 Revision: 0

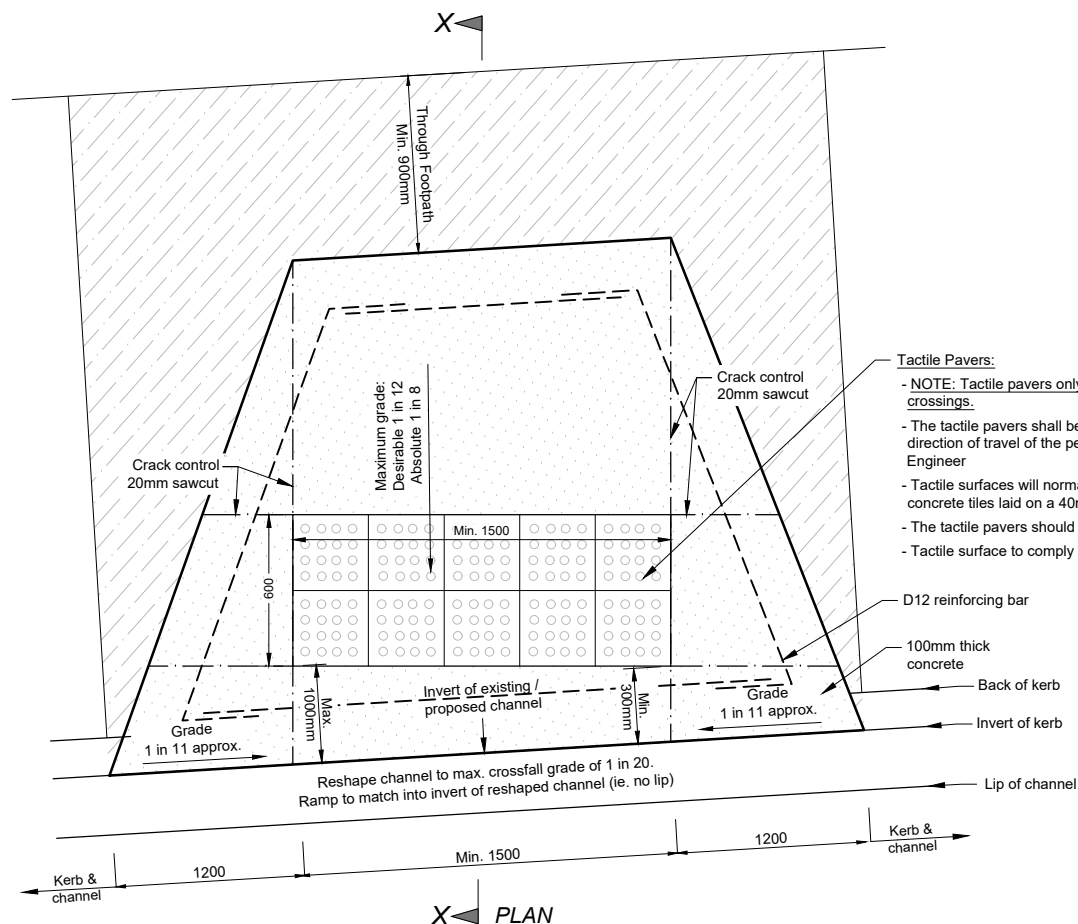
Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



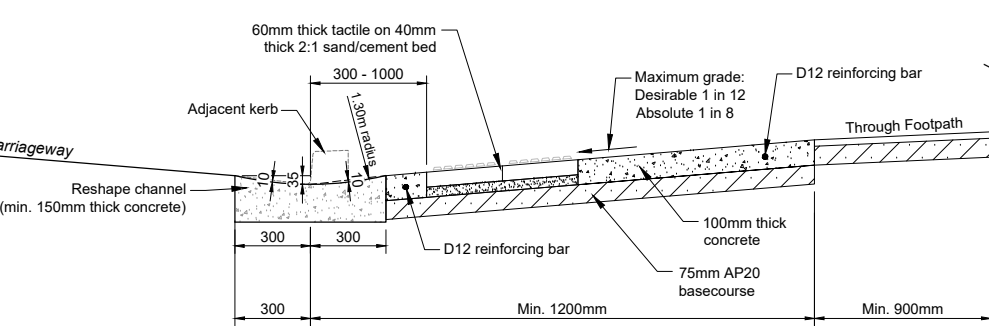
AS BUILT ONLY

0 FIRST ISSUE Revision	BDG 15/07/21 App Date	TM 17/06/21 PCV 07/21 BDG 15/07/21 BDG 15/07/21	Client Kenepuru LANDING STAGE 2	Project Title KENEPURU LANDING STAGE 2 INFRASTRUCTURE & SURVEYING	Sheet Title AS-BUILT TYPICAL ROAD CROSS SECTIONS SHEET 2 OF 2	Level 13 Kordia House 109-125 Willis Street Wellington 6141 +64 4 384 2029 calibregroup.com		Scale (A1 Original) 1:50 (A3) 1:100 	Project No 709306.006	Sheet C7321	Revision 0
---------------------------	--------------------------	--	---	---	---	--	--	---	---------------------------------	-----------------------	----------------------

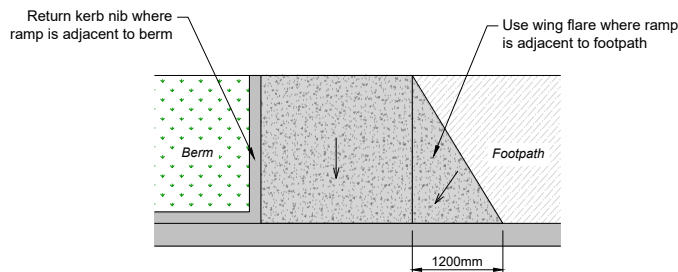
Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



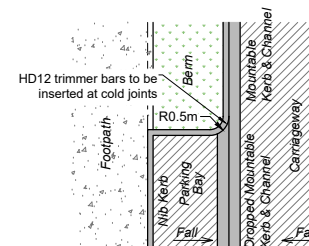
Tactile Pavers:
 - NOTE: Tactile pavers only required along Hall Road crossings.
 - The tactile pavers shall be aligned with the intended direction of travel of the pedestrian, as directed by the Engineer
 - Tactile surfaces will normally be 60mm thick yellow concrete tiles laid on a 40mm thick 2:1 sand/cement bed.
 - The tactile pavers should not be stepped.
 - Tactile surface to comply with LTSA RTS-14



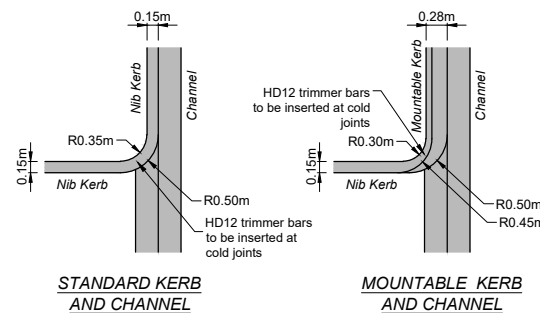
CROSS SECTION X-X



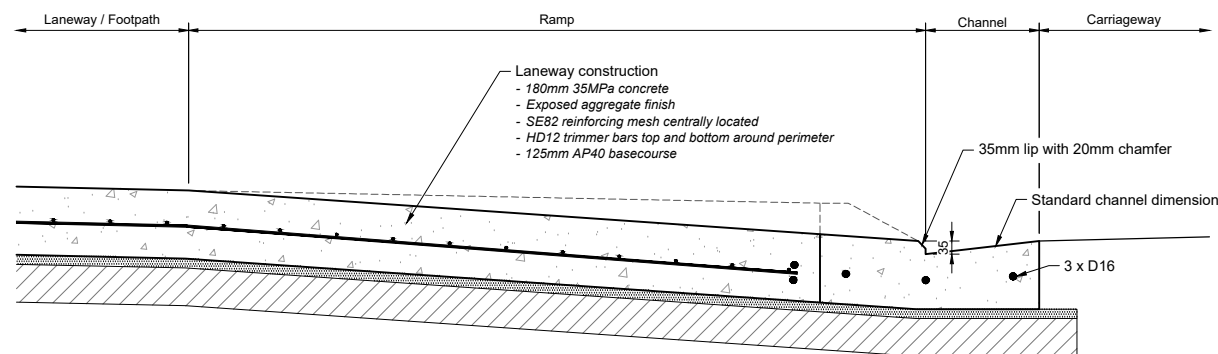
WING FLARES
 PEDESTRIAN RAMP
 Not to Scale



PARKING BAYS
 Scale 1:100 @ A1, 1:200 @ A3

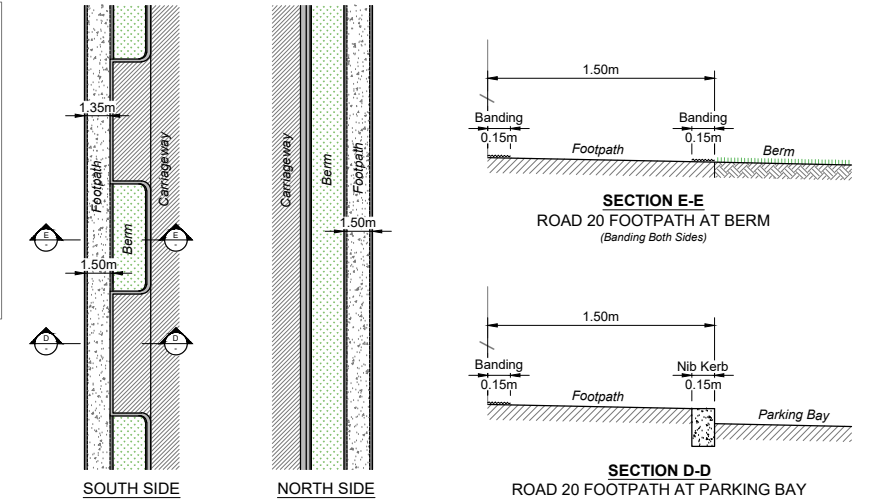


KERB TRANSITIONS AT PARKING BAYS AND VEHICLE CROSSINGS
 Scale 1:50 @ A1, 1:100 @ A3

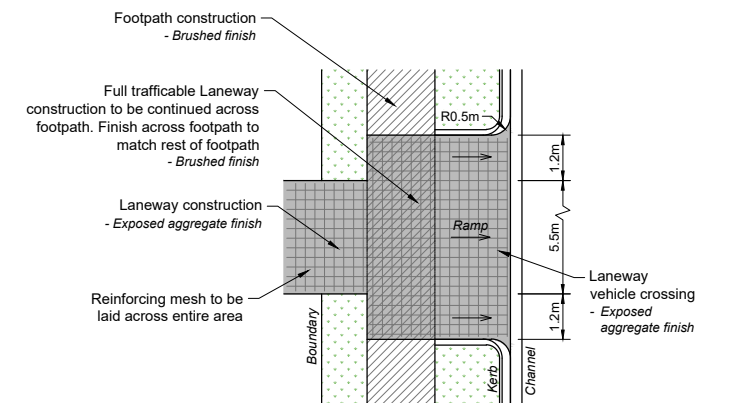


LANEWAY VEHICLE CROSSING
 Scale 1:10 @ A1, 1:20 @ A3

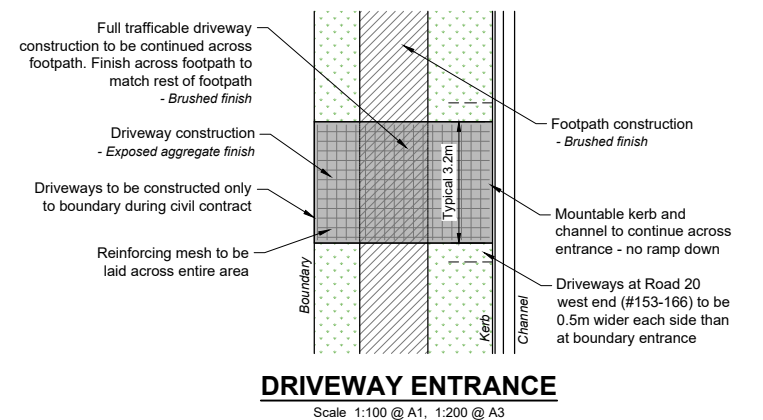
150mm WIDE FOOTPATH BANDING:
 Road 20 South Side:
 - Banding on south side of footpath for whole length.
 - Banding on north side of footpath only where there is no nib kerb adjacent to footpath.
 Road 20 North Side:
 - Banding on both sides of footpath for whole length.
 Road 21 & Road 22:
 - Banding on both sides of footpath for whole length.



ROAD 20 FOOTPATH BANDING
 Scale 1:200 @ A1, 1:400 @ A3



LANEWAY ENTRANCE WITH RAMP (WHERE BERM ADJACENT TO KERB)
 Scale 1:100 @ A1, 1:200 @ A3



DRIVEWAY ENTRANCE
 Scale 1:100 @ A1, 1:200 @ A3

AS BUILT ONLY

0 FIRST ISSUE	TM	17/06/21	Client
BDG 15/07/21	Designed	PCV	07/21
App	Drawn	SCP	15/07/21
Date	Reviewed	BDG	15/07/21
Approved			

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.



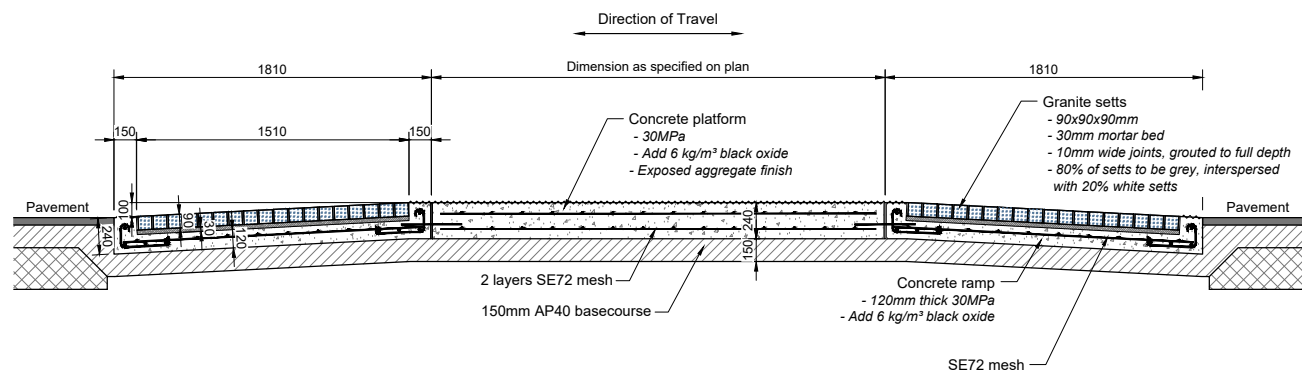
Project Title
 KENEPURU LANDING STAGE 2
 INFRASTRUCTURE &
 SURVEYING

Sheet Title
 AS-BUILT
 TYPICAL ROAD DETAILS
 SHEET 1 OF 2

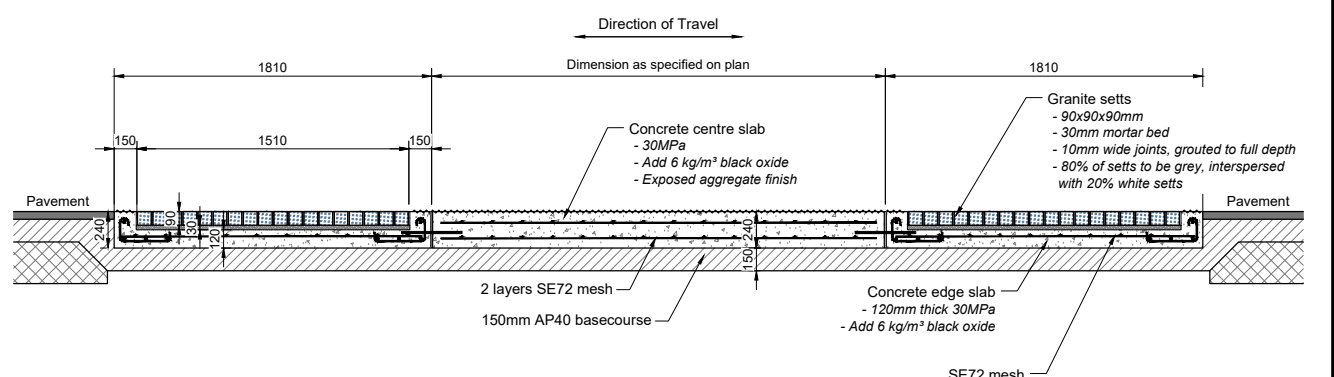
Level 13
 Kordia House
 109-125 Willis Street
 Wellington 6141
 +64 4 384 2029
 calibregroup.com



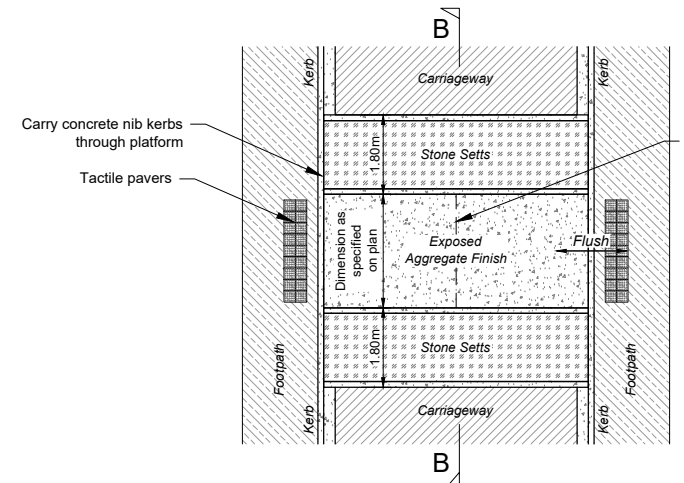
Scale (A1 Original)	SCALE AS NOTED
Project No	Sheet
709306.006	C7330
Revision	0



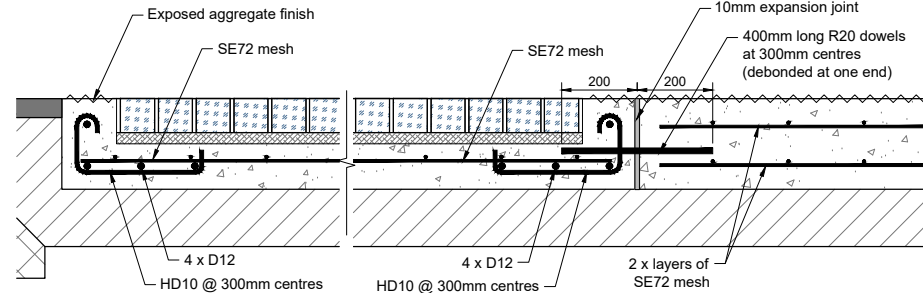
PEDESTRIAN PLATFORM SECTION B-B
Scale 1:25 @ A1, 1:50 @ A3



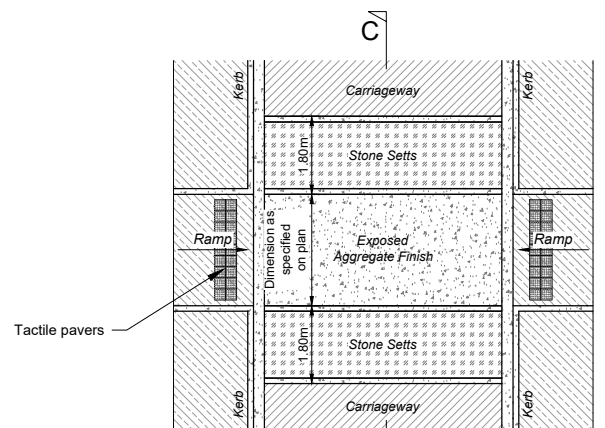
FLUSH THRESHOLD SECTION C-C
Scale 1:25 @ A1, 1:50 @ A3



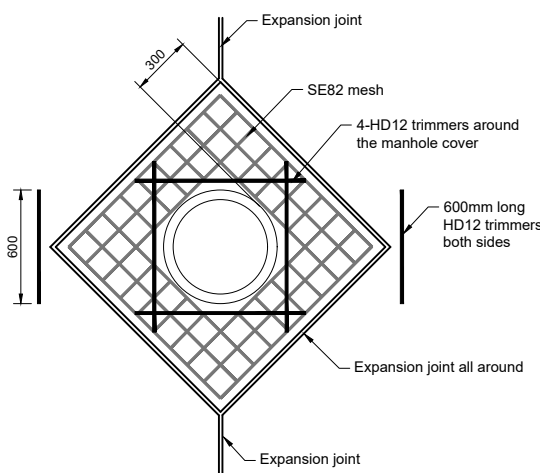
PEDESTRIAN PLATFORM PLAN
Scale 1:100 @ A1, 1:200 @ A3



PEDESTRIAN PLATFORM AND FLUSH THRESHOLD REINFORCING
Scale 1:10 @ A1, 1:20 @ A3

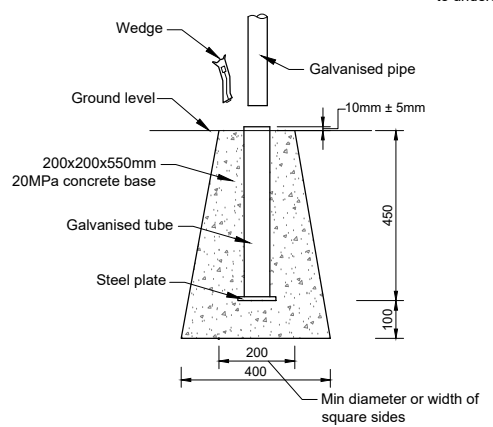


FLUSH THRESHOLD PLAN
Scale 1:100 @ A1, 1:200 @ A3

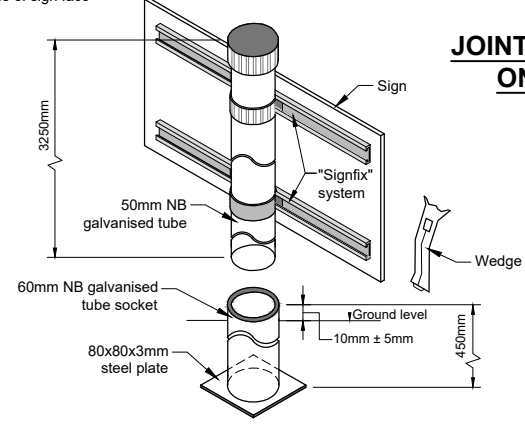


SERVICE LID DETAIL FOR CONCRETE LANE WAY AND FOOTPATHS
Scale 1:20

NOTE:
Signs at footpaths to have min. mounting height of 2.5m to underside of sign face

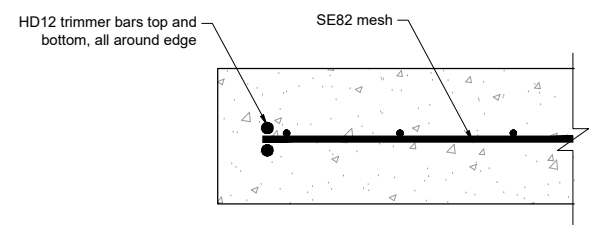


SIGN BASE
Scale 1:10 @ A1, 1:20 @ A3

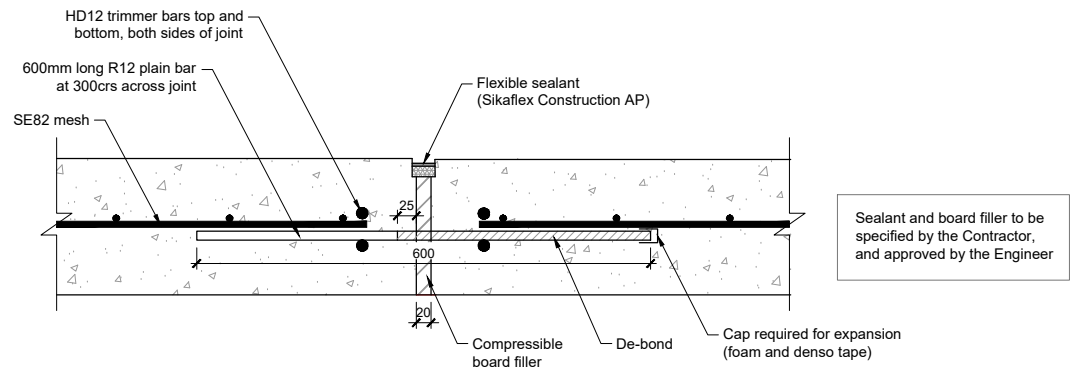


SIGN MOUNTING
Scale 1:5 @ A1, 1:10 @ A3

JOINTS AT MANHOLE COVERS ON EXPANSION JOINTS
Scale 1:20



EDGE DETAIL FOR CONCRETE LANE WAY
Scale 1:5



EXPANSION JOINT DETAIL FOR CONCRETE LANE WAY
Scale 1:5

Sealant and board filler to be specified by the Contractor, and approved by the Engineer

AS BUILT ONLY

0 FIRST ISSUE	TM	17/06/21	Client
Revision	Designed	07/21	
BDG 15/07/21	Drawn	15/07/21	
App	Reviewed	15/07/21	
Date	Approved	15/07/21	



Project Title
KENEPURU LANDING STAGE 2
INFRASTRUCTURE & SURVEYING

Sheet Title
AS-BUILT
TYPICAL ROAD DETAILS
SHEET 2 OF 2

Level 13
Kordia House
109-125 Willis Street
Wellington 6141
+64 4 384 2029
calibregroup.com



Scale (A1 Original)	Sheet	Revision
SCALE AS NOTED	C7331	0
Project No	709306.006	

Verify all dimensions on site before commencing work. Prioritise figured dimensions over scaling. Refer all discrepancies to Calibre. This document and the copyright in this document remain the property of Calibre Consulting Limited. The contents of this document may not be reproduced either in whole or in part by any means whatsoever without the prior written consent of Calibre Consulting Limited.