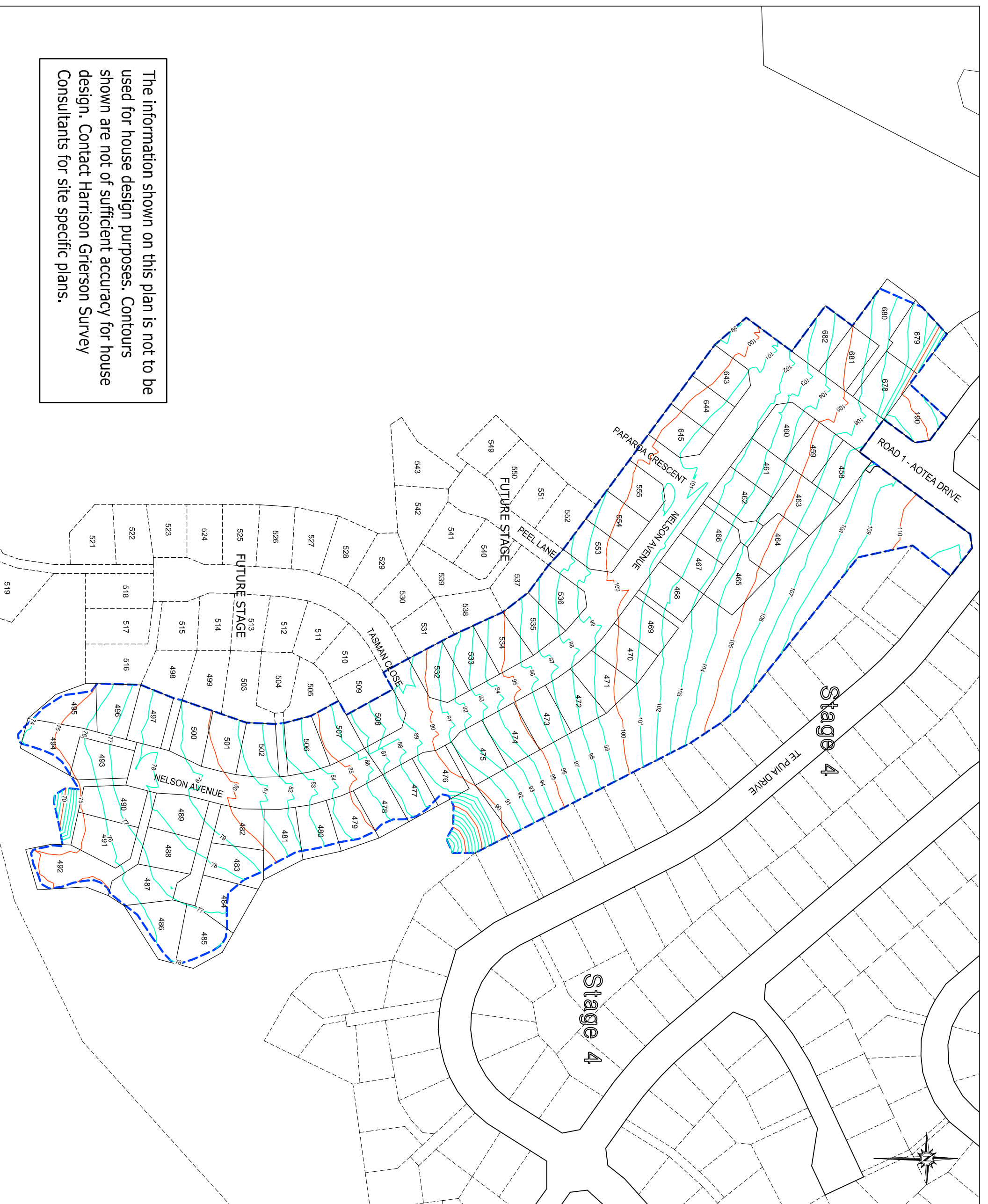
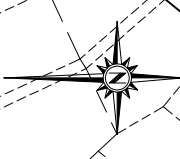


- NOTES:
1. Contours are shown at 1m intervals.
 2. Topsoil of approximately 150mm to 200mm has been laid on all lots.

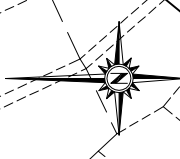


The information shown on this plan is not to be used for house design purposes. Contours shown are not of sufficient accuracy for house design. Contact Harrison Grierson Survey Consultants for site specific plans.

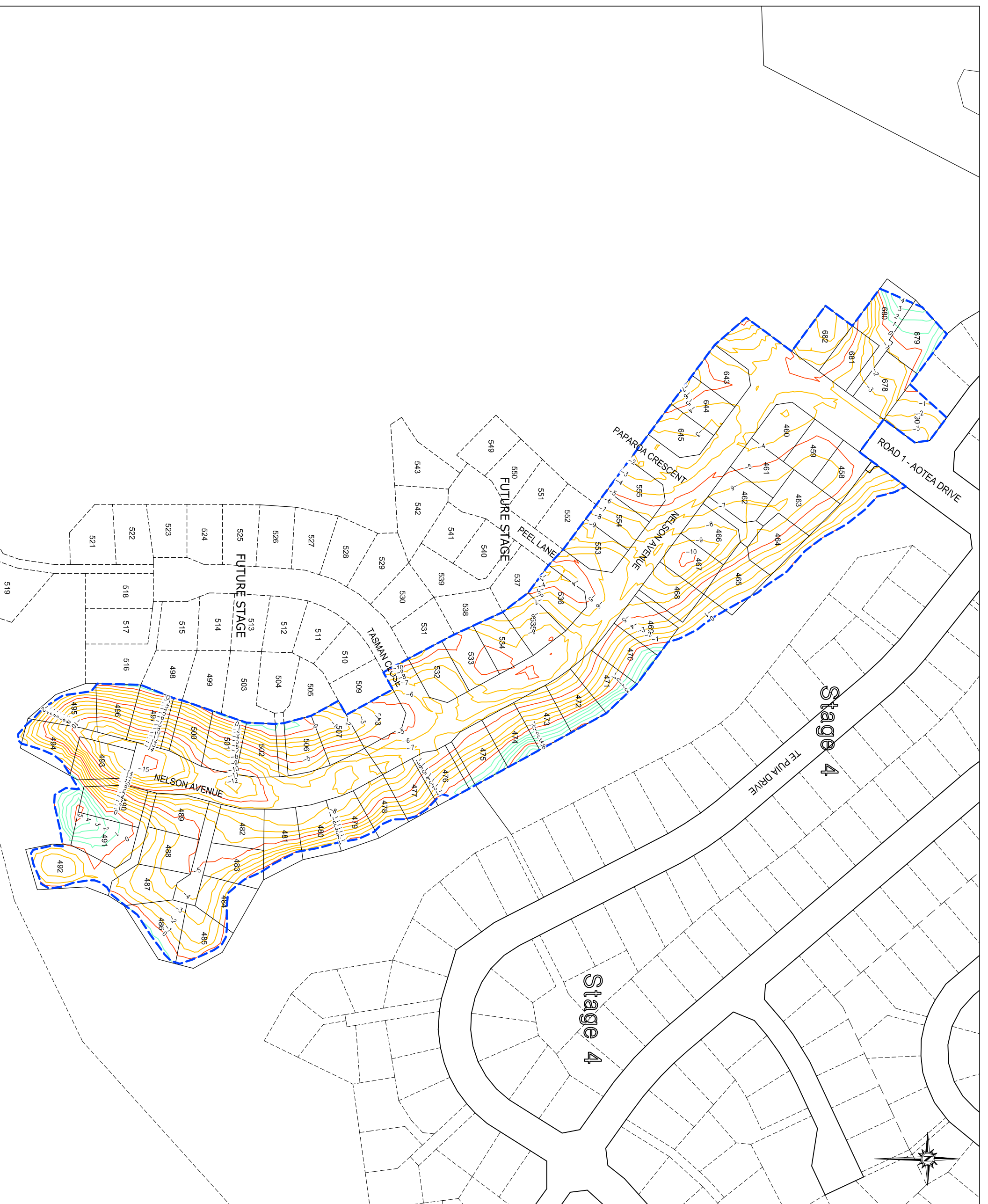


Level 16 Grand Alliance Tower 246 Clive Terrace Wellington Ph: 04 385 0035 Fax: 04 385 0065

PROJECT:	CARRUS LIMITED
TITLE:	AOTEA BLOCK - PORIRUA STAGE 5A & 5B
ASBUILT SUBGRADE CONTOURS	
DESIGNED:	DATE: SIGNATURE:
DRAWN:	DATE: SIGNATURE:
CHECKED:	DATE: SIGNATURE:
APPROVED:	DATE: SIGNATURE:
PWMW:	DATE: SIGNATURE:
PROJECT NO:	1850-00633-01
DRAWING NO:	000633-5A-AB200
SCALE:	1:1000 (A1) 1:2000 (A3)
ISSUE:	A1
REV:	A



- NOTES:
- 1, Contours are shown at 1m Intervals.
 - 2, Denotes Cut.
 - 3, Denotes Fill.



Level 16 Grand Alliance Tower 246 Collier Terrace Wellington Ph: 04 385 0035 Fax: 04 385 0066

REF	AMENDMENT	BY	DATE
A	Initial Release	PWJ	05-2007

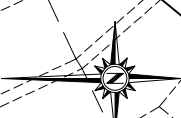
PROJECT:
CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGE 5A & 5B

TITLE:
ASBUILT CUT/FILL CONTOURS

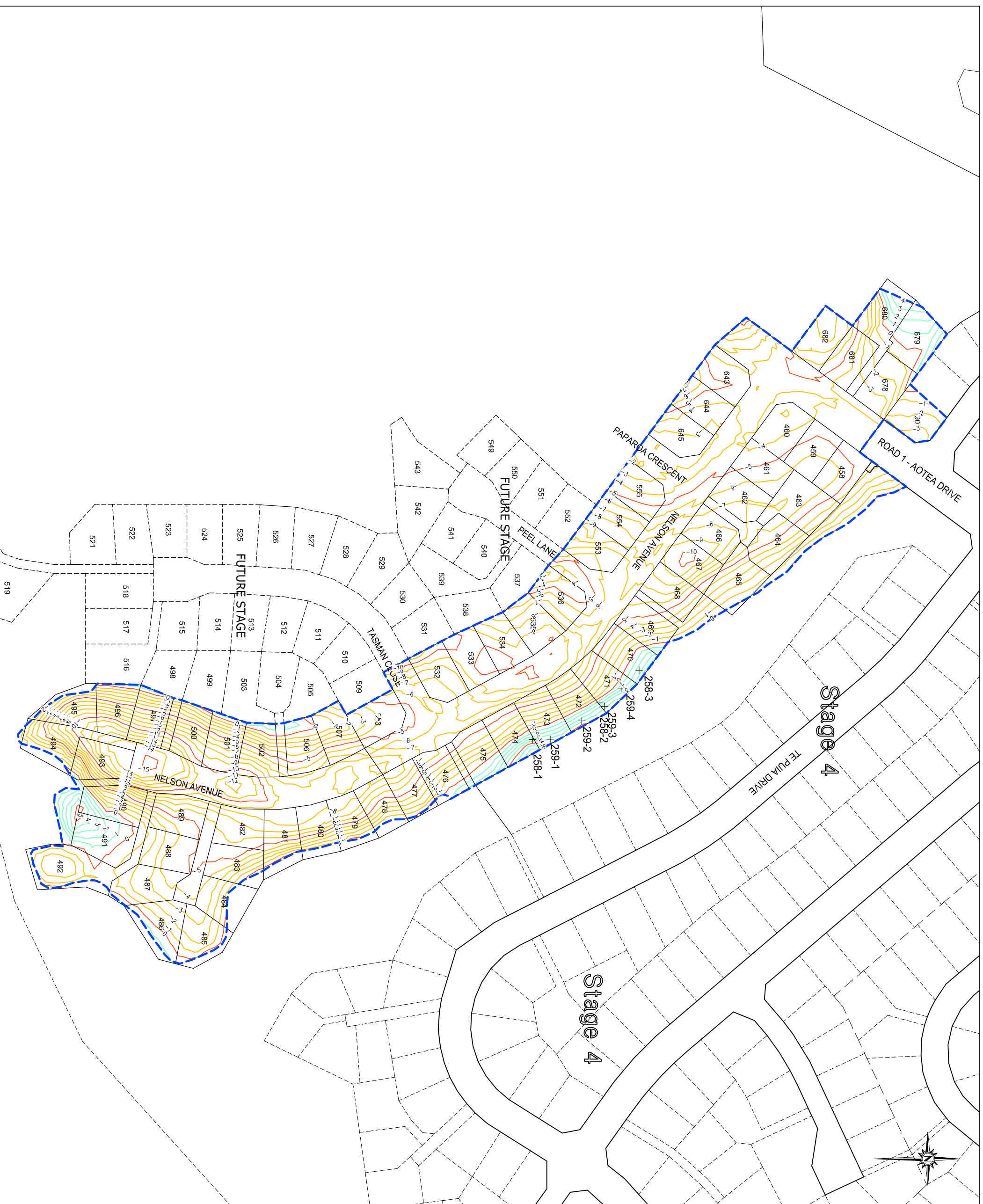
DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DATE:	SIGNATURE:	CAD REF:	12-06-2007
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	
DATE:	SIGNATURE:	CAD REF:	

PROJECT NO: 1850-00633-01
SCALE: 1:1000 (A1)
1:2000 (A3)
DRAWING NO: 000633-5A-AB201
ISSUE A
REV A

THIS DRAWING AND DESIGN REMAINS THE PROPERTY OF AND MAY NOT BE REPRODUCED OR ALTERED WITHOUT THE WRITTEN PERMISSION OF HARRISON GRIERSON CONSULTANTS LIMITED. NO LIABILITY SHALL BE ACCEPTED FOR UNAUTHORIZED USE OF THIS DRAWING.



- NOTES:
- 1, Contours are shown at 1m Intervals.
 - 2,  Denotes Cut.
 - 3,  Denotes Fill.



HARRISON GRIERSON
CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Alliance Tower 246 Glenelg Terrace Wellington Ph: 04 385 0035 Fax: 04 385 0065

REF	AMENDMENT	BY	DATE
A	Initial Release	PWJ	05-2007

PROJECT:

CARRUS LIMITED
AOTEA BLOCK - PORIRUA
STAGE 5A & 5B

TITLE:

ASBUILT CUT/FILL CONTOURS
WITH SOIL TESTS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DATE:	DATE:	SIGNATURE:	12-06-2007
DRAWN:	DATE:	SIGNATURE:	CAD REF:
PWJ	04-2007		04-2007
CHECKED:	DATE:	SIGNATURE:	SURVEY BY:
BWH	04-2007		
APPROVED:	DATE:	SIGNATURE:	SURVEY DATE:
PMMW	04-2007		
			SUR REF:

FOOTNOTES:

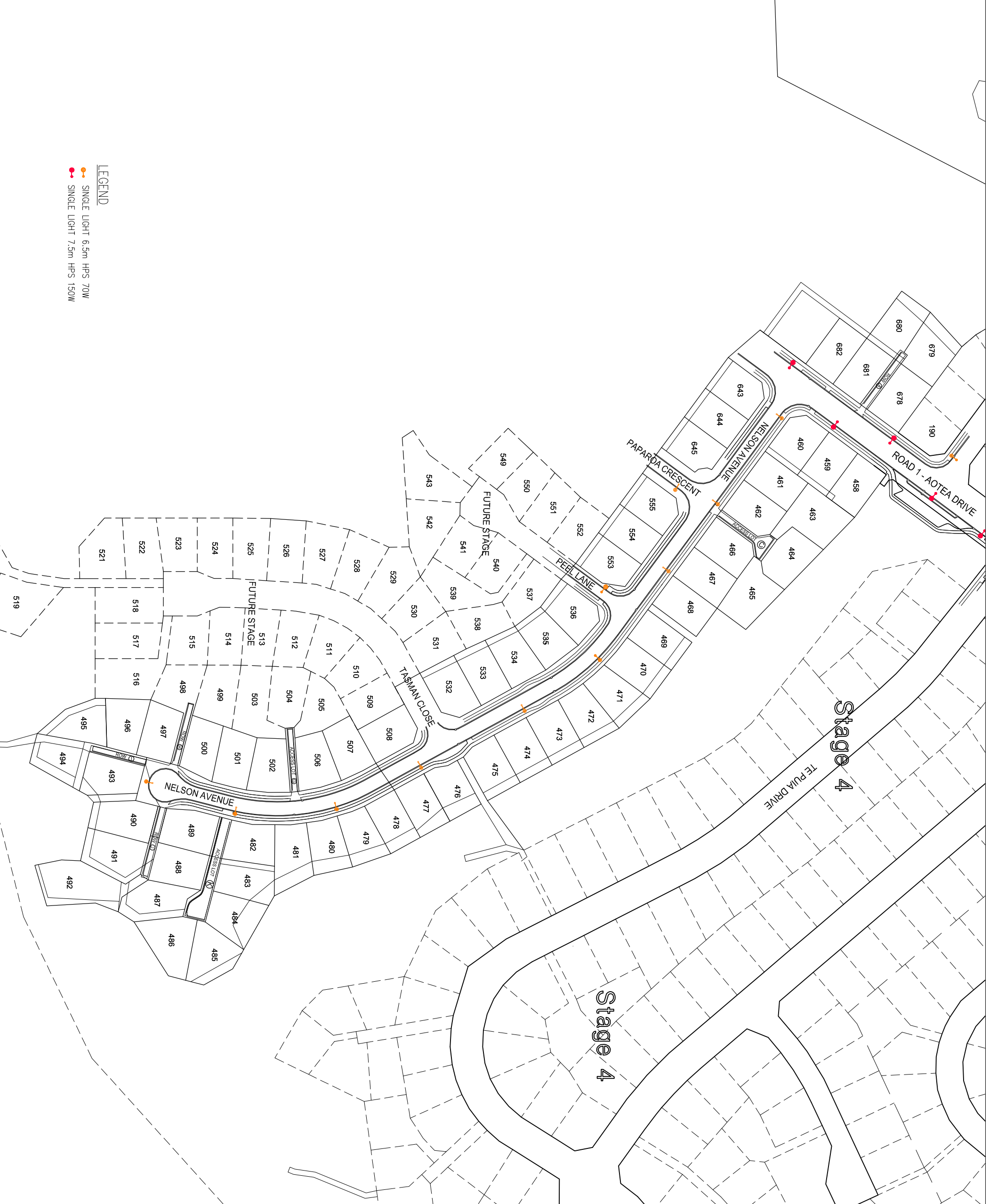
ISSUE A

PROJECT NO:	SCALE:
1850-00633-01	1:1000 (A3)
	1:2000 (A3)

DRAWING NO:

000633-5A-AB202

REV



- LEGEND**
- SINGLE LIGHT 6.5m HPS 70W
 - SINGLE LIGHT 7.5m HPS 150W

HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 Level 16 Good Shepherd Tower 26 Collier Terrace Wellington Ph: 04 385 0035 Fax: 04 385 0065

CARRUS LIMITED
 AOTEA BLOCK-PORIRUA
 STAGE 5 A & B

ROADING AS BUILTS
 OVERALL LAYOUT AND STREET LIGHTS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DRAWN:	DATE:	SIGNATURE:	CAD REF: 000633-5-AB300
CHECKED:	DATE:	SIGNATURE:	SURVEY BR: GNB
APPROVED:	DATE:	SIGNATURE:	SURVEY DATE: 04-2007
P/M/W:	DATE:	SIGNATURE:	SUR REF:

PROJECT NO:	1850.000633.01	SCALE:	1:1000 (A1)
DRAWING NO:	000633-5-AB300	SCALE:	1:2000 (A3)
REV		REV	
A		A	

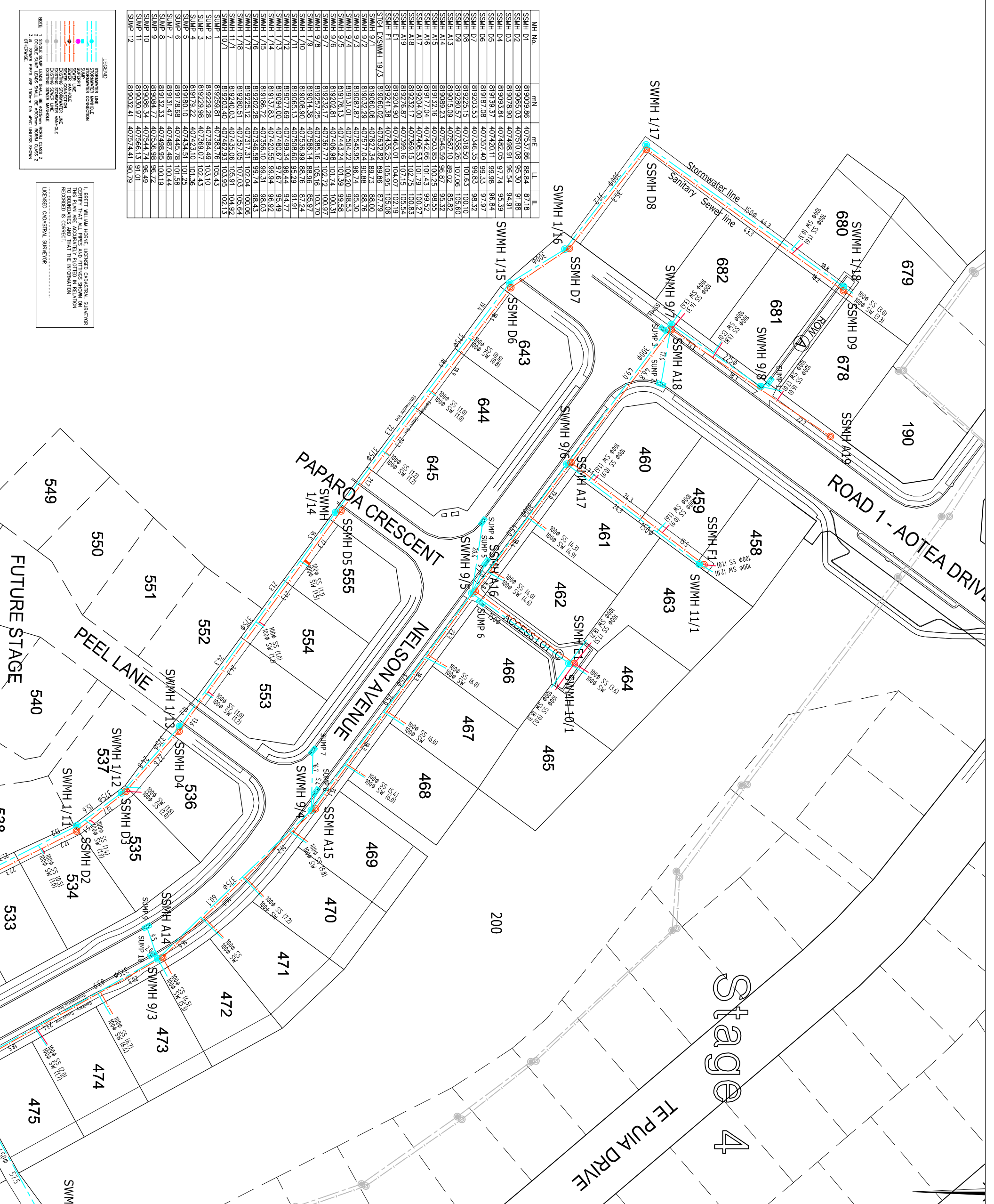
HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 Level 16 Grand Alliance Tower, 26 Collier Terrace, Wellington, N.Z. 6145. Phone: 04 385 0005 Fax: 04 385 0006

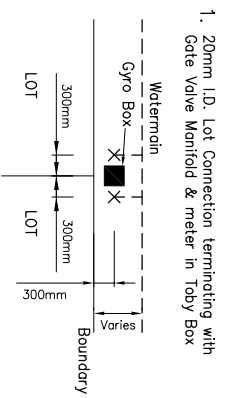
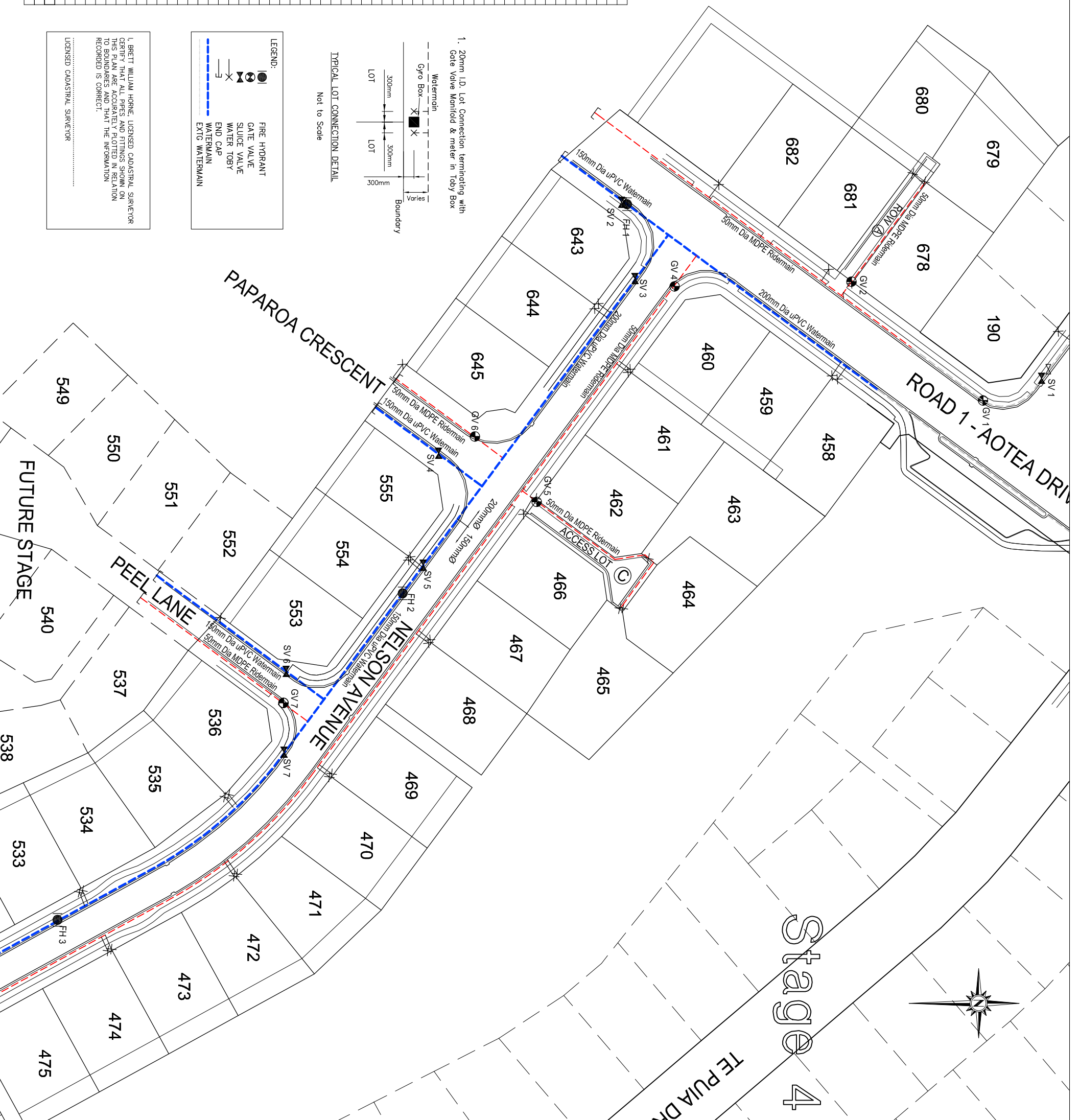
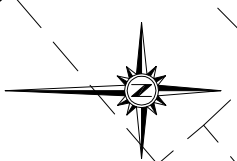
PROJECT: CARRUS LIMITED
 AOTEA BLOCK-PORIRUA
 STAGE 5 A

TITLE: DRAINAGE AS BUILTS
 OVERALL LAYOUT

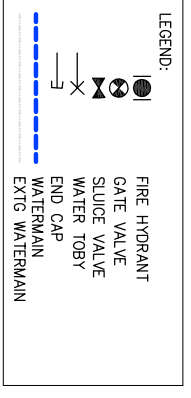
REGISTERED:	DATE:	SIGNATURE:	PLOT DATE:
GAW/CNR	05-2006		06-2007
DRAWN:	DATE:	SIGNATURE:	CAD REF:
GMB	05-2007		GMB
CHECKED:	DATE:	SIGNATURE:	CAD REF:
GAW	05-2007		GMB
APPROVED:	DATE:	SIGNATURE:	SHEET DATE:
PNM/W	05-2007		04-2007

PROJECT NO:	SCALE:	DATE:
1850(000633.01)	1:1500 (A1)	
DRAWING NO:	SCALE:	DATE:
000633-5-AB400 A	1:1000 (A3)	
REV		
B		





1. 20mm I.D. Lot Connection terminating with Gate Valve Manifold & meter in Toby Box



LEGEND:
 FIRE HYDRANT
 GATE VALVE
 SLUICE VALVE
 WATER TOBY
 END CAP
 WATERMAIN
 EXTG WATERMAIN

I, BRETT WILLIAM HORNE, LICENSED CADASTRAL SURVEYOR CERTIFY THAT ALL PIPES AND FITTINGS SHOWN ON THIS PLAN ARE ACCURATELY PLOTTED IN RELATION TO BOUNDARIES AND THAT THE INFORMATION RECORDED IS CORRECT.

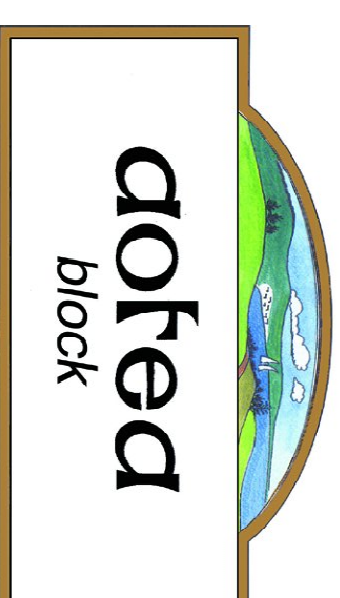
MH No	MN	ME	CODE
LOT 190	819315.43	407399.11	TOBY
LOT 456	819256.25	407411.50	TOBY
LOT 459	819256.87	407410.58	TOBY
LOT 460	819204.62	407408.94	TOBY
LOT 461	819204.06	407409.71	TOBY
LOT 462	819180.17	407442.32	TOBY
LOT 463	819209.34	407451.89	TOBY
LOT 464	819202.74	407470.77	TOBY
LOT 465	819201.90	407470.94	TOBY
LOT 466	819176.98	407446.44	TOBY
LOT 467	819152.83	407479.00	TOBY
LOT 468	819152.40	407479.80	TOBY
LOT 469	819127.32	407513.69	TOBY
LOT 470	819126.76	407514.49	TOBY
LOT 471	819102.83	407539.59	TOBY
LOT 472	819102.08	407540.21	TOBY
LOT 473	819070.30	407559.07	TOBY
LOT 474	819069.42	407559.54	TOBY
LOT 475	819034.78	407581.76	TOBY
LOT 476	819031.60	407582.99	TOBY
LOT 477	818996.42	407589.38	TOBY
LOT 508	818987.02	407585.21	TOBY
LOT 532	819010.66	407555.75	TOBY
LOT 533	819062.01	407544.38	TOBY
LOT 534	819062.84	407543.89	TOBY
LOT 535	819099.64	407519.74	TOBY
LOT 536	819100.69	407519.04	TOBY
LOT 553	819098.64	407473.60	TOBY
LOT 554	819147.22	407458.33	TOBY
LOT 555	819147.70	407457.53	TOBY
LOT 643	819196.38	407391.95	TOBY
LOT 644	819195.40	407393.22	TOBY
LOT 645	819145.73	407407.66	TOBY
LOT 678	819261.97	407386.68	TOBY
LOT 679	819280.81	407380.36	TOBY
LOT 680	819277.78	407358.26	TOBY
LOT 681	819256.03	407383.09	TOBY
LOT 682	819227.53	407361.23	TOBY
FH 1	819203.81	407366.20	FH
FH 2	819145.73	407466.94	FH
FH 3	819056.36	407351.51	FH
GV 1	819295.97	407471.02	GV
GV 2	819261.90	407386.25	GV
GV 4	819216.12	407387.47	GV
GV 5	819180.42	407443.25	GV
GV 6	819164.42	407426.34	GV
GV 7	819114.86	407495.32	GV
GV 8	819013.89	407564.82	GV
GV 9	818990.55	407588.26	GV
SV 1	819311.13	407411.77	SV
SV 2	819203.06	407365.77	SV
SV 3	819205.86	407383.45	SV
SV 4	819155.03	407430.67	SV
SV 5	819151.04	407459.68	SV
SV 6	819115.58	407487.15	SV
SV 7	819150.02	407508.09	SV
SV 8	819021.37	407562.14	SV
SV 9	819009.65	407371.50	SV

		PROJECT: CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 5 A	
TITLE: WATERMAIN AS BUILTS OVERALL LAYOUT		DESIGNER: DATE: 04/2006 DRAWN: DATE: 05/2007 CHECKED: DATE: 05/2007 APPROVED: DATE: 05/2007	
PLOT DATE: 06/2007 CAD REF: 000633-5-AB500 A		SIGNATURE: _____ SIGNATURE: _____ SIGNATURE: _____ SIGNATURE: _____	
SCALE: 1:500 (A1) 1:1000 (A3)		PLOT STATUS: FINAL	
DRAWING NO: 000633-5-AB500 A		REV: A1 REV: B	

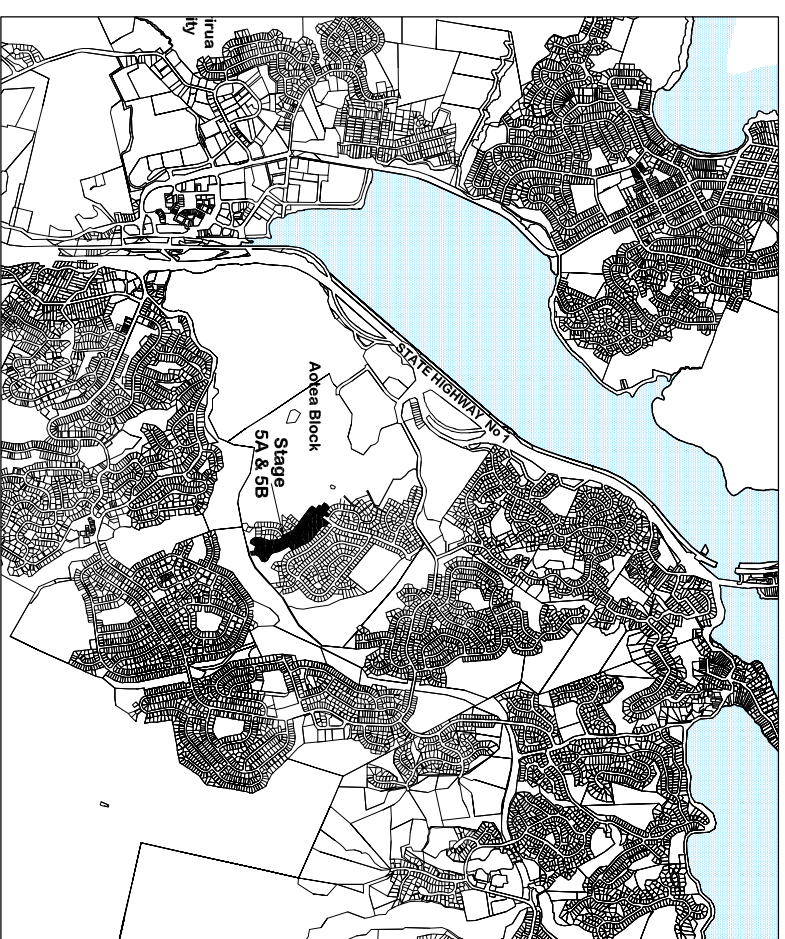
CARRUS LIMITED

AOTEA BLOCK - PORIRUA

STAGE 5A & 5B AS-BUILT



000633-5-AB200	Earthworks As-Builts
000633-5-AB201	Finished Subgrade Contours
000633-5-AB202	Earthworks As-Builts Cut/Fill Contours
000633-5-AB300	Earthworks As-Builts Cut/Fill Contours
	Soil Test & Subsoil Location
	Roading As-Builts Overall
	Layout & Lights
000633-5-AB400 A	Drainage As-Builts Overall Layout
000633-5-AB400 B	Drainage As-Builts Overall Layout
000633-5-AB500 A	Watermain As-Builts Overall Layout
000633-5-AB500 B	Watermain As-Builts Overall Layout
000633-5-AB500 C	Watermain As-Builts Overall Layout



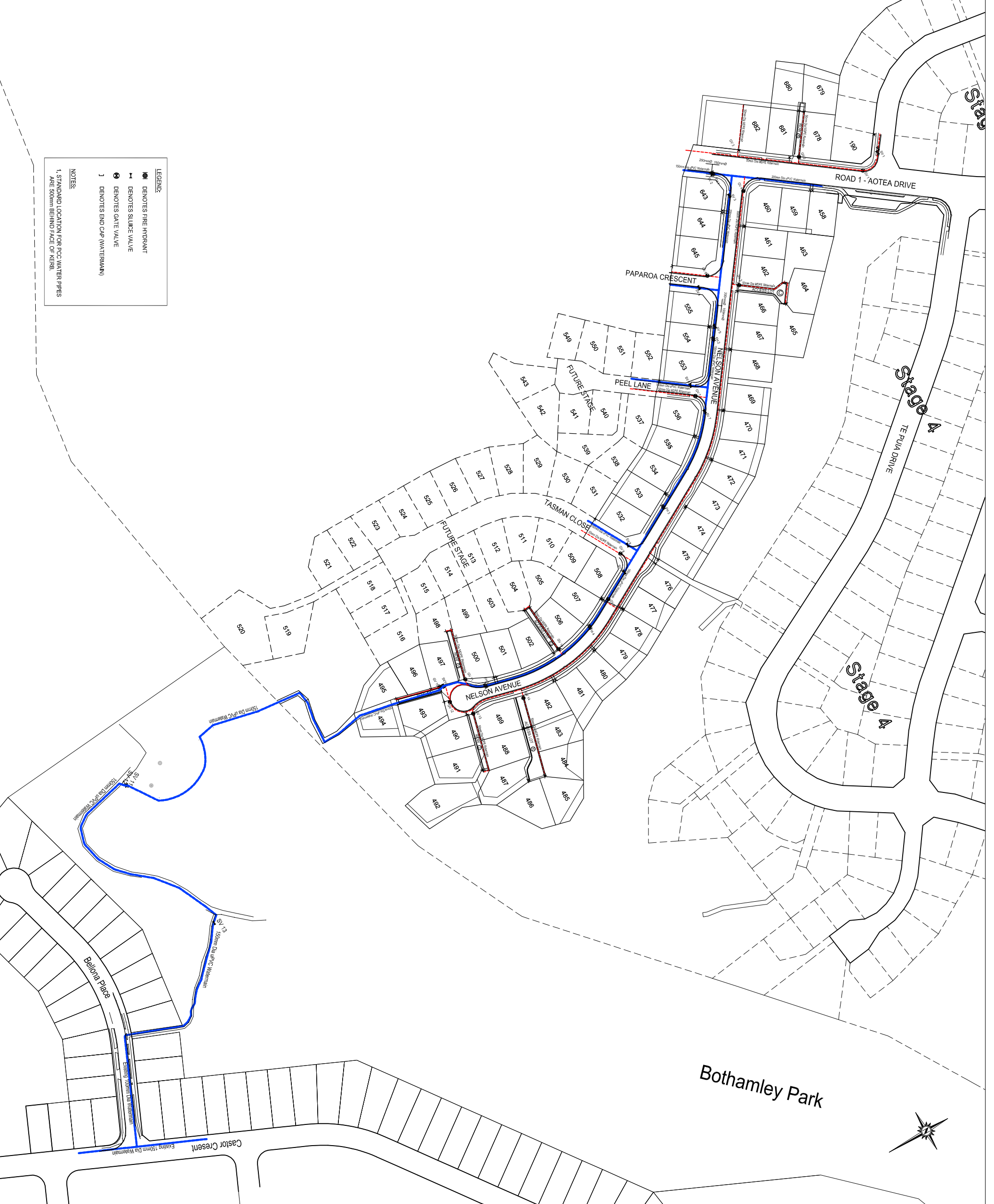
Locality Plan
Scale 1:25,000



**HARRISON
GRIERSON**

ISSUE A

**1850-000633-01
JUNE 2007**



HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS
 Level 16 Grand Alliance Tower 240 Collier Terrace Wellington Ph: 04 385 0005 Fax: 04 385 0006

PROJECT:	CARRUS LIMITED AOTEA BLOCK-PORIRUA STAGE 5 A & B
DESIGNER:	GMB
CHECKED:	GMB
APPROVED:	GMB

REV	DATE	BY	DESCRIPTION
B	05-2007	GMB	WATER TOB'S ADDED - LOTS 532, 553 & 645
A	05-2007	GMB	INITIAL RELEASE
REF			AMENDMENT

TITLE:
**WATERMAIN AS BUILTS
 OVERALL LAYOUT**

PROJECT NO:
 000633-5-AB500 C

SCALE:
 1:1250 (A1)
 1:1250 (A3)

DRAWING NO:
000633-5-AB500 C

DATE:
 06-2007

DESIGNER:
 GMB

CHECKED:
 GMB

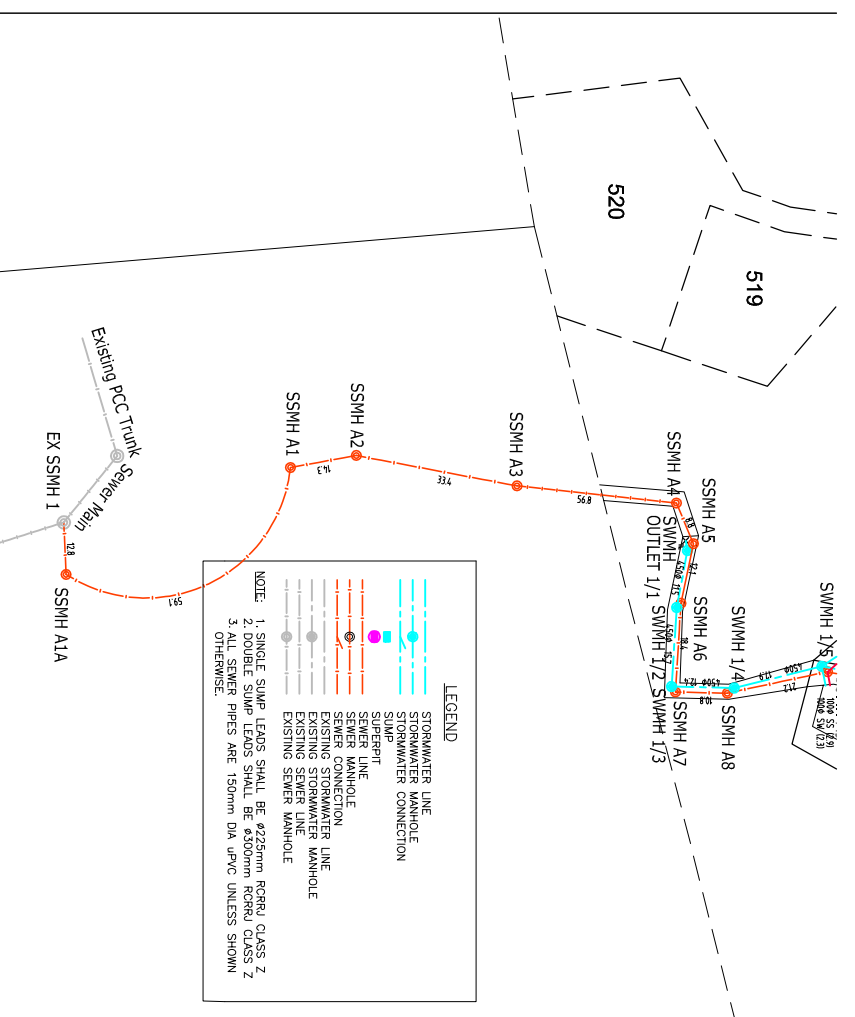
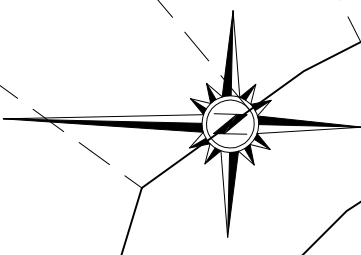
APPROVED:
 GMB

PROJECT STATUS:
FINAL

- LEGEND:**
- DENOTES FIRE HYDRANT
 - ⊕ DENOTES SLUDGE VALVE
 - ⊙ DENOTES GATE VALVE
 - ⌋ DENOTES END CAP (WATERMAIN)

NOTES:

1. STANDARD LOCATION FOR PCC WATER PIPES ARE SHOWN BEHIND FACE OF KERB.



LEGEND

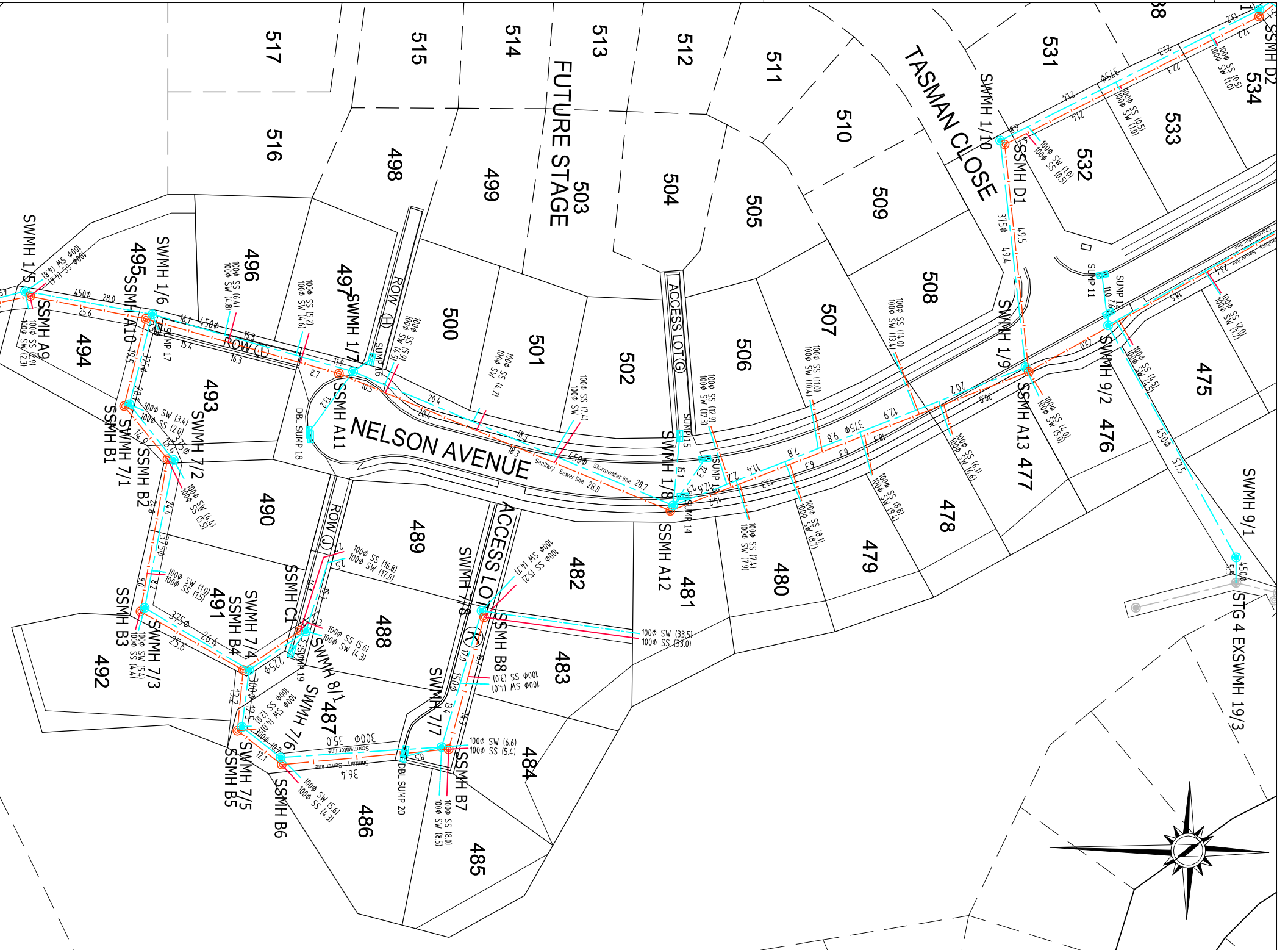
- STORMWATER LINE
- STORMWATER MANHOLE
- STORMWATER CONNECTION
- SUMP
- SUPERPIT
- SEWER LINE
- SEWER CONNECTION
- EXISTING STORMWATER LINE
- EXISTING STORMWATER MANHOLE
- EXISTING SEWER MANHOLE

NOTE:

1. SINGLE SUMP LEADS SHALL BE 425mm RGRU CLASS 2
2. ALL SUMP LEADS SHALL BE 150mm DIA UPVC UNLESS SHOWN OTHERWISE.
3. ALL SUMP PIPES ARE 150mm DIA UPVC UNLESS SHOWN OTHERWISE.

MH No.	mN	mE	LL	LL
EXSSMH 1	818647.00	407541.11	26.12	24.71
SSMH A1	818647.51	407551.42	28.19	26.93
SSMH A2	818692.03	407530.19	33.66	32.09
SSMH A3	818705.09	407527.83	38.92	37.26
SSMH A4	818736.93	407533.85	47.12	46.01
SSMH A5	818768.56	407537.25	53.36	51.56
SSMH A6	818771.96	407545.31	54.04	52.78
SSMH A7	818769.44	407557.16	59.32	57.65
SSMH A8	818768.38	407574.75	64.74	63.19
SSMH A9	818778.65	407574.99	68.01	65.48
SSMH A10	818798.55	407570.70	73.78	71.52
SSMH A11	818823.59	407575.65	75.91	72.81
SSMH A12	818865.49	407587.49	78.18	75.96
SSMH B1	818937.36	407617.27	81.97	79.93
SSMH B2	818818.89	407594.56	75.29	73.04
SSMH B3	818828.30	407606.04	75.40	73.20
SSMH B4	818822.43	407639.08	75.05	73.52
SSMH B5	818844.70	407651.78	75.93	73.69
SSMH B6	818843.46	407664.95	75.44	73.87
SSMH B7	818889.27	407666.96	77.34	74.30
SSMH B8	818896.99	407640.33	78.68	76.88
SSMH C1	818857.10	407643.24	76.77	75.26
SW OUTLET 1/1	818770.76	407546.67	54.46	52.32
SSMH 1/2	818768.63	407557.99	59.41	56.01
SSMH 1/3	818767.60	407573.66	64.65	62.93
SSMH 1/4	818780.02	407573.95	68.26	65.81
SSMH 1/5	818797.40	407569.74	73.76	71.66
SSMH 1/6	818825.03	407574.66	75.99	72.93
SSMH 1/7	818868.36	407616.11	81.96	76.47
SSMH 1/8	818858.32	407643.35	76.87	75.33
SSMH 7/1	818820.05	407594.15	75.26	73.11
SSMH 7/2	818829.64	407606.23	75.44	73.27
SSMH 7/3	818823.34	407638.29	75.02	73.52
SSMH 7/4	818846.02	407651.77	75.95	73.74
SSMH 7/5	818844.46	407664.13	75.53	73.84
SSMH 7/6	818852.84	407670.74	75.62	73.87
SSMH 7/7	818887.75	407668.48	77.34	74.32
SSMH 7/8	818896.41	407638.95	78.72	77.01
SUMP 13	818944.87	407606.00	82.28	
SUMP 14	818940.10	407614.10	81.89	
SUMP 15	818939.42	407601.03	82.21	
SUMP 16	818872.54	407584.39	78.47	
SUMP 17	818826.28	407577.95	75.96	
DOUBLE/SUMP 18	818858.99	407600.22	77.89	
SUMP 19	818855.25	407647.68	76.51	
DOUBLE/SUMP 20	818879.60	407669.50	76.98	

I. BRETT WILLIAMS HORNE LICENSED CADASTRAL SURVEYOR
 CERTIFY THAT ALL PIPES AND FITTINGS SHOWN ON
 THIS PLAN ARE ACCURATELY AND PLOTTED IN RELATION
 TO BOUNDARIES AND THAT THE INFORMATION
 RECORDED IS CORRECT.
 LICENSED CADASTRAL SURVEYOR



HARRISON GRIERSON
 CONSULTING ENGINEERS SURVEYORS PLANNERS

Level 16 Grand Alliance Tower, 245 Oliver Terrace, Wellington, P.O. Box 385, 0615
 Fax: 04 385 0005

CARRUS LIMITED
 AOTEA BLOCK-PORIRUA
 STAGE 5 B

**DRAINAGE AS BUILTS
 OVERALL LAYOUT**

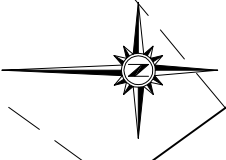
NO.	DATE	BY	DATE
A	INITIAL RELEASE	GNB	06/2007
B	MH LID LEVELS ADDED - SS LINES D & E, SW LINE 1	GNB	09/2007
REF.	AMENDMENT		

DESIGNER:	DATE:	SIGNATURE:	PILOT DATE:
GNB	05-2006		06-2007
DRAWN: <th>DATE:</th> <th>SIGNATURE:</th> <th>CAD REF:</th>	DATE:	SIGNATURE:	CAD REF:
GNB	05-2007		
CHECKED: <th>DATE:</th> <th>SIGNATURE:</th> <th>CAD REF:</th>	DATE:	SIGNATURE:	CAD REF:
GNB	05-2007		
APPROVED: <th>DATE:</th> <th>SIGNATURE:</th> <th>START DATE:</th>	DATE:	SIGNATURE:	START DATE:
GNB	05-2007		04-2007
PMHW: <th>DATE:</th> <th>SIGNATURE:</th> <th>END DATE:</th>	DATE:	SIGNATURE:	END DATE:

PROJECT NO:	SCALE:
1850.000633.01	1:1500 (A1)
DRAWING NO:	1:1000 (A3)

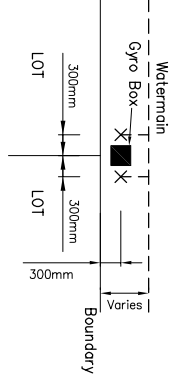
REV	DATE	DESCRIPTION
A1		
B		

FINAL

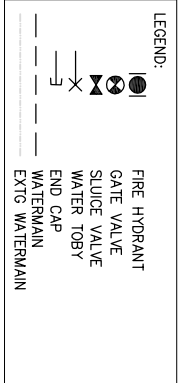


MH No	mH	mE	CODE
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LOT 479	818964.91	407614.31	TOBY
LOT 480	818963.66	407614.63	TOBY
LOT 481	818929.90	407619.29	TOBY
LOT 482	818928.62	407619.25	TOBY
LOT 483	818998.94	407638.88	TOBY
LOT 484	819960.23	407673.38	TOBY
LOT 485	818960.00	407674.14	TOBY
LOT 486	818979.04	407671.34	TOBY
LOT 487	818978.42	407670.37	TOBY
LOT 488	818993.39	407637.64	TOBY
LOT 489	818993.47	407637.02	TOBY
LOT 490	818963.93	407608.81	TOBY
LOT 491	818954.02	407647.63	TOBY
LOT 492	818954.13	407648.58	TOBY
LOT 493	818954.77	407593.14	TOBY
LOT 494	818925.36	407578.56	TOBY
LOT 495	818826.47	407574.46	TOBY
LOT 496	818850.91	407580.83	TOBY
LOT 497	818858.39	407582.19	TOBY
LOT 500	818893.28	407595.91	TOBY
LOT 501	81894.99	407596.35	TOBY
LOT 502	818938.24	407602.11	TOBY
LOT 506	818943.80	407601.42	TOBY
LOT 507	818996.06	407585.68	TOBY
FH 4	818969.56	407598.65	FH
FH 5	818965.42	407597.85	FH
SV 10	818859.73	407583.27	SV
SV 11	818832.70	407532.75	SV
SV 12	818831.52	407532.01	SV
SV 13	818837.04	407646.77	SV
SV 9	818990.55	407588.26	SV
GV 10	818942.73	407601.12	GV
GV 11	818925.38	407588.80	GV
GV 12	818858.20	407593.22	GV
GV 13	818904.20	407610.42	GV
GV 14	818904.20	407618.63	GV
GV 15	818895.78	407582.81	GV

20mm ID Lot Connection terminating with Toby and Manfield in Toby box

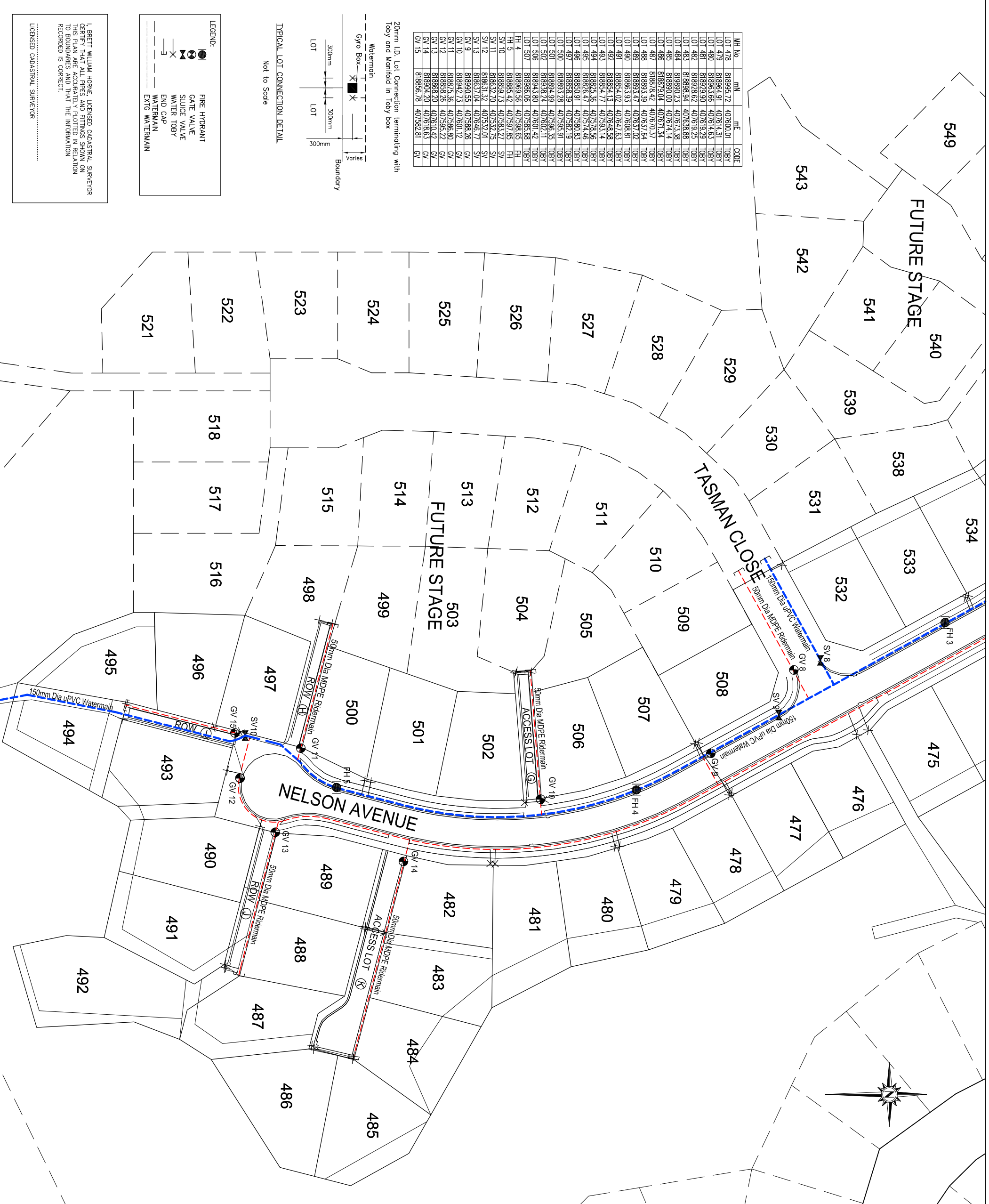


TYPICAL LOT CONNECTION DETAIL
Not to Scale



I, BRETT WILLIAM HORNE, LICENSED CADASTRAL SURVEYOR CERTIFY THAT ALL PIPES AND FITTINGS SHOWN ON THIS DRAWING HAVE BEEN Laid out IN ACCORDANCE WITH THE BOUNDARIES AND THAT THE INFORMATION RECORDED IS CORRECT.

LICENSED CADASTRAL SURVEYOR



HARRISON GRIERSON CONSULTING ENGINEERS SURVEYORS PLANNERS Level 16 Grand Alliance Tower 26 Cramer Terrace Wellington Ph: 04 385 0035 Fax: 04 385 0065		PROJECT NO: 000633-5-AB500 B DRAWING NO: 000633-5-AB500 B
TITLE: WATERMAIN AS BUILTS OVERALL LAYOUT	CLIENT: CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 5 B	PROJECT NO: 000633-5-AB500 B DRAWING NO: 000633-5-AB500 B
DESIGNER: DATE: 04/2006 DRAWN: DATE: 05/2007 CHECKED: DATE: 05/2007 GAW: DATE: 05/2007	SIGNATURE: _____ SIGNATURE: _____ SIGNATURE: _____ SIGNATURE: _____	PLOT DATE: 06/2007 CAD REF: 000633-5-AB500 B GDB REF: _____ GNB REF: _____ SIGNATURE: _____ SIGNATURE: _____ SIGNATURE: _____
PROJECT STATUS: FINAL	SCALE: 1:500 (A1) 1:1000 (A3)	REV: A1 REV: B