

MH No	mN	mE	LL	IL	DEPTH
SSMH A0B	819837.17	406636.87	10.54	8.73	1.81
SSMH A1B	819815.59	406623.75	12.44	10.89	1.55
SSMH A1C	819778.35	406643.90	16.34	14.75	1.59
SSMH A2B	819761.11	406673.24	17.88	16.60	1.28
SSMH A3B	819767.85	406751.94	21.38	19.69	1.69
SSMH A4	819799.65	406813.91	21.80	20.33	1.47
SSMH A5	819834.82	406881.58	26.45	24.93	1.52
SSMH A6	819847.94	406906.82	28.34	26.64	1.70
SSMH A7	819825.32	406937.19	32.06	30.16	1.90
SSMH A8	819828.62	406976.72	37.06	35.46	1.60
SSMH A9	819851.20	407016.63	42.45	40.50	1.95
SSMH A10	819853.42	407058.36	45.35	43.43	1.92
SSMH B1	819826.38	406884.83	29.89	27.91	1.98
SSMH B2	819789.91	406887.86	31.72	29.72	2.00
SSMH B3	819760.56	406900.54	33.50	31.69	1.81
SSMH B4	819759.98	406928.88	37.05	35.18	1.87
SSMH B5	819746.52	406945.12	39.29	37.40	1.89
SSMH B6	819750.42	406986.61	44.37	42.07	2.30
SSMH B7	819767.60	407033.76	50.63	48.78	1.85
SSMH B8	819775.45	407065.90	54.69	52.74	1.95
SSMH B9	819798.05	407115.78	58.50	56.62	1.88
SSMH C1	819789.21	406819.14	25.45	23.28	2.17
SSMH C2	819765.36	406837.71	26.79	25.69	1.10
SSMH C3	819726.42	406866.03	28.36	26.69	1.67
SSMH C4	819739.39	406888.13	30.84	29.47	1.37
SSMH D1	819784.40	406867.19	29.39	27.84	1.55
SSMH E1	819734.15	406993.23	45.20	42.90	2.30



ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED 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 UNAUTHORISED USE OF THIS DRAWING.

- Levels are in terms of Wellington Vertical Datum 1953.
 Origin BM LB51 SO 31708 (ACOP)
 R.L = 2.936
 Coordinates are in terms of NZGD2000 Wellington Circuit.

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison criterson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



CONSULTING ENGINEERS SURVEYORS PLANNERS Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

A AS BUILT ISSUE
REF AMENDMENT
PROJECT:

CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 8

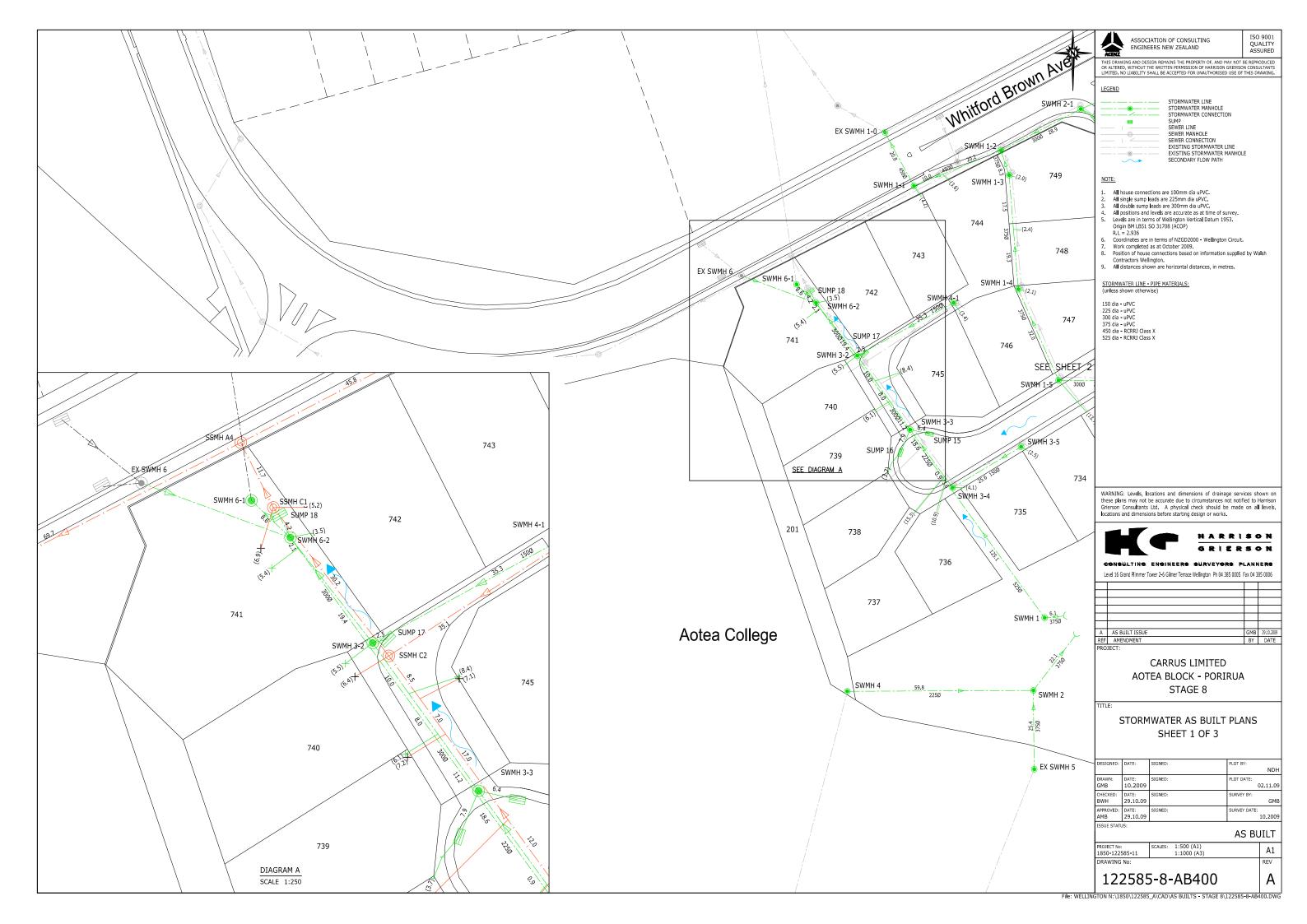
SANITARY SEWER AS-BUILT PLANS SHEET 3 OF 3

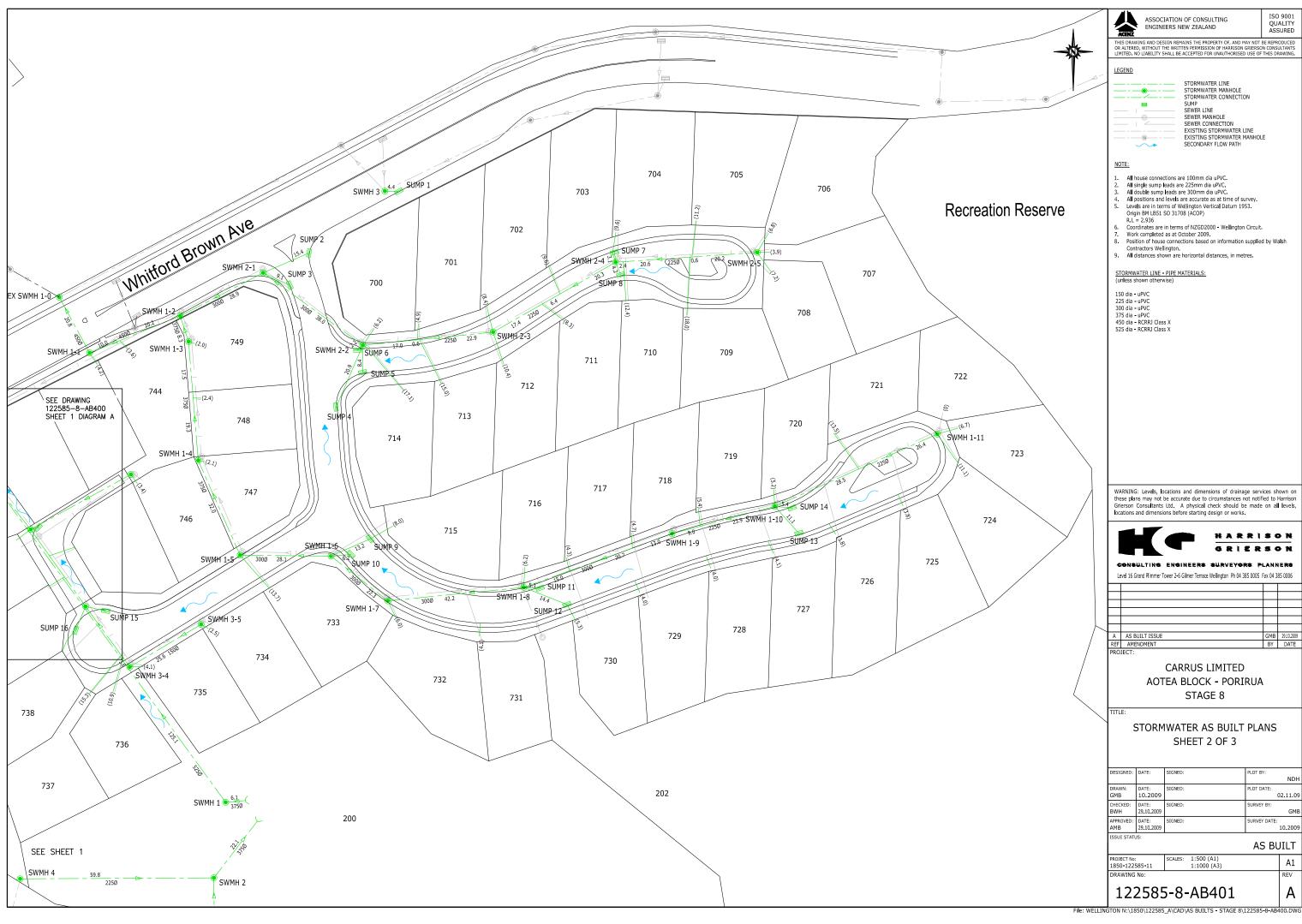
DESIGNED:	DATE:	SIGNED:	PLOT BY:
			NDH
DRAWN:	DATE:	SIGNED:	PLOT DATE:
GMB	10.2009		02.11.09
CHECKED:	DATE:	SIGNED:	SURVEY BY:
BWH	29.10.2009		GMB
APPROVED:	DATE:	SIGNED:	SURVEY DATE:
AMB	29.10.2009		10.2009
TOOLUG OTAT	10		

AS BUILT

Α1

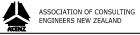
PROJECT No: 1850-122585-11





MH No	mN	mE	LL	IL	DEPTH
EX-SWMH 1-0	819839.20	406844.04	24.01	21.41	2.60
SWMH 1-1	819821.99	406853.38	24.02	22.52	1.50
SWMH 1-2	819833.39	406881.34	26.44	24.33	2.11
SWMH 1-3	819825.48	406883.96	30.04	27.91	2.13
SWMH 1-4	819788.78	406886.91	31.64	29.78	1.86
SWMH 1-5	819759.52	406899.86	33.37	31.64	1.73
SWMH 1-6	819759.22	406927.93	36.98	35.12	1.86
SWMH 1-7	819745.40	406945.50	39.40	37.52	1.88
SWMH 1-8	819749.55	406987.45	44.39	42.18	2.21
SWMH 1-9	819766.12	407033.25	50.49	48.59	1.90
SWMH 1-10	819774.57	407065.01	54.52	52.63	1.89
SWMH 1-11	819796.89	407115.18	58.45	56.51	1.94
SWMH 2-1	819846.70	406906.98	28.45	26.63	1.82
SWMH 2-2	819824.33	406937.76	32.08	30.38	1.70
SWMH 2-3	819828.41	406978.01	37.16	35.57	1.59
SWMH 2-4	819849.98	407015.84	42.41	40.32	2.09
SWMH 2-5	819853.02	407059.58	45.45	43.63	1.82
SWMH 3-2	819767.44	406835.12	26.73	25.43	1.30
SWMH 3-3	819743.68	406852.14	27.58	26.10	1.48
SWMH 3-4	819725.02	406865.79	28.36	26.68	1.68
SWMH 3-5	819738.14	406887.81	30.82	29.40	1.42
SWMH 4-1	819784.45	406866.11	29.32	27.71	1.61
SWMH 1	819683.17	406895.37	23.83	21.03	2.80
SWMH 2	819659.82	406891.75	32.88	31.10	1.78
SWMH 3	819871.98	406944.56	30.89	29.29	1.60
SWMH 4	819659.54	406831.91	38.86	38.23	0.63
EX-SWMH 5	819634.47	406892.00	42.34	39.89	2.45
EX-SWMH 6	819793.16	406797.94	21.25	19.68	1.57
SWMH 6-1	819790.33	406815.63	24.75	8.60	16.15
SWMH 6-2	819784.37	406821.89	25.65	18.25	7.40

SUMP No	mN	mE	LL
SUMP 1	819871.89	406948.88	30.94
SUMP 2	819852.83	406921.14	28.82
SUMP 3	819842.93	406915.26	29.24
SUMP 4	819805.41	406929.40	32.96
SUMP 5	819816.01	406937.71	32.09
SUMP 6	819822.80	406936.18	31.82
SUMP 7	819853.01	407015.50	42.24
SUMP 8	819846.13	407017.44	42.40
SUMP 9	819764.55	406939.92	37.38
SUMP 10	819759.75	406934.06	37.35
SUMP 11	819749.30	406992.51	44.84
SUMP 12	819744.27	407000.80	45.59
SUMP 13	819766.31	407072.47	54.98
SUMP 14	819774.11	407070.34	54.90
SUMP 15	819742.30	406858.37	27.77
SUMP 16	819736.38	406849.08	27.39
SUMP 17	819768.06	406837.59	26.63
SUMP 18	819788.14	406820.03	25.23



ISO 9001 QUALITY ASSURED 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 UNAUTHORISED USE OF THIS DRAWING.

NOTE:

- Levels are in terms of Wellington Vertical Datum 1953.
 Origin BM LB51 SO 31708 (ACOP)
 R.L = 2.936
- Coordinates are in terms of NZGD2000 Wellington Circuit.

WARNING: Levels, locations and dimensions of drainage services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

Α	AS BUILT ISSUE	GMB	29.10.2009
REF	AMENDMENT	BY	DATE
DDO	IECT:		

CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 8

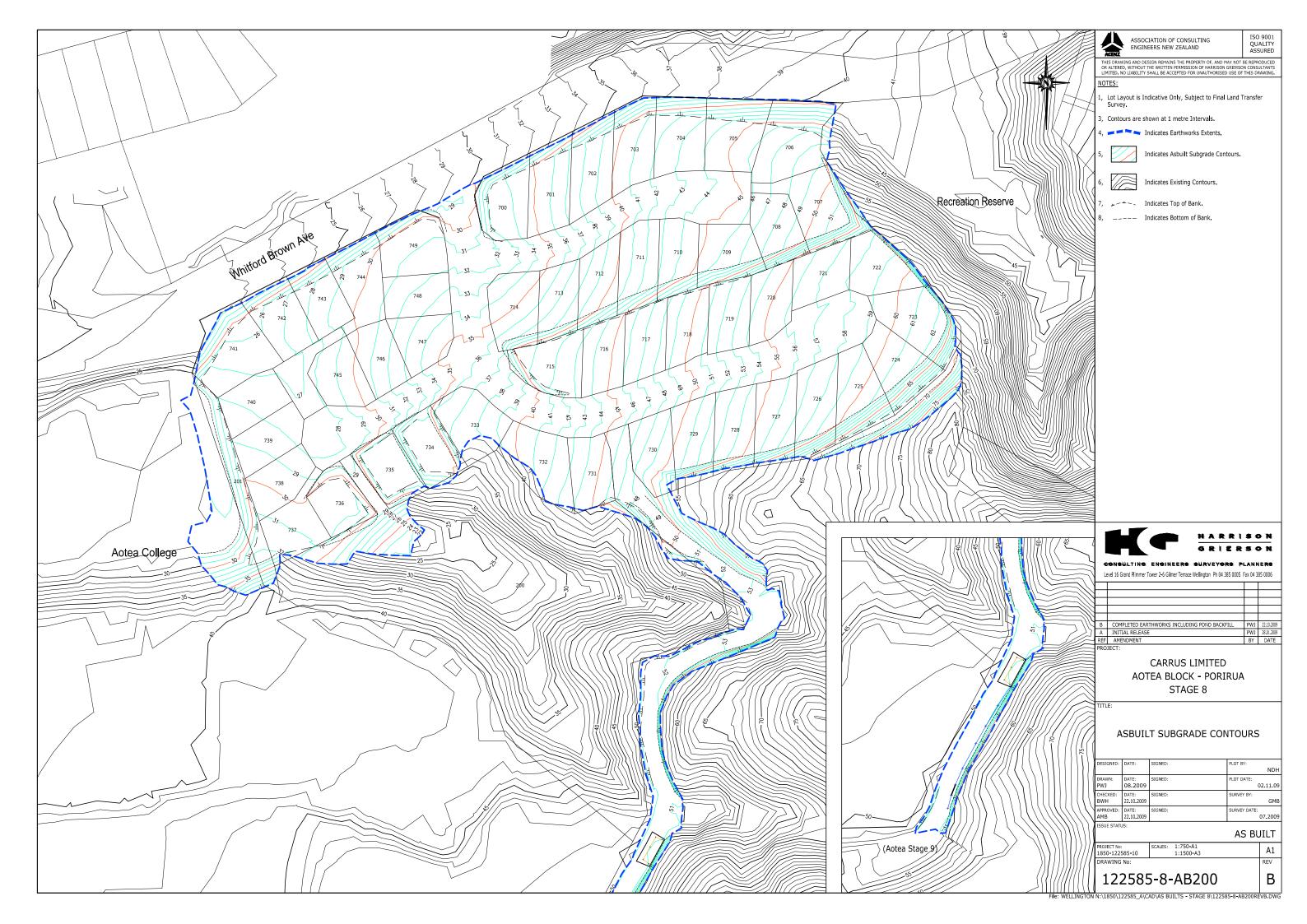
STORMWATER AS BUILT PLANS SHEET 3 OF 3

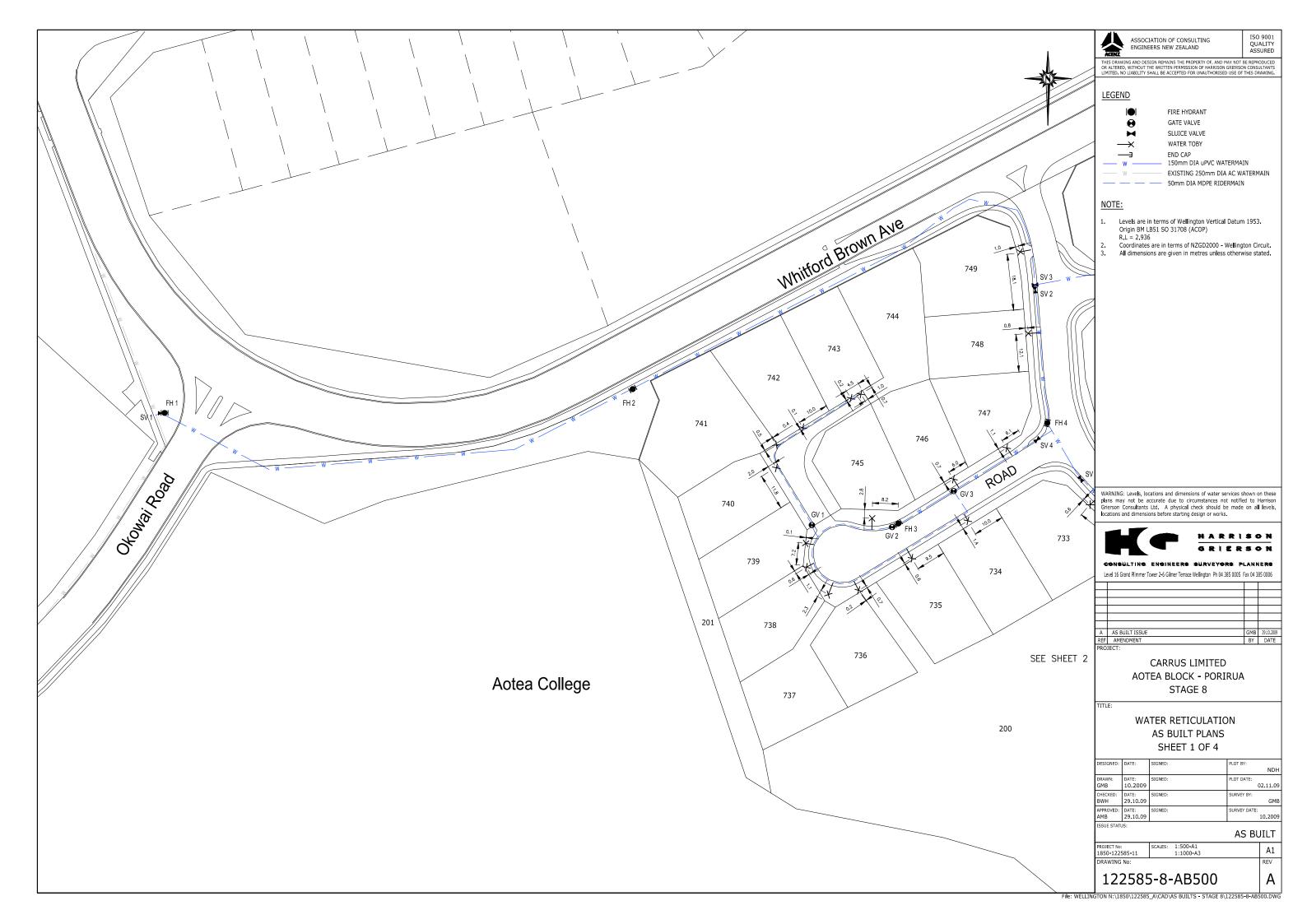
DESIGNED:	DATE:	SIGNED:	PLOT BY:	
				NDH
DRAWN: GMB	DATE: 10.2009	SIGNED:	PLOT DATE:	02.11.09
CHECKED: BWH	DATE: 29.10.2009	SIGNED:	SURVEY BY:	GMB
APPROVED: AMB	DATE: 29.10.2009	SIGNED:	SURVEY DATE	: 10.2009
ISSUE STATU	JS:	•		

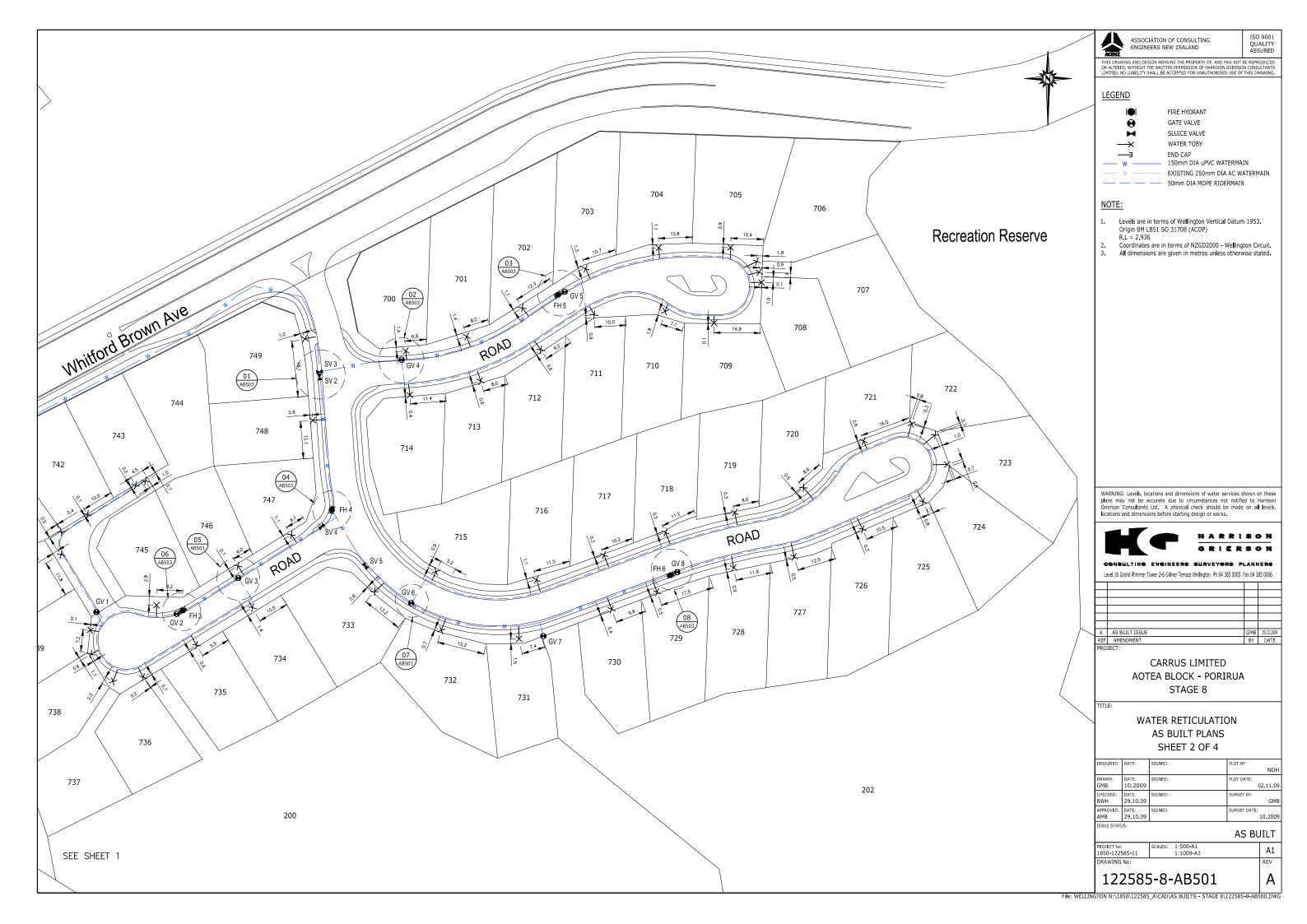
AS BUILT

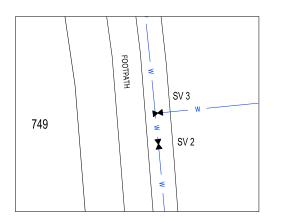
Α1

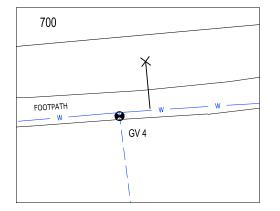
PROJECT No: 1850-122585-11 DRAWING No:

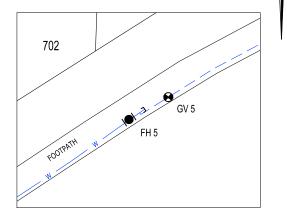












01 WATERMAIN DETAIL
AB501 SCALE 1:100-A1

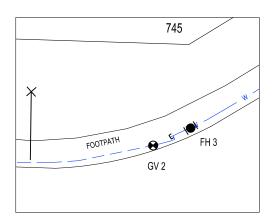
02 WATERMAIN DETAIL AB501 SCALE 1:100-A1

WATERMAIN DETAIL

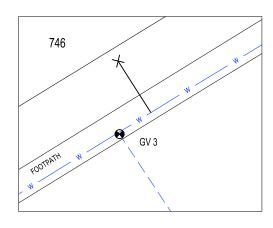
AB501 SCALE 1:100-A1

FH 4

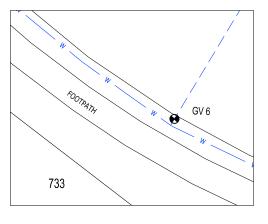




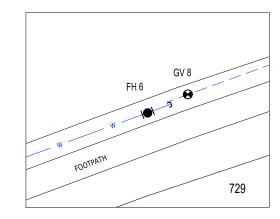




05 WATERMAIN DETAIL
AB501 SCALE 1:100-A1



07 WATERMAIN DETAIL AB501 SCALE 1:100-A1



08 WATERMAIN DETAIL

AB501 SCALE 1:100-A1

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

ISO 9001 QUALITY ASSURED

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 UNAUTHORISED USE OF THIS DRAWING.

LEGEND

I●I	FIRE HYDRANT
€	GATE VALVE
×	SLUICE VALVE
\rightarrow	WATER TOBY
- ⇒	END CAP
— w ——	150mm DIA uPVC WATERMAIN
W	EXISTING 250mm DIA AC WATERMAIN
	50mm DIA MDPE RIDERMAIN

NOTE:

- Levels are in terms of Wellington Vertical Datum 1953. Origin BM LB51 SO 31708 (ACOP) R.L = 2.936
- Coordinates are in terms of NZGD2000 Wellington Circuit.

 All dimensions are given in metres unless otherwise stated.

WARNING: Levels, locations and dimensions of water services shown on these plans may not be accurate due to circumstances not notified to Harrison Grierson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

Α	AS BUILT ISSUE	GMB	29.10.2009
REF	AMENDMENT	BY	DATE
20.0	T.O.T.		

CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 8

WATER RETICULATION AS BUILT PLAN DIAGRAMS SHEET 3 OF 4

- 1	DESIGNED:	DATE:	SIGNED:	PLOT BY:	
ı				NE	Н
- 1	DRAWN: GMB	DATE: 10.2009	SIGNED:	PLOT DATE: 02.11.	09
- 1	CHECKED: BWH	DATE: 29.10.09	SIGNED:	SURVEY BY:	ИΒ
- 1	APPROVED: AMB	DATE: 29.10.09	SIGNED:	SURVEY DATE: 10.20	09
1	ISSUE STATUS:				

AS BUILT Α1

LOT CONNECTION COORDINATE TABLE				
	mN	mE		
LOT 700	819826.89	406947.19		
LOT 701	819831.54	406966.77		
LOT 702	819840.70	406984.65		
LOT 703	819853.35	407004.97		
LOT 704	819860.04	407028.51		
LOT 705	819860.17	407051.59		
LOT 706	819855.63	407060.06		
LOT 707	819852.20	407060.80		
LOT 708	819848.88	407061.52		
LOT 709	819835.79	407046.29		
LOT 710	819839.54	407030.48		
LOT 711	819838.44	407007.76		
LOT 712	819827.21	406990.58		
LOT 713	819817.21	406971.24		
LOT 714	819812.68	406948.49		
LOT 715	819755.97	406956.93		
LOT 716	819753.33	406989.19		
LOT 717	819761.27	407010.89		
LOT 718	819768.48	407030.70		
LOT 719	819774.93	407052.93		
LOT 720	819782.90	407075.01		
LOT 721	819797.89	407094.38		
LOT 722	819803.47	407109.78		
LOT 723	819799.87	407117.35		
LOT 724	819790.39	407121.19		

	mN	mE
LOT 725	819778.33	407113.5
LOT 726	819769.50	407094.10
LOT 727	819760.67	407072.05
LOT 728	819757.12	407052.59
LOT 729	819749.28	407027.98
LOT 730	819743.81	407013.37
LOT 731	819734.33	406983.59
LOT 732	819737.03	406958.58
LOT 733	819749.51	406937.18
LOT 734	819744.31	406897.89
LOT 735	819732.29	406879.9
LOT 736	819721.95	406862.78
LOT 737	819720.61	406853.02
LOT 738	819729.39	406845.98
LOT 739	819737.11	406845.57
LOT 740	819761.34	406836.33
LOT 741	819768.75	406836.38
LOT 742	819774.29	406844.82
LOT 743	819783.71	406860.29
LOT 744	819785.06	406863.5
LOT 745	819745.15	406867.07
LOT 746	819757.74	406893.23
LOT 747	819767.76	406910.38
LOT 748	819804.56	406917.29
LOT 749	819830.78	406914.71

WATERMAIN FITTING COORDINATE TABLE				
	mN	mE		
FH 1	819779.01	406639.66		
FH 2	819786.73	406790.11		
FH 3	819743.61	406875.47		
FH 4	819775.77	406923.42		
FH 5	819844.91	406996.07		
FH 6	819754.77	407032.28		
GV 1	819742.95	406847.73		
GV 2	819742.29	406873.51		
GV 3	819753.87	406893.30		
GV 4	819824.00	406945.82		
GV 5	819845.87	406998.24		
GV 6	819745.81	406948.92		
GV 7	819735.17	406991.39		
GV 8	819755.73	407033.46		
SV 1	819778.88	406639.07		
SV 2	819818.60	406919.07		
SV 3	819820.17	406919.48		
SV 4	819770.71	406920.38		
SV 5	819757.76	406934.43		

ASSOCIATION OF CONSULTING ENGINEERS NEW ZEALAND

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 UNAUTHORISED USE OF THIS DRAWING.

ISO 9001 QUALITY ASSURED

- Levels are in terms of Wellington Vertical Datum 1953.
 Origin BM LB51 SO 31708 (ACOP)
 R.L = 2.936
 Coordinates are in terms of NZGD2000 Wellington Circuit.

WARNING: Levels, locations and dimensions of water services shown on these plans may not be accurate due to circumstances not notified to Harrison criterson Consultants Ltd. A physical check should be made on all levels, locations and dimensions before starting design or works.



CONSULTING ENGINEERS SURVEYORS PLANNERS Level 16 Grand Plimmer Tower 2-6 Gilmer Terrace Wellington Ph 04 385 0005 Fax 04 385 0006

Α	AS BUILT ISSUE	GMB	29.10.2009		
REF	AMENDMENT	BY	DATE		
DROJECT:					

CARRUS LIMITED AOTEA BLOCK - PORIRUA STAGE 8

WATER RETICULATION AS BUILT PLANS SHEET 4 OF 4

DESIGNED:	DATE:	SIGNED:	PLOT BY:			
			NDH			
DRAWN:	DATE:	SIGNED:	PLOT DATE:			
GMB	10.2009		02.11.09			
CHECKED:	DATE:	SIGNED:	SURVEY BY:			
BWH	29.10.09		GMB			
APPROVED:	DATE:	SIGNED:	SURVEY DATE:			
AMB	29.10.09		10.2009			

AS BUILT

Α1