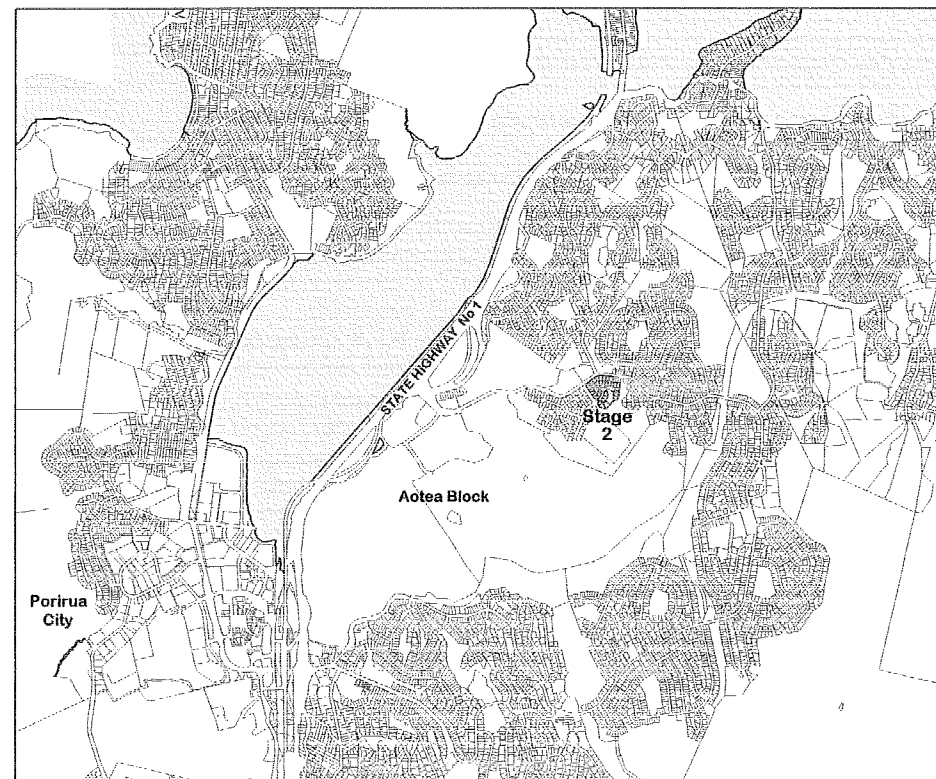
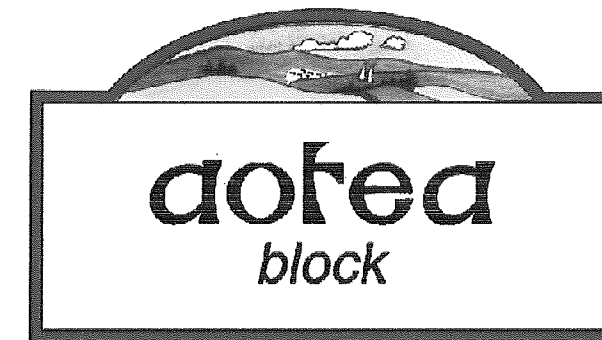


# CARRUS LIMITED

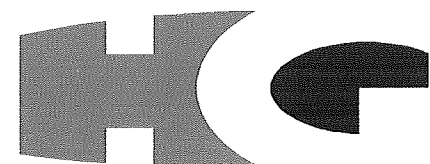
## AOTEA BLOCK - PORIRUA

### STAGE 2 AS-BUILT



Locality Plan  
Scale 1:25,000

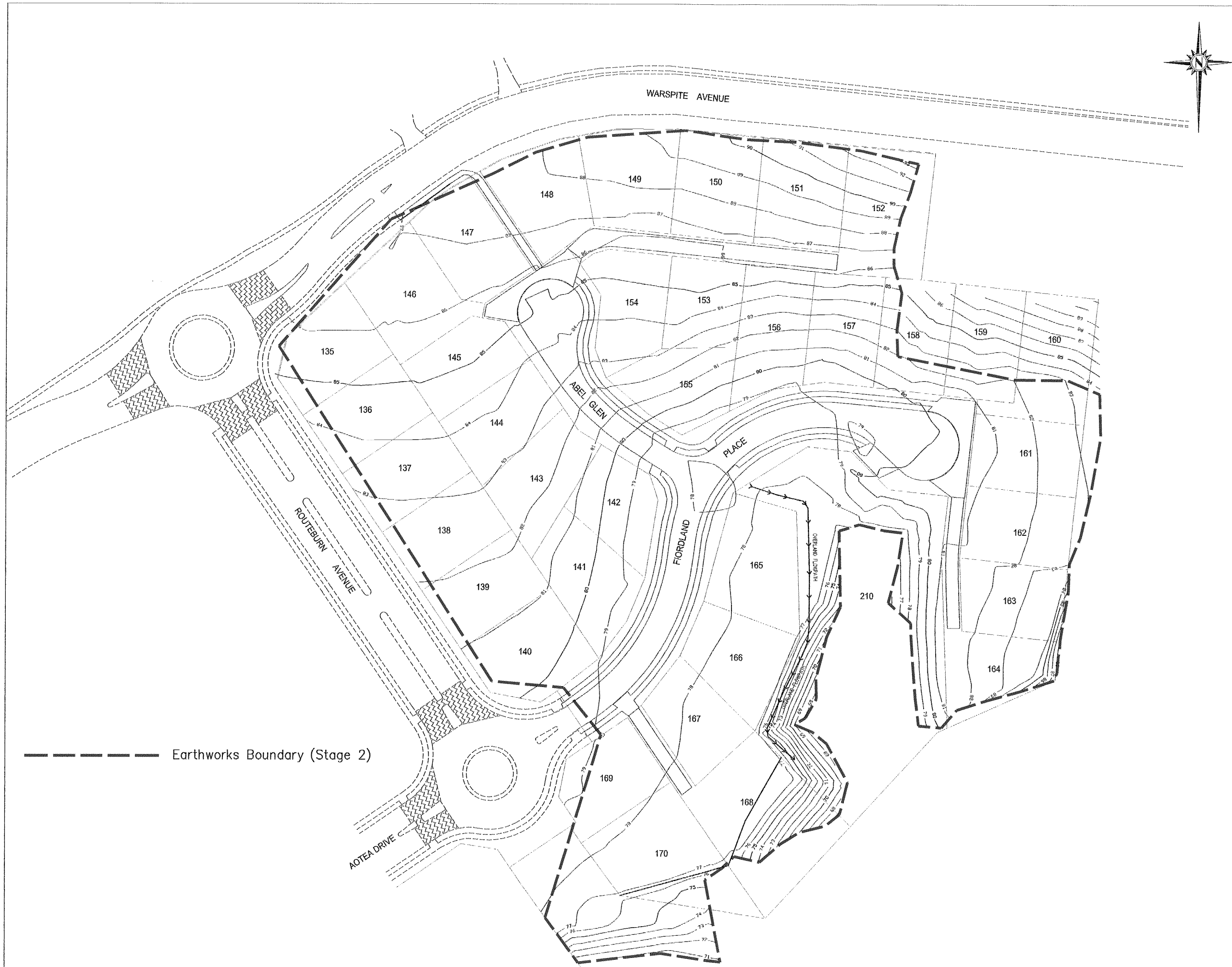
00417-AB200	Earthworks As-Built
	Finished Subgrade Contours
00417-AB201	Earthworks As-Built Cut/Fill Contours
00417-AB202	Earthworks As-Built Cut/Fill Contours
	Soil Test & Subsoil Location
00417-AB300	Roading As-Built
	Overall Layout And Lights
00417-AB400	Drainage As-Built Overall Layout
00417-AB600	Watermain As-Built Overall Layout



HARRISON  
GRIERSON

AS-BUILT

95 00470.1  
February 2005



----- Earthworks Boundary (Stage 2)

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- NOTE:
1. TOPSOIL OF APPROX. 0.2M HAS BEEN LAID ON ALL SUBGRADE.
  2. CONTOURS AT 1M INTERVALS.



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CONSULTING ENGINEERS SURVEYORS PLANNERS

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


A	INITIAL RELEASE	RZK	01/2005
REF	AMENDMENT	BY	DATE

PROJECT:

**CARRUS LIMITED  
AOTEA BLOCK  
STAGE 2**

TITLE:

**EARTHWORKS AS-BUILTS  
FINISHED SUBGRADE CONTOURS**

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DRAWN:	DATE:	SIGNATURE:	CAD REF:
CHECKED:	DATE:	SIGNATURE:	CAD XREF:
APPROVED:	DATE:	SIGNATURE:	SURVEY BY:
SIK	01/2005		RZK
			SURVEY DATE:
			12/2004
			SCR REF:

PLOT STATUS:

PROJECT No:	SCALES:	1:500 1:1000 (A3)	A1
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DRAWING No:	REV
00470-AB-200	A

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NOTE:

1. CONTOURS AT 1M INTERVALS.



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A	INITIAL RELEASE	RZK	01/2005
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED  
AOTEA BLOCK  
STAGE 2

TITLE:

EARTHWORKS AS-BUILTS  
CUT/FILL CONTOURS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:	19/01/2005
DRAWN:	DATE:	SIGNATURE:	CAD REF:	00470-AB-201
RZK	12/2004		CAD XREF:	
CHECKED:	DATE:	SIGNATURE:	SURVEY BY:	
GAW	01/2005		SURVEY DATE:	
APPROVED:	DATE:	SIGNATURE:	SDR REF:	
SIK	01/2005			


PLOT STATUS:


PROJECT No:	95 00470.1	SCALE:	1:500 1:1000 (A3)	A1
DRAWING No:				REV

00470-AB-201

A



 Cut Area

 Earthworks Boundary

- NOTE:
1. CONTOURS AT 1M INTERVALS.
2. CONTOURS ARE BETWEEN NATURAL SUBGRADE AND CONSTRUCTION SUBGRADE.
3. NATURAL SUBGRADE CONTAINS ALL TOPSOIL REMOVAL AND UNDERCUTTING OF UNSUITABLE MATERIAL.



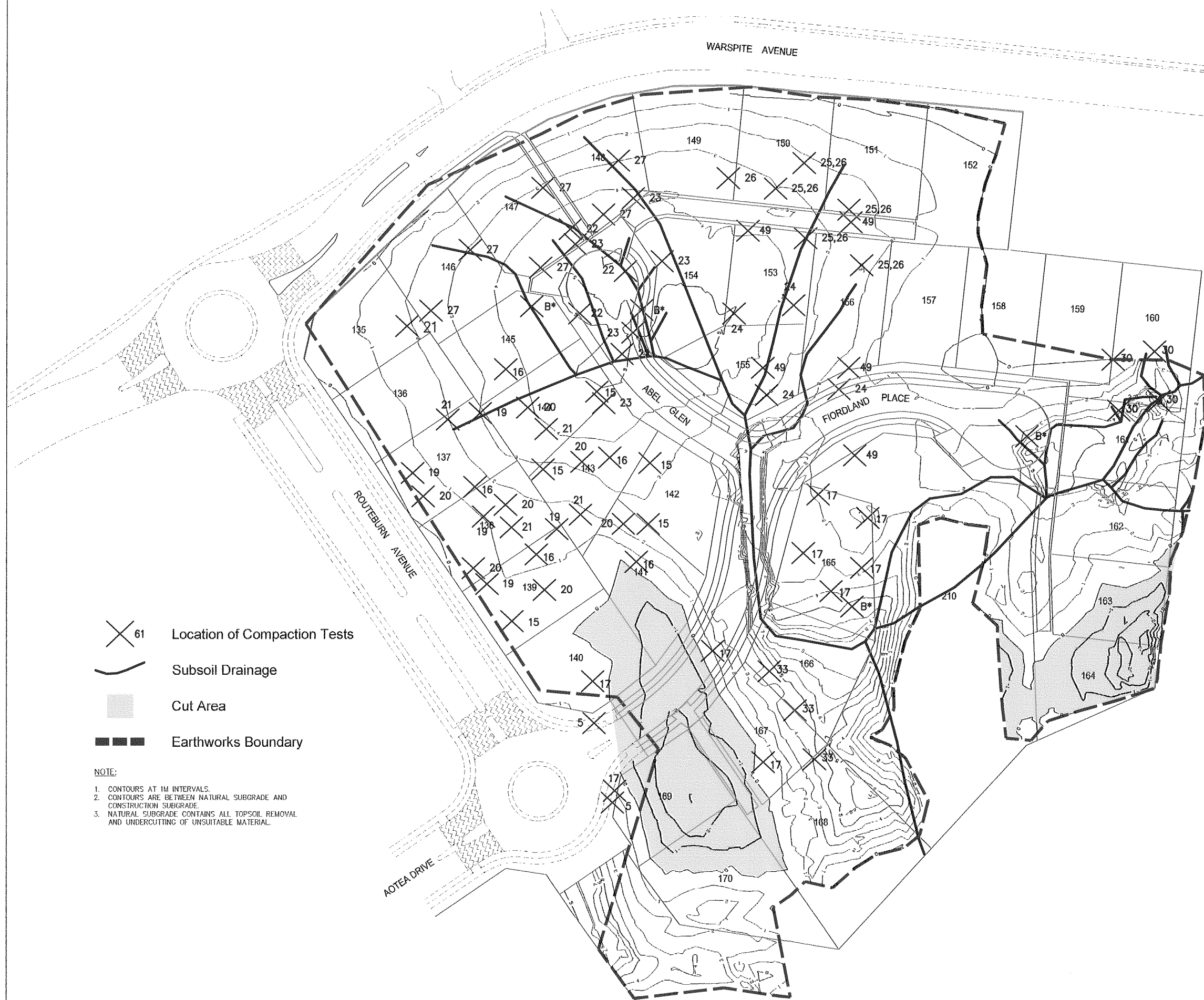
ASSOCIATION OF CONSULTING  
ENGINEERS NEW ZEALAND

ISO 9001  
QUALITY  
ASSURED

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#### SOIL TEST

5. Test ref no. 03/233. Test date 30 May 2003.  
15. Test ref no. 03/293. Test date 07 August 2003.  
16. Test ref no. 03/301. Test date 11 August 2003.  
17. Test ref no. 03/307. Test date 19 August 2003.  
19. Test ref no. 03/361. Test date 16 October 2003.  
20. Test ref no. 03/363. Test date 17 October 2003.  
21. Test ref no. 03/364. Test date 20 October 2003.  
22. Test ref no. 03/368. Test date 21 October 2003.  
23. Test ref no. 03/371. Test date 22 October 2003.  
24. Test ref no. 03/375. Test date 23 October 2003.  
25. Test ref no. 03/387. Test date 24 October 2003.  
26. Test ref no. 03/406. Test date 04 November 2003.  
27. Test ref no. 03/409. Test date 05 November 2003.  
30. Test ref no. 03/428. Test date 11 November 2003.  
49. Test ref no. 04/119. Test date 24 March 2004.



- 61 Location of Compaction Tests
- Subsoil Drainage
- Cut Area
- Earthworks Boundary

#### NOTE:

1. CONTOURS AT 1M INTERVALS.
2. CONTOURS ARE BETWEEN NATURAL SUBGRADE AND CONSTRUCTION SUBGRADE.
3. NATURAL SUBGRADE CONTAINS ALL TOPSOIL REMOVAL AND UNDERCUTTING OF UNSUITABLE MATERIAL.



HARRISON  
GRIERSON

CONSULTING ENGINEERS SURVEYORS PLANNERS

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

A	INITIAL RELEASE	RZK	01/2005
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED  
AOTEA BLOCK  
STAGE 2

TITLE:

EARTHWORKS AS-BUILTS  
CUT/FILL CONTOURS  
SOIL TEST & SUBSOIL LOCATIONS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
DRAWN:	DATE:	SIGNATURE:	CAD REF:
CHECKED:	DATE:	SIGNATURE:	CAD XREF:
APPROVED:	DATE:	SIGNATURE:	SURVEY BY:
SIK	01/2005		SURVEY DATE:
			SDR REF:

PLOT STATUS:

PROJECT No:	SCALES:	A1
95 00470.1	1:500 1:1000 (A3)	

DRAWING No:

00470-AB-202

REV  
A



- LEGEND
- 78.47 KERB HEIGHT
  - SINGLE LIGHT 6.5m HPS 70W
  - SINGLE LIGHT 7.5m HPS 150W

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NOTE:

1. LEVELS ARE IN TERMS OF LANDS AND SURVEY DATUM GD2000.



**HARRISON  
GRIERSON**

CONSULTING ENGINEERS SURVEYORS PLANNERS

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

A	INITIAL RELEASE	RZK	01/2005
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED  
AOTEA BLOCK  
STAGE 2

TITLE:

ROADING AS-BUILT  
OVERALL LAYOUT  
AND LIGHTS

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:
RZK	12/2004		19/01/2005
CHECKED:	DATE:	SIGNATURE:	CAD REF:
GAW	01/2005		00470-AB-300
APPROVED:	DATE:	SIGNATURE:	CAD XREF:
SIK	01/2005		
			SURVEY BY:
			RZK
			SURVEY DATE:
			12/2004
			SDR REF:

PROJECT No:	SCALES:	
95 00470.1	1:500 1:1000 (A3)	A1
DRAWING No:		REV
00470-AB-300		A



ASSOCIATION OF CONSULTING  
ENGINEERS NEW ZEALAND

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QUALITY  
ASSURED

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NOTE:

1. LEVELS AND COORDINATES ARE IN TERMS OF LANDS AND SURVEY DATUM GD2000.
2. ALL STORMWATER MAINS AND SUMP LEADS ARE RCRRJ CLASS X UNLESS OTHERWISE STATED.
3. ALL SANITARY SEWER MAINS ARE 150Ø uPVC PIPE.
4. ALL STORMWATER AND SANITARY SEWER LOT CONNECTIONS ARE 100Ø UNLESS OTHERWISE STATED.
5. CONNECTION DISTANCES ARE FROM DOWNSTREAM MANHOLE.



LEGEND:

- STORMWATER
- SANITARY SEWER
- EXTG STORMWATER
- EXTG SANITARY SEWER
- NEW MANHOLE
- EXISTING MANHOLE
- SUMP

I, STEFAN IMRE KISS, LICENSED CADASTRAL SURVEYOR,  
HEREBY CERTIFY THAT THE MANHOLE POSITIONS, SCHEDULE OF  
CO-ORDINATES, INVERT AND LID LEVELS AND DISTANCES BETWEEN  
MANHOLES AND PIPE SIZES ARE CORRECT. CONNECTIONS TO THE  
LINES HAVE BEEN PLOTTED AND DIMENSIONED FROM INFORMATION  
SUPPLIED TO US BY THE CONTRACTOR FOR THE WORK.

LICENSED CADASTRAL SURVEYOR

MH No	mN	mE	LL	IL
EX SWMH 1	820011.56	407770.71	91.79	89.34
EX SWMH 2	819979.92	407789.45	87.36	84.52
SW OUTLET 1/1	819807.33	407776.86	-	66.28
SWMH 1/2	819826.04	407773.65	70.36	66.97
SWMH 1/3	819837.90	407761.92	76.68	74.87
SWMH 1/4	819846.79	407751.78	77.29	75.48
SWMH 1/5	819872.18	407761.96	78.09	76.26
SWMH 1/6	819909.35	407760.61	78.51	76.75
SWMH 1/7	819916.41	407741.36	78.21	75.94
SWMH 2/1	819939.86	407762.31	78.95	77.30
SWMH 2/2	819969.53	407765.81	84.76	83.11
SWMH 2/3	819976.74	407769.13	86.45	83.55
SWMH 2/4	819986.88	407770.07	88.27	86.37
SWMH 3/1	819937.12	407806.49	80.61	79.24
SWMH 3/1A	819938.29	407785.03	79.81	78.44
SWMH 3/2	819933.90	407841.62	83.59	81.74
SWMH 4/1	819914.68	407805.40	80.83	79.95
SWMH 4/2	819897.52	407803.19	81.21	80.28
SWMH 5/1	819984.02	407708.39	85.93	84.07
SWMH 5/2	819964.04	407677.81	85.52	84.52
EX SSMH 1	820006.99	407684.77	88.16	85.86
EX SSMH 2	819976.65	407788.93	86.95	84.88
EX SSMH 3	819806.41	407780.32	67.68	66.14
EX SSMH 4	819845.50	407830.14	86.02	84.26
SSMH A1	819825.74	407775.26	70.41	67.04
SSMH A2	819839.09	407762.26	76.68	75.07
SSMH A3	819848.82	407751.34	77.56	75.45
SSMH A4	819875.43	407759.97	78.01	75.95
SSMH A5	819906.45	407758.63	78.50	76.23
SSMH A6	819932.46	407742.55	78.37	76.51
SSMH A7	819926.55	407727.67	78.50	76.77
SSMH A8	819945.04	407703.67	82.87	81.06
SSMH A9	819974.57	407689.66	85.52	84.45
SSMH A10	820000.18	407672.01	87.71	85.51
SSMH B1	819816.72	407793.53	72.12	71.17
SSMH B2	819833.59	407814.87	77.58	76.70
SSMH C1	819831.73	407729.73	77.93	76.64
SSMH C2	819850.66	407716.35	79.00	77.16
SSMH C3	819864.14	407707.08	79.00	77.44
SSMH C4	819887.61	407691.29	81.23	79.85
SSMH C5	819949.65	407648.88	85.72	83.27
SSMH D1	819939.73	407780.84	79.65	77.13
SSMH D2	819974.42	407785.19	86.25	84.72
SSMH E1	819938.02	407808.85	80.77	78.42
SSMH E2	819895.39	407803.93	81.26	80.28
SSMH F1	819978.45	407747.50	86.28	85.18
D SUMP 1	819913.64	407727.45	78.30	77.62
D SUMP 2	819924.37	407735.10	78.28	77.66
D SUMP 3	819913.91	407736.73	78.24	77.64
SUMP 1	819832.73	407731.32	78.02	77.53
SUMP 2	819912.07	407803.22	81.03	80.55
SUMP 3	819981.79	407708.66	85.96	85.39
FIELD SUMP 1	819933.47	407845.69	83.56	83.06
FIELD SUMP 2	819873.46	407763.23	77.70	77.17
FIELD SUMP 3	819839.79	407760.63	76.68	76.14



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

A	INITIAL RELEASE	RZK	01/2005
REF	AMENDMENT	BY	DATE

PROJECT:

CARRUS LIMITED  
AOTEA BLOCK  
STAGE 2

TITLE:

DRAINAGE AS-BUILT  
OVERALL LAYOUT

DESIGNED:	DATE:	SIGNATURE:	PLOT DATE:	03/02/2005
DRAWN:	DATE:	SIGNATURE:	CAD REF:	00470-AB-400
CHECKED:	DATE:	SIGNATURE:	CAD XREF:	
APPROVED:	DATE:	SIGNATURE:	SURVEY BY:	RZK
SIK	02/2005		SURVEY DATE:	12/2004
			SDR REF:	

PLOT STATUS:

PROJECT No:	95 00470.1	SCALE:	1:500 1:1000 (A3)	A1
DRAWING No:				REV

00470-AB-400

A



