

CONCEPT DRAWINGS

CONSENT DRAWINGS

SOUTHERN LANDFILL STAGE 4 EXTENSION CONCEPT DESIGN

Prepared for

WELLINGTON CITY COUNCIL

August 2013



© Document copyright of URS New Zealand Limited 2008 and may only be used for its intended purpose.

URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested.

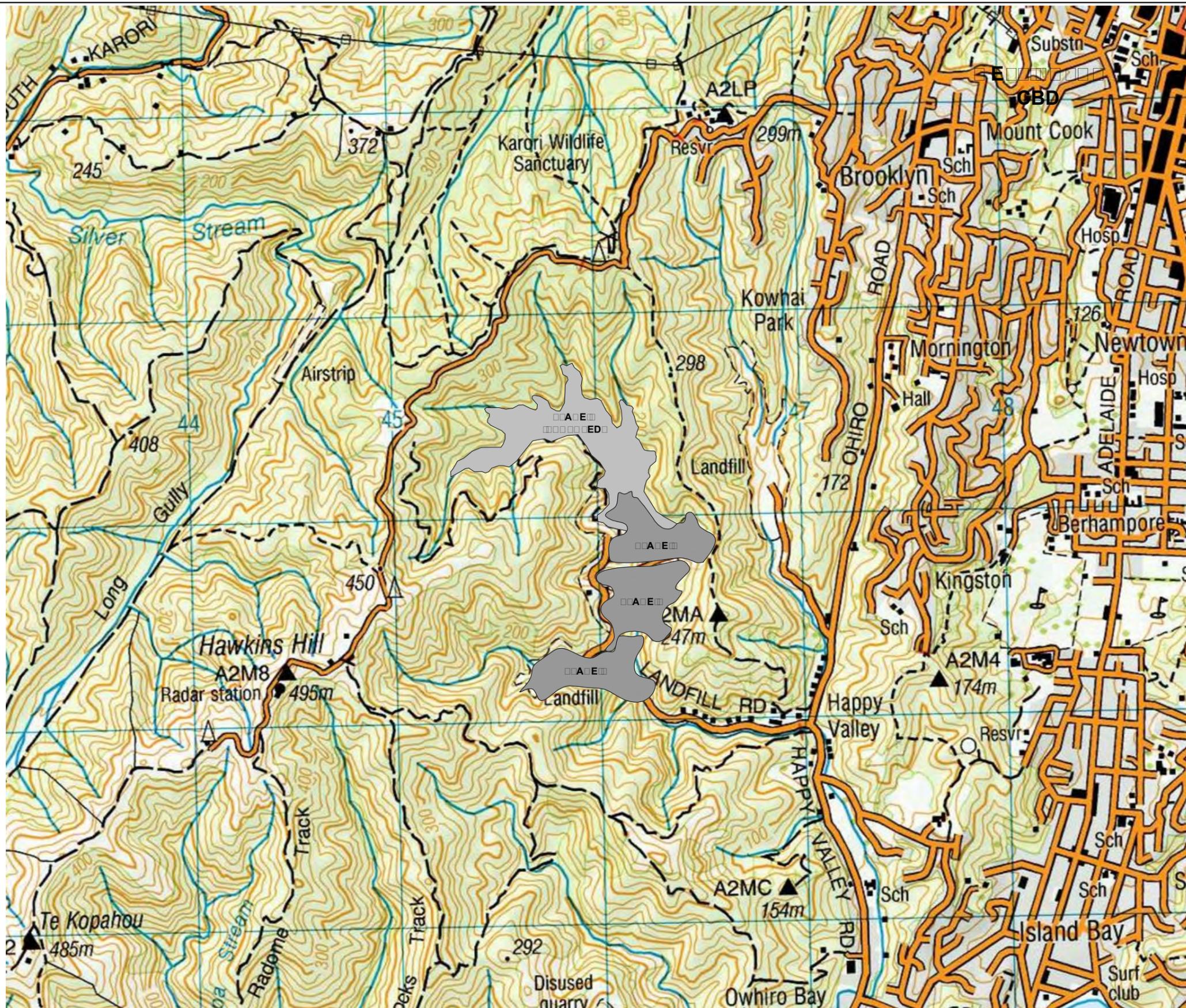
J:\WLG\42787470\5 Works\Dwg For G Haldane\Consent Dwg Southern Landfill Aug 2013\APW-7370-C-000.dwg Printed by: Irene Miller 6-Aug-13



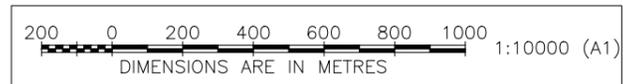
SITE LOCATION

INDEX TO DRAWINGS

- C-001 Locality Plan
- C-002 Existing Ground Contours - Lidar Data 2009
- C-003 Surface Water Catchments Plan
- C-004 Geological Faults Plan
- C-005 Stage 3 Landfill Extension (For Information Only)
- C-006 Stage 4 Landfill - Surface Water Management Plan -Arrangement
- C-007 Indicative Staging Plan - Cell A
- C-008 Indicative Staging Plan - Cell B
- C-010 Indicative Final Landform
- C-011 Leachate Collection System
- C-012 Tunnel Long Sections
- C-013 Southern Access Road & Carey's Stream Long Sections
- C-014 Indicative Road and Contour Drain Sections
- C-015 Indicative Capping and Liner Details
- C-016 Leachate Collection and Liner Systems Indicative Sections
- C-017 Indicative Detail - Cell Toe Termination



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN



						Tab C-001
						Scales
B	FOR CONSENT	RC	IMM	GH	GH	08/2013
A	DRAFT	RC	BJMM	RC	GH	
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
						Original Size A1



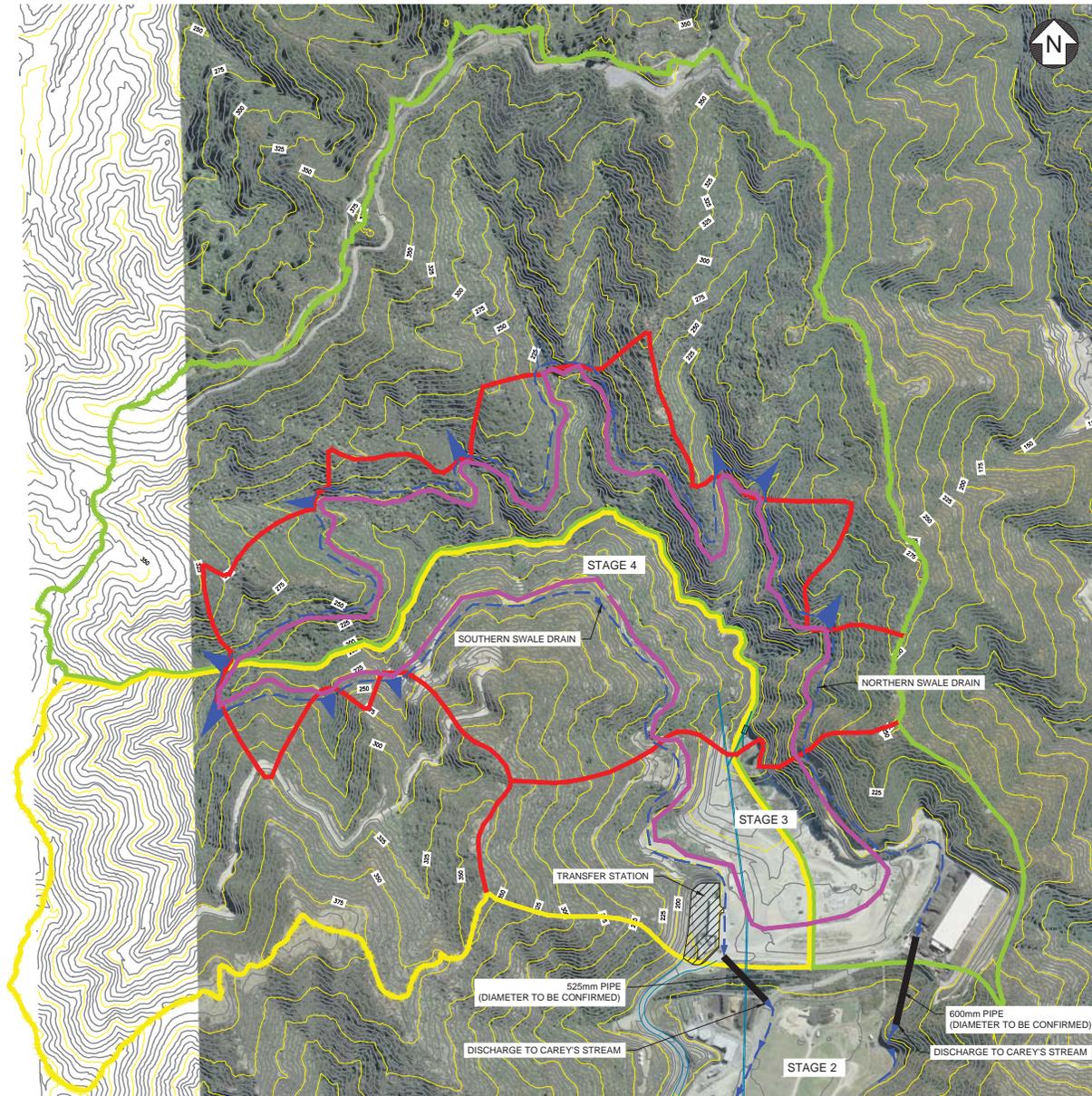
URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333



SOUTHERN LANDFILL - STAGE 4 EXTENSION

LOCALITY PLAN

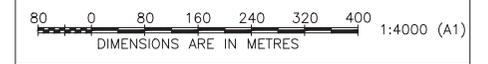
Status	CONSENT
Drawing Number	C-001
Revision	B



LEGEND:

	NORTHERN CATCHMENT BOUNDARY
	SOUTHERN CATCHMENT BOUNDARY
	EXTENT OF STAGE 4 LANDFILL
	MAJOR CONTOUR (25m)
	MINOR CONTOUR (5m)
	LIMIT OF CATCHMENT ABLE TO BE ATTENUATED
	POTENTIAL CLEAN SURFACE WATER ATTENUATION AREA
	EXISTING STORMWATER PIPES TO BE UPGRADED
	PROPOSED CLEAN WATER DIVERSION DRAIN

NOTE:
 1. CONCEPT ONLY, SUBJECT TO DETAILED DESIGN
 2. COORDINATES ARE IN WELLINGTON CIRCUIT 1949



				Tab 003		
C	FOR CONSENT	RC	IMM	GH	GH	08/2013
B	DRAFT	RC	UH	RC	GH	
A	DRAFT	RC	BUJM	RC	GH	
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland
 Phone: 9-355 1300
 Fax: 9-355 1333

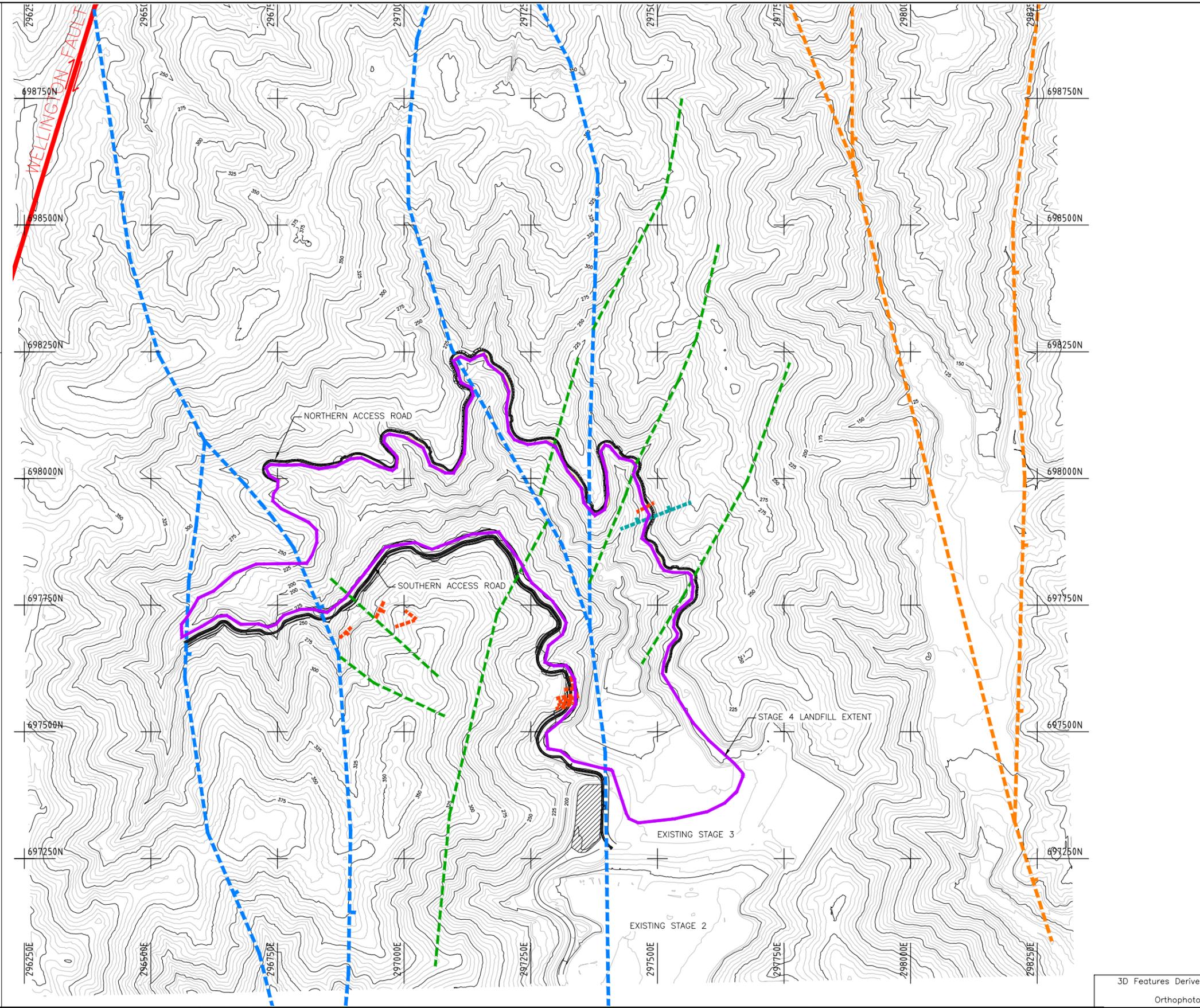
Absolutely Positively Wellington

My Work is My Honour
 WELLINGTON CITY COUNCIL

3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved		
Orthophotography 1:500 flown March 2006 owned by Wellington City Council		
SOUTHERN LANDFILL - STAGE 4 EXTENSION		
SURFACE WATER CATCHMENT PLAN	Status	CONSENT
	Drawing Number	C-003
	Revision	D

URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested.

© Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

- LEGEND:**
- PRINCIPAL FAULT (REF: GNS MAP22)
 - - - SECONDARY POSSIBLE ACTIVE FAULT (REF: GNS MAP22)
 - - - SECONDARY POSSIBLE INACTIVE FAULT (REF: GNS MAP22)
 - - - SIGNIFICANT FAULTS (URS SITE OBSERVATIONS 2011)
 - - - MINOR FAULTS (URS SITE OBSERVATIONS 2011)
 - - - LINEATIONS IDENTIFIED FROM 2004 1:25,000 STEREOSCOPIC PHOTOGRAPHS
 - EXTENT OF STAGE 4 LANDFILL
 - MAJOR CONTOUR (25m)
 - MINOR CONTOUR (5m)



3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

						Tab C-004
						Scales
						1:4,000 (A1)
						1:8,000 (A3)
						Original Size A1
B	FOR CONSENT	RC	IMM	GH	GH	08/2013
A	DRAFT	RC	BJMM	RC	GH	
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland

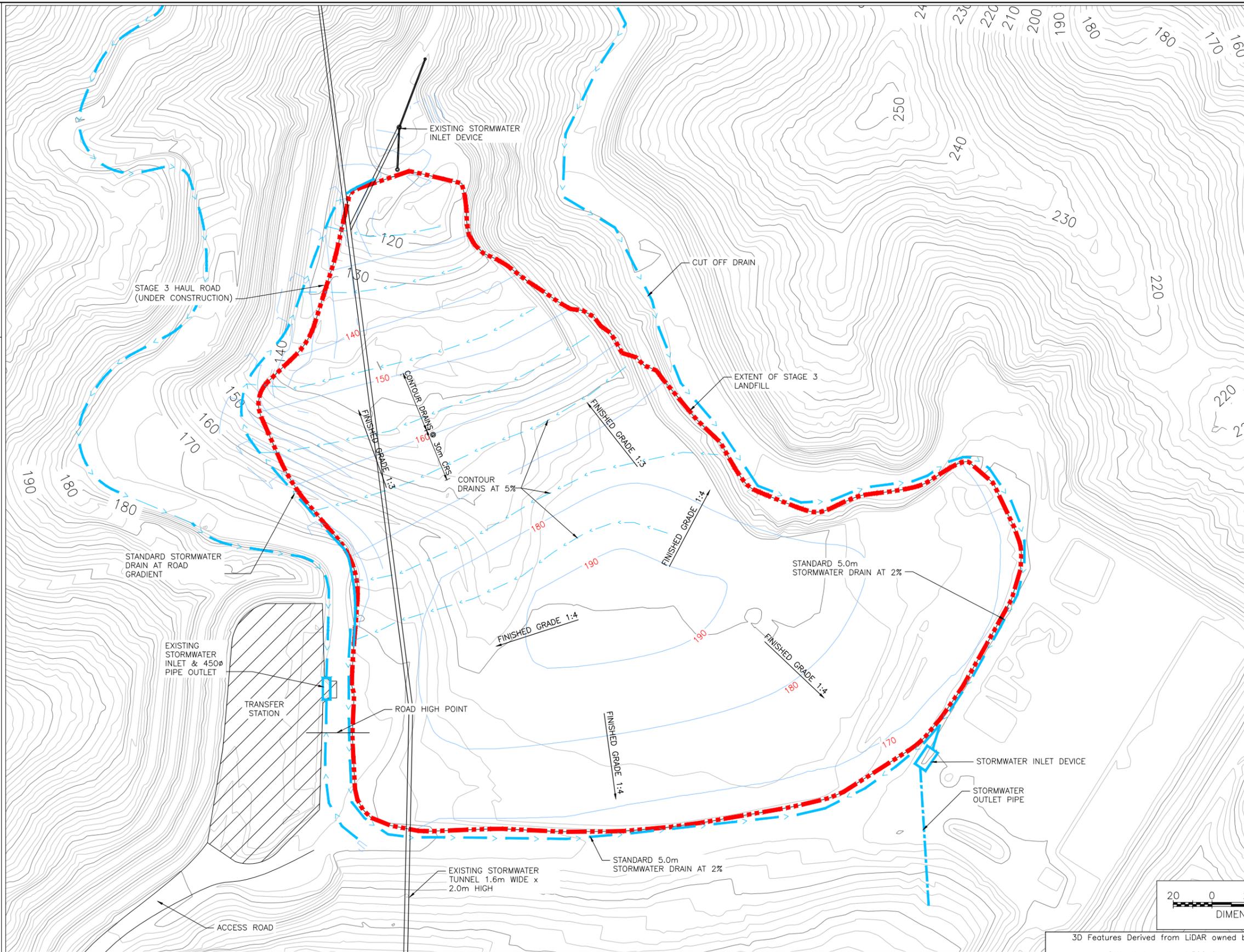
Phone: 9-355 1300
 Fax: 9-355 1333

Absolutely Positively
 ME HEKE HE PONEKE
 WELLINGTON CITY COUNCIL Wellington

SOUTHERN LANDFILL - STAGE 4 EXTENSION		
GEOLOGICAL FAULTS PLAN		Status CONSENT
Drawing Number C-004		Revision B

Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.

URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested.



NOTES

1. STAGE 3 CONSTRUCTION EXISTING CONTOURS & GRADES SHOWN ARE DESIGN LEVELS /GRADES
2. CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

LEGEND:

- EXTENT OF STAGE 3 LANDFILL
- > STORMWATER SWALE
- - - CONTOUR DRAIN
- STAGE 3 HAUL ROAD MAJOR CONTOURS (5m)
- STAGE 3 MAJOR CONTOURS (10m)
- MAJOR CONTOUR (25m)
- MINOR CONTOUR (5m)



3D Features Derived from LiDAR owned by Wellington City Council - WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

						Tab C-005
						Scales
C	FOR CONSENT	RC	IMM	GH	GH	08/2013
B	DRAFT	RC	UH	RC	GH	
A	DRAFT	RC	BJMM	RC	GH	
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
						Original Size A1

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland

Phone: 9-355 1300
 Fax: 9-355 1333

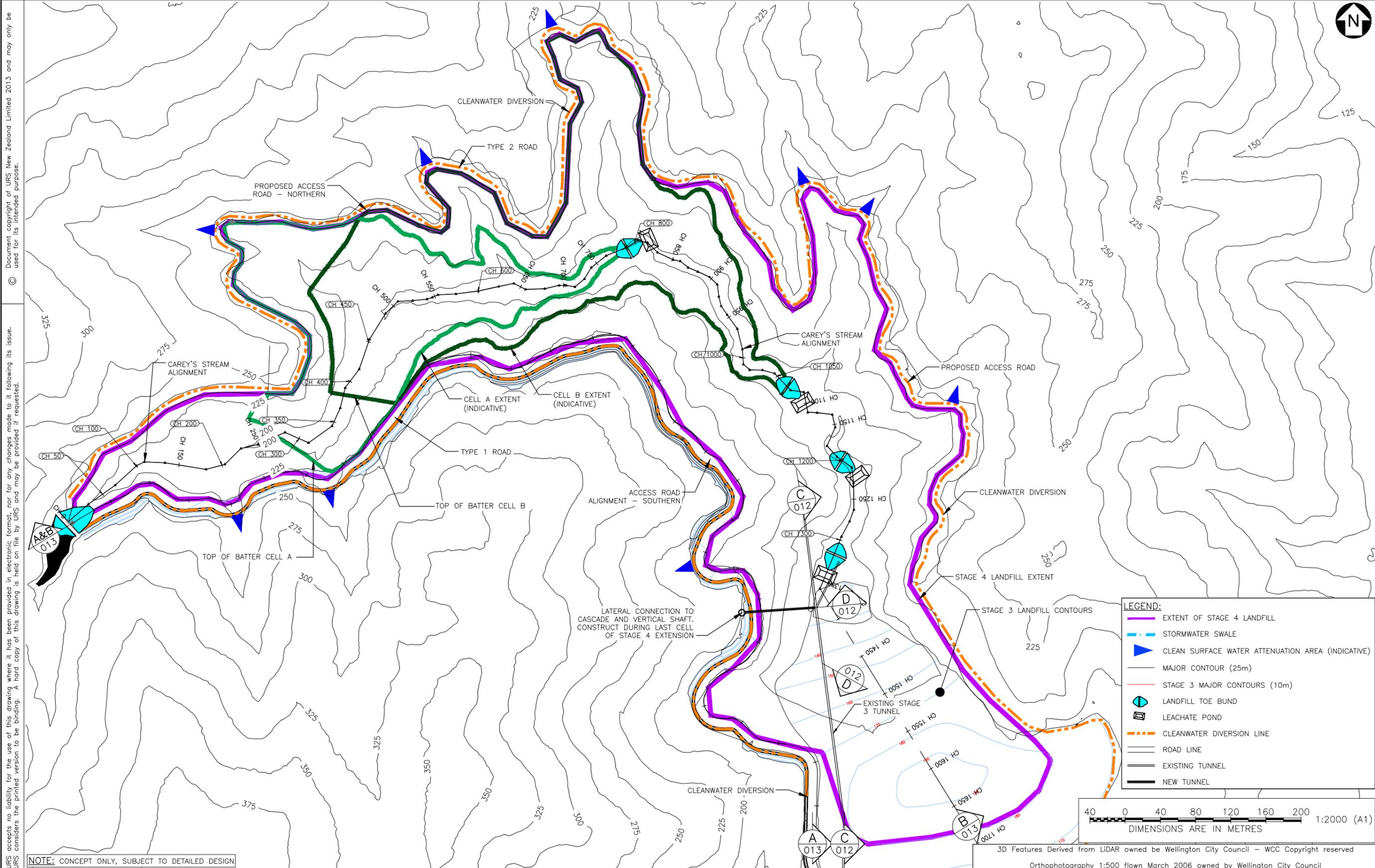
Absolutely Positively
 ME HEKE KE POKERE
 WELLINGTON CITY COUNCIL

SOUTHERN LANDFILL - STAGE 4 EXTENSION

STAGE 4 LANDFILL EXTENSION
 [FOR INFORMATION ONLY]

Status: **CONSENT**

Drawing Number: **C-005** Revision: **C**



URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested. © Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

LEGEND:

- EXTENT OF STAGE 4 LANDFILL
- STORMWATER SWALE
- ▶ CLEAN SURFACE WATER ATTENUATION AREA (INDICATIVE)
- MAJOR CONTOUR (25m)
- STAGE 3 MAJOR CONTOURS (10m)
- ◻ LANDFILL TOE BUND
- ◻ LEACHATE POND
- - - CLEANWATER DIVERSION LINE
- ROAD LINE
- EXISTING TUNNEL
- NEW TUNNEL



3D Features Derived from LiDAR owned by Wellington City Council - WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

D	FOR CONSENT	RC	IMM	GH	GH	08/2013	Tab C-006
C	DRAFT	RC	UH				Scales
B	DRAFT	RC	BJMM				1:2,000 (A1)
A	DRAFT	RC	BJMM	RC		15/04/11	1:4,000 (A3)
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date	Original Size A1

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland

Phone: 9-355 1300
 Fax: 9-355 1333

Absolutely Positively

ME HERE AS PIONEER
 WELLINGTON CITY COUNCIL

SOUTHERN LANDFILL - STAGE 4 EXTENSION

STAGE 4 LANDFILL - SURFACE WATER MANAGEMENT

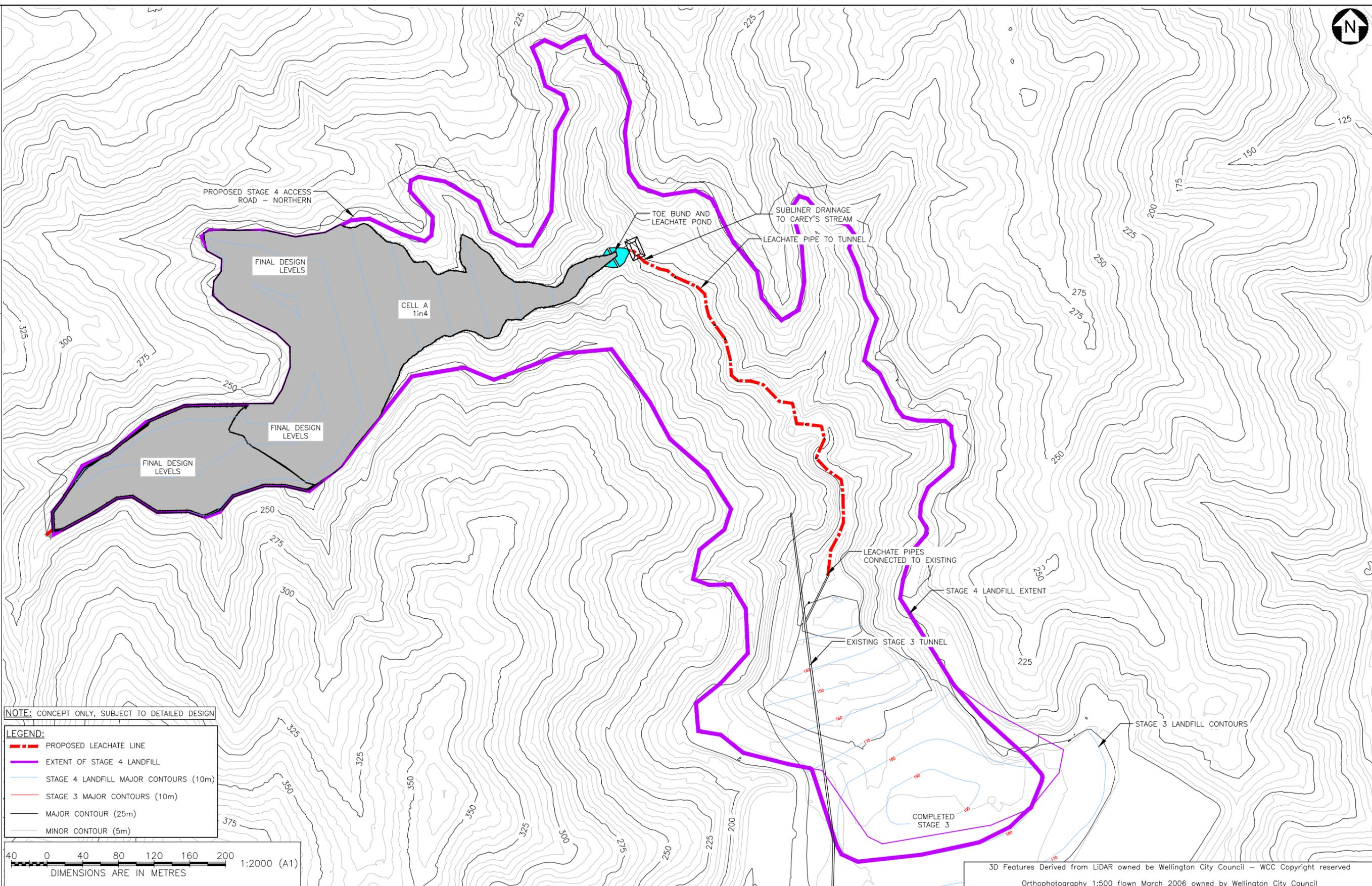
GENERAL ARRANGEMENT

Status: **CONSENT**

Drawing Number: **C-006**

Revision: **D**

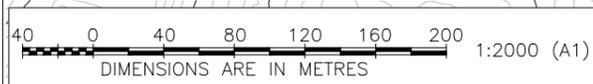
URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested. © Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

LEGEND:

- PROPOSED LEACHATE LINE
- EXTENT OF STAGE 4 LANDFILL
- STAGE 4 LANDFILL MAJOR CONTOURS (10m)
- STAGE 3 MAJOR CONTOURS (10m)
- MAJOR CONTOUR (25m)
- MINOR CONTOUR (5m)



3D Features Derived from LIDAR owned by Wellington City Council - WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

D	FOR CONSENT	RC	IMM	GH	GH	08/2013	Tab C-007
C	DRAFT	RC	UH				Scales
B	DRAFT	RC	BJMM				1:2,000 (A1) 1:4,000 (A3)
A	DRAFT	RC	BJMM			15/04/11	Original Size A1
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date	

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland
 Phone: 9-355 1300
 Fax: 9-355 1333

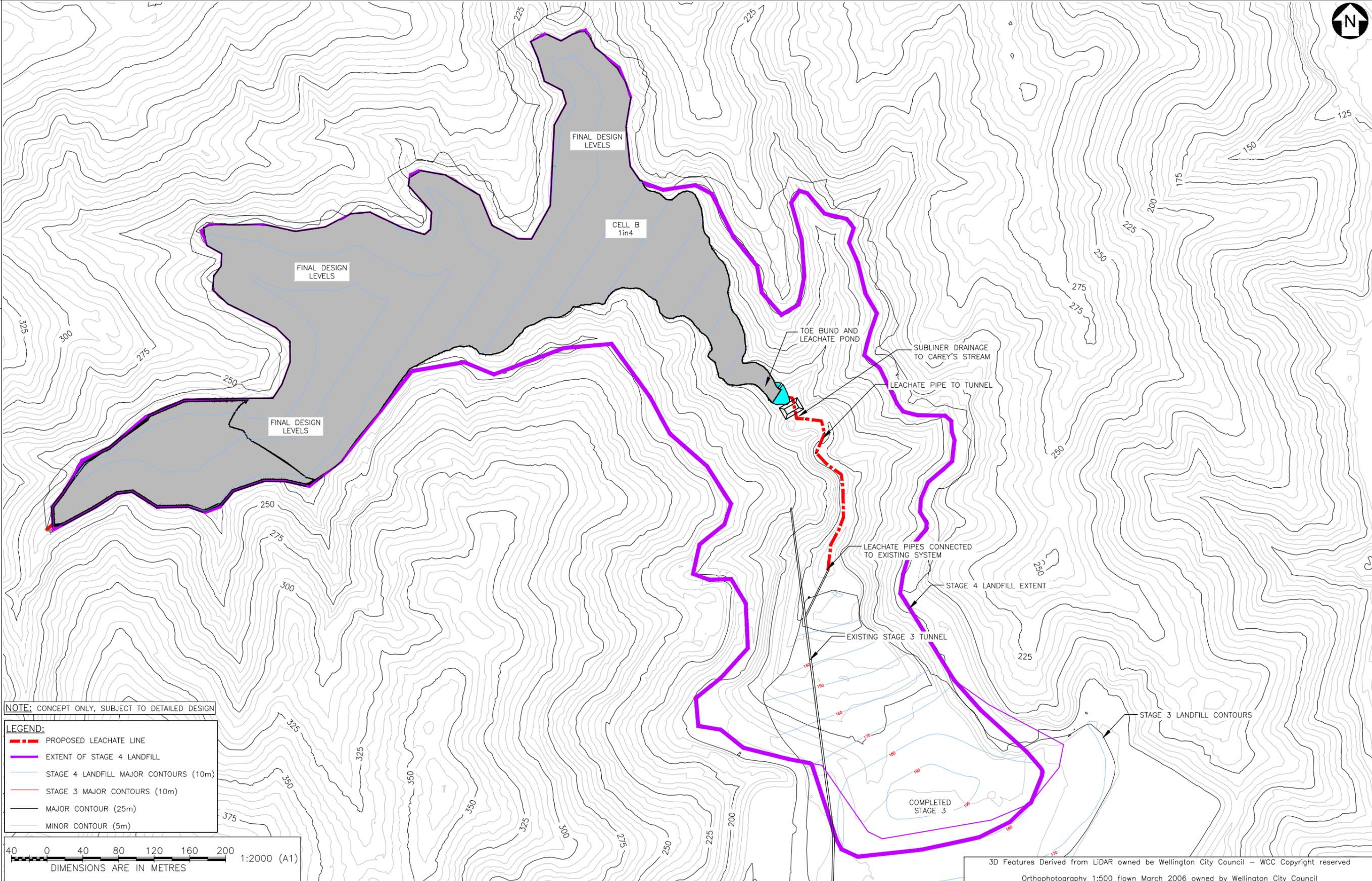
Absolutely
 Positively

ME HEKE KE PONEKE
 WELLINGTON CITY COUNCIL

Wellington

SOUTHERN LANDFILL - STAGE 4 EXTENSION	
INDICATIVE STAGING PLAN CELL A	Status CONSENT
Drawing Number C-007	Revision D

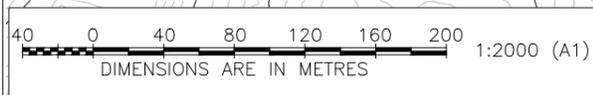
URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested. © Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

LEGEND:

- - -	PROPOSED LEACHATE LINE
—	EXTENT OF STAGE 4 LANDFILL
—	STAGE 4 LANDFILL MAJOR CONTOURS (10m)
—	STAGE 3 MAJOR CONTOURS (10m)
—	MAJOR CONTOUR (25m)
—	MINOR CONTOUR (5m)



3D Features Derived from LIDAR owned by Wellington City Council – WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

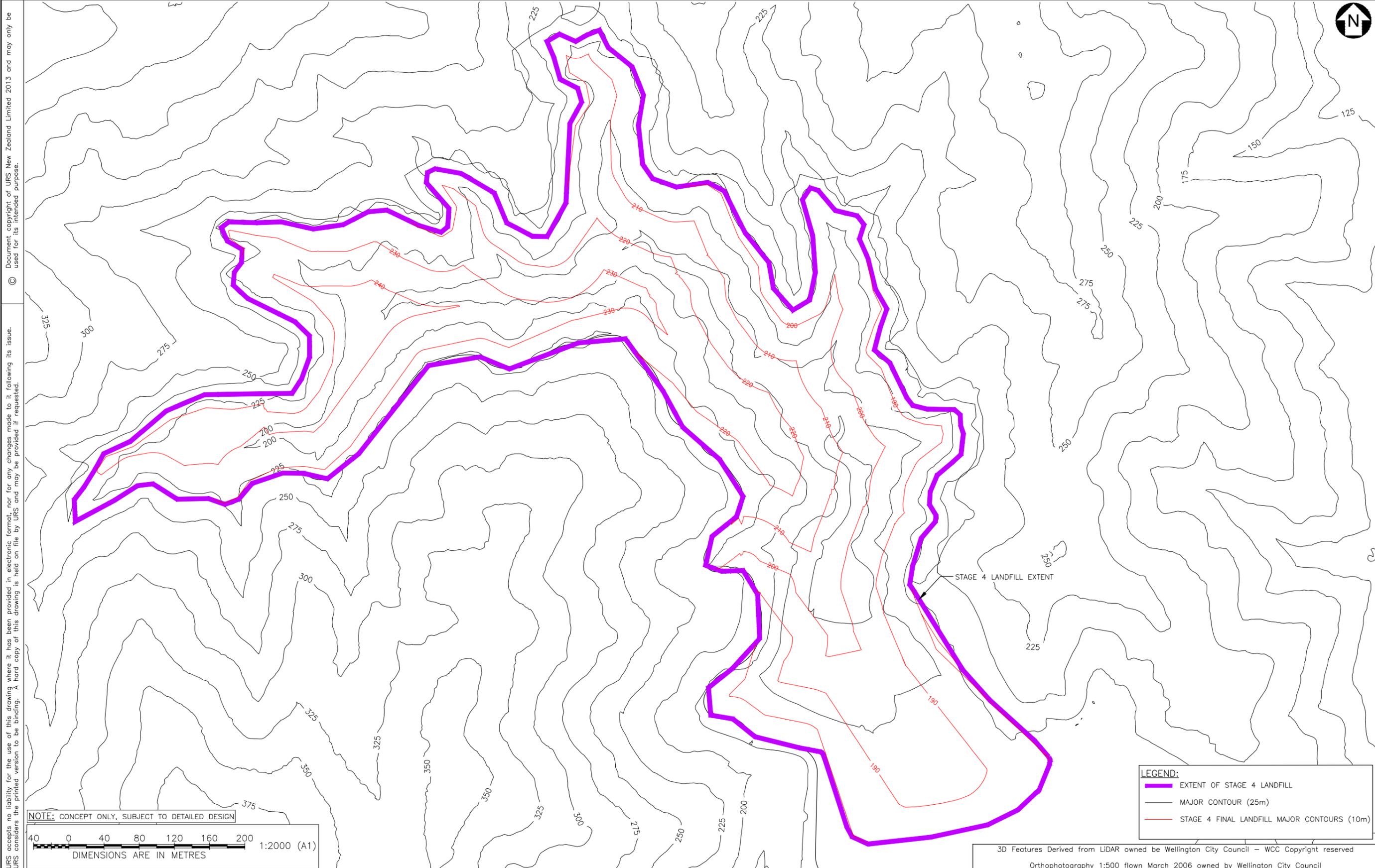
D	FOR CONSENT	RC	IMM	GH	GH	08/2013
C	DRAFT	RC	UH			
B	DRAFT	RC	BJMM			
A	DRAFT	RC	BJMM			15/04/11
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date

Tab	C-008
Scales	1:2,000 (A1) 1:4,000 (A3)
Original Size	A1

URS
 URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland
 Phone: 9-355 1300
 Fax: 9-355 1333

Absolutely Positively
 ME HEKE KE PONEKE
 WELLINGTON CITY COUNCIL Wellington

SOUTHERN LANDFILL - STAGE 4 EXTENSION	
INDICATIVE STAGING PLAN CELL B	Status CONSENT
Drawing Number C-008	Revision D



URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested. © Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

40 0 40 80 120 160 200 1:2000 (A1)

DIMENSIONS ARE IN METRES

LEGEND:

- EXTENT OF STAGE 4 LANDFILL
- MAJOR CONTOUR (25m)
- STAGE 4 FINAL LANDFILL MAJOR CONTOURS (10m)

3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

B	FOR CONSENT	RC	IMM	GH	GH	08/2013	
A	DRAFT	RC	UH				
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date	

Tab C-010

Scales

1:2,000 (A1)
1:4,000 (A3)

Original Size A1

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland

Phone: 9-355 1300
 Fax: 9-355 1333

Absolutely Positively

ME HEKE KE POKAHE
 WELLINGTON CITY COUNCIL

Wellington

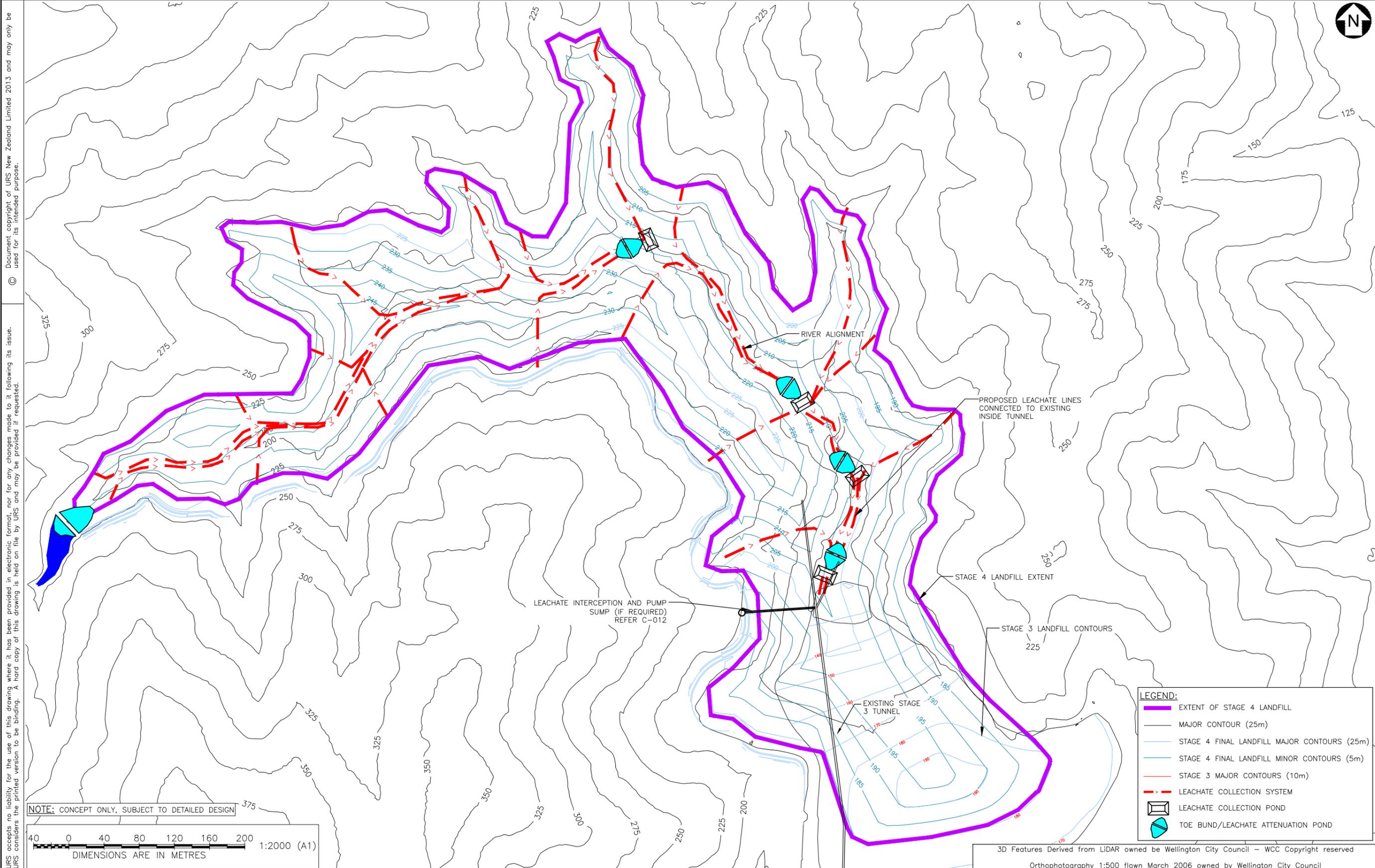
SOUTHERN LANDFILL - STAGE 4 EXTENSION

INDICATED FINAL LAND FORM

Status **CONSENT**

Drawing Number **C-010**

Revision **B**



URS accepts no liability for the use of this drawing where it has been provided in electronic format, nor for any changes made to it following its issue. URS considers the printed version to be binding. A hard copy of this drawing is held on file by URS and may be provided if requested. © Document copyright of URS New Zealand Limited 2013 and may only be used for its intended purpose.

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

40 0 40 80 120 160 200 1:2000 (A1)

DIMENSIONS ARE IN METRES

LEGEND:

- EXTENT OF STAGE 4 LANDFILL
- MAJOR CONTOUR (25m)
- STAGE 4 FINAL LANDFILL MAJOR CONTOURS (25m)
- STAGE 4 FINAL LANDFILL MINOR CONTOURS (5m)
- STAGE 3 MAJOR CONTOURS (10m)
- - - LEACHATE COLLECTION SYSTEM
- LEACHATE COLLECTION POND
- TOE BUND/LEACHATE ATTENUATION POND

3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved
 Orthophotography 1:500 flown March 2006 owned by Wellington City Council

Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
B	FOR CONSENT	RC	IMM	GH	GH	08/2013
A	DRAFT	RC	BJMM			

Tab	C-011
Scales	1:2,000 (A1) 1:4,000 (A3)
Original Size	A1

URS

URS New Zealand Limited
 Level 6, URS Centre
 13-15 College Hill, Auckland

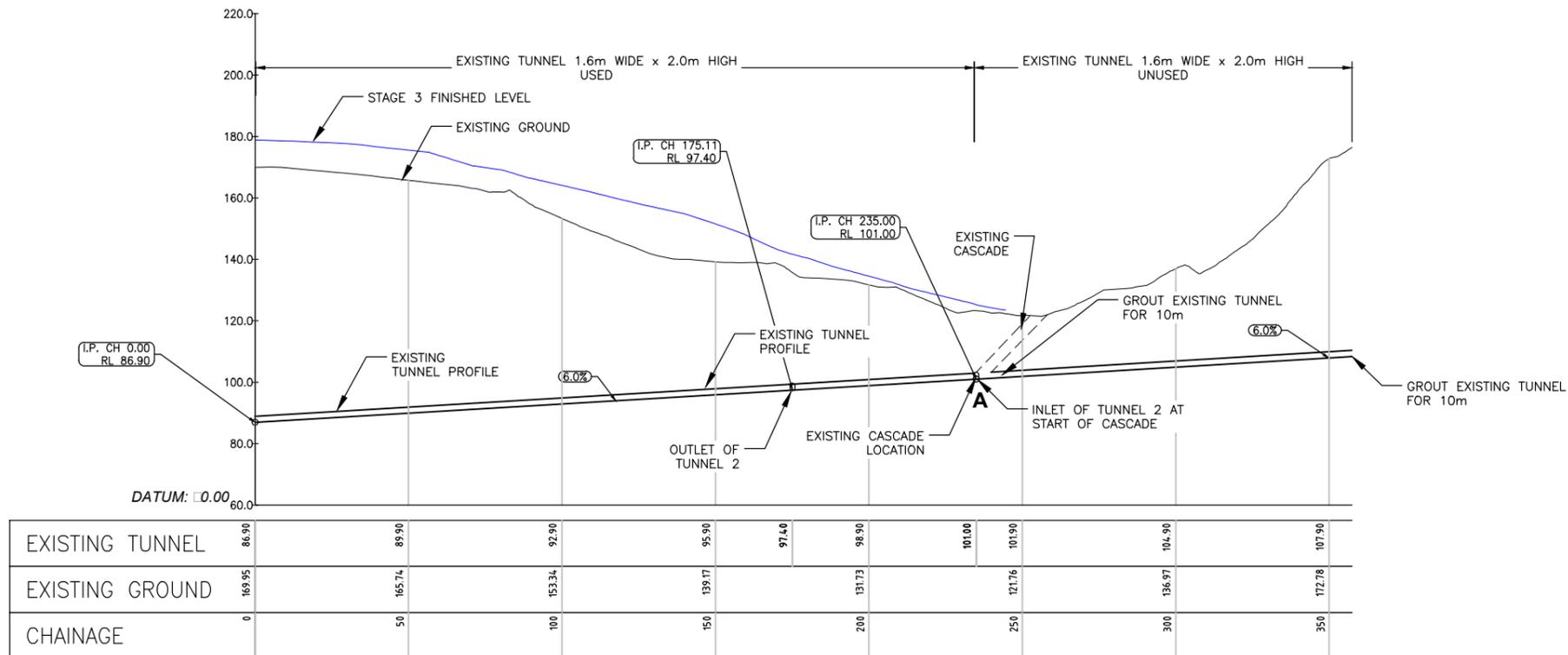
Phone: 9-355 1300
 Fax: 9-355 1333

Absolutely Positively

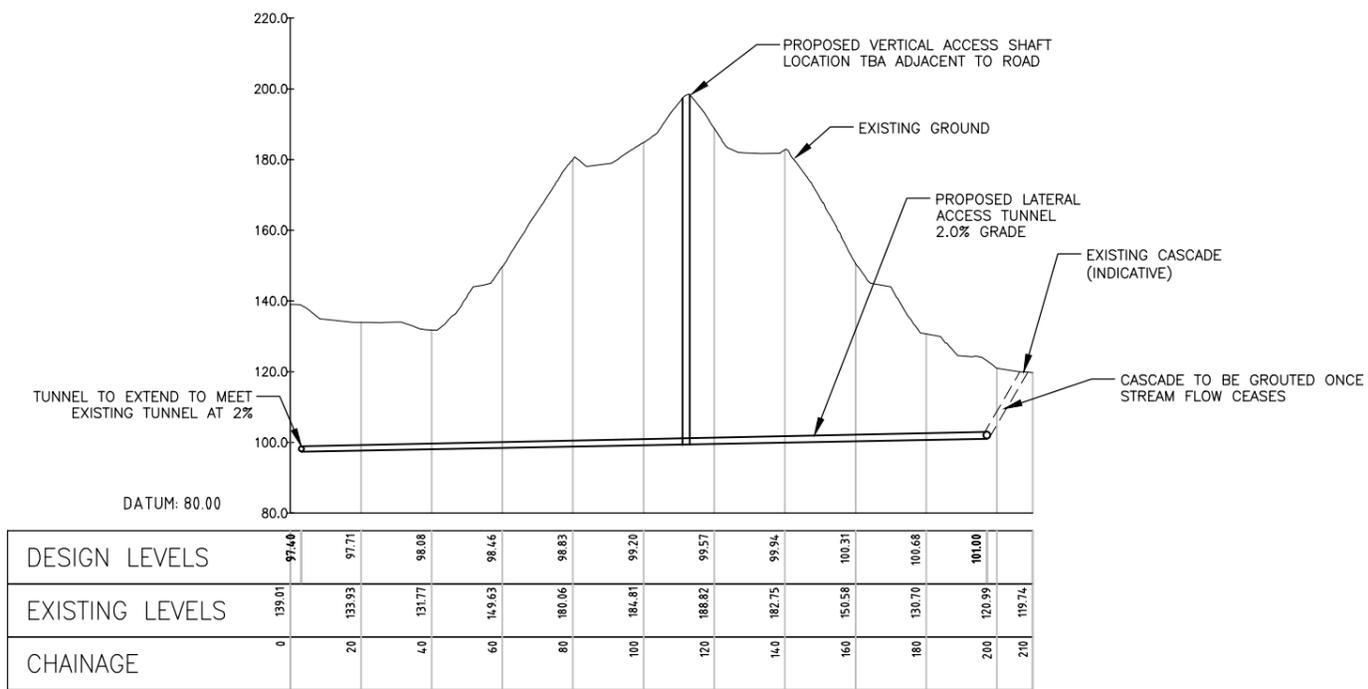
ME HEKE KE POKERE
 WELLINGTON CITY COUNCIL

Wellington

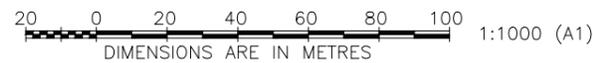
SOUTHERN LANDFILL - STAGE 4 EXTENSION	
LEACHATE COLLECTION SYSTEM	Status CONSENT
	Drawing Number C-011 Revision B



C LONG SECTION – EXISTING TUNNEL ALIGNMENT
006 SCALE: 1:1,000 (A1)
1:2,000 (A3)



D LONG SECTION – PROPOSED ACCESS TUNNEL No.2
006 SCALE: 1:1,000 (A1)
1:2,000 (A3)



NOTE:
1. CONCEPT ONLY, SUBJECT TO DETAILED DESIGN
2. REFER TO C-006 FOR LOCATIONS

3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved
Orthophotography 1:500 flown March 2006 owned by Wellington City Council

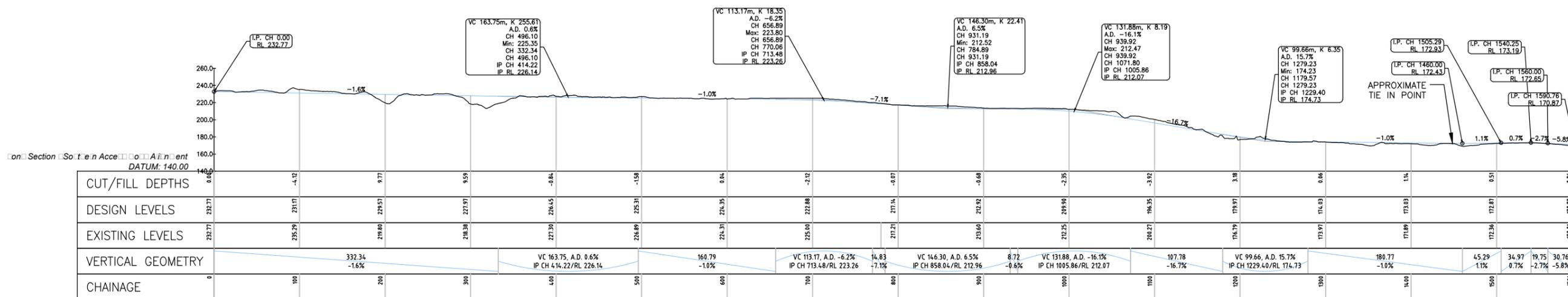
D	FOR CONSENT	RC	IMM	GH	GH	08/2013	Tab C-012
C	DRAFT	GH	BJMM				Scales
B	DRAFT	RC	BJMM				1:1,000 (A1) 1:2,000 (A3)
A	DRAFT	RC	BJMM			15/04/11	Original Size A1
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date	



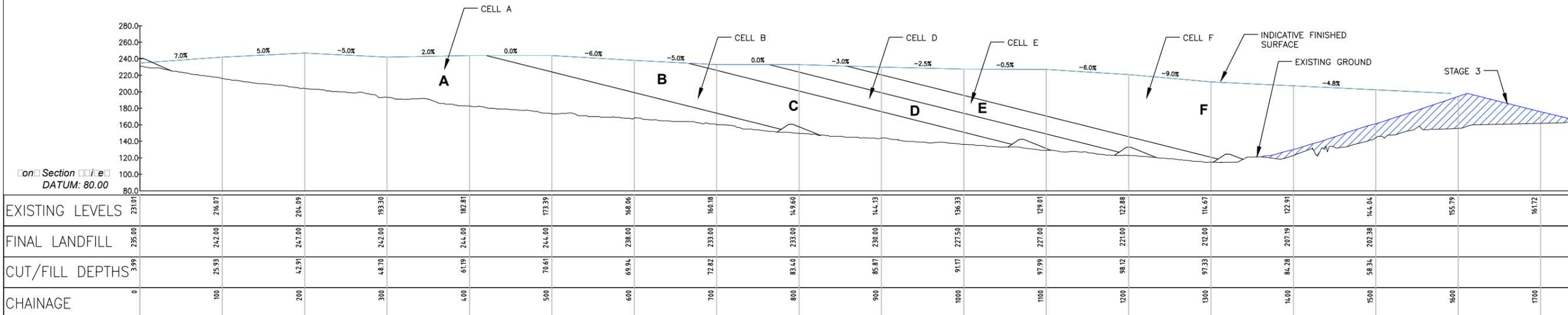
URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333



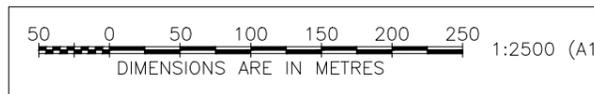
SOUTHERN LANDFILL - STAGE 4 EXTENSION		
Status		CONSENT
Drawing Number		C-012
Revision		D



(A) LONG SECTION - SOUTHERN ACCESS ROAD (INDICATIVE)
006 SCALE: 1:2,500 (A1)
1:5,000 (A3)



(B) LONG SECTION - ALONG CAREY'S STREAM (INDICATIVE)
006 SCALE: 1:2,500 (A1)
1:5,000 (A3)



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
D	FOR CONSENT	RC	IMM	GH	GH	08/2013
C	DRAFT	RC	UH			
B	DRAFT	RC	BJMM			
A	DRAFT	RC	BJMM			15/04/11

Tab C-013
Scales
1:2,500 (A1)
1:5,000 (A3)
Original Size A1

URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333

Absolutely
Positively
Wellington

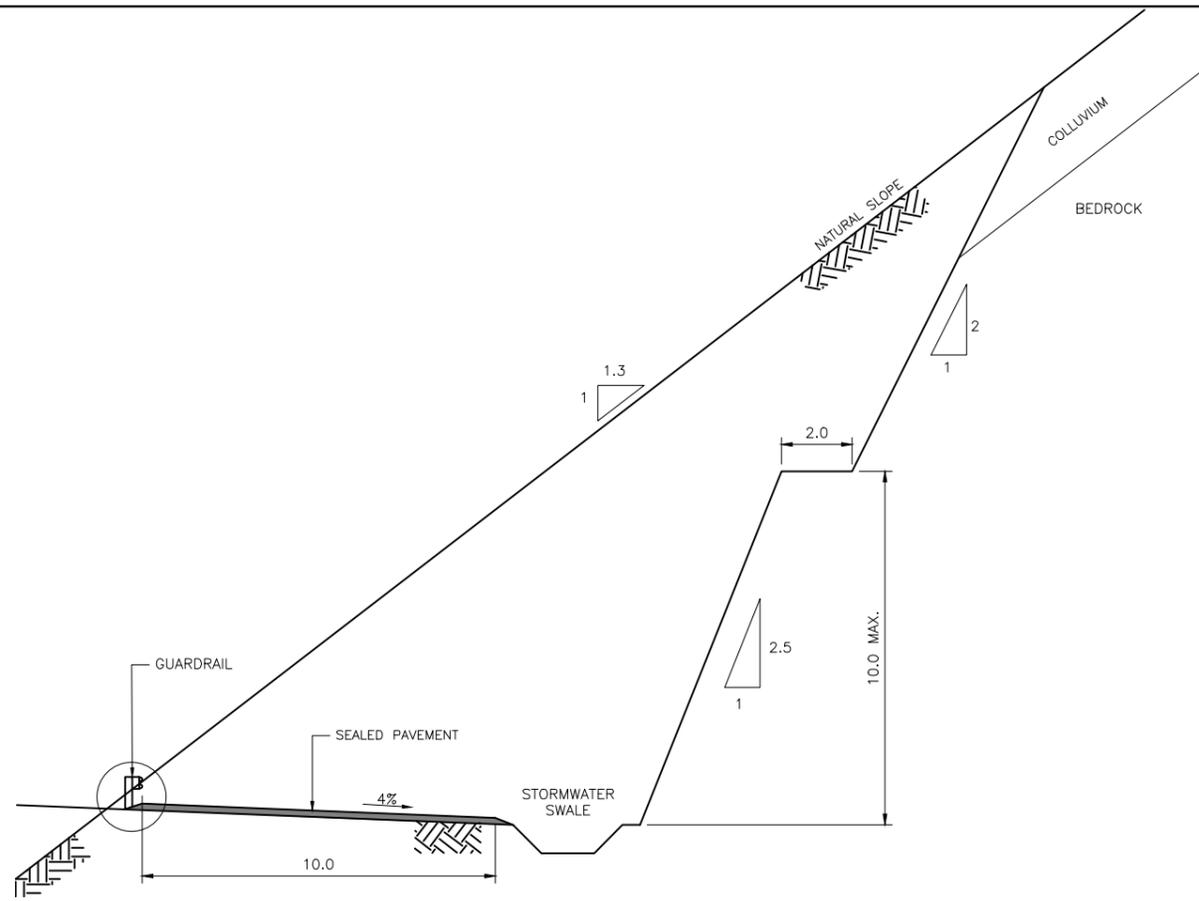
3D Features Derived from LiDAR owned by Wellington City Council - WCC Copyright reserved
Orthophotography 1:500 flown March 2006 owned by Wellington City Council

SOUTHERN LANDFILL - STAGE 4 EXTENSION

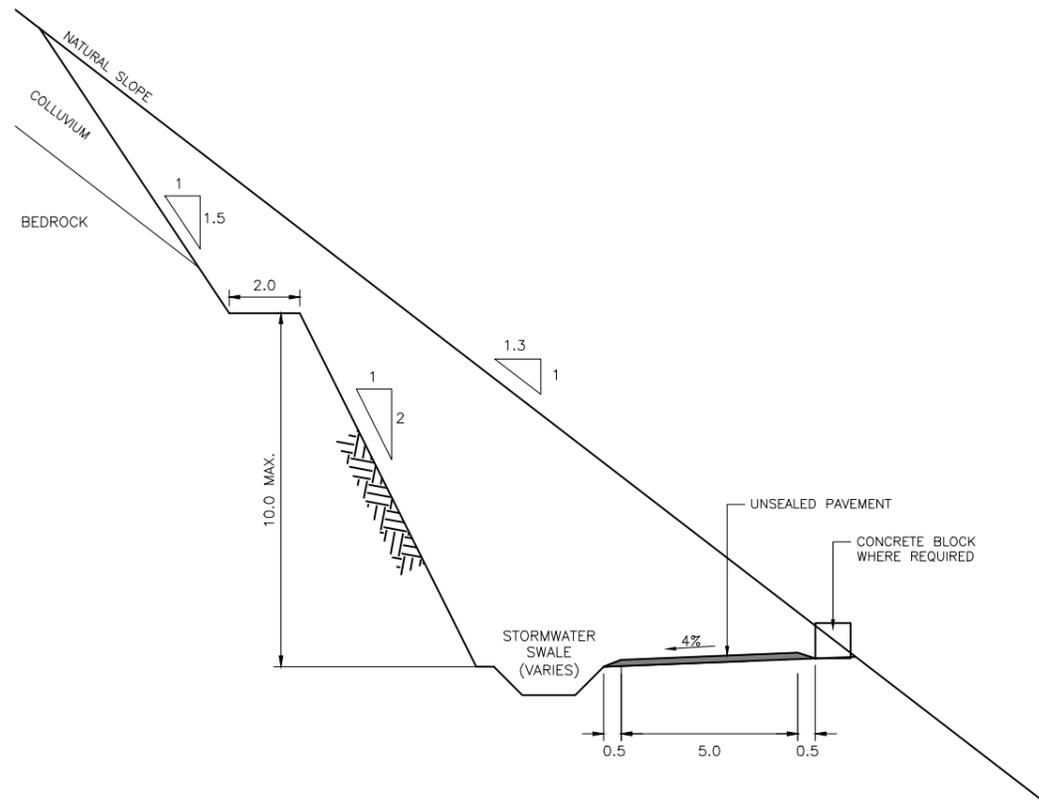
SOUTHERN ACCESS ROAD AND CAREY'S STREAM LONG SECTIONS

Status: **CONSENT**

Drawing Number: **C-013** Revision: **D**



INDICATIVE CROSS SECTION OF DUAL CARRIAGEWAY (TYPE 1)
SOUTH SIDE ACCESS



INDICATIVE CROSS SECTION OF SINGLE CARRIAGEWAY WITH
PERMANENT CHANNEL (TYPE 2) - NORTH SIDE ACCESS

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

						Tab C-014
						Scales
						1:100 (A1)
						1:200 (A3)
						Original Size A1
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
B	FOR CONSENT	RC	IMM	GH	GH	08/2013
A	DRAFT	RC	BJMM			



URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333

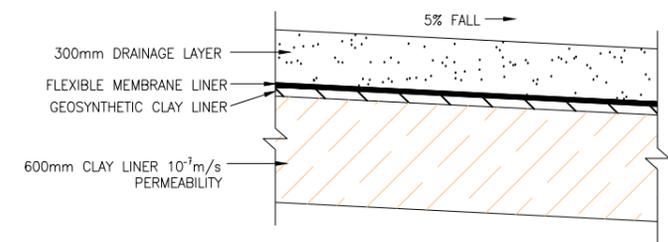
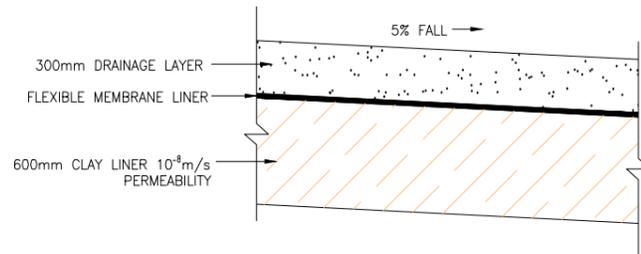
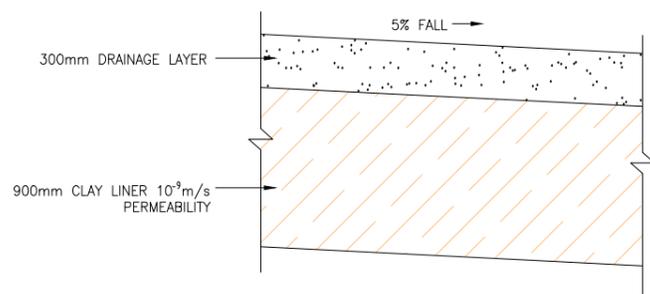
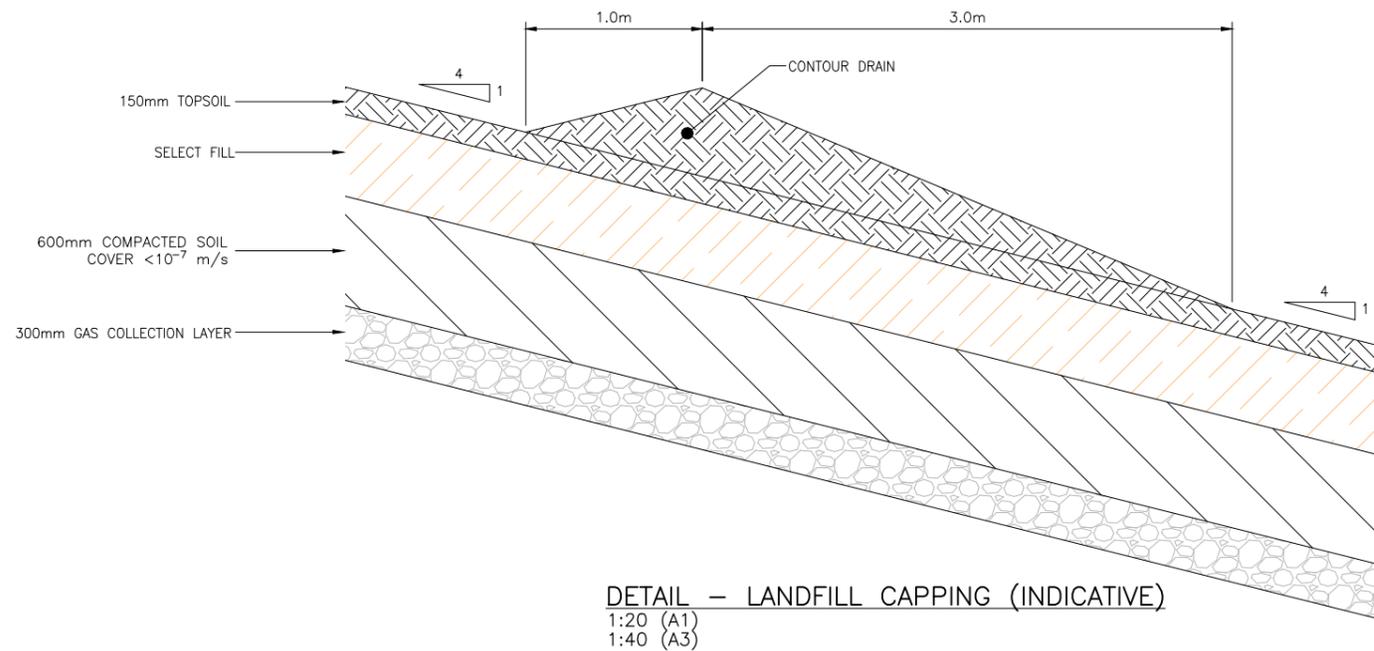


3D Features Derived from LiDAR owned by Wellington City Council - WCC Copyright reserved
Orthophotography 1:500 flown March 2006 owned by Wellington City Council

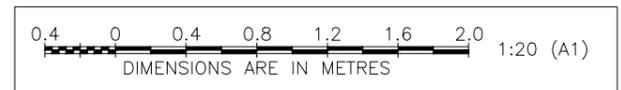
SOUTHERN LANDFILL - STAGE 4 EXTENSION

INDICATIVE ROAD AND CONTOUR DRAIN
SECTIONS

Status	CONSENT	
Drawing Number	C-014	Revision
		B



DETAIL –INDICATIVE LANDFILL LINER OPTIONS
1:20 (A1)
1:40 (A3)



NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

						Tab C-015
D	FOR CONSENT	RC	IMM	GH	GH	08/2013
C	DRAFT	GH	UH			Scales
B	DRAFT	RC	BJMM			AS SHOWN
A	DRAFT	RC	BJMM	RC		15/04/11
Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
						Original Size A1

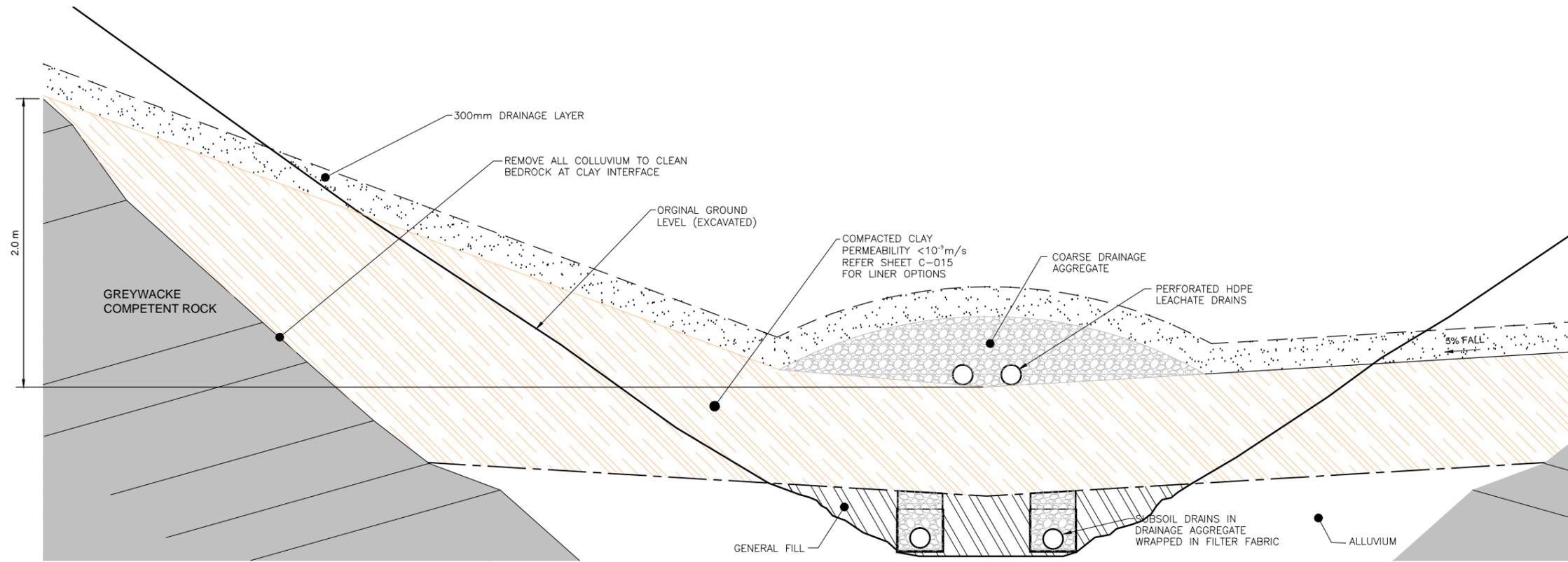


URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333

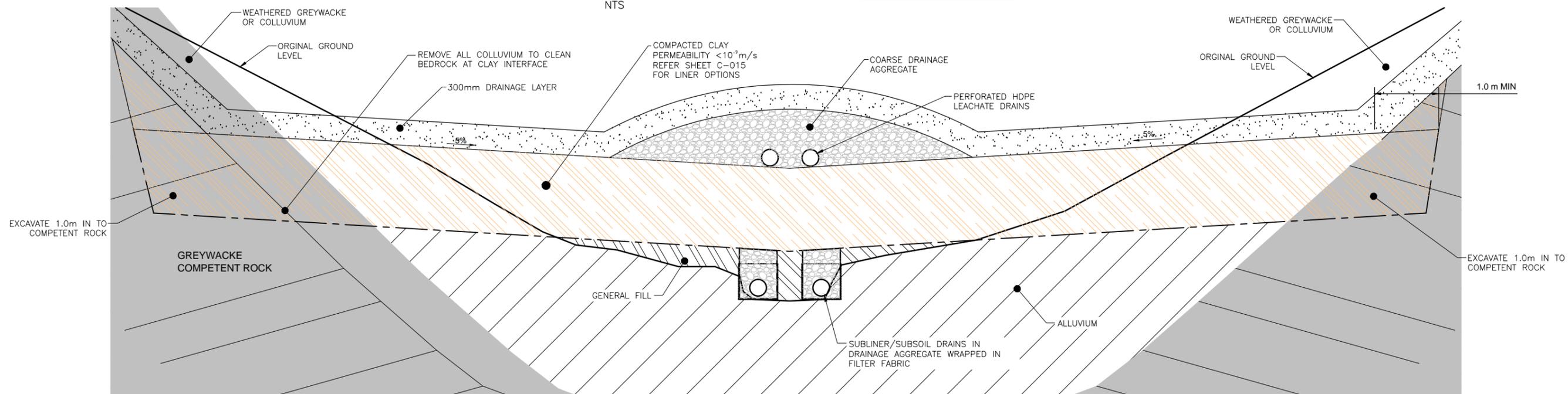


3D Features Derived from LiDAR owned by Wellington City Council – WCC Copyright reserved
Orthophotography 1:500 flown March 2006 owned by Wellington City Council

SOUTHERN LANDFILL - STAGE 4 EXTENSION		
INDICATIVE CAPPING AND LINER DETAILS		Status CONSENT
Drawing Number C-015		Revision D



INDICATIVE SECTION - LANDFILL LINER - OPTION A
NTS



INDICATIVE SECTION - LANDFILL LINER - OPTION B
NTS

NOTE: CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
D	FOR CONSENT	RC	IMM	GH	GH	08/2013
C	DRAFT	GH	UH			
B	DRAFT	RC	BJMM			
A	DRAFT	RC	BJMM	RC		15/04/11

Tab	C-016
Scales	N.T.S
Original Size	A1



URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333

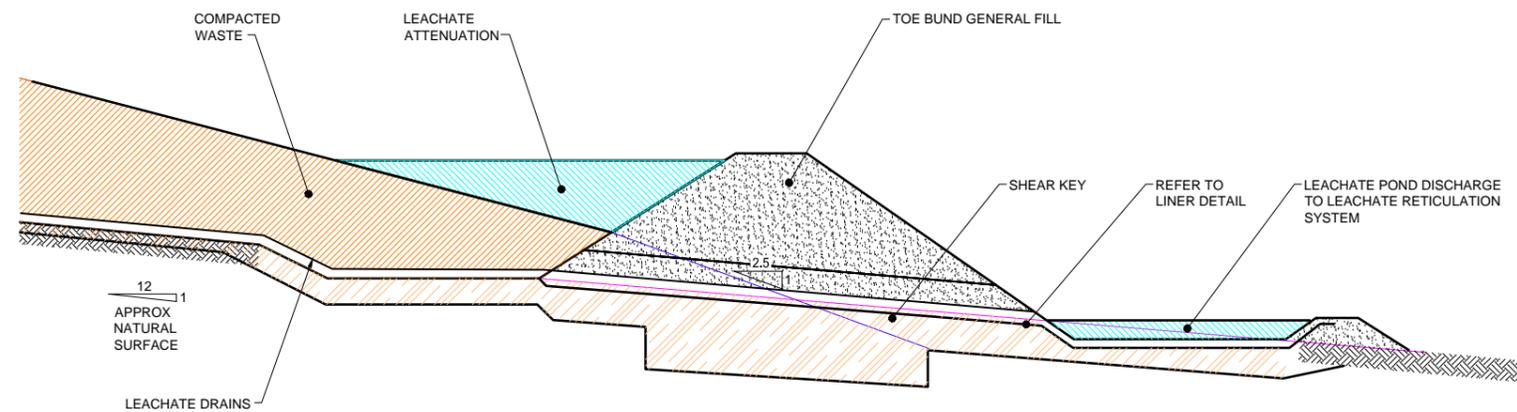


3D Features Derived from LiDAR owned by Wellington City Council - WCC Copyright reserved
Orthophotography 1:500 flown March 2006 owned by Wellington City Council

SOUTHERN LANDFILL - STAGE 4 EXTENSION

LECHATE COLLECTION AND LINER SYSTEMS INDICATIVE SECTIONS

Status	CONSENT
Drawing Number	C-016
Revision	D



ELEVATION – TOE TERMINATION
NTS

NOTE:
1. CONCEPT ONLY, SUBJECT TO DETAILED DESIGN

Rev	Revision Description	Designed	Drawn	Checked	Approved	Date
D	FOR CONSENT	RC	IMM	GH	GH	08/2013
C	DRAFT	GH	UH			
B	DRAFT	RC	BJMM			
A	DRAFT	RC	BJMM			15/04/11

Tab C-017
Scales AS SHOWN
Original Size A1



URS New Zealand Limited
Level 6, URS Centre
13-15 College Hill, Auckland
Phone: 9-355 1300
Fax: 9-355 1333



SOUTHERN LANDFILL - STAGE 4 EXTENSION	
INDICATIVE DETAIL - CELL TOE TERMINATION	Status CONSENT
Drawing Number C-017	Revision D