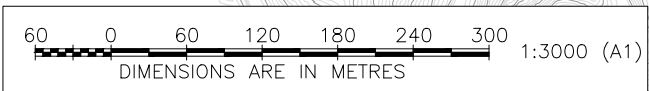
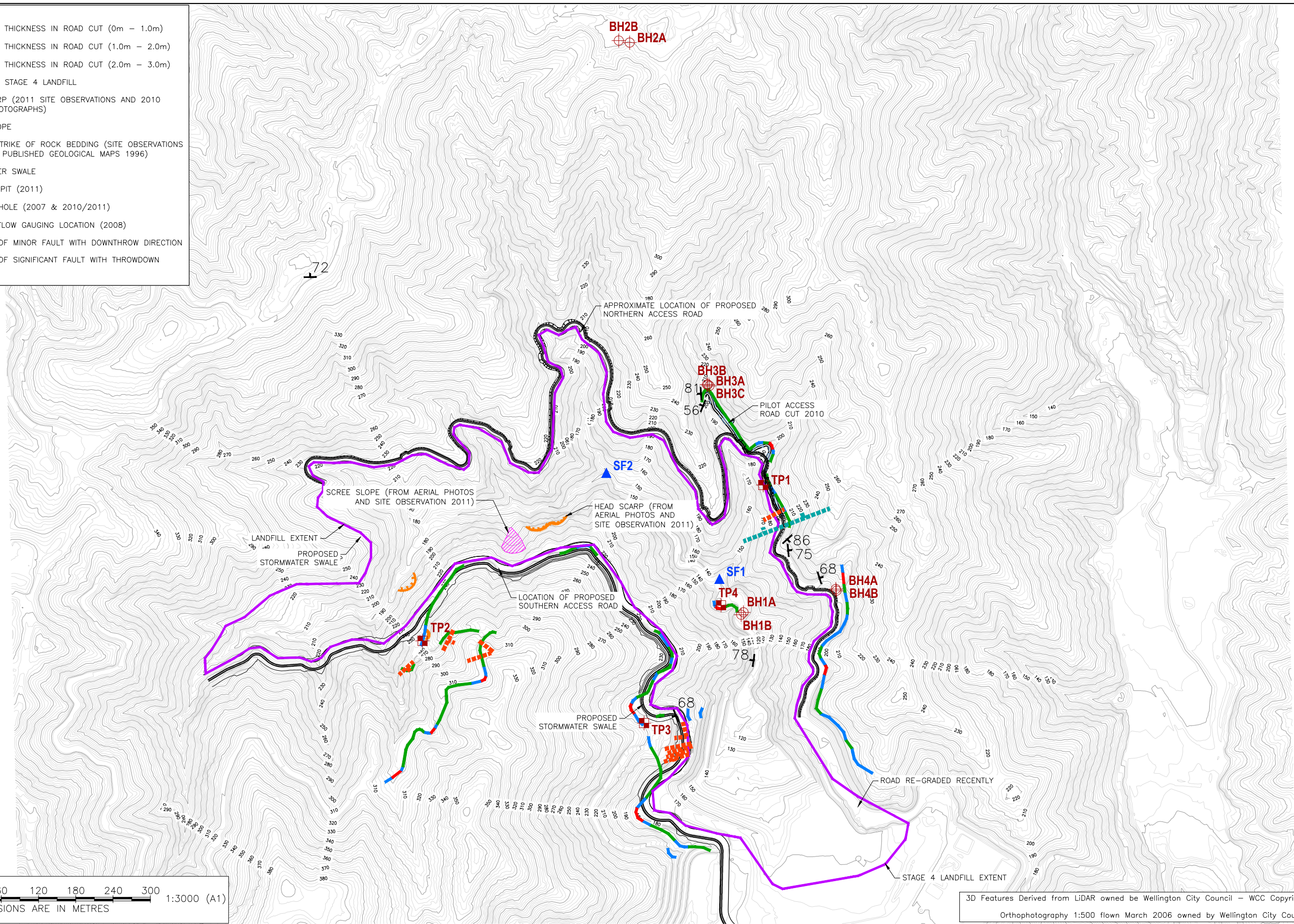


Appendix A Drawings

- G001 Engineering Geology Summary Plan
- G002 Fault Hazard Plan
- G003 Slope Angles Plan
- G004 Geotechnical Hazard Plan Option 1: Top Down

- LEGEND:**
- COLLUVIUM THICKNESS IN ROAD CUT (0m – 1.0m)
 - COLLUVIUM THICKNESS IN ROAD CUT (1.0m – 2.0m)
 - COLLUVIUM THICKNESS IN ROAD CUT (2.0m – 3.0m)
 - EXTENT OF STAGE 4 LANDFILL
 - HEAD SCARP (2011 SITE OBSERVATIONS AND 2010 AERIAL PHOTOGRAPHS)
 - SCREE SLOPE
 - DIP AND STRIKE OF ROCK BEDDING (SITE OBSERVATIONS 2011 AND PUBLISHED GEOLOGICAL MAPS 1996)
 - STORMWATER SWALE
 - URS TEST PIT (2011)
 - URS BOREHOLE (2007 & 2010/2011)
 - SURFACE FLOW GAUGING LOCATION (2008)
 - LOCATION OF MINOR FAULT WITH DOWNTHROW DIRECTION
 - LOCATION OF SIGNIFICANT FAULT WITH THROWDOWN DIRECTION



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| | | | | | | |
|-----|----------------------|----------|-------|---------|----------|----------|
| Rev | Revision Description | Designed | Drawn | Checked | Approved | Date |
| B | FOR RESOURCE CONSENT | ER | IMM | DF | GH | 19/06/13 |
| A | DRAFT | ER | BJMM | DF | GH | 14/04/11 |

| | |
|---------------|------------------------------|
| Tab | G-001 |
| Scales | 1:3,000 (A1) 1:6,000 (A3) |
| Original Size | A1 |

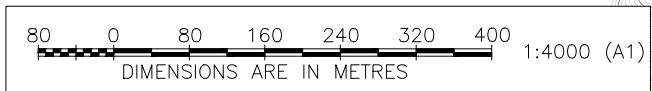
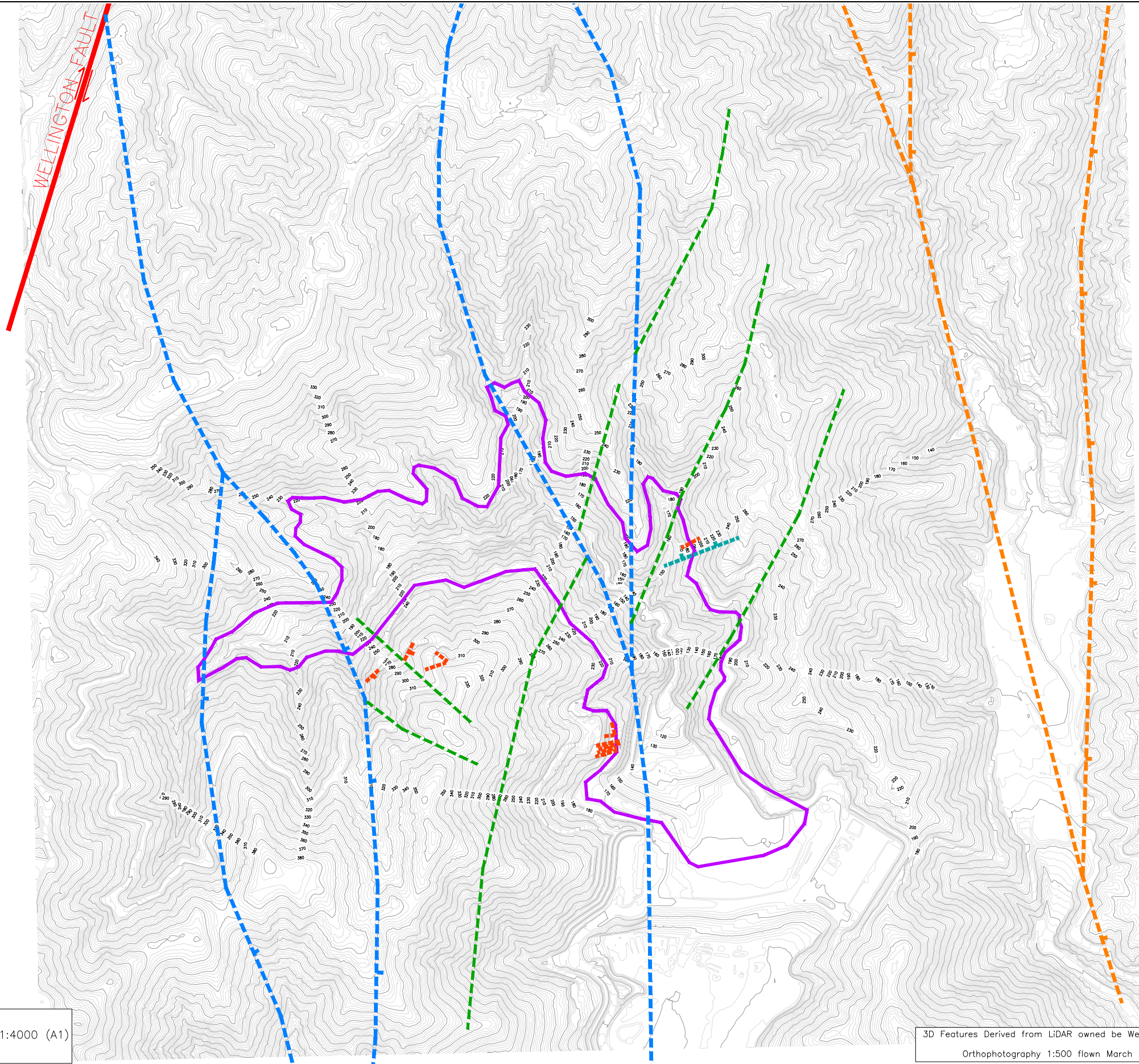


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| | |
|---|--------------|
| SOUTHERN LANDFILL | |
| GEOLOGY SUMMARY PLAN AND MONITORING LOCATION | |
| Status | FINAL |
| Drawing Number | G-001 |
| Revision | B |

- 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)
 - - - LINEARTIONS IDENTIFIED FROM 2004 1:25,000 STEREOSCOPIC PHOTOGRAPHS
 - EXTENT OF STAGE 4 LANDFILL



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|-----|----------------------|----------|-------|---------|----------|----------|------------------------------|
| | | | | | | Tab | G-002 |
| | | | | | | Scales | 1:4,000 (A1) 1:8,000 (A3) |
| B | FOR RESOURCE CONSENT | ER | IMM | DF | GH | 19/06/13 | Original Size A1 |
| A | DRAFT | ER | BJMM | DF | GH | 14/04/11 | |
| Rev | Revision Description | Designed | Drawn | Checked | Approved | Date | |

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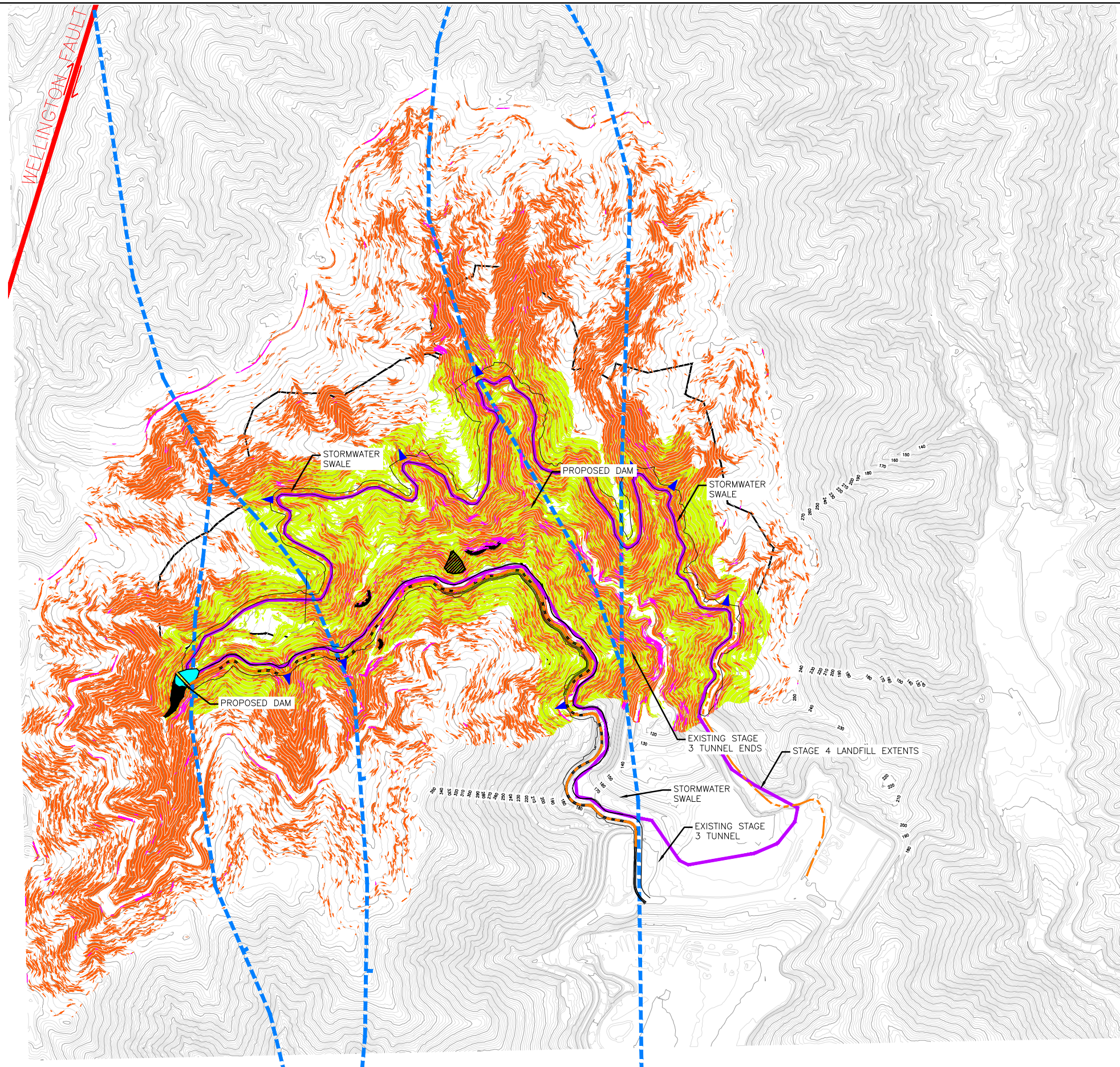
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SOUTHERN LANDFILL

FAULT HAZARD PLAN

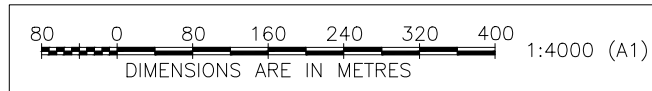
Status: **FINAL**

Drawing Number: **G-002** Revision: **B**



LEGEND:

- PRINCIPAL FAULT (REF: GNS MAP22)
- - - SECONDARY POSSIBLE INACTIVE FAULT (REF: GNS MAP22)
- EXTENT OF STAGE 4 LANDFILL
- STORMWATER SWALE
- HEAD SCARP (SITE OBSERVATIONS 2011 AND 2010 AERIAL PHOTOGRAPHS)
- SCREE SLOPE
- PROPOSED DAM



| Slopes Table | | | | |
|---|---------------|---------------|--------|------------------------|
| Definition | Minimum Slope | Maximum Slope | Colour | Area [m ²] |
| Soils With Marginal Stability Angles | 25° | 40° | | 793408 |
| Soils With Unstable Angles | 40° | 55° | | 339736 |
| Areas of Potential Rock Slope Instability | 68° | 90° | | 2209 |

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| | | | | | | |
|-----|----------------------|----------|-------|---------|----------|------------------|
| | | | | | | Tab G-004 |
| C | FOR RESOURCE CONSENT | ER | IMM | DF | GH | 19/06/13 |
| B | DRAFT | ER | BJMM | DF | GH | 29/03/11 |
| A | DRAFT | ER | BJMM | DF | GH | 29/03/11 |
| Rev | Revision Description | Designed | Drawn | Checked | Approved | Date |
| | | | | | | Original Size A1 |

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SOUTHERN LANDFILL

| | | |
|---|--|---|
| GEOTECHNICAL HAZARD PLAN OPTION 1 - TOP DOWN | Status FINAL Drawing Number <div style="font-size: 1.2em; font-weight: bold;">G-004</div> | Revision <div style="font-size: 1.2em; font-weight: bold;">C</div> |
|---|--|---|

