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20 October 2010

GHD Pty Ltd
Level 15
133 Castlereagh Street
SYDNEY NSW 2000

Attention: Chris Klien
Senior Project Manager

Dear Chris

**HILLTOP SHOOTING COMPLEX
CLEARING CHECK SURVEY**

Further to your instructions received 18 October 2010 we have surveyed the limit of clearing in relation to works at the abovementioned complex.

The drawing Ref 111825002 rev 00 shows the comparison of cleared areas as surveyed to the design clearing setout footprints as provided in your drawings 21-17852-C004 Rev 0 and 21-17850-C005 Rev 0.

The survey was undertaken on Tuesday 19th October, 2010 using RTK GPS techniques with the origin of survey being PM 82351 (E 266475.314, N 6199629.386 MGA Ground Coordinate). The survey also tied into two nearby control points being PM 82348 (E 266022.717 N 6199869.930 MGA Ground Coordinate) with coordinate checks within 20mm (after MGA to Ground scale factor applied) and SSM 130195 (E 264759.681 N 6201263.605 MGA Ground Coordinate) with coordinate checks within 70mm (after MGA to Ground scale factor applied).

As the survey of the clearing was in an area of relatively high tree coverage, this reduced the amount of satellite availability resulting in the survey information being in the order of +/- 1.0 metre. The attached coordinate file (Ref 111825 191010.csv) contains the raw surveyed data.

If you require any additional information in relation to this matter please do not hesitate to contact this office.

Yours faithfully
HARD & FORESTER PTY LTD

Peter Cornish
Director (Registered Surveyor)

Ref: 156945_1 111825 let01

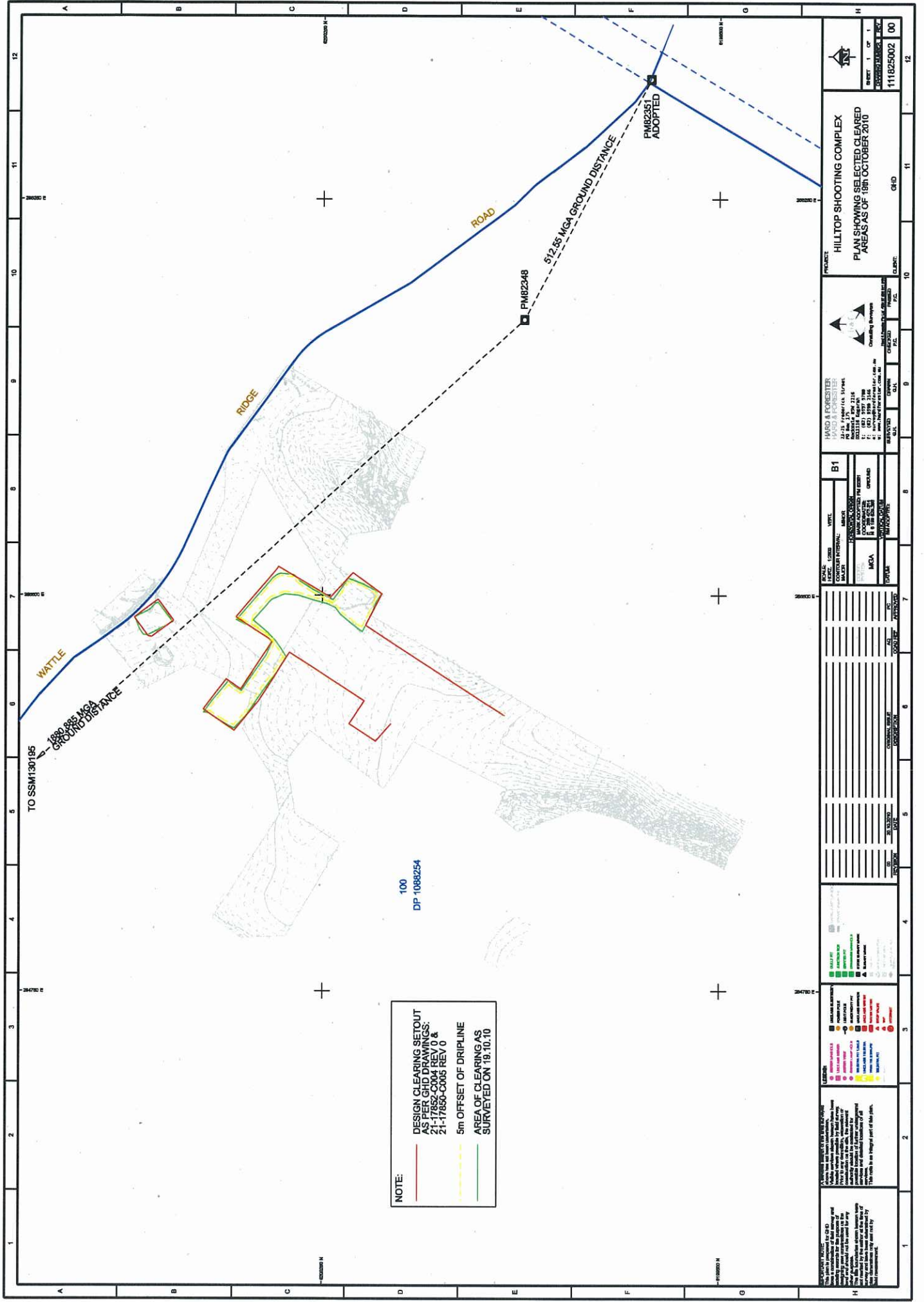


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Peter W Cornish B.Surv M.I.S. (Aust)
Members of The Institution of Surveyors Australia
Hard & Forester Pty Ltd

Pierre A Hartzenberg B.Surv M.I.S. (Aust)
Julian A Bosman A.I.S. (Aust)
The Association of Consulting Surveyors Australia

ABN 67 003 541 348



NOTE:

- DESIGN CLEARING SETOUT AS PER GHID DRAWINGS: 21-17852-C004 REV 0 & 21-17850-C005 REV 0
- 5m OFFSET OF DRIPLINE
- AREA OF CLEARING AS SURVEYED ON 19.10.10

111825002 00

HILLTOP SHOOTING COMPLEX
 PLAN SHOWING SELECTED CLEARED
 AREAS AS OF 19th OCTOBER 2010

MASS & FORESTER
 MASS & FORESTER
 21-18 Poplar (a) Street
 Mooloolah QLD 4718
 U: (07) 5577 5788
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SCALE	1:500
DATE	19/10/10
PROJECT	HILLTOP SHOOTING COMPLEX
CLIENT	GHID
PROJECT NO.	111825002
DATE	19/10/10
SCALE	1:500
DATE	19/10/10
PROJECT	HILLTOP SHOOTING COMPLEX
CLIENT	GHID
PROJECT NO.	111825002
DATE	19/10/10

NO.	DATE	BY	DESCRIPTION
1	19/10/10	MASS & FORESTER	ISSUED FOR CONSTRUCTION

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20 October 2010

To Mr John Shipway – Communities NSW (Sport and Recreation)

Copy to

From	Alex Horton - GHD	Tel	02 9239 7168
Subject	Hilltop Shooting Range - Relocation of Ranges	Job no.	21/17850/06

Dear John,

As discussed, the proposed 500m, 200m and pistol ranges at Southern Highlands Regional Shooting Complex have been relocated north from the Environmental Assessment location to improve the overall project outcomes. The range outline supplied in the Environmental Assessment was based upon preliminary design which did not include detailed earthworks design, as the extent of the survey was limited at the time.

Preliminary design was undertaken for the earthworks following approval of the project by NSW Planning. It was found that the preliminary design was not optimal due to the existing topography and the associated volumes of imported fill required. Specifically the 500m Stopbutt batter was found to be chasing the natural topography into a relatively steep gully at the Southwest limit of works.

Based on the desire to limit fill volumes, minimise clearing and improve earthworks generally, a revised location and configuration was considered and progressed as the detailed design (the range moved approximately 100m north).

This revised location was considered a general improvement in the project outcomes based on the following:

- ▶ A reduced volume of fill required. The preliminary design required approximately 95,000m³ of imported fill compared to the detailed design which achieved a cut-fill balance. This is a considerable cost saving to the project. The reduction in earthworks can be seen by comparing 21-17850-C010 Rev B (preliminary earthworks) and 21-17850-C010-Rev 0 (detailed design).
- ▶ A reduced area of clearing. The preliminary design required approximately 105,000m² of cleared area compared to the detailed design with 92,000m² to be cleared. A comparison of the preliminary and detailed design clearing areas is shown on 21-17850-C004 Rev 0. The preliminary clearing area is shown in red compared to the detailed design area shown in black.
- ▶ Figures B1 and B2 attached show the Spring Survey traverses overlaid over the new range locations. As can be seen the revised areas are still within the surveyed areas and as such will not change the conclusions of the ecological assessments undertaken to date.
- ▶ There is a slight change to the range danger areas however the range danger boundaries are still within the project boundary so nil impact on the project (Refer SK035).

We advise that clearing works have commenced based on extent of clearing shown in drawing 21-17850-C004 Rev 0. Sketch 21-17850-SK100 shows the areas cleared to date.

Please contact me if you have any questions.



Regards

A handwritten signature in black ink, appearing to be 'Alex Horton', written in a cursive style.

Alex Horton
Civil Engineer

Attachments:-

21-17850-SK035

21-17850-C004 Rev 0

21-17850-C010 Rev B and Rev 0

Figures B1 and B2

21-17850-SK100

LEGEND

--- LIMIT OF CLEARING
 --- EXTENT OF DETAILED SURVEY.
 --- CONTOURS EXTERNAL TO THIS AREA
 --- BASED ON 10m AERIAL CONTOUR
 --- INFORMATION THEREFORE EXTENT OF
 --- DESIGN BATTERS OUTSIDE OF
 --- DETAILED SURVEY AREA MAY VARY.

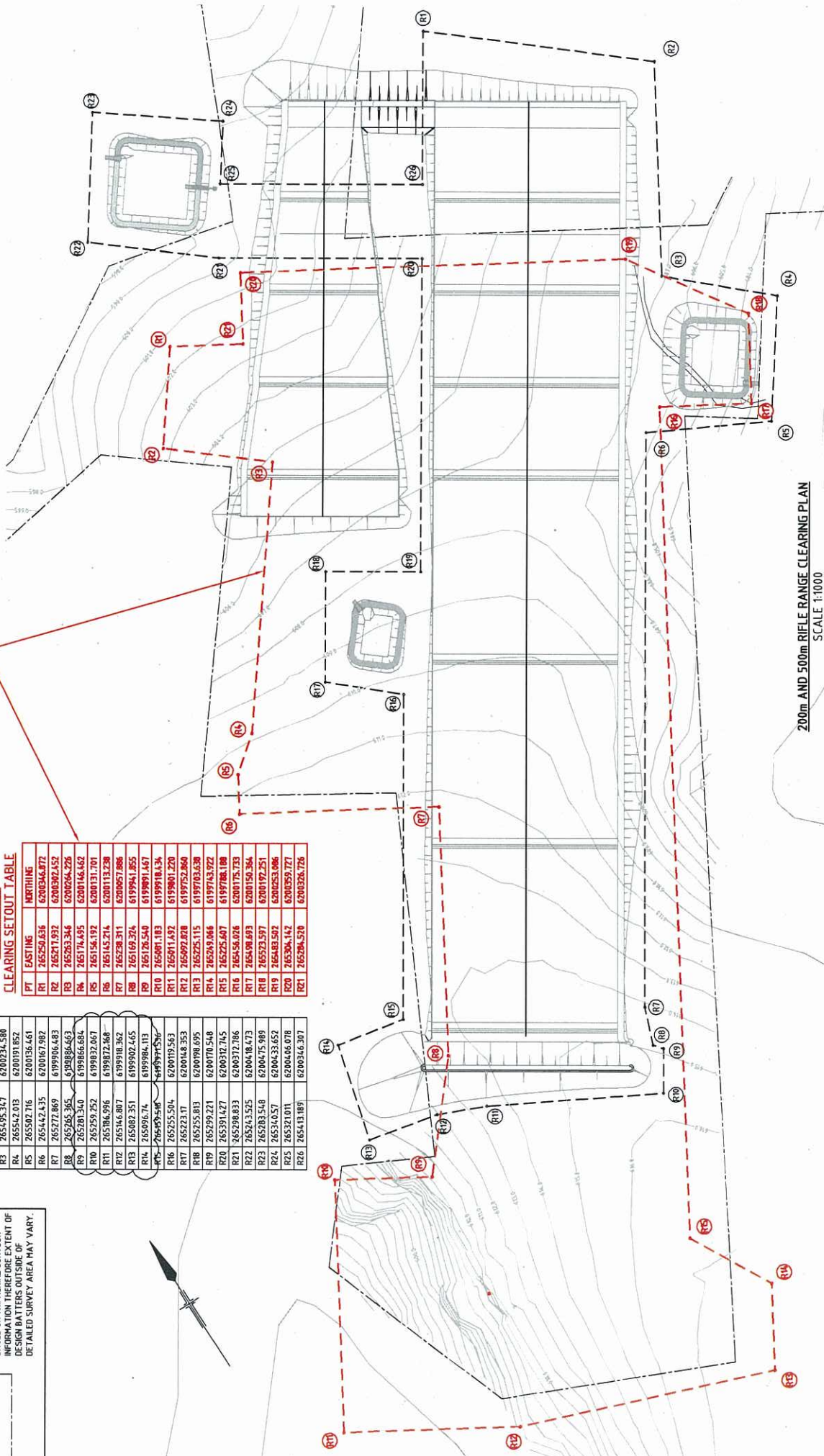
**RIFLE RANGE
 CLEARING SETOUT TABLE**

PT	EASTING	NORTHING
R1	265458.097	620045.562
R2	265554.002	620034.031
R3	265495.347	620029.580
R4	265542.013	620019.852
R5	265502.716	620016.461
R6	265442.435	620016.982
R7	265272.869	619996.483
R8	265265.365	619886.663
R9	265201.348	619866.684
R10	265231.252	619932.061
R11	265106.996	6199872.868
R12	265146.807	6199918.362
R13	265082.351	6199902.465
R14	265096.74	6199984.113
R15	265055.504	6199971.536
R16	265255.504	620019.563
R17	265223.17	620018.353
R18	265255.813	620019.695
R19	265299.271	620017.548
R20	265391.427	620032.785
R21	265298.833	6200372.786
R22	265243.525	6200418.473
R23	265203.548	6200475.889
R24	265240.57	6200433.652
R25	265321.011	6200466.078
R26	265413.189	6200346.307

**RIFLE RANGE
 CLEARING SETOUT TABLE**

PT	EASTING	NORTHING
R1	265250.638	6200346.872
R2	265211.932	6200302.152
R3	265263.348	6200264.226
R4	265174.495	6200146.463
R5	265156.192	6200131.701
R6	265145.214	6200113.298
R7	265126.540	619994.185
R8	265091.183	6199918.467
R9	265091.183	6199918.467
R10	265091.183	6199918.467
R11	265091.183	6199918.467
R12	265092.208	6199752.868
R13	265225.115	6199703.638
R14	265293.868	6199743.922
R15	265225.407	6199788.188
R16	265456.028	6200175.733
R17	265498.693	6200150.384
R18	265233.597	6200192.251
R19	265488.597	6200253.086
R20	265306.142	6200559.727
R21	265296.528	6200326.726

SETOUT INFORMATION ADDED ON THE
 19.10.2010 FROM DRAWING
 21-17850-C004-REV A



200m AND 500m RIFLE RANGE CLEARING PLAN
 SCALE 1:1000

FOR CONSTRUCTION

Client: COMMUNITIES NSW
 Project: HILL TOP RANGE
 Drawing: CLEARING SETOUT PLAN
 Sheet: SHEET 1
 Title: A1
 Drawing No: 21-17850-C004
 Rev: 0

Designer: A HORTON
 Checker: F CARROZZA
 Date: 11.10.2010
 Scale: AS SHOWN

Drawn: M FELLOW
 Checked: A HORTON
 Approved: A HORTON
 Date: 11.10.2010
 Scale: AS SHOWN

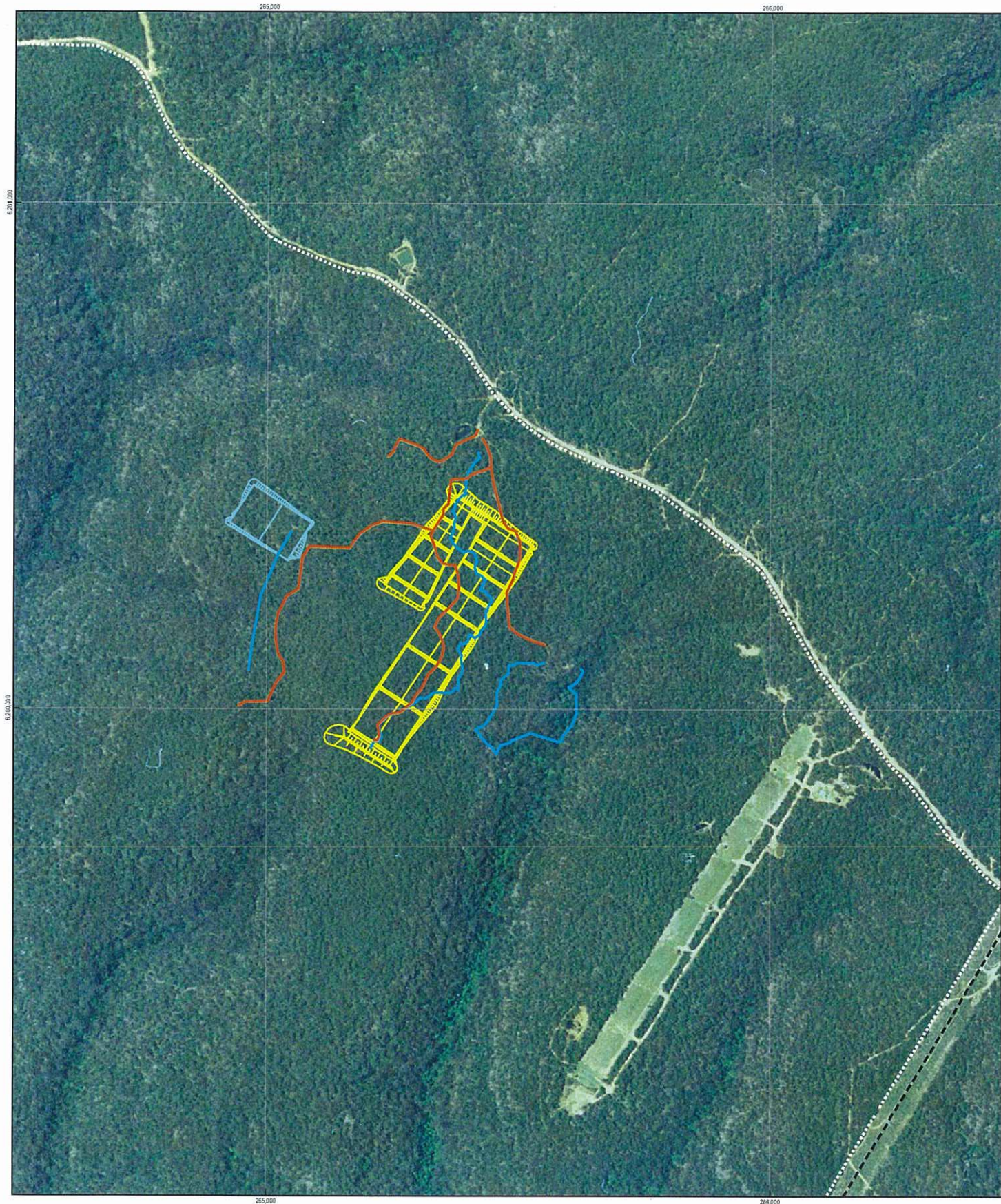
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GHD CLIENTS' PEOPLE PERFORMANCE
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 F: 61 2 9360 6701
 E: sydney@ghd.com W: www.ghd.com

NWS Sport & Recreation
 0 10 20 30 40 50m
 SCALE 1:1000 AT ORIGINAL SIZE

ISSUED FOR CONSTRUCTION	PJS	FC	AH	11.10.10
Drawn	Checked	Approved	Date	

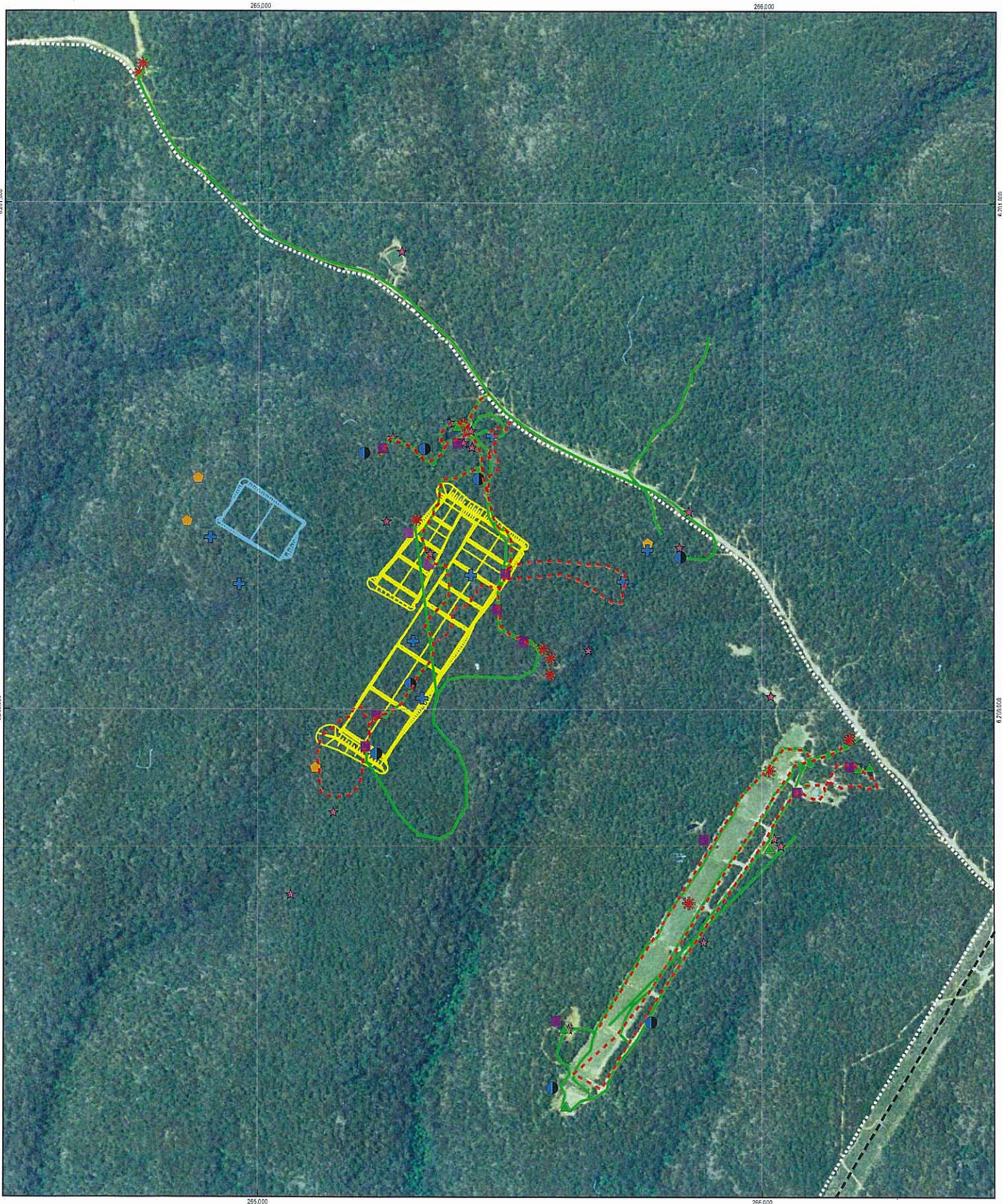
PROJECT: Hill Top Range 2010 - 11037 PM
 CLIENT: NSW GOVERNMENT
 CONTRACT: 21-17850-C004



Legend

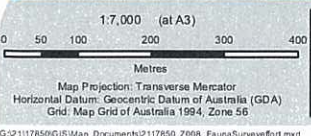
- *Cryptostylis hunteriana* search
- Disturbance colonising threatened flora search
- High Voltage Power Lines

<p>1:7,000 (at A3)</p> <p>0 50 100 200 300 400</p> <p>Metres</p> <p>Map Projection: Transverse Mercator Horizontal Datum: Geocentric Datum of Australia (GDA) Grid: Map Grid of Australia 1994, Zone 56</p> <p><small>G:\2117850\GIS\Map_Documents\2117850_2007_FloraSurveyEffort.mxd</small></p>		 <small>CLIENTS PEOPLE PERFORMANCE</small>	<p>Southern Highlands Regional Shooting Complex Spring Surveys</p>	<table border="0"> <tr> <td>Job Number</td> <td>21-17850</td> </tr> <tr> <td>Revision</td> <td>B</td> </tr> <tr> <td>Date</td> <td>20 OCT 2010</td> </tr> </table>	Job Number	21-17850	Revision	B	Date	20 OCT 2010
Job Number	21-17850									
Revision	B									
Date	20 OCT 2010									
<p>Level 15, 133 Castlereagh Street Sydney NSW 2000 T 61 2 9239 7100 F 61 2 9239 7199 E sydney@ghd.com.au W www.ghd.com.au</p>			<p>Flora Spring Survey Effort</p> <p>Figure B-1</p>							
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Legend

KoalaSAT	Anabat	Harp Trap	Spotlighting
Frog search	Call Playback	Remote Camera	Bird Surveys
Reptile search	Bird Survey	High Voltage Power Lines	



Southern Highlands Regional Shooting Complex
Spring Surveys

Job Number 21-17850
Revision B
Date 20 OCT 2010

Fauna Spring Survey Effort

Figure B-2