



LIZARD

Landscape Design and Ecology

MR A CARTER

The Laurels, Angmering, West Sussex

- Reptile Presence / Absence Survey Report

Planning Issue

Prepared by	NW
Checked by	CO
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SUMMARY

Lizard Landscape Design and Ecology has been commissioned By Mr A Carter to undertake a *Reptile Population Class Assessment Presence / Absence Survey* of the land at The Laurels, Dappers Lane, Angmering (*Grid Reference: TQ 073 048 – hereafter referred to as 'the site'*).

The surveys were recommended within the Preliminary Ecological Appraisal undertaken by Lizard Landscape Design and Ecology on the 8th March 2018, due to habitats on-site being identified as having the potential to support protected species of reptiles.

The site comprises a detached house with associated access paths and driveway, garage and outbuildings; large mature gardens; and a field of grass and ruderal plants, with scattered trees and a small area of plantation woodland.

30 no. artificial reptile refugia were laid out around the site within areas which had potential to support reptiles on 9th August 2018 and allowed to settle for 14 days prior to commencement of the survey. 07 no. site visits were conducted, where the number, species, age and sex of any reptiles present was recorded. Debris piles on-site considered suitable as reptile refugia were checked during the surveys, and repeated walkovers of the site were used to search for active reptiles.

No reptiles were recorded during the survey undertaken during August & September 2018. The survey strongly suggests that the site area potentially affected by development is not of value to the *Favourable Conservation Status* of reptiles within the vicinity. Moreover, the results suggest that reptiles should not be an ecological constraint to these development proposals. There is a '*negligible*' risk of killing and / or injuring reptiles during the construction process.

The survey was undertaken during the late summer / early autumn, and within suitable weather conditions; it is therefore considered very unlikely that the results could represent a false negative. Small populations of reptiles can be difficult to identify, however the negative results obtained should provide adequate reassurance that development can proceed without legislative contravention of legal framework protecting reptiles within England and Wales (*The Wildlife and Countryside Act 1981*).

MR A CARTER
THE LAURELS, ANGMERING, WEST SUSSEX
REPTILE PRESENCE / ABSENCE SURVEY REPORT
LLD1392-ECO-REP-002-Reptile Survey Report

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned By Mr A Carter to undertake a *Reptile Population Class Assessment Presence / Absence Survey* of the land at The Laurels, Dappers Lane, Angmering (*Grid Reference: TQ 073 048 – hereafter referred to as ‘the site’*).
- 1.2 The surveys were recommended within the Preliminary Ecological Appraisal undertaken by Lizard Landscape Design and Ecology on the 8th March 2018, due to habitats on-site being identified as having the potential to support protected species of reptiles.
- 1.3 This report outlines the results of the reptile survey and has been prepared by George Sayer (*BSc(Hons) PgDip, Assistant Ecologist – Lizard Landscape Design and Ecology*) & Niall Walkden (*Project Ecologist - Lizard Landscape Design and Ecology*). The report has been reviewed by Catherine O’Reilly; (*Senior Ecologist; MCIEMM; Lizard Landscape Design and Ecology*).

Site Description

- 1.4 The site is a rectangular plot, perpendicular to the east of Dappers Lane. The site comprises a detached house, with associated access paths and driveway, garage and a number of outbuildings; large mature gardens; and a field of grass and ruderal plants, with scattered trees and a small area of plantation woodland. The boundaries are lined with deciduous and coniferous treelines, hedges, brick walls and post and wire fences.
- 1.5 The site is approximately 0.8 hectares (*ha*) in size and is approximately 18.8 metres (*m*) above sea level. The site is located to the north-eastern edge of the village of Angmering. Soils on site are described as *freely draining slightly acid loamy soils*.

Survey Rationale

- 1.6 The development scheme proposes the removal and disturbance of areas of suitable reptile habitat throughout the site; without suitable mitigation this could result in a contravention of *The Wildlife and Countryside Act 1981 (As Amended)*. The habitats on-site considered to hold potential for reptiles consist of: tall ruderal in the field and marginal habitats in the east of the site. The habitats are recorded within *Figure No. 01 – Location of Artificial Reptile Refugia*.

Development Proposals

- 1.7 The proposals include the construction of 9 no. new build 2 / 3 / 4-bedroom dwellings; the dwellings will be accompanied by a new access road and walkway; access paths; parking areas; gardens and open / amenity space. The existing dwelling and its immediate gardens would be retained through the proposals. It is determined that the majority of the boundary vegetation will be retained within the final development scheme, and reinforced where appropriate. The other vegetation and habitats within the site would require removal; this would result in the loss of the field; large areas of introduced shrubs and scrub; sections of intact, species-poor hedge and a number of scattered trees.

Widespread Reptiles & Legislation

- 1.8 The common or viviparous lizard (*Lacerta vivipara*) has a wide range over most of Europe. Its body can reach 7.0 cm in length and can have very variable patterns and colour. Slow worm (*Anguis fragilis*) is also found over most of Europe; it can reach lengths of up to 50.0 cm and is typically brown, grey, or reddish, with females frequently having a dorsal stripe. Grass snake (*recently re-described as* *Natrix helvetica*) may reach up to 120.0 cm in length and is thick-bodied – many have a distinct yellow-black bordered collar around the neck. Adders (*Vipera berus*) have a characteristic diamond pattern along their backs.
- 1.9 Adders, grass snakes, common lizards and slow worms are protected against killing, injury or sale under *The Wildlife and Countryside Act 1981*.

Developments that could predictably kill or injure reptiles could result in an offence. Furthermore, these species are targets of UK and Local Biodiversity Action Plans and listed as *Species of Principle Importance* under *Section 41* of the *Natural Environment and Rural Communities Act 2006*. This obligates local authorities to have regard to the purpose of conserving biodiversity, with particular emphasis on targeted species.

2.0 SCOPE OF THE SURVEY

2.1 The aim of the reptile survey was:

- *To identify the presence / absence of reptile species within the site as a whole;*
- *To estimate population size classes for said populations; and;*
- *To advise mitigation for reptiles within the proposed development scheme.*

3.0 METHODOLOGY

3.1 30 no. artificial reptile refugia (*roofing felt; 0.50 x 1.0 m²*) were laid out around the area on 9th August 2018 and allowed to settle for 14 days prior to commencement of the survey.

3.2 07 no. site visits were conducted, where the number, species, age and sex of the reptiles present were recorded.

3.3 Surveys were undertaken during recommended times (*08:00–11:00 and 16:00–18:30*) with suitable weather conditions for surveying reptiles (*guidelines recommend temperatures 9-18°C with intermittent or hazy sunshine during warm days*). Weather conditions recorded at each survey visit are shown in Table No. 1 below.

Table No. 1 - Details of Weather Conditions during the Reptile Surveys

Survey	Date of Visit	Time	Weather
01	24/08/2018	10:00	16°C, 1/8 cloud, Wind F2.
02	30/08/2018	09:30	18°C, 1/8 cloud, Wind F3 dry and sunny.
03	31/08/2018	09:30	18°C, 1/8 cloud, Wind F1, dry and sunny.
04	10/09/2018	10:00	17°C, 1/8 cloud, Wind F1, sunny intervals.
05	14/09/2018	10:30	17°C, Sunny, cloud 2/8, Wind F1.
06	19/09/2018	16:00	19°C, Sunny, cloud 2/8, Wind F0.
07	21/09/2018	16:00	18°C, Sunny, cloud 1/8, Wind F0.

- 3.4 Debris piles on-site considered suitable as reptile refugia were checked during the surveys, and repeated walkovers of the site were used to search for active reptiles.

3.5 Evaluation Methodology

- 3.5.1 Despite its withdrawal, *Natural England Technical Information Note TIN102* still provides a valuable resource tool to allow the comparison and evaluation of reptile populations on site. A population size class category has been derived using guidance provided by the *Key Reptile Site Register Mechanism (Froglife – Advice Sheet 10)*, designed to promote the protection of key reptile areas.
- 3.5.2 The criteria for key reptile site selection include:
- 1) *supports 3 or more reptile species;*
 - 2) *supports 2 snake species;*
 - 3) *supports an exceptional population of one species (see Table No. 02);*
 - 4) *supports an assemblage of species scoring at least 4 (see Table No. 02);*
 - 5) *supports a local rarity or even adder with low population score.*
- 3.5.3 The population size classes used in this instance are provided in *Froglife – Advice Sheet 10* and displayed in Table No. 02.

Table No. 02 – Population Scores for Selection of Key Reptile Sites

Species	'Low' Score 1	'Good' Score 2	'Exceptional' Score 3
Adder	< 5	5 – 10	> 10
Grass Snake	< 5	5 – 10	> 10
Common Lizard	< 5	5 – 20	> 20
Slow Worm	< 10	10 – 20	> 20

3.5.4 Figures in Table No. 02 refer to the maximum number of reptile adults seen by observation and / or under refugia by one person during one survey visit with artificial refugia placed at a maximum density 10/ha.

4.0 RESULTS

4.1 Background Information

4.1.1 There are very few records of reptiles within the local area. Widespread reptiles might still be assumed to be present in suitable habitat such as field margins and roadside verges within the local landscape.

4.2 Field Survey

4.2.1 No reptiles of any species were recorded during the reptile survey undertaken during August-September 2018.

4.2.2 In addition to the refugia surveys undertaken during August-September 2018, a number of spot searches of the site were undertaken on the same days as refugia surveys. These involved searching piles of debris and rubbish on the site which were deemed suitable for reptiles. These searches uncovered no reptiles or evidence of reptiles.

Constraints and Limitations

4.2.3 No major constraints or limitations were encountered during the survey. The time of year during which the surveys were undertaken is generally considered '*optimal*'.

5.0 EVALUATION

- 5.1 No reptiles were recorded during the survey undertaken during August-September 2018. The survey strongly suggests that the site area potentially affected by development is not of value to the *Favourable Conservation Status* of reptiles within the vicinity. Moreover the results suggest that reptiles should not be an ecological constraint to these development proposals. There is a 'negligible' risk of killing and / or injuring reptiles during the construction process.
- 5.2 Small populations of reptiles can be difficult to detect, but the negative results obtained should provide adequate reassurance that development can proceed without legislative contravention of legal framework protecting reptiles within England and Wales (*The Wildlife and Countryside Act 1981*).
- 5.3 The survey was undertaken during the late summer and early autumn during suitable weather conditions. It is therefore considered very unlikely that the results could represent a false negative.

6.0 REFERENCES

Griffiths, R. A. and Inns, H. (1998): Surveying - Herpetofauna Workers' Manual

Gent, A. H. & Gibson, S. D. (Eds.): Joint Nature Conservation Committee, Peterborough, Pp. 1–6

www.arc-trust.org: Herptile Conservation Trust and Froglife Merged in 2009

Guidelines from Froglife (Factsheet 10): Froglife; 1999

Natural England Technical Information: Note TIN102; Natural England; 2011

Appendix No.1 – Reptile Artificial Refugia Survey Full Results

Site: *The Laurels, Angmering*

Client: *Mr A Carter*

Surveyor: *Niall Walkden (NW) / George Sayer (GS)*

Visit NW	Date	Time	°C	Weather	Tile No.	Species	Ad/J
01	24/08/18	10.30	16	1/8 cloud, Wind F2.	No reptiles		

Visit NW	Date	Time	°C	Weather	Tile No.	Species	Ad/J
02	30/08/18	10:00	18	1/8 cloud, Wind F3 dry and sunny.	No reptiles		

Visit GS	Date	Time	°C	Weather	Tile No.	Species	Ad/J
03	31/08/18	09:30	18	1/8 cloud, Wind F1, dry and sunny.	No Reptiles		

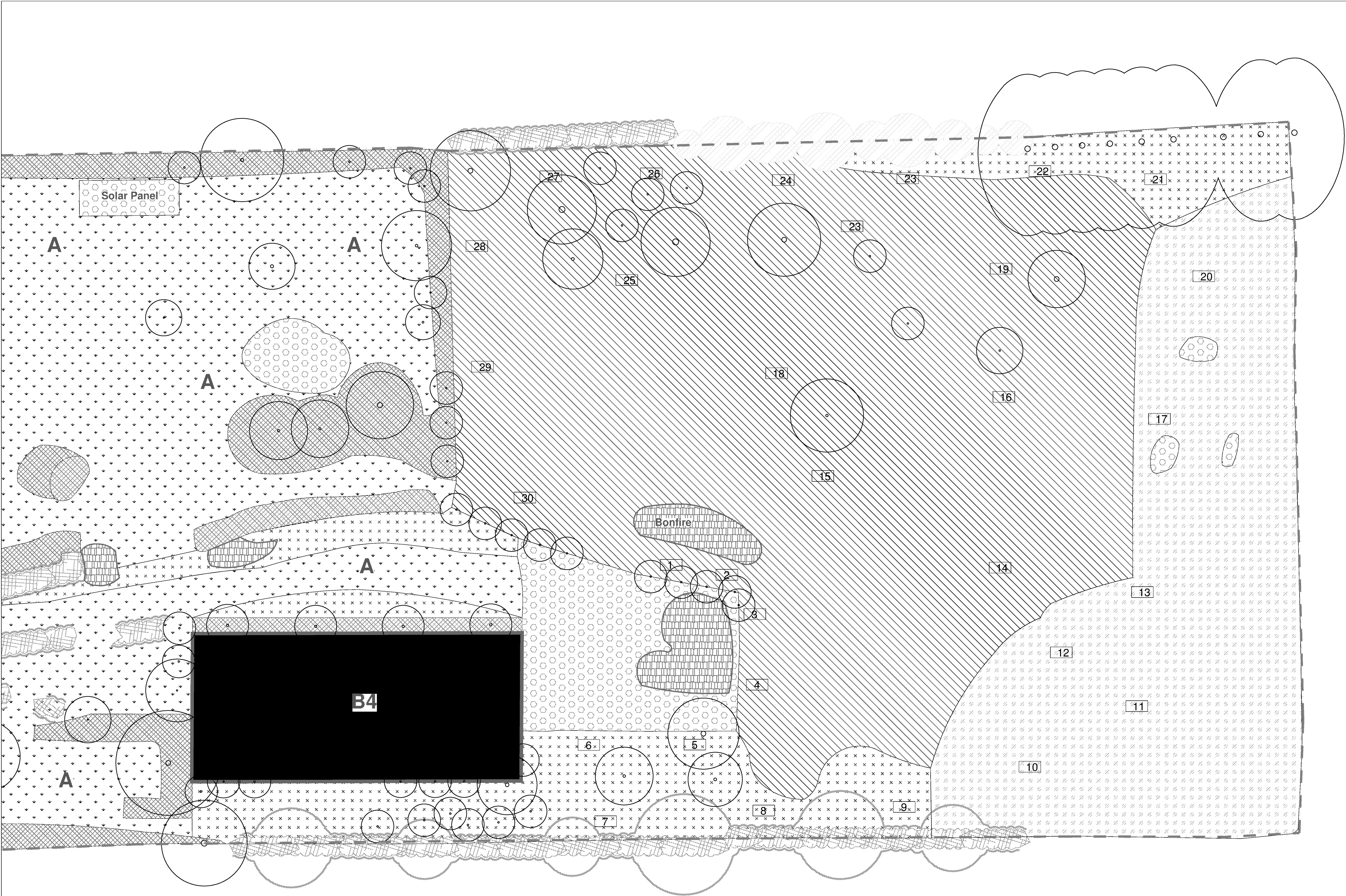
Visit GS	Date	Time	°C	Weather	Tile No.	Species	M/F/J
04	10/09/18	10.30	17	1/8 cloud, Wind F1, sunny intervals.	No reptiles		

Visit NW	Date	Time	°C	Weather	Tile No.	Species	Ad/J
05	14/09/18	10:30	17	Sunny, cloud 2/8, Wind F1.	No reptiles		

Visit NW	Date	Time	°C	Weather	Tile No.	Species	Ad/J
06	19/09/18	15:30	19	Sunny, cloud 2/8, Wind F0.	No reptiles		

Visit NW	Date	Time	°C	Weather	Tile No.	Species	Ad/J
07	21/09/18	16:30	18	Sunny, cloud 1/8, Wind F0.	No reptiles		

SW = Slow Worm; CL = Common Lizard; CT = Common Toad;
 GS = Grass Snake; M = Male; F = Female; Ad = Adult; Im = Immature;
 J = Juvenile.



Reptile Legend

- 05

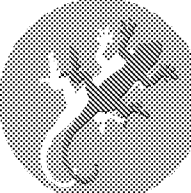
Reptile Refugia;
Location of Artificial
Reptile Refugia.
- 05

Reptile Refugia; Location of
protected species

Notes: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Planning Issue

Rev	Description	Date	Initials
00	Planning Issue	02.10.18	NW



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Project Title and Location The Laurels, Dappers Lane, Angmering			
Drawing Title FigureNo.1-LocationofReptileArtificialRefugia			
Scale 1:250@A1	Drawn NW	Approved CO	Date 02.10.18
Drawing No LLD1392-ECO-FIG-001			Revision 01

Figure No.1 - Location of Reptile Artificial Refugia
The Laurels, Dappers Lane, Angmering

