

**Whitcher Wildlife Ltd.
Ecological Consultants.**



**HIGHSTONE CORNER, HIGHSTONE LANE,
WARD GREEN.**

OS REF: SE 34836 04548

ECOLOGICAL IMPACT ASSESSMENT.

Ref No: 231216.

Date: 11th December 2023.

TABLE OF CONTENTS.

	Page Number
1. INTRODUCTION.	3
2. SURVEY METHODOLOGY.	4
3. ECOLOGICAL BASELINE.	7
4. ASSESSMENT OF IMPACTS, MITIGATION AND RESIDUAL EFFECTS.	14
5. COMPENSATION AND ENHANCEMENT MEASURES.	19
6. REFERENCES.	20
Appendix I. NESTING BIRD INFORMATION.	21
Appendix II. ANNOTATED MAP OF THE SURVEY AREA.	22
Appendix III. DEVELOPMENT PLAN.	23

1. INTRODUCTION.

1.1. There are plans to construct a new dwelling on land at Highstone Corner, off Highstone Lane, Ward Green. An Ecological Impact Assessment of the site is required in support of that planning application.

1.2. Whitcher Wildlife Ltd has been commissioned to carry out that Preliminary Ecological Appraisal of the site to determine whether there are any ecological issues associated with the planned works. This was subsequently converted to an Ecological Impact Assessment (EcIA).

1.3. The site survey was carried out on 7th December 2023. This report outlines the findings of the above survey and assesses the impact of the proposed development.

1.4. Appendix I of this report provides additional information on specific species and is designed to assist the reader in understanding the contents of this report.

2. SURVEY METHODOLOGY.

2.1. Prior to visiting the site, the survey area was cross referenced to maps and aerial photographs to give a general idea of the habitats and potential issues within the area and to identify potential access and walking routes.

2.2. The survey area was walked where access was agreed and public rights of way were used where no access was agreed. All habitats within and immediately around the survey area were documented and the dominant species within that habitat listed in line with the UK Habitat Classification methodology to identify the broad habitat types throughout the survey area.

2.3. The survey area and immediate surrounding area was thoroughly searched for evidence of badger (*Meles meles*) activity by looking for the following signs in line with Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*. Mammal Society: -

- * Badger setts.
- * Badger latrines or dung pits.
- * Badger snuffle holes and evidence of foraging.
- * Badger paths.
- * Badger prints in areas of soft mud.
- * Badger hairs caught on fencing.

2.4. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of water vole (*Arvicola amphibius*) activity by looking for the following signs, in line with Rob Strachan, Tom Moorhouse and Merryl Gelling (2011). *Water Vole Handbook: Third Edition*: -

- * Water vole burrows.
- * Water vole faeces and latrines.
- * Water vole feeding stations.
- * Water vole runs.
- * Water vole prints in areas of soft mud.
- * Water vole lawns.
- * Predator field signs.

2.5. The survey area was searched for watercourses and where found all watercourses within the survey area and for approximately 50m in each direction were thoroughly searched for evidence of otter (*Lutra lutra*) activity by looking for the following signs

in line with the P Chanin (2003). *Monitoring the Otter and Conserving Natura 2000 Rivers: Monitoring Series No10 Guidelines*: -

- * Otter prints in soft mud.
- * Otter spraints.
- * Otter Holts.

2.6. The survey area was searched for watercourses and waterbodies. Where found, and where safe to enter the water, all were thoroughly searched for the presence of crayfish, for approximately 50m in each direction of the site, by searching under rocks and logs. Where stated, crayfish traps were also deployed into the watercourse. All survey work was carried out in accordance with the *Conserving Natural 2000 Rivers Monitoring Series No 1, Protocol for Monitoring the White Clawed Crayfish*.

2.7. The survey area was searched for mature trees and derelict buildings and where found these were checked for potential bat roosting sites in line with Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition)* by looking for the following signs: -

- * Holes, cracks or crevices.
- * Bat Droppings.

2.8. The land immediately adjacent to the survey area was assessed for bat roosting potential and bat foraging potential. Connective routes and flight lines were also assessed whilst on site and using maps of the area.

2.9. The area within 500m of the survey site was cross referenced to maps to highlight all ponds close to the site. Where possible, all ponds identified were accessed using agreed access or public rights of way to assess the potential for great crested newts (*Triturus cristatus*) to be present.

2.10. The survey area was assessed for the potential for reptiles and suitable reptile habitats. Where applicable the area was also searched for the presence of reptiles.

2.11. Where appropriate, the habitat within and surrounding the survey area was searched for species such as hazel, oak, honeysuckle, bramble and other species which may provide potential habitat for hazel dormice (*Muscardinus avellanarius*). Field signs such as feeding remains and nests were also searched for where possible, in line with P Bright, P Morris and T Mitchell-Jones *the Dormouse Conservation Handbook 2nd Edition*.

2.12. Where appropriate, the area within and surrounding the survey area was assessed for its potential to house habitat for red squirrels. Field signs of red squirrels were searched for at least every 50m, looking for any dreys, feeding signs or sightings of red squirrels.

2.13. All surveys were carried out in line with the Chartered Institute of Ecological and Environmental Management (CIEEM) survey standards and advice.

2.14. This document is prepared in line with The National Planning Policy Framework (NPPF). This sets out the government policy on biodiversity and nature conservation and places a duty on Planning Authorities to give material consideration to the effect of a development on legally protected species when considering planning applications. The NPPF and the Planning Practice Guidance on “Natural Environment” also promote sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within the development.

2.15. This report is prepared in line with the Natural Environment and Rural Communities (NERC) Act that came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

2.16. This survey was carried out by Derek Whitcher who has over twenty years’ experience of surveying for wildlife and has run his own wildlife consultancy since 1998. He has extensive experience of a wide variety of survey techniques for a variety of species of protected wildlife supplemented by attendance on a wide range of training courses through CIEEM, FSC and BCT. As a member of CIEEM he is committed to continuous professional development, a continual process of learning and career development, a condition of CIEEM membership. He holds current Natural England survey licences for barn owl, bat, great crested newt and white clawed crayfish.

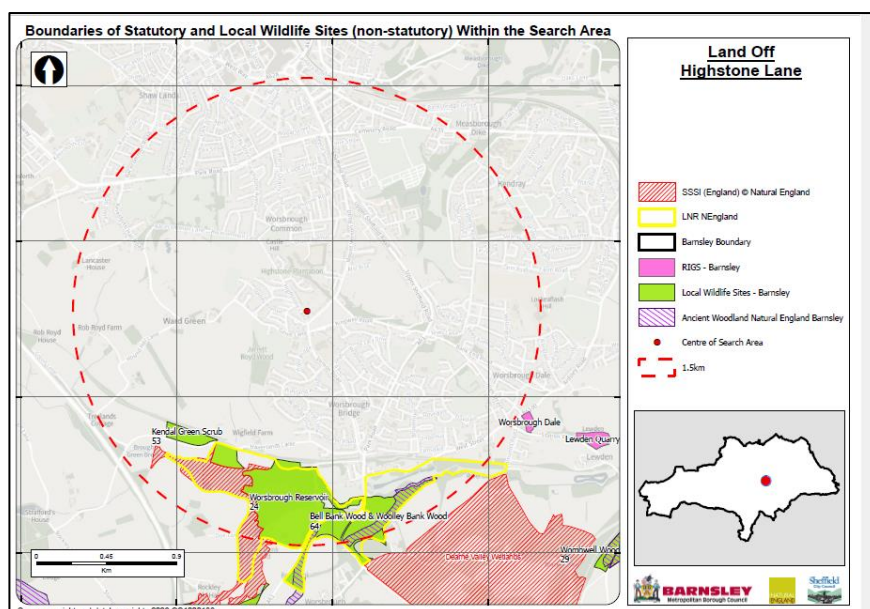
3. ECOLOGICAL BASELINE.

3.1. Data Search Results.

3.1.1. A desktop data search for existing records of protected species or designated sites within 2km of the surveyed area was submitted to Barnsley Biological Records Centre (BBRC).

3.1.2. BBRC hold records of a number of SSSI sites in the surrounding area, all part of the Dearne Valley Wetlands SSSI. The survey area lies within a zone of influence around these sites but is not within the category of sites where notification is required.

3.1.3. BBRC also holds records of Local Wildlife Sites within 2km of the survey area, all part of the Worsborough Reservoir site, as shown on the map below. These sites are all in excess of 1.5km from the survey area.



3.1.4. There are no Priority Habitats in the immediate vicinity of the search area.

3.1.5. Worsborough Country Park, a Local Nature Reserve and part of the Dearne Valley SSSI lies approximately 1km south of the site. The site therefore lies within the SSSI Impact Risk Zone but this applies to residential developments of more than one hundred dwellings.

3.1.6. There are a number of common amphibian records in the surrounding area, predominantly from the Worsborough Reservoir area. There are also great crested newt records from Worsborough Country Park and Highstone Farm, approximately 850m from the survey area.

3.1.7. There are numerous bird records from Worsborough Country Park, a busy bird watching area.

3.1.8. There are abundant bat records from Worsborough Country Park but none close to the survey area.

3.1.9. A copy of the data search is available on request.

3.1.10. The South Yorkshire Badger Group have no records of badger setts in the surrounding area. This is an urban area where badgers have traditionally been discouraged.

3.2. The Surveyed Area.

3.2.1. The aerial photograph below shows the location of the site marked with a red arrow and the surrounding area. The site lies in the village of Ward Green, to the southwest of Barnsley, surrounded by residential areas and Ward Green Club.

3.2.2. To the west of the village there is open farmland sloping down to the M1 motorway, and there appears to be a new housing development to the northeast.



3.2.2. The site is an area of grassland between the houses., shown on the aerial map below, shaded in yellow.



3.3. Description of Habitats.

Appendix II of this report contains an annotated map marked up with the varying habitats that are on the site cross referenced with target notes in Appendix III. The habitats on and adjacent to the site are: -

- g4 – Modified grassland.
- h2a6 – Other hedgerow
- u1e – Built linear feature – fence.
- u1e – Built linear feature – wall.

3.3.1. g4 – Modified grassland.

There are two areas of modified grassland on site, each dealt with separately below.

3.3.1.1. The main area of the site is a grass field that has become neglected and bramble is beginning to take over. Species present include Cocksfoot (*Dactylis glomerata*), Perennial ryegrass (*Lolium perenne*), False Oat Grass (*Arrhenatherum elatius*), white clover (*Trifolium repens*), dandelion (*Taraxacum officinale*), greater plantain (*Plantago major*), fringed willowherb (*Epilobium ciliatum*), dock (*Rumex sp.*), ribwort plantain (*Plantago lanceolata*), meadow buttercup (*Ranunculus acris*), cow parsley (*Anthriscus sylvestris*), thistle (*Epilobium montanum*), wood avens (*Geum urbanum*), mugwort (*Artemisia vulgaris*), Common Vetch (*Vicia sativa*), Common nipplewort (*Lapsana communis*), ragwort (*Senecio jacobaea*) and bramble (*Rubus fruticosus*)



3.3.1.2. The second area is the site access route from Highstone Lane. This area is an area of tended and mown grassland that will be used as access to the site. Species present include Cocksfoot (*Dactylis glomerata*), Perennial ryegrass (*Lolium perenne*), False Oat Grass (*Arrhenatherum elatius*), white clover (*Trifolium repens*), dandelion (*Taraxacum officinale*), greater plantain (*Plantago major*), fringed willowherb (*Epilobium ciliatum*), dock (*Rumex sp.*), ribwort plantain (*Plantago lanceolata*), meadow buttercup (*Ranunculus acris*), cow parsley (*Anthriscus sylvestris*), thistle (*Epilobium montanum*), wood avens (*Geum urbanum*), hedgerow cranesbill (*Geranium pyrenaicum*), evening primrose (*Oenothera biennis*), Common nipplewort (*Lapsana communis*), ragwort (*Senecio jacobaea*) and bramble (*Rubus fruticosus*).



3.3.1.3. There is no condition assessment for this habitat when using the small sites metric.

3.3.2. h2a6 – Other hedgerow.

There is an overgrown hedgerow that extends down the west side of the site that separates the site from the back gardens of the adjacent bungalows. Species present include hawthorn (*Crataegus monogyna*) and privet (*Ligustrum vulgare*).



3.3.3.2. There is no condition assessment for this habitat when using the small sites metric.

3.3.4. u1e Built linear feature – fence.

There are sections of fencing that surround the site.



3.3.5. u1e Built linear feature – wall.

There are sections of walling that surround the site, particularly around the site entrance off Highstone Lane.



3.4. Description of Fauna.

3.4.1. No badger setts or field signs were identified anywhere on the site and the site is assessed to be unsuitable for the species as it is surrounded by urban areas.

- 3.4.2. There is no watercourse close to the site and therefore no habitat for water voles, otters or white clawed crayfish.
- 3.4.3. There are no ponds close to the site to provide breeding habitat for great crested newts.
- 3.4.4. There are no buildings present on the site to provide potential for roosting bats.
- 3.4.5. There are no trees on the site to provide opportunities for roosting bats.
- 3.4.6. The hedgerow along the side of the site provides low value foraging habitat for bats although the site is in an elevated position surrounded by residential properties.
- 3.4.7. The hedgerow along the side of the site provides opportunities for nesting birds during the nesting season, which extends from March to September each year. No nests were identified during this survey, but the habitat is suitable.
- 3.4.8. The site is assessed to have minimal potential for reptiles as the site is small, confined and lacks shelter and refugia.
- 3.4.9. The site is assessed to be an unsuitable habitat for hazel dormouse, located outside the natural range for the species.
- 3.4.10. The site is assessed to be totally unsuitable habitat for red squirrels, located outside the natural range for the species.
- 3.4.11. No alien, invasive plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were found growing within the survey area.
- 3.4.12. The habitat on site is unsuitable for more than passing hedgehogs as there is a lack of opportunity for shelter except maybe beneath the hedgerow.

4. ASSESSMENT OF IMPACTS, MITIGATION AND RESIDUAL EFFECTS.

4.1. Designated Sites.

4.1.1. Assessment.

Worsborough Country Park, a Local Nature Reserve and part of the Dearne Valley SSSI lies approximately 1km south of the site. The site therefore lies within the SSSI Impact Risk Zone but this applies to residential developments of more than one hundred dwellings.

4.1.2. Mitigation.

No mitigation measures are necessary.

4.1.3. Residual Effects.

The proposed development will have **No Residual Negative Impact** on designated sites.

4.2. Habitats.

4.2.1. Assessment.

4.2.1.1. The habitat on site that will be affected by the proposed development is an area of modified grassland that is in places being encroached on by bramble.

4.2.1.2. The total baseline biodiversity units for the site are shown in the table below. This has been calculated using the Small Sites Metric 4.0, as is the most recent version at the time of writing this report. The Small Sites Metric auto assigns the condition assessment for each habitat.

Area Habitats.

Habitat Type	Area in M ²	Distinctiveness	Condition Assessment	Biodiversity Units.
Modified grassland	258.43	Low	Moderate	0.103
Modified Grassland	518.44	Low	Moderate	0.207
Total	776.87			0.310

Linear Habitats.

Habitat Type	Area in M ²	Distinctiveness	Condition Assessment	Biodiversity Units.
Other native hedgerow	48	Low	Moderate	0.192
Total	48			0.192

4.4.1. The area Biodiversity value of the site prior to any works is 0.310Bu and the linear Biodiversity value is 0.192Bu.

4.2.2. Mitigation.

4.2.2.1. The site will be developed to provide one residential property plus access and a vegetated garden. 40sqm of the site will be laid down to planted mixed scrub.

4.2.2.2. Three medium sized oak trees will be planted down the northeastern site boundary with the adjacent access track owned by others.

4.2.2.3. The existing hedgerow down the southwestern site boundary will be retained and enhanced. The hedgerow will be trimmed down and managed along with additional planting of different hedgerow species to convert the condition from poor to moderate. Species to be planted include holly, field maple and hazel.

4.2.3. Residual Effects.

4.2.3.1. The following tables show the residual area and linear habitat values, post development.

Area Habitats.

Habitat Type	Area in M ²	Distinctiveness	Condition Assessment	Biodiversity Units.
Developed land, sealed surface.	515.81	V.Low	N/A	0
Vegetated garden	221.06	Low	N/A	0.0427
Mixed Scrub	40	Medium	Good	0.0336
New Trees	1099	Moderate	Moderate	0.3359
Total	776.87			0.4122

Linear Habitats.

Habitat Type	Area in M ²	Distinctiveness	Condition Assessment	Biodiversity Units.
Other native hedgerow	48	Low	Good	0.5133
Total	48			0.5133

4.2.3.2. The area habitats will increase from 0.310Bu to 0.4122Bu, an increase of 32.64% while the linear habitats increase from 0.192Bu to 0.5133Bu, an increase of 167.37%. These are both above the desired figure of plus 10%. There will therefore be a **Moderate Residual Positive Impact** on the Biodiversity levels on the site.

4.3. Species.

4.3.1. Nesting Birds.

4.3.1.1. Assessment.

The hedgerow along the side of the site provides opportunities for nesting birds during the nesting season, which extends from March to September each year. No nests were identified during this survey, but the habitat is suitable.

4.3.1.2. Mitigation.

Vegetation clearance and hedgerow maintenance and enhancement will be undertaken outside the nesting bird season, which extends from March to September each year. Any necessary vegetation clearance undertaken during that time period will be immediately preceded by a nesting bird survey carried out by a suitably experienced person and any active nests found will be left undisturbed until the young have fledged.

4.3.1.3. Residual Effects.

With the above precautions in place, there will be **No Residual Negative Impact** on nesting birds.

4.3.2. Hedgehogs.

4.3.2.1. Assessment.

The habitat on site is unsuitable for more than passing hedgehogs as there is a lack of opportunity for shelter except maybe beneath the hedgerow.

4.3.2.2. Mitigation.

Any fences installed on the site will be furnished with gaps beneath, a minimum of 130mm deep, that will enable hedgehogs to freely cross the site.

4.3.2.3. *Residual Effects.*

With unobstructed access across the site there will be **No Negative Residual Impact** on hedgehogs, small mammals, amphibians and reptiles.

5. COMPENSATION AND ENHANCEMENT MEASURES.

5.1. Biodiversity enhancements will be incorporated into the new dwelling in line with the requirements of the NPPF.

5.2. One integrated bat brick will be built high into a gable end wall of the new dwelling to provide potential bat roosting opportunities.

5.3. A pair of integrated swift nest boxes will be installed under the eaves of the new dwelling.

Prepared by:	
Derek Whitcher, BSc, MCIEEM, MCMI	Date: 12 th December 2023.

Checked by:	
Ruth Georgiou, BSc, MCIEEM.	Date: 12 th December 2023.

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Appendix I. NESTING BIRD INFORMATION.

Ecology

The nesting season will vary according to the weather each year but generally commences in March, peaks during May and June and continues until September. It is also worth remembering that some birds nest in trees and scrub, but others are ground nesting or prefer man-made structures or buildings.

Surveys

Nesting bird surveys search for potential nest sites in vegetation, buildings etc. Potential nesting sites are observed over a suitable period of time for bird movements or calling male birds that would indicate the presence of a nest. The presence of a nest can be identified from the field signs without the necessity to see the nest itself, thereby avoiding any disturbance of the nests. The best way to avoid this issue is to plan for vegetation clearance to be carried out outside the bird-nesting season.

Legislation

Nesting birds are protected under The Wildlife and Countryside Act 1981.

Part 1. -(1) Of the Act states that: - If any person intentionally: - kills, injures or takes any wild bird; takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Part 1. -(5) of the Act states that: - If any person intentionally: - disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on, or near a nest containing eggs or young; or disturbs young of such a bird, he shall be guilty of an offence and liable to a special penalty.

The Countryside and Rights of Way Act 2000 amends the above by inserting after “intentionally” the words “or recklessly”.

Appendix II. ANNOTATED MAP OF THE SURVEY AREA.



Site: Ward Green

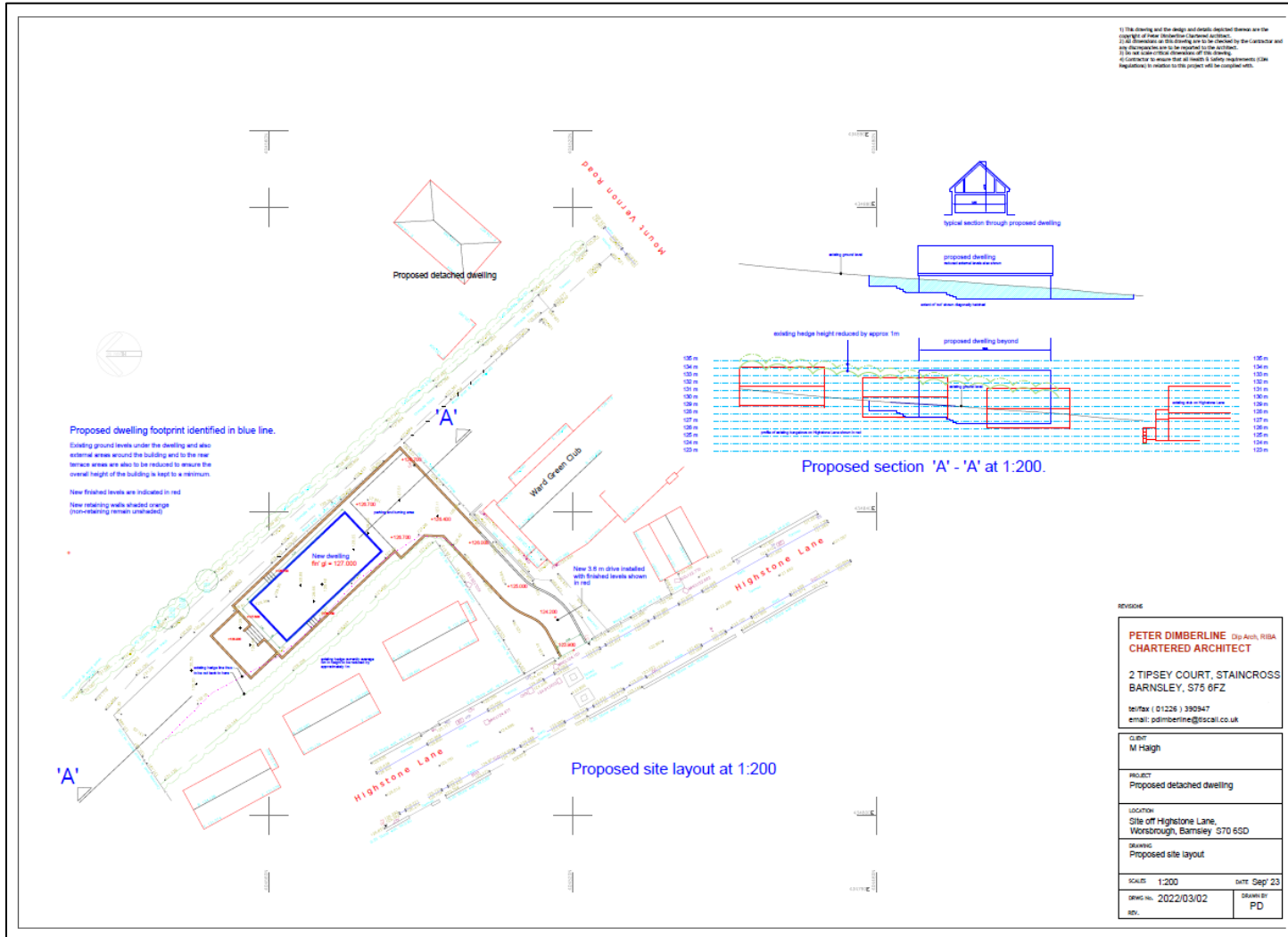
Date: 11.12.2023

Reference: 231216

Produced by: Ruth Georgiou



Appendix III. DEVELOPMENT PLAN.



1) This drawing and the design and details described therein are the copyright of Peter Dimberline Chartered Architect.
 2) All dimensions are in millimetres unless otherwise stated by the Contractor and any discrepancy is to be reported to the architect.
 3) Do not scale critical dimensions off this drawing.
 4) Contractor to ensure that all health & safety requirements of the regulations in relation to the project will be complied with.