



18 Granny Lane, Lower Hopton, Mirfield.

Ecological Management Plan.

1. Introduction.

Planning Consent 2016/00021/E has been granted for the construction of two houses on land at 18 Granny Lane, Lower Hopton, Mirfield. Condition 8 of the planning consent requires a Biodiversity Mitigation and Enhancement Plan to be prepared, submitted and approved in writing by the Local Planning Authority. The plan shall include

- Details of the provision of bat roost boxes/features.
- Details of proposed landscaping which shall include the retention of trees and vegetation/boundary hedges where their removal is not required to accommodate building or access and replacement planting with native species to maintain habitat networks.
- Details of the replacement pond in accordance with the recommendations of Section B of the Finger Tip Search Report, timescale for the construction of the pond, which shall be constructed under the supervision of an ecologist and be in place before the first breeding season for amphibians following the commencement of the development (beginning of February).
- Details of any artificial lighting which shall be designed to prevent any light spillage into tree habitats and tree corridors or areas with bat roost potential including installed bat boxes.

This document has been designed to satisfy the above Planning Condition.

2. Bat Roosting Opportunities.

2.1. A bat brick will be built into the rear gable end wall of each of the new dwellings to be constructed on the site. As the new dwellings are to be constructed with stone walls, the design of bat brick to be used will be as shown below or equivalent to match the stone work.

Bat Boxes

SMART LOOKING HOMES FOR PIPISTRELLE BATS

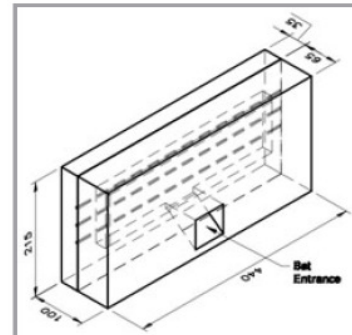


Forticrete's boxes have been designed to be fitted to your property easily. Suitable for new build construction or renovation work where there is a requirement to provide a habitat for Pipistrelle bats.

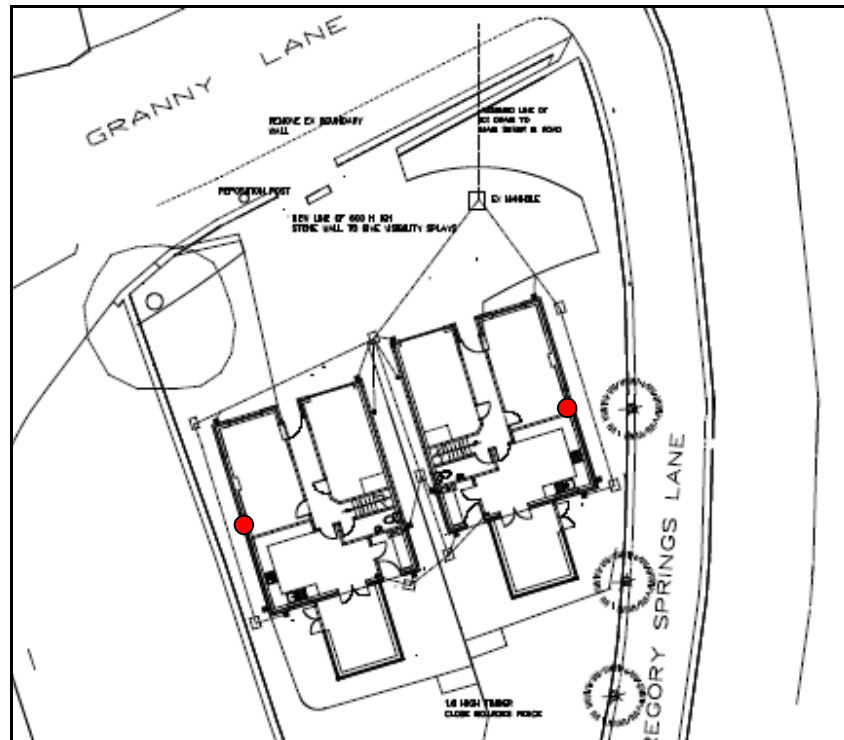
Benefits

- Conventional cast stone front face.
- Backed with high grade plywood which is sawn and roughened internally to provide a haven for bats.
- Maintenance free due to the bottom entrance.
- Available from Forticrete's 'Stone in Stock' range.
- Bespoke boxes can be designed and made for any application.

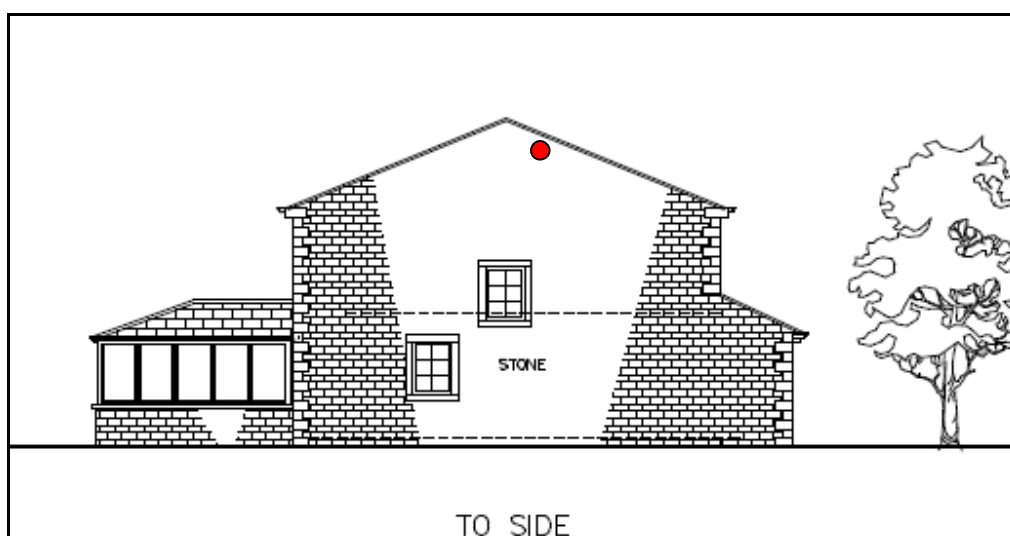
[Click here to find your nearest stockist for bat boxes](#)



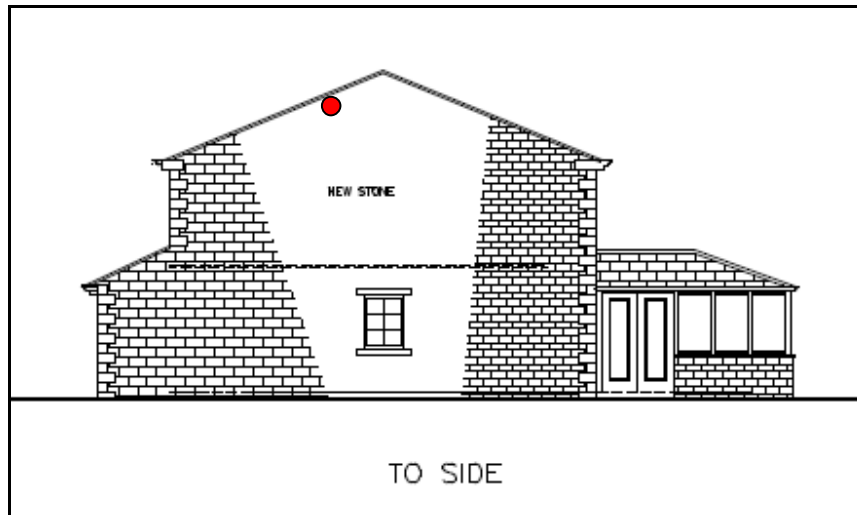
2.2. One bat brick will be installed in each dwelling in the positions shown by the red circles below.



2.3. The view below looks at the western gable end wall of the western of the two buildings showing the position of the bat brick, offset to avoid being directly above the two windows.



2.4. The view below looks at the eastern gable end wall of the eastern of the two buildings showing the position of the bat brick, offset to avoid being directly above the ground floor window.

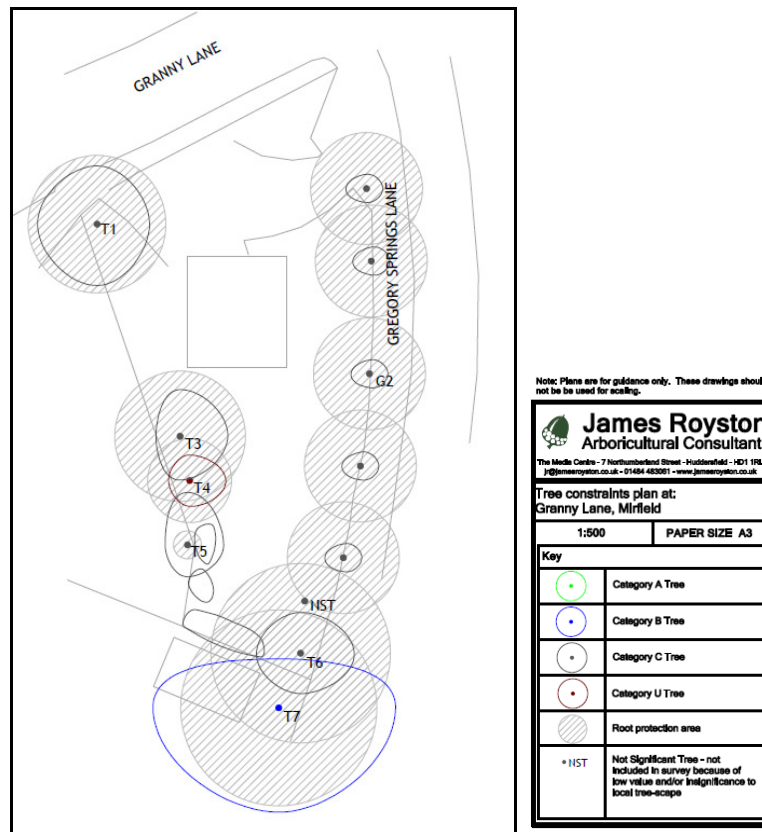


3. Landscaping.

3.1. The photograph below shows the site as it is at present and the existing trees and hedgerow on the site.



3.2. The drawing below is an extract from the tree survey report showing the positions of the trees present on the site. There is also a hedgerow down the eastern site boundary that can be seen on the photograph above. The table on the next page shows the arboricultural assessment of the trees present on the site.



3.3. It is planned to prune T1, a Scots Pine tree on the northern site boundary in order to facilitate access to the site.

3.4. T4 is a single stemmed, dead spruce tree that is assessed to be a “U” category tree and is to be removed.

3.5. All other trees on the site and the hedgerow down the eastern side of the site are to be retained. The cross hatched area on the drawing above shows the root protection zone of those trees and this area will be protected by the erection of appropriate fencing during the site development.

3.6. All trees, except the one dead tree, are to be retained and therefore there is no space for additional tree or hedgerow planting. It is quite probable that the dead tree has suffered from lack of light and that has led to its' demise.

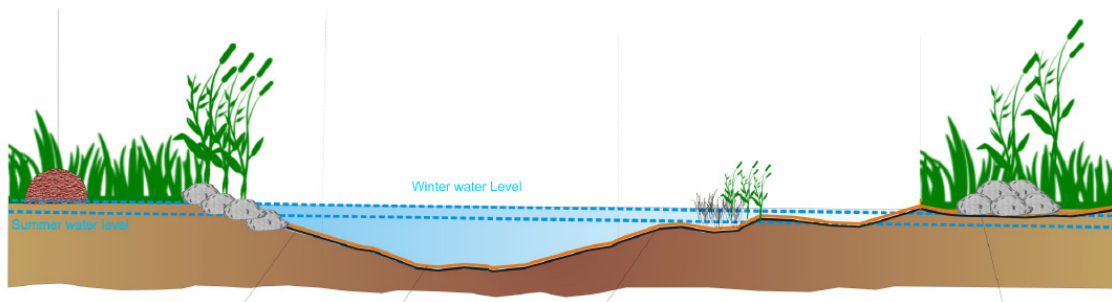
4. Wildlife Pond.

4.1. A wildlife pond will be constructed in the rear garden of the western of the two properties as this will minimise the chance of causing damage to existing tree roots and will create a pond that will not be shaded.

4.2. The pond will be 2.8m to 3m in diameter to provide a pond with a minimum cross sectional area of 25sqm in line with the advice of Froglife (2001).

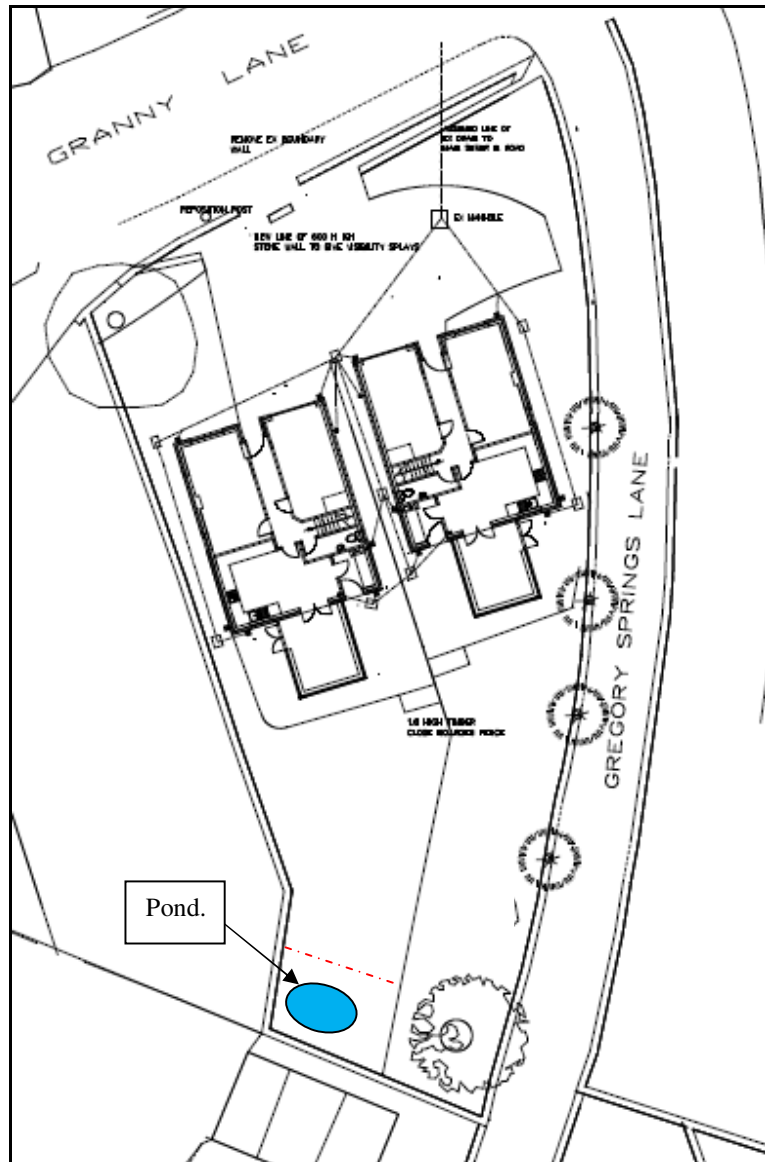
4.3. The cross section of the pond will be as shown in the indicative drawing below with a maximum depth in the middle of 1m and with gradual sloping sides, easily assessable for amphibians. Pebbles or turf can be used to secure the outer edge of the liner.

4.4. The pond will be lined with a heavy duty plastic liner laid on a sand substrate to avoid damage. (The alternative liner would be bentonite but this is more suitable for larger ponds.)



4.5. The pond should be planted with both emergent and submerged plants. Suitable species for this include water forget-me-not *Myosotis scorpioides* or sweet grass *Glyceria fluitans* while submerged plants could include stoneworts (e.g. *Chara sp*), curled pondweed *Potamogeton crispus* or water crowfoot *Ranunculus aquatili*.

4.6. The pond location is shown on the site plan below. The pond should be surrounded by a post and rail fence to keep children out but allow free movement of amphibians. A rockery will be constructed adjacent to the pond with suitable gaps and voids between the rocks to provide suitable refugia and hibernacula for amphibians.



4.7. The pond will be constructed under the supervision of an ecologist who holds a Natural England class licence for surveying great crested newts who will direct the construction in line with the Great Crested Newt Mitigation Guidelines.

4.8. The house owner will be advised that under no circumstances will fish be entered into the pond.

4.9. An agreement will be put in place for the pond to be retained and maintained for a minimum of five years.

5. Artificial Lighting.

The only external lighting will be at the front door of each property where there will be a downward shining light that will light the front access to the dwelling only. This will not impinge of any trees or bat roosting opportunities.

Prepared by:	
Derek Whitcher. BSc, MCIEEM, MCMI.	Date: 16 th November 2016.

Checked by:	
Ruth Georgiou. BSc, MCIEEM.	Date: 16 th November 2016.

Results of Tree Survey. Tree numbers relate to plan in Section 3.2 on page 5 of this document.

Tree Number	Common Name	Botanical Name	Height (m)	Effective Diameter (mm)	Branch spread (m)				Crown Clearance (m)	Age class	Physiological condition	Structural condition	Observations	Recommendations	Visual Amenity Value	Remaining contribution (years)	Category grading	RPA radius (m)
					North	East	South	West										
1	Scots pine	<i>Pinus sylvestris</i>	14	490	5.0	4.5	5.3	5.1	1	Semi mature	Fair	Fair	A single stem tree with no major defects	No action at present.	Low	20+	C1	5.9
2	Sycamore	<i>Acer pseudoplatanus</i>	7	400	–	–	–	–	3	Semi mature	Fair	Fair	A row of five single stem trees All previously topped. Not significant trees.	No action at present.	Low	20+	C1	4.8
3	Deodar cedar	<i>Cedrus deodara</i>	6	470	4.0	4.1	3.8	2.0	0	Semi mature	Fair	Fair	A single stem tree, previously topped, no apparent major defects. Not a significant tree.	No action at present.	Low	20+	C1	5.6
4	Spruce	<i>Picea sp.</i>	4	300	2.2	3.1	2.2	1.9	0	Semi mature	Dead	Poor	A single stem dead tree.	Remove	Low	<10	U	3.6
5	Birch	<i>Betula pendula</i>	14	180	4.5	3.1	2.7	1.9	2	Semi mature	Fair	Fair	A single stem tree with no major defects	No action at present.	Low	10+	C1	1.2
6	Oak	<i>Quercus robur</i>	7	640	3.5	4.6	3.4	3.8	2	Early mature	Fair	Fair	A single stem tree, previously topped with decay throughout. Unlikely to be a hazardous tree.	No action at present.	Low	20+	C1	7.7
7	Oak	<i>Quercus robur</i>	17	700	4.2	10.0	9.0	10.8	3	Mature	Fair	Fair	A single stem tree with a multi-stem crown. Not fully inspected because trees are in neighbouring property.	No action at present.	Medium	20+	B1	8.4