Ecological Preliminary Appraisal

Client	Wilmington Homes Ltd
Site	St Barnabas. Colombia Drive Worthing
Project Co-ordinator	Rod Winrow
Ecologist	Sophie Miller BSC MSC MIEEM
Bat Report	Sue Harris Natural England Bat Licence Number 20092714

Garden House Design is the trading name of Touch of Magic Ltd,
4 Roundstone Barn, Roundstone Farm, Littlehampton Road, Worthing, West Sussex BN12 6PW
Tel: 01903 774774 sales@gardenhousedesign.co.uk
www.gardenhousedesign.co.uk VAT No. 824 8009 34 Co. Reg. No. UK2961256

plantain *Plantago lanceolata,* and white clover *Trifolium repens.* Many daffodils *Narcissus* are scattered over the lawns, especially in the southern front lawn.

Intact hedgerows surround the Site and they were noted to be species-poor, predominantly privet species with occasional honeysuckle *Lonicera periclymenum,* bramble *Rubus fruticosus,* ivy, elder *Sambucus nigra* and *Prunus species.* There are shorter lengths of *Cupressus* hedgerow along the southern boundary.

Three small ponds are noted in the eastern corner of the Site. They are all raised above ground-level and are cement lined. The square pond at TN5 has fish and some pondweed and water-lily. The ponds at TN6 and TN7 have flower planting around the tops including herb species, sedges and iris. There is some pond weed *Elodea* in both, a water-milfoil species *Myriophyllum*, speedwell *Myosotis* and yellow iris *Iris pseudacorus.*

Scattered trees of interest include the small Scot's-pine *Pinus sylvatica* tree in the eastern flower beds at TN8, the cherry *Prunus* trees throughout the Site, mature trees in the flower bed at TN2, silver birch *Betula pendula* trees on the south-east boundary at TN9, and the cedar tree near the front drive way at TN10.

The car park is made ground with no weeds visible to the west of the buildings.

The main building is flat-roofed, with brick and wood panelled walls.

Protected species – habitat on Site with potential for protected species includes the building which may support bat roosts (evaluated in a separate report) and the mature trees and scrub which provide limited nesting habitat for birds. The silver birch, *Prunus,* Scot's pine and other mature trees lost to the proposed Scheme are of interest for birds only and the mature cedar tree at TN10, is remaining within the Scheme. Many of the boundary trees and parts of the hedgerows are also remaining within the Scheme.

The grassland appeared to have some woodland herbs including common dog-violet but is mostly dominated by grass species.

There is some interest for invertebrates such as butterflies, moths and bees which would use the shrubs, flowers and hedgerows. The ponds provided limited habitat for aquatic invertebrates and offered very limited habitat for breeding amphibians being lined, some with large goldfish, and with isolated from other suitable habitat with the two ponds at TN6 and TN7 mounted in raised brick features.

Evaluation

The Site is concluded to have low ecological value, with no habitat of botanical interest, no hedgerows and no mature trees with potential to support wildlife (except birds). Before any clearance the trees and larger shrubs should be checked for bird nests and ideally works should be undertaken outside the bird nesting season (considered to be nesting from March until the end of August in the South of England). The building has been checked for bat roosts (by Sue Harris) and no evidence of bats was found. There is some interest for invertebrates on Site due to the amount of shrubs and flower beds on Site and it is recommended future planting incorporates species suitable for invertebrates.

Eligibility for Credits Eco 1 – 3: Compliance with Current EU and UK wildlife legislation

In order to be eligible for the Eco 1, 2 and 3 credits, the client must confirm compliance with all current UK and EU wildlife legislation, i.e. they must provide evidence that all necessary surveys and mitigation relating to protected species and habitats have been carried out at the appropriate time and all the recommended protection and mitigation measures have or will be implemented. Furthermore, any steps taken as part of a mitigation scheme or similar, cannot also count as 'ecological enhancements'.

The Site is of low ecological value and the credit can be awarded as long as:

Any trees to be removed are checked for nesting birds prior to any initial works if these are to begin within the nesting bird season (March to the end of August inclusively).

Eco 3 Protection of ecological features – this can be awarded as there are no ecological features on Site and that bat report has concluded no evidence of bats.

Eco 2 Ecological enhancement

This credit can be awarded if the following recommendations are undertaken:

1) Plant native trees and scrub within the proposed Scheme and along the hedgerows already present to boost them for birds and invertebrates. Suitable native species : hawthorn *Crataegus monogyna*, beech *Fagus sylvatica*, field maple *Acer campestre*, hazel *Corylus avellana*, guelder-rose *Viburnum opulus*, or else species that have berries or are evergreen. Many *Prunus* trees are already within the Site so these species should be avoided.

2) The central area of grassland (by flats no 27 to 32) should include either turf present in the gardens, or be sown with a seed mix including tough grass species but also herbs such

as common bird's-foot-trefoil *Lotus corniculatus,* selfheal *Prunella vulgaris* and daisy *Bellis perennis* which can still flower if mown regularly and provide habitat for invertebrates.

3) Provide areas of green habitat within the gardens – grassland and flower beds – can be either garden planting or wildlife planting, but should include a variety of herb species to attract invertebrates such as butterflies, moths and bees: Native species: Elder *Sambucus nigra*, dog-rose *Rosa canina*, butterfly bush *Buddleja daviddii.* Many non-native species and ornamental cultivars do have wildlife value, particularly those with berries, nectar and characteristics that provide roosting and nesting sites. Suitable examples include – *Ceananthus, Euonymus, Escallonia* and *hebe* species plus cherry *Prunus avium*, *Pyracantha*, ivy, cotoneaster, honeysuckle and rose. Herbs such as rosemary *Rosmarinus* and lavender *Lavandula* would also be useful for invertebrates.

4) All compost, mulches and soil conditioners to be peat-free. A minimum of 25% of all vegetation to be planted must have been reared in peat free compost.

5) Use 'bat friendly' low intensity street lighting of suitable wavelengths and hood design to avoid detrimentally affecting the passage of bats along the adjacent hedgerow and wildlife corridors. Bats use hedges and buildings as 'sight-lines' to guide them from one roosting or foraging site to another, bright lighting can interfere with bat behaviour and can inhibit them from using particular routes which may be crucial for breeding success. Low intensity sodium lamps are preferable to halogen lamps. NB most street lighting used in residential areas these days is suitable.

Additional Recommendations

1) Install bird boxes on trees where appropriate and out of reach

3) Encourage birds e.g. house sparrows, by planting climbing plants on walls in suitable sites such as the back walls of houses and garages, bike stores, pergolas, bin stores etc, e.g. ivy, honeysuckle.

4) Encourage pollinating insects by installing bug boxes.

5) Create a natural rock/wood feature, which is designed to incorporate a variety of cavities to act as refuges for creatures, including amphibia, or sites for plants, such as ferns or sedums. Eg, log piles in the corners of the Site would be suitable.

Conclusions

The Site had low ecological value with no habitats of botanical interest, with most of the Site being comprised of buildings, mown lawns and flower beds. The building had been checked for bat roosts and no evidence of bats were found – refer to separate report. It was recommended that any trees, hedge or shrubs to be removed should be checked for nesting birds prior to any works on Site.

Three Eco Credits Eco 1-3 can be gained on this Site if the recommendations are undertaken