

Biodiversity Mitigation & Enhancement Plan

Site: Hough End Leisure Centre, Princess Road, Manchester, M20 1NA

Ref: 20343/E5

Client: Manchester City Council



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SUMMARY

At Hough End Leisure Centre on Princess Road in Manchester, planning permission has been granted for the erection of a two-storey extension to form changing rooms, cafe facilities, flexible club/social/training rooms and an extension to the existing gym space following the demolition of the existing changing block building; together with the creation of two 3G artificial football turf pitches, associated floodlighting and fencing; a 67 no. space car park and an additional 60 space overflow car park; and associated landscaping (Planning Reference No. 132513/VO/2021).

One of the planning conditions (No. 5) is for the submission of a Biodiversity Mitigation and Enhancement Plan to show that the development will result in a net gain in biodiversity.

The condition states:

Prior to the commencement of development a biodiversity mitigation and enhancement plan shall be submitted to and approved in writing by the City Council as local planning authority. Enhancement for habitat loss, will be demonstrated through the provision of a biodiversity net gain assessment. The submitted plan shall include:

- ❑ *Habitat creation proposals including the area, proposed target habitat and proposed target condition;*
- ❑ *Habitat enhancement proposals including the area of the current habitat type and its condition and proposed target habitat type and target condition;*
- ❑ *Mitigation proposals for loss of bird nesting habitat;*
- ❑ *A long term management plan;*
- ❑ *Details of the body(s) responsible for implementation and long term management of the plan.*

Reason - To create and enhance the biodiversity of the area pursuant to policy EN15 of the Core Strategy and section 174 of the National Planning Policy Framework 2021.

This report provides details of the biodiversity mitigation and enhancement measures that will be implemented.

1. ECOLOGICAL BASELINE

The existing site consists of part of the current car park, which has strips of amenity grass with some introduced shrubs and small trees separating the car parking bays. The introduced shrubs include Cotoneaster *Cotoneaster spp.*, Honeysuckle Privet *Lonicera pileata*, Mahonia *Mahonia aquifolium*, and Dogwood.

The disused changing room block is also included within this survey area. It is a single storey brick building, with a flat felt roof. It is considered to have negligible suitability for roosting bats.

Between the changing room block and the leisure centre itself there is a small area of amenity grassland, on which there are some scattered trees. Species comprise Ash *Fraxinus excelsior*, Silver Birch *Betula pendula*, London Plane *Platanus x acerifolia*, and Sycamore *Acer pseudoplatanus*. There are six Sycamore trees together in another small group which will not be affected by the proposed works.

The remaining area of this survey site is for the proposed overspill car park and 3G pitches. This consists mostly of amenity grassland where the current sports pitches are. Grasses consist of Perennial Ryegrass *Lolium perenne*, meadow-grass species *Poa spp.*, False Oat-grass *Arrhenatherum elatius*, and Cocksfoot *Dactylis glomerata*.

Flora consists of Ivy *Hedera helix*, Dandelion *Taraxacum officinale*, White Clover *Trifolium repens*, Greater Plantain *Plantago major*, Daisy *Bellis perennis*, and Cow Parsley *Anthriscus sylvestris*.

Access to the overspill car park currently comprises some more introduced shrubs, as well as Wild Cherry *Prunus avium* and Lime *Tilia cordata* trees.

No rare vascular plants have been found, and all species recorded are common and widespread. There are no invasive or notifiable species on the application site.

Two old Woodpigeons' *Columba palumbus* nests were found within a group of Sycamores, along with two tit boxes. However, these will not be affected by the proposed works.

None of the trees contained features such as decay cavities, woodpecker holes, fissures and exfoliating bark, that would be considered suitable for bat roosting and/or hibernation. The changing room block was also assessed for bat roosting suitability. This was considered to be negligible, as there were no bat roosting features present in the building.

No evidence of Badgers *Meles meles* was found, and the site was unsuitable for Otters *Lutra lutra* and Water Voles *Arvicola amphibius*, with no signs of either species in a small watercourse to the north of the leisure centre. There are no signs of Rabbit *Oryctolagus cuniculus* activity.

There is no standing water on the application site for breeding amphibians, with limited foraging opportunities and no suitable refugia or hibernacula.

As such the site is considered unsuitable for them, although common amphibians could be present in the wider area. It should also be noted the sport pitches area still in use for sports as well as dog walking.

The site is also considered to be unsuitable for reptiles for the same reason, and they are considered to be absent.

Since much of the site is dominated by mown amenity grass, it was concluded that there was low potential for significant invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

2. ECOLOGICAL ENHANCEMENTS

2.1 Botanical diversity

The scheme retains some of the existing tree and shrubs, but supplements these with a wide variety of native and non-native species to improve shape, form and colour, as well as provide foraging opportunities for invertebrates, especially pollinating insects such as butterflies, moths, bees and hoverflies. These in turn will attract small birds by day and bats by night. As they become established the new trees and shrubs will provide cover for common nesting birds.

The new trees include Norway Maple *Acer platanoides*, Field Maple *A. campestre*, Hornbeam *Carpinus betulus*, Silver Birch *Betula pendula*, London Plane *Platanus acerifolia*, Sessile Oak *Quercus petraea*, English Oak *Q. robur*, with conifers including Scot's Pine *Pinus sylvestris*.

The new shrub mix includes 11 species, many of them flowering, and there will be ornamental grass planting and bulb planting.

There will be a series of swales, these plug planted with wetland species as follows:

Marginal planting to base of swales:

<i>Acorus calamus</i>
<i>Alisma plantago- acquatica</i>
<i>Butomus umbellatus</i>
<i>Caltha palustris</i>
<i>Iris pseudoacorus</i>
<i>Myosotis scorpiodes</i>
<i>Ranunculus lingua</i>
<i>Sagittaria sagittifolia</i>
<i>Sparganium emersum</i>

Planting to top pf swale banks:

<i>Butomus umbellatus</i>
<i>Glyceria fluitans</i>
<i>Juncus effuses</i>
<i>Lythrum salicaria</i>
<i>Mentha aquatica</i>
<i>Menyanthes trifoliolate</i>

Grass mixes will include: Wetland Swale Mix BSH-WFG9, Neutral Soils Mix BSH WFG 4, Shade Tolerant Grass Mix A6 (Supreme Shade) and General Amenity Grass A4.

WFG9 contains the following species and amounts:

%	Common name	Latin name
6.0%	Salad Burnet	<i>(Sanguisorba minor)</i>
5%	Common Fleabane	<i>(Pulicaria dysenterica)</i>
0.5%	Meadow Sweet	<i>(Filipendula ulmaria)</i>
1.5%	Loosestrife	<i>(Lythrum salicaria)</i>
0.3%	Yellow Flag	<i>(Iris Pseudacorus)</i>
0.1%	Greater Birdsfoot	<i>(Lotus uliginosus)</i>
0.5%	Greater Burnet	<i>(Sanguisorba officinalis)</i>
0.1%	Water Avens	<i>(Geum rivale)</i>
3.0%	Soft-Rush	<i>(Juncus effusus)</i>
0.5%	Pendulous Sedge	<i>(Carex pendula)</i>
2.0%	Leo (Birdsfoot Trefoil)	<i>(Lotus corniculatus)</i>
1.1%	Borage	<i>(Borago officinalis)</i>
2.0%	Meadow Buttercup	<i>(Ranunculus acris)</i>
2.0%	White Clover	<i>(Trifolium repens)</i>
25.0%	Slender Creeping Red Fescue	<i>(Festuca rubra litoralis)</i>
22.5%	Crested Dogstail	<i>(Cynosurus cristatus)</i>
10.0%	Smooth Stalked Meadow Grass	<i>(Poa pratensis)</i>
10.0%	Tall Fescue	<i>(Festuca arundinacea)</i>
7.5%	Chewings Fescue	<i>(Festuca rubra commutata)</i>
5.0%	Tufted Hair Grass	<i>(Deschampsia cespitosa)</i>

WGF4 contains the following species and amounts:

%	Common name	Latin name
2.6%	Purple Coneflower	<i>(Echinacea)</i>
1.6%	Leo (Birdsfoot Trefoil)	<i>(Lotus corniculatus)</i>
0.2%	Doves Foot Cranesbill	<i>(Geranium molle)</i>
1.0%	Dotted Gayfeather	<i>(Liatris punctata)</i>
0.6%	Smooth Blue Aster	<i>(Symphyotrichum laeve)</i>
0.1%	Narrow-Leaved Everlasting Pea	<i>(Lathyrus Sylvestris)</i>
0.1%	F. Teasel	<i>(Dipsacus fullonum)</i>
0.4%	Foxglove	<i>(Digitalis purpurea)</i>
0.3%	Common Knapweed	<i>(Centaurea nigra)</i>
25.0%	Slender Creeping Red Fescue	<i>(Festuca rubra litoralis)</i>
20.0%	Strong Creeping Red Fescue	<i>(Festuca rubra rubra)</i>
20.0%	Crested Dogstail	<i>(Cynosurus cristatus)</i>
7.0%	Tall Fescue	<i>(Festuca arundinacea)</i>

%	Common name	Latin name
5.0%	Chewings Fescue	<i>(Festuca rubra commutata)</i>
3.0%	Timothy (Small eared)	<i>(Phleum bertolonii)</i>

The proposed landscaping is shown in Fig. 1 below.

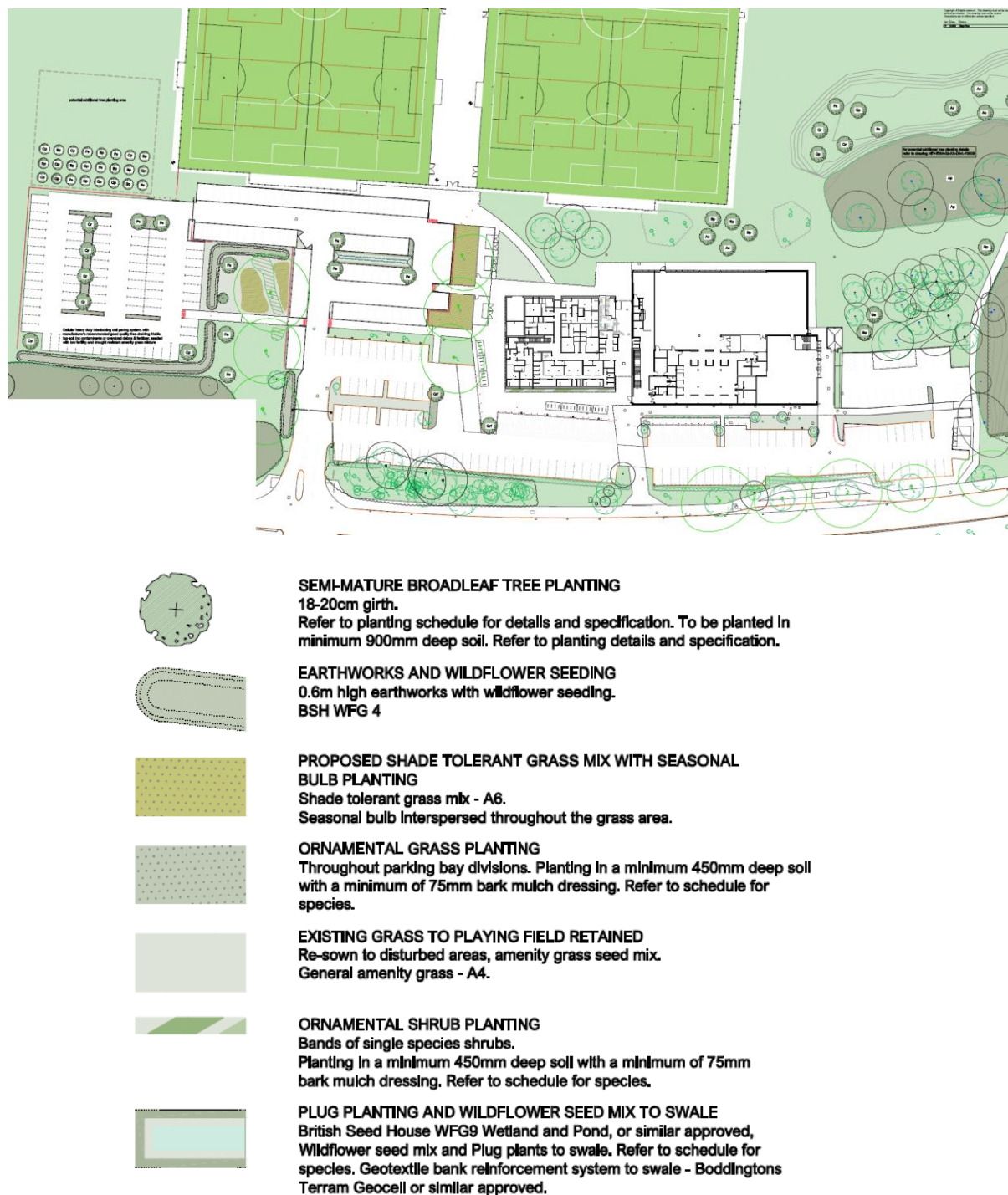


Fig. 1 Proposed landscaping scheme

2.2 Bats

As previously noted, none of the trees within the curtilage of the site supported features such as decay cavities, woodpecker holes, fissures and exfoliating bark, that would be considered suitable for bat roosting and/or hibernation.

To improve this situation, four Schwegler 2F bat boxes, or similar, will be erected on retained trees. Schwegler woodcrete boxes have the highest rates of occupation of all box types. The 75% wood sawdust, concrete and clay mixture allows natural respiration, stable temperature, and durability. They are extremely long lasting and rot- and predator proof, and will hang from a tree branch near the trunk, or can be fixed to a trunk.

The 2F (Fig. 2) is the most popular general purpose box, particularly attractive to the smaller British bats. It has a simple design with a narrow entrance slit on the front.

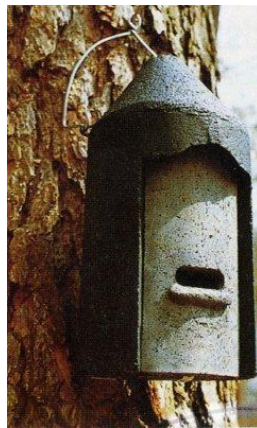


Fig. 2 Schwegler 2F bat box

The boxes will be at least 4.0-5.0 m above ground level and clear of any overhanging branches or wires. They will face anywhere from SE to SW to provide differing aspects to suit different weather conditions.

It is also anticipated that the flowers and shrubs in the landscaping scheme will attract insects which in turn will provide prey for bats.

2.3 Birds

As a number of the existing trees and shrubs are being retained on the site, and given the presence of suitable habitat in the surrounding area, the approved development will not lead to the loss of bird nesting opportunities.

On the contrary, the new planting scheme will increase opportunities for birds, both nesting and foraging.

However, whilst the plants establish, it is proposed to erect two types of Schwegler nest boxes on retained trees; 2 x 1B (32 mm) and 2 x 2H open-fronted box (Fig. 3).



Fig. 3 Schwegler bird nest boxes 2H (left) and 1B 32 mm (right)

Woodcrete Nest Boxes come with a 25 year guarantee against rot, weather and natural damage. The 1B is available with a 32 mm hole suitable for sparrows *Passer spp.* The 2H is open-fronted for a variety of species such as Robin *Erithacus rubecula*, Wren *Troglodytes troglodytes*, Spotted Flycatcher *Muscicapa striolatum* and Pied Wagtail *Motacilla alba*.

2.4 Other wildlife

Additional features will include the provision of two insect boxes (examples in Figs. 4 and 5), and a Hedgehog dome (Fig. 6), these located in sheltered areas in the boundary vegetation.



Figs. 4 & 5 Examples of insect boxes



Fig. 6 Hedgehog dome

As noted above, to provide extra enhancements for amphibians and reptiles, subterranean hibernacula will be created around the site boundaries.

The hibernacula will be constructed from unused building materials and logs, and covered with topsoil.

An example of the type of hibernaculum created is shown in Fig. 7 overleaf.

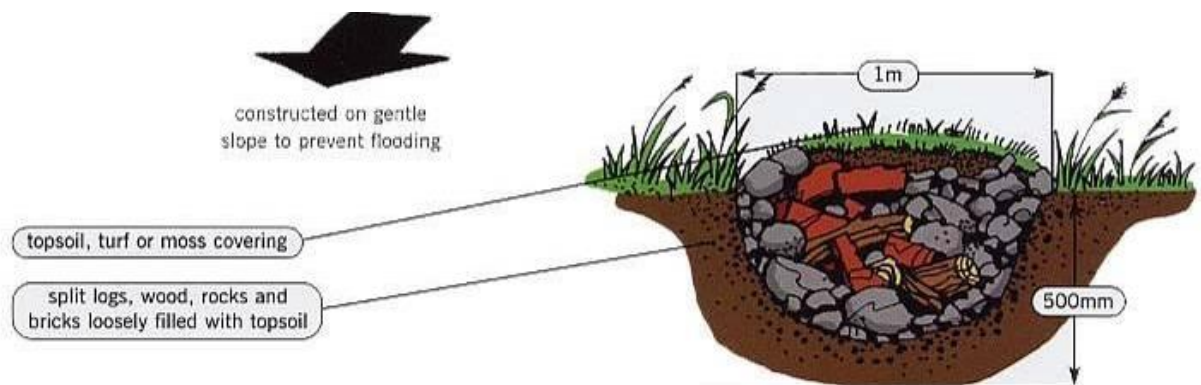


Fig. 7 Example of amphibian hibernaculum

3. ECOLOGICAL TIMETABLE

The table below summarises the various ecological features on the site and the timing of measures (where applicable).

Feature	Pre-commencement	Construction phase	Operational phase	Specific timing	Location
Badger activity check	✓	✓	✓	No restriction on timing	Site wide
Badger tool box talk	-	✓	-	Prior to site clearance, demolition and construction	Construction zone
Breeding bird check	✓	✓	-	If vegetation is removed during nesting season: March to August	Site wide
Tree and shrub removal	✓	-	-	Following check by ecologist for nesting birds and bats	Across construction zone
Tree protective barrier fencing	✓	-	-	Prior to demolition and site clearance	Around construction zone as per tree report
Bird box erection	✓	-	-	No restriction on timing	In retained trees
Bat box erection	✓	-	-	No restriction on timing	In retained trees
Bat tool box talk	-	✓	-	Immediately prior to demolition work	For the changing rooms
Amphibian tool box talk	-	✓	-	Immediately prior to demolition and site clearance work	Site wide
Terrestrial mammals check	-	✓	-	No restriction on timing	Ground clearance works site wide
Demolition, construction and ground works	-	✓	-	No restriction on timing	Construction zone
Planting of trees and shrubs and sowing grass seed mixes	-	✓	✓	November through to February	Site wide as part of the landscaping scheme

4. RESPONSIBLE ORGANISATION

The implementation of the landscaping scheme, and subsequent maintenance will be the responsibility of Manchester City Council.