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WASTE RESOURCE MANAGEMENT



**STRATA STERLING BARNESLEY WEST LTD**

**BARNESLEY WEST ROUNDABOUT - NORTH**

**LANDSCAPE AND BIODIVERSITY MANAGEMENT PLAN**

**JUNE 2023**

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**LANDSCAPE AND BIODIVERSITY MANAGEMENT PLAN**

**JUNE 2023**

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<b>DRAWINGS</b>	<b>TITLE</b>	<b>SCALE</b>
LD10593.001	North Roundabout Planting Plan	1:500@A3

## **1 INTRODUCTION**

### **1.1 Terms of Reference**

1.1.1 Wardell Armstrong LLP (WA) was commissioned by Strata Sterling Barnsley West Ltd to undertake a Landscape Biodiversity Management Plan (LBMP) in support of a commercial and residential development project, located to the west of Barnsley, central Ordnance Survey (OS) grid reference SE 31778 07075 (hereafter known as the 'Site').

1.1.1 An application has been submitted and approved for the construction of a roundabout to the north of the Site (application no. 2020/0027). This application is distinct from the main commercial and residential application. This LBMP is required in order to discharge planning condition 11, which states:

*“Upon commencement of development details of a scheme of biodiversity enhancement measures, including a timetable for their implementation, shall be submitted to and approved in writing by the Local Planning authority. The development shall be implemented in accordance with the approved details”.*

1.1.2 An Ecological Appraisal, Environmental Statement and several protected species baseline reports have been produced to date (WYG 2020-2021; Tetra Tech, 2021).

1.1.3 In general terms, this report outlines the management and maintenance of habitats and ecological mitigation measures to ensure that the development proposals are in line with the National Planning Policy Framework (NPPF, 2021) and published British Standards (2013) BS 42020:2013 Biodiversity - Code of practice for planning and development.

1.1.4 Habitat and ecological recommendations and proposals are shown on Drawings prepared by Wardell Armstrong, 2022

- LD10593.001 North Roundabout Planting Plan

### **1.2 Objectives of the LBMP**

1.2.1 This LBMP should be read in conjunction with the Preliminary Ecological Appraisal (PEA) which presents the baseline status/condition of features at the site.

1.2.2 The broad objectives are to:

- Establish and maintain newly created habitats;
- Maintain and enhance retained vegetation;
- Maintain and enhance species populations;

- Contribute to local and national objectives i.e. by enhancing the habitats and to seek gains for biodiversity in line with the NPPF.

## 2 HABITAT CREATION, ESTABLISHMENT AND MANAGEMENT

2.1.1 The following habitat creation and management guidelines have been prepared with regard to the development proposals.

### 2.2 Neutral Grassland

2.2.1 Neutral Grassland will be seeded on the roundabout embankments. The species mix will be analogous to the National Vegetation Classification MG6 *Lolium perenne* - *Cynosurus cristatus* grassland. The mix will be introduced over all areas on the embankments other than those areas identified for shrub/hedgerow and tree planting.

2.2.2 The location and composition of grassland creation areas, including wildflower meadow mix grassland is shown on Drawing LD10593.001 Landscape Planting Plan

2.2.3 It is recommended that the seed mix is sourced from Emmorsgate EG6 standard meadow mixture and germinal seed farmland mix RE9<sup>1</sup> (or similar).

2.2.4 Species dominant/constant in the seed mix should include:

- Common Mouse-ear *Cerastium fontanum*
- Crested Dog's-tail *Cynosurus cristatus*
- Red Fescue *Festuca rubra*
- Yorkshire-fog *Holcus lanatus*
- Perennial Rye-grass *Lolium perenne*
- White Clover *Trifolium repens*

2.2.5 In addition to the above a number of flowering plants should also be present to ensure nectar sources for invertebrates these should include the following species:

- Yellow Rattle *Rhinanthus minor*
- Yarrow *Achillea millefolium*
- Common Knapweed *Centaurea nigra*
- Lady's Bedstraw *Galium verum*
- Meadow cranesbill *Geranium pratense*
- Meadow Vetchling *Lathyrus pratensis*
- Oxeye Daisy *Leucanthemum vulgare*
- Birdsfoot Trefoil *Lotus corniculatus*

2.2.6 Yarrow is a particularly important component as it is a hemi (partial) parasite on grasses, which may otherwise become dominant to the exclusion of flowers, and result in a dense, closed in sward.

### ***Establishment and Management***

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<sup>1</sup> <https://germinalamenity.com/re9-farmland-mixture-mg6-grassland>

- 2.2.7 Once existing and colonising vegetation has been controlled and a sterile seed bed is created, the area will be cultivated and harrowed/raked to produce a medium tilth, appropriate for seeding.
- 2.2.8 The first grass cut will be carried out in March/April after autumn sowing or June/July after spring sowing. A second cut will be carried out later in the first year.
- 2.2.9 Any areas that fail to germinate will be reseeded in the next suitable sowing season.

**Management (Year 2 Onwards)**

- The management in following years can be achieved through a single late summer (late August to early September) hay cut after flowers have finished flowering, to approximately 50 mm. Following this, all arising's will be removed and not left in-situ.
- Management of invasive weeds such as docks *Rumex* spp. and thistles *Cirsium* spp., will be managed annually. Or may be controlled by aftermath grazing.
- Annual cuts of grassland will be continued for a period of 30 years.

**Table 1:** Summary of Maintenance and Timings

Habitat	Planting Schedule	Maintenance Schedule	Maintenance Details
Neutral Grassland	Seeding to take place autumn or spring	Initial cut will be in March/April if sown in autumn, or June/July if sown in spring	One annual late-summer (late Aug/early Sept) hay cut, for 30 years
		All other maintenance will take place from year 2 onwards	Management of invasive weeds will take place annually

### **3 PROTECTED SPECIES ENHANCEMENT MEASURES**

#### **3.1 Badger**

- 3.1.1 Updated walkovers would be carried out 3 months prior, and again 2 weeks prior to construction to confirm absence of badger setts at and 30m around the site boundary.
- 3.1.2 If setts are located, a 30m buffer would be demarcated around the sett to prevent any damage or disturbance occurring during construction. If a 30m buffer cannot be accommodated, a licence to close the sett would be required and would be applied for in advance of construction occurring. To obtain a Natural England sett closure licence, a detailed method statement would be required setting out the measures to be implemented on Site. In the event that a licence is required to close an active sett, sett closure can ordinarily be undertaken between July to November inclusive to avoid the breeding and cub rearing season.

#### **3.2 Bats**

- 3.2.1 The site contains limited foraging habitat for bats and supports no potential roosting habitats, therefore the clearance of vegetation for site works is not anticipated to have an adverse effect on local bat populations.
- 3.2.2 A sensitive lighting scheme will be used during construction works, which will maintain dark commuting corridors and foraging habitat. The sensitive lighting scheme will be designed in accordance with 'Guidance Note 08/18' (BCT, ILP, 2018) to minimise light spill into sensitive habitats. Careful design/selection of product will be undertaken with consideration of the following:
- Luminaries will not emit light from the UV spectrum;
  - Metal halide and fluorescent sources will not be used;
  - LED luminaries will be used where possible;
  - A warm white spectrum (ideally <2700 Kelvin) will be adopted;
  - Luminaries will feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats; and
  - Luminaries with an upward light ration of 0% will be used.
- 3.2.3 The lighting scheme will be subject to review by a suitably qualified ecologist prior to finalisation.

#### **3.3 Birds - General**

- 3.3.1 Site clearance works will be undertaken where possible outside the active nesting season (taken to be March to August inclusive). In the event that such timescales

cannot be accommodated a check for the presence of active nests will be undertaken by a suitably experienced ecologist, prior to commencement of works. Any active nests recorded would be identified and protected until the nesting attempt is complete.

## **4 CONCLUSION**

4.1.1 In conclusion, the management prescriptions outlined above show that the Site can be managed to benefit wildlife and provide biodiversity benefits. The Site should be managed and maintained in accordance with the above recommendations for 30 years to align with the recommendations enhancing the habitats to ensure a Biodiversity Net Gain can be achieved on Site. The establishment of species rich grassland will provide an overall benefit to wildlife. In addition, the Site can be managed to enhance and manage habitats which will benefit populations of bats and nesting birds.

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## 5 REFERENCES

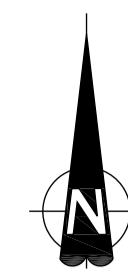
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## **DRAWINGS**



**KEY**

- Standard Meadow Mixture Emmorsgate EG6
- Tarmac Paving
- Block Paving

**General Planting Notes**

1. Tree protection shall be in place prior to works commencing, refer to the submitted Existing Vegetation Removal and Protection Plan. Any existing trees to be retained are the responsibility of the main contractor on site who shall take all necessary protective measures set out in BS 5837:2012.
2. All groundworks and planting operations shall be in accordance with the following British Standards and guidelines unless otherwise indicated:
  - BS 4428:1989 Code of Practice for General Landscape Operations
  - Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.
3. On site soils may be used for planting subject to quality and quantity of soil resources available. Where topsoil is to be imported this should meet the criteria set out in BS3882:2015 with a clay content of no more than 30% (multipurpose). For imported subsoil the criteria set out in BS8601:2013 should be met with a clay content of no more than 30% (multipurpose). All areas of proposed planting/seeding affected by construction works to be relieved of compaction by ripping to a depth of 600mm, in two directions.
4. Effective weed control must be carried out prior to cultivation. All planting areas to be cultivated to a depth of 300mm, all proposed seeded areas to be cultivated to a depth of 150mm, except within 4.0m of any existing tree stem, unless otherwise stated in the specification.
5. Topsoil depths to be: 150mm seeded areas. Good quality on site topsoil can be used for grass areas. Pits will be dug by the landscape contractor and should be freely draining. For areas to be seeded, the soil level shall be flush with any finished paved surfaces after settlement.
6. Organic compost (PAS 100) surface mulching to be supplied to all ornamental shrub planting, individual trees in grass and hedges to a depth of 75mm.
7. Where there is possibility of damage by browsing animals, plants are to be protected with appropriate tree and shrub shelters and/or rabbit proof fencing.



NOTE:  
PROPOSED LINK ROAD  
SUBJECT TO FUTURE  
PLANNING APPLICATION

B	Updated following client's comments	08.08.23	YX	LG	LG
A	Updated following client's comments	27.03.23	YX	LG	LG

CLIENT

STRATA STERLING BARNSELY WEST LTD

PROJECT

BARNSELY WEST HIGHWAYS

DRAWING TITLE

NORTH ROUNDABOUT PLANTING PLAN

DRG No.	LD10593-001	REV	B	SUIT. CODE
DRG SIZE	A1	SCALE	1:500	DATE
				24.03.23
DRAWN BY	YX	CHECKED BY	LG	APPROVED BY
			LG	

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