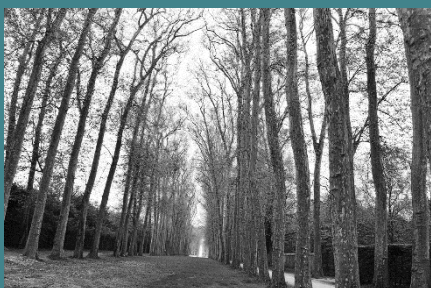


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& design



LANDSCAPE MANAGEMENT PLAN

Client

Jelson Ltd

Project

Land at Lower Grange Farm – Phase 2

Markfield

Date

05 March 2025

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- Appendix C: Biodiversity Management Plan

Rev	Issue Status	Prepared/Date	Approved/Date
-	First draft	ERF/25/02/25	SLS / 05.03.25

1.0 INTRODUCTION

- 1.1 The following Landscape Management Plan has been prepared by FPCR Environment and Design Ltd on behalf of Jelson Ltd. It sets out the proposed long-term landscape management approaches for the public landscape areas associated with the Phase 2 residential development at Land at Lower Grange Farm, Markfield. The Management Plan has been prepared as a guide for the Management Company who is responsible for the long-term maintenance of the landscape areas and sets out the management prescriptions to be adopted.
- 1.2 The detail of the landscaping for the public landscape areas of the site is provided at Appendix A: Detailed Planting and Hardworks Plans (ref: 6675-FPCR-ZZ-XX-DR-L-0001 - 0006-). The front and rear gardens associated with the new dwellings will be managed by the owners of these properties and are therefore not included within this LMP.
- 1.3 Hard and Soft landscaping for each plot to be completed prior to occupation of that plot. All other areas of hard and soft landscaping will be completed prior to final occupation of that phase.
- 1.4 The landscape design and biodiversity enhancement scheme are also informed by the Arboricultural Method Statement (Appendix B) and a Biodiversity Management Plan (Appendix C), which should be read in conjunction with this report. The Biodiversity Management Plan sets out further details for the management of specific proposed ecological habitats to ensure the development contributes to the enhancement and management of biodiversity for the area.
- 1.5 This Management Plan sets out the long-term design objectives and management tasks over a 10 year period, including maintenance operations for an initial 5 years and on-going works from years 6-10. All landscape areas and management regimes will be monitored by Jelson to allow for appropriate refinement or revision of the Plan, so long as the modifications are in accordance with the Key Objective and Overall Aims set out in Section 2.0.

2.0 LANDSCAPE DESIGN OBJECTIVES

Key Objective

- 2.1 The key management objective is to maintain a quality, tidy, safe, useable and attractive landscape setting to the development that enhances opportunities for biodiversity and enhanced opportunities for biodiversity through appropriate management of habitats on the site.
- 2.2 To achieve this, it will be important to monitor the efficacy of the Management Plan.

Overall Design Aims

- 2.3 The overall aims for the landscape are as follows:
- Conserve and enhance the Retained Habitats through appropriate low-intervention management.
 - Establish New Habitats of value with a range of faunal species / groups, maintaining and enhancing populations of protected / notable species identified within the Site.
 - Provide a safe and attractive landscape for residents of the adjacent proposed residential development.

Guiding Management Principles

- 2.4 The guiding principles for each of the above identified aims are set out below:

Retained Habitats

- 2.5 Existing hedgerows, trees and tree groups around the site boundaries will be retained where possible. There will be some loss of vegetation within the centre of the site to accommodate the proposed residential development, associated roads and footpaths with some loss of field boundary hedgerows and trees..

New Habitats

- 2.6 New planting and habitats will be created mostly within the open space to the east of the residential parcel. New native shrub planting will enhance the existing vegetation and provide new wildlife habitats. This includes scrub planting using native wetland species alongside the watercourse. Planting will be set back 2 metres from the watercourse. Wildflower meadow grassland will be seeded within the open space areas between with a 1-2m mown strip adjacent to the road and footpaths. Individual tree planting is proposed throughout the open space and within the development parcels where space allows. An attenuation basin is located within the south eastern corner providing a new habitat for the site.

3.0 LANDSCAPE MANAGEMENT PROPOSALS

3.1 The design proposals for the landscape areas of the site are set out at **Appendix A**. Management principles are devised and set out for the following landscape elements that are proposed or existing within the site at present.

1. Retained Vegetation
2. Native Shrub Planting
3. Grassed Areas (including bulb planting)
4. Individual Tree Planting
5. Hedgerows
6. Hard Landscaping

3.2 The management approach for each component is defined below.

1. Retained Vegetation

Existing Retained Trees

3.3 Any immediately necessary remedial management of existing trees and hedgerows on site will have been undertaken prior to the occupation of nearby properties in accordance with the recommendations of the detailed tree survey (refer to Arboricultural Method Statement at Appendix B for details).

3.4 The following management approach is required for all retained trees on the site throughout the period of this Management Plan:

- Within publicly accessible areas, and especially within proximity of defined footpath routes, check trees annually and after major storms for necessary remedial works with works undertaken as advised by a suitably qualified tree person.
- All works will be undertaken according to best practice as set out in the relevant standards BS 5837 Trees in Relation to Design, Demolition and Construction – Recommendations (see section 8.8.3 Post Development Management of Existing Trees) to satisfy a duty of care and BS 3998 Tree Work – Recommendations and using qualified tree surgeons/or arborists.
- All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the main bird-breeding season (March – July inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds by an experienced ecologist, prior to removal.
- Standing dead wood will be retained in situ where possible. Where it is not safe to retain this, the dead wood will be removed.
- Arisings from tree works will where practical be used to create dead wood piles within the woodland or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Existing Retained Trees						
1. Inspect trees annually and after severe storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Retain or remove arisings as appropriate.	✓	✓	✓	✓	✓	✓

Existing Retained Hedgerows

3.5 Management of hedgerows and associated trees should be undertaken with ecological principles in mind. Existing hedgerows will generally be maintained to their current height and form to safeguard its nature conservation value

- Cut hedgerows on a rotational basis to develop a dense bushy structure, with 1/3 cut alternate years to allow the hedgerow to fruit and provide a foraging resource for faunal species.
- For the more ecologically sensitive hedgerows in the open space and in accordance with FPCR's BMP, minimal clipping should be undertaken where possible, with the aim of providing dense growth and stature to provide dense, continuous corridors for wildlife movement. Nonetheless, to maintain healthy dense growth, occasional trimming will likely be appropriate and, where possible this should ideally be limited to a single side, or short sections, leaving the remainder un-trimmed during any one year to ensure some denser habitats remain present at all times.
- Cutting should occur during the winter months, between end of August and end of March in line with the agricultural industry - ideally late winter when most of the fruit has been taken by local wildlife. Cutting should not be undertaken during severe frosts, or during the bird nesting season.
- Where hedgerow is outgrown and includes trees, maintain as such and cut back periodically to prevent any overhanging of adjacent land uses that becomes a nuisance.
- Following pruning operations all significant arisings (cuttings), such as large branches should be removed from the site.
- In general, mature/semi-mature trees should be retained and allowed to continue to mature, such that management actions will be limited, albeit selective thinning and felling of new tree planting may be required in time to create space for more mature development. Development of new individual, spaced, standard trees within the hedgerow corridors should be encouraged through selective pruning/trimming.
- In existing hedgerows there may be sections of new planting undertaken within gaps. The management for this new planting should be undertaken as set out for new hedgerows in section 5.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Existing Retained Hedgerows						
2. Cut once annually in winter after fruiting, 1/3 of hedge each year on rotational basis (outgrown hedgerows with trees to be cut back to prevent overhanging of adjacent land uses where applicable). Remove arisings from site. For the more ecologically sensitive hedgerows in the open space, occasional trimming will likely be appropriate and, where possible this should ideally be limited to a single side, or short sections, leaving the remainder un-trimmed during any one year to ensure some denser habitats remain present at all times.	✓	✓	✓	✓	✓	✓

2. Native Shrub Planting

Native Shrub Mix

- 3.6 The native shrub and native wetland shrub areas will require periodically cutting back to prevent encroachment on the surrounding grassland areas. Long grassland will be allowed to develop at the margins.
- 3.7 In years 1-5 the primary aim is to ensure successful establishment of plants, from year 6 onwards the aim will be to create a visually diverse, mature and natural looking area with priority given to retention of the best specimens.
- Plants to be maintained by suitable means, to prevent competition by weeds and grasses until planting has established.
 - Plant protection to be regularly inspected and any damaged protection replaced.
 - Plants found to be dead or dying within the first five years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
 - Planting to be allowed to establish to natural canopy height, monitor for encroachment and cut back fringes as and when required (outside of the bird nesting season) to prevent encroachment on grassland, footpaths and roads.
 - After around 5 years once the plants have established remove canes and guards and/or rabbit proof fencing.
 - After 5-10 years selective thinning will be undertaken to allow for continued growth of a healthy tree group.
 - Pruning and tree works must be undertaken in late summer/early autumn (September/October) to avoid the bird nesting season.
 - Arisings from works will where practical be used to create dead wood piles or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
New Native Shrub Planting						
3. Weed control to prevent competition by weeds and grasses, inspect plant protection regularly and adjust or replace where damaged and replace dead or dying plants, application of fertiliser annually.	✓	✓	✓	✓	✓	-
4. Cut back fringes as and where required to prevent encroachment on footpaths and adjacent land uses. Remove arisings.	✓	✓	✓	✓	✓	✓
5. Remove tree protection once plants have established (year 5 or sooner).	-	-	-	-	-	✓
6. Selective thinning and pruning. Retain or remove arisings as appropriate.	-	-	-	-	-	✓

3. Grassed Areas

- 3.8 The grassed areas of the public landscape within the site comprise amenity (short mown) grassland, wildflower meadow grassland and wet grassland. Areas of bulb planting are incorporated. Due to the current agricultural nature of the Site and likely high nutrient and phosphorus levels ground preparation in the form of topsoil stripping or inversion ploughing would be required to aid successful creation of species-rich grassland.

Amenity (short mown) Grassland

- 3.9 The amenity grassland relates to short mown grassland areas, which includes a 1-2 metre strip adjacent to roadsides and footpaths.
- During the initial establishment the grassland should be mown when it reaches 75mm in height and cut to 40mm in height in the first year. The arisings (cuttings) from this first mow should be removed off site to encourage grassland establishment.
 - Cut approximately once or twice per month during the growing season, with a final cut height of around 50mm. The first shall be undertaken by mid-April and mowing continued until October.
 - Arising (cuttings) shall be distributed evenly over the grassland areas and not formed into windrows.
 - Re-sow worn grass areas (using an appropriate amenity grass seed mix) as required to maintain a dense sward of grass and undertake weed control (using a suitable approved herbicide) as required.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Amenity (short mown) Grass Areas						
7. During establishment mow only when the grass reaches 75mm height and cut to 40mm. Remove arisings from first mow only.	√	-	-	-	-	-
8. Cut monthly or fortnightly during the growing season (April-October) to 50mm or lower. Distribute arisings evenly.	√	√	√	√	√	√
9. Re-sow worn patches and treat weeds with a suitable herbicide as required.	√	√	√	√	√	√

Wildflower Meadow Grassland

3.10 This is applicable to longer areas of grassland identified as wildflower meadow (species rich) grassland. (Refer to Appendix A for proposed mix).

- Establishment of new (sown) meadow grassland: Regular cutting when the grassland reaches 150mm in length (4-5 times) will be undertaken taken in the first half of Year 1 as the sward is establishing to reduce the number of coarse grasses and pernicious weeds. During this time persistent pernicious weeds can be removed and spot treated with herbicides, used against excessive growth of some invasive or dominant species such as docks, creeping thistle and nettles.
- After the first year two grass cutting visits should be undertaken per year. Grass to be cut to the ground. This should be undertaken in late July and late September/early October.
- Prior to mowing a check will be made to ensure that no ground nesting birds are present. If present delay mowing until fledged.
- Arisings should be removed from the site no more than 5 days after cutting.
- Use of herbicide after establishment of the grassland should be done using spot treatment and is only necessary if pernicious weed species become too dominant within the sward.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Wildflower Meadow Grassland						
10. During year 1 mow regularly (4-5 times) when the grass reaches 150mm height. Treat pernicious weeds. Remove arisings by day 5.	√	-	-	-	-	-
11. Two cuts annually to the ground. Remove arisings by day 5.	-	√	√	√	√	√

Wet Grassland

3.11 The new attenuation area will be seeded with a species rich damp grassland seed mix that can tolerate wet ground conditions (Refer to Appendix A for proposed mixes). Implementation of an

appropriate management regime, cutting alternative sections of bank and a 5m along both sides on a 2–3-year rotation, will create structurally diverse grassland and enhance the value of the watercourse for wildlife.

- Regular cutting of establishing wet meadow grassland will take place in the first year to remove weeds and encourage dense growth, during this time persistent pernicious weeds can be removed and spot treated with herbicides, used against excessive growth of some invasive or dominant species such as docks, creeping thistle and nettles. Cutting of the grassland will take place to the ground. All arisings will be left in-situ for 48 hours prior to removal, with removal within 5 days.
- Future cutting of the wet meadow grassland will consist of mowing or strimming during late July/August of a given year, this will avoid the main breeding season for small mammal species and the hibernation period for amphibians. A final cut will be taken in late Autumn.
- Cutting of the grassland will take place to the ground.
- All arisings will be left in-situ for 48 hours prior to removal.
- Use of herbicide after establishment of the grassland should be done using spot treatment and is only necessary if pernicious weed species become too dominant within the sward.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Wet Meadow Grassland						
12. During year 1 mow regularly to remove weeds and encourage dense growth. Treat pernicious weeds. Remove arisings after 48 hours and before day 5.	√	-	-	-	-	-
13. Two cuts annually to the ground. Leave arisings for 48 hours and remove by day 5.	-	√	√	√	√	√

Bulb Planting

- 3.12 Areas of bulb planting are to be included within areas of grassland.
- 3.13 Bulb planting will be left uncut for 6 weeks from the end of the flowering period. After which follow grass cutting regime for grass type in which planting is located.
- 3.14 Planting species are provided in Appendix A.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Bulb Planting						
14. Bulb planting to be left uncut for 6 weeks from the end of the flowering period. After which follow grass cutting regime for grass type in which planting is located.	√	√	√	√	√	√

Grassland Generally

- 3.15 For all grassland types the Management Contractor should use appropriate machines in size, shape and method for the type of work involved. All litter, stones or other debris should be collected and removed by the Contractor immediately prior to grass cutting operations. Care shall be exercised by the Management contractor to avoid damage when mowing or strimming around trees and other structure.

4. Individual Tree Planting

- 3.16 Individual standard trees within the open space areas, including incidental greenspace adjacent to roads within the development, will be maintained as follows.
- During establishment (the first 3 years after planting) the base of trees, circa 500mm radius, must be kept weed and grass free with the installation of a weed suppressant membrane and bark mulch.
 - Water tree during establishment to capacity if the tree is under stress during dry periods.
 - Trees will be supported by double stakes, during the establishment period and these can be removed after 2-3 years, unless there is soil or root movement when the tree is rocked. Stakes and ties to be regularly inspected and adjusted or replaced as necessary.
 - Trees to be installed with a tree guard to protect trunks from damage during establishment. Care should be taken to avoid strimming close to trees during the establishment period.
 - Plants found to be dead or dying within the first five years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
 - Throughout the management period grassland at basal areas should be left unmown to protect the trunk and root areas from machinery.
 - Within public areas, trees will be checked annually and after major storms for necessary remedial works with works undertaken as advised by a suitably qualified person. All works will be undertaken according to best practice as set out in the relevant standards BS 5837 Guide to Trees in Relation to Construction and BS 3998 Guide to Trees in Construction and using qualified tree surgeons/or arborists.
 - Pruning of dead, diseased or damaged branches should be carried out as appropriate to promote healthy growth and natural shape, and to favour a single central leading shoot.
 - Arisings from tree works will where practical be used to create dead wood piles within the woodland or chipped to provide mulch for use in amenity planting areas. Alternatively, they will be removed from site.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
New Standard Tree Planting						
19. Ensure a 500mm radius around each tree is kept weed and grass free, inspect plant protection	√	√	√	-	-	-

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
regularly and adjust or replace where damaged. Water during establishment to field capacity if tree is under stress. Re-mulch bark around base of trees.						
16. Replace dead or dying trees with like-for-like	✓	✓	✓	✓	✓	-
17. Remove tree protection once plants have established.	-	-	✓	-	-	-
18. Inspect trees annually and after storms. Undertake any resultant scheduled tree works outside of the bird breeding season as appropriate. Prune as required to achieve healthy growth and natural shape. Retain or remove arisings as appropriate.	✓	✓	✓	✓	✓	✓

5. New Hedgerows

3.17 The following management approach is proposed for new mixed native hedgerows:

- Proposed hedgerows are along the peripheries of open space areas, to ensure natural surveillance is retained, maintain hedgerows to between 1 -1.3m in height.
- Plants to be maintained by suitable means, to prevent competition by weeds and grasses until planting has established. Plant protection to be regularly inspected and any damaged protection replaced. Mulch to be regularly topped up to help prevent weed growth.
- Water planting during establishment as required for healthy establishment, depending on weather conditions.
- Plants found to be dead or dying within the first five years post planting to be replaced on a like-for-like basis as soon as possible within the next available planting season.
- Until establishment, formative pruning will be undertaken once annually to keep the hedgerow tidy.
- Cut during the winter months, following fruiting, during frost free periods. Cutting should not be carried out during the bird nesting season (March-August) unless supervised by a suitably qualified person. Following pruning operations, all arisings should be removed from the site. Trees within/adjacent to the hedgerow will be left uncut.
- Plant protection and any protective fencing will be removed once the hedgerow is established.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
New Hedgerows						
21. Ensure area around new hedgerows are kept weed free. Top up mulch as necessary.	✓	✓	✓	✓	✓	✓

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
20. Prune once annually to maintain shape until establishment	√	√	√	√	√	-
21. Once established regularly cut once per year during winter and outside of bird nesting season to maintain a good shape. Remove arisings.	-	-	-	-	-	√

6. Hard Landscaping

3.18 Hard landscaping of the site to be maintained to ensure footpaths and roads remain clean, tidy and safe for use.

- All hard surfaces, within the public open space landscape areas should be maintained in a clean and tidy appearance free from weeds and litter, and this will include a general sweep, and occasional spray of surfaces. All arisings shall be removed from site.
- Any damage caused shall be made good.
- Care should be taken when maintaining hard surfacing close to plants to ensure plants are protected.
- Areas of grasscrete should be maintained with routine cuts of the areas not frequently used to even out levels.
- Litter picking of the landscape areas will be undertaken at regular intervals or as required to maintain a tidy and neat landscape.
- Items of street furniture should be regularly inspected as necessary, ensuring that they are in a safe and usable condition and in a good state of repair. Repairs should be carried out as necessary and any significant damage should be repaired immediately or in certain instances replaced. Repairs/replacement should be carried out as soon as practicable. In the interim, items which could cause a hazard should be taped off with warning tape or similar.
- Allowance should be made for all street furniture to be regularly cleaned of graffiti, dirt etc. so that they are in a usable condition and of an attractive appearance.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Other						
22. Inspect all hard surfaces regularly to ensure, safe, tidy and free of litter or debris. Any repairs should be made and arisings removed from site.	√	√	√	√	√	√

Other Requirements

3.19 Litter picks and general litter clearance should be carried out on all landscape areas on a regular basis. This should include existing tree groups and areas of new planting. Litter picks

should be undertaken at every visit to the site for maintenance operations. The overall objective is to ensure that all landscape areas are free from litter and fly tipping.

Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Other						
23. Litter pick on a regular basis	√	√	√	√	√	√

7. Monitoring

- 3.20 The open space areas, including all new and existing habitats will be monitored annually for the first five years, with monitoring decreased thereafter as appropriate. Management prescriptions will be amended as necessary to ensure the landscaping and associated habitats establish and maintain their quality over time.

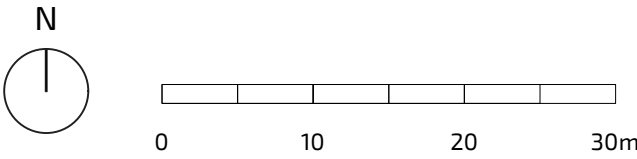
Description of works	Years Active with Priority					
	1	2	3	4	5	6-10
Other						
24. Monitor landscaping and habitats every year for first five years and use results to inform future management for coming year. Reduce detailed monitoring to appropriate frequency thereafter.	-	√	√	√	√	√

4.0 SUMMARY

- 4.1 This report provides information on the landscape aims and objectives behind the resultant strategy for the management of the Phase 2 public landscape areas. It sets out the management principles for each of the key elements of the areas to be managed, before describing the management operations required to maintain a quality, neat, tidy, safe, useable and attractive landscape setting to the development as well as maintaining and enhancing biodiversity within the site.
- 4.2 It is envisaged that the appointed landscape contractor would carry out initial maintenance operations for a period of 12 months following practical completion of the landscape works contract. Subsequently a specialist landscape management contractor would be appointed to undertake the required landscape management operations.
- 4.3 At any reviews, which are undertaken, findings and recommendations arising may be provided to Jelson and the Local Planning Authority if necessary for approval.

APPENDIX A: Detailed Planting and Hardworks Plans

(ref: 6675-FPCR-ZZ-XX-DR-L-0001 - 0006)



KEY

- Site Boundary
- Retained Existing Vegetation
- Retained Trees
- Removed Vegetation
- Native Shrub Mix
- Native Wetland Tree and Scrub Mix
- Amenity Grass (Emorsgate EG21 Fine Lawn Grass Mixture)
- Meadow Grassland (Emorsgate EM2 Standard General Purpose Meadow Mixture)
- Wetland Meadow Grassland Mix (Emorsgate EMB - Meadow Mixture for Wetlands)
- Bulb Planting
- Proposed Trees
- Mixed Native Hedgerow
- Mown Grass Edges to Footpath (1m width)
- Easement
- HV Cable approx. line

Proposed Hard Landscaping

- Road and Drives: Tarmacadam
- Footpaths: Tarmacadam
- Shared Surface 'Marshalls Priors Block Paving' 200x100mm, brindle block pavers, herringbone or similar approved
- Grasscrete
- Private Drives: Block Paving 'Marshalls Priors Block Paving' 200x100mm, charcoal block pavers, herringbone or similar approved

Proposed Street Furniture

- Bollard: 'Woodscape fixed hardwood timber bollard', round, no groove, 150mm
- Fence: Post and rail timber fence
- Timber Knee Rail

P01 05/03/25 First Issue
rev date description

ERF SLS
drn / chk

client
Jelson Ltd

project
Land at Lower Grange Farm, Markfield
Phase 2

title
General Arrangement Plan
Detailed Planting & Hardworks Plan
Sheet 1 of 6

number
6675-FPCR-ZZ-XX-DR-L-0001

status
S03

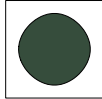
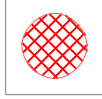
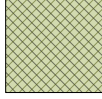
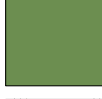
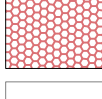
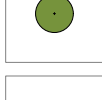
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Planting Schedule

NATIVE WETLAND TREE AND SCRUB MIX							
Qty	Latin Name	Common Name	Height	Form	Rate/Plants m ²	%	
49	Alnus glutinosa	Alder	80-100cm	Transplant	1	10	
49	Betula nigra	Black Birch	80-100cm	Transplant	1	10	
182	Cornus sanguinea	Dogwood	80-100cm	Transplant	1	40	
70	Frangula alnus	Alder buckthorn	80-100cm	Transplant	1	15	
49	Salix caprea	Goat Willow	80-100cm	Transplant	1	10	
70	Salix fragilis	Crack Willow	80-100cm	Transplant	1	15	
469							
NATIVE SHRUB MIX							
Qty	Latin Name	Common Name	Height	Rate/Plants m ²			
46	Cornus sanguinea	Common dogwood	80-100cm	1			
31	Corylus avellana	Hazel, Cobnut	80-100cm	1			
31	Ligustrum vulgare	Common privet	80-100cm	1			
16	Sambucus nigra	Common elder	80-100cm	1			
31	Viburnum opulus	Guelder Rose	80-100cm	1			
155							
INDIVIDUAL TREES							
Qty	Latin Name	Common Name	Height	Form	Root Condition	Clear Stem	Girth
4	Acer campestre	Field maple	300-350cm	Selected Standard	RB	Min 200cm	10-12cm
12	Alnus glutinosa	Common Alder	300-350cm	Selected Standard	RB	Min. 200cm	10-12cm
27	Betula pendula	Silver birch	300-350cm	Selected Standard	RB/C	Min 200cm	10-12cm
2	Betula pubescens	Dowry Birch, White Birch	350-400cm	Heavy Standard	RB	Min 200cm	12-14cm
3	Betula utilis jacquemontii	West Himalayan birch	300-350cm	Selected Standard	RB	min. 200cm	10-12cm
5	Carpinus betulus	Hornbeam	350-400cm	Heavy Standard	RB	Min 200cm	12-14cm
15	Prunus avium	Gean, Wild cherry	300-350cm	Selected Standard	RB	Min 200cm	10-12cm
1	Prunus padus	Bird cherry	300-350cm	Selected Standard	RB	min. 200cm	10-12cm
1	Quercus robur	Common, English oak	400-450cm	Extra Heavy Standard	RB	Min 200cm	14-16cm
3	Salix caprea	Pussywillow	250-300cm	Standard	RB	175-200cm	8-10cm
4	Sorbus aucuparia	Rowan	300-350cm	Selected Standard	RB	min. 200cm	10-12cm
77							
MIXED NATIVE HEDGEROWS (planted double staggered, 5 plants lin/m)							
Qty	Latin Name	Common Name	Height	Form	Root Condition	%	
157	Acer campestre	Field maple	80-100cm	Transplant	B	10	
313	Cornus sanguinea	Common dogwood	80-100cm	Whip	BR	20	
624	Corylus avellana	Hazel, Cobnut	80-100cm	Whip	BR	40	
157	Euonymus europaeus	Spindle	80-100cm	Whip	BR	10	
157	Viburnum opulus	Guelder Rose	80-100cm	Whip	BR	10	
1565							
BULB PLANTING							
Qty	Latin Name	Common Name	Rate/Plants m ²	%			
733	Crocus vernus	Crocus	10	25			
733	Eranthus hyemalis	Winter Aconite	10	25			
733	Galanthus nivalis	Common snowdrop	10	25			
733	Narcissus pseudonarcissus	Daffodil	10	25			

A diagram showing a rectangular area divided into 10 equal segments. A compass rose indicates North (N) is towards the top. The segments are numbered 0 to 15m along the bottom edge.

	Site Boundary
	Retained Existing Vegetation
	Retained Trees
	Removed Vegetation
	Native Shrub Mix
	Native Wetland Tree and Scrub Mix
	Amenity Grass (Emonsgate EG21 Fine Lawn Grass Mixture)
	Meadow Grassland (Emonsgate EM2 Standard General Purpose Meadow Mixture)
	Wetland Meadow Grassland Mix (Emonsgate EM8 - Meadow Mixture for Wetlands)
	Bulb Planting
	Proposed Trees
	Mixed Native Hedgerow
	Mown Grass Edges to Footpath (1m width)
	Easement
	HV Cable approx. line

- Road and Drives: Tarmacadam
- Footpaths: Tarmacadam
- Shared Surface
 - Marshall's Priora Block Paving' 200x100mm, brindle block pavers, herringbone or similar approved
- Grasscrete
- Private Drives: Block Paving
 - Marshall's Priora Block Paving' 200x100mm, charcoal block pavers, herringbone or similar approved

	Bollard: 'Woodscape fixed hardwood timber bollard', round, no groove, 150mm
	Fence: Post and rail timber fence
	Timber Knee Rail

RF SLS
dm / chk

03 P01

J:\6600\6675\LANDS\Plans\Phase 2\6675 - Hardworks and Softworks Plan - P01.vwx
t: 01509 672772 e: mail@fpcr.co.uk w: www.fpcr.co.uk



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Ordnance Survey base mapping - supplied by client.



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- Proposed Trees
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(1m width)
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Proposed Hard Landscaping

- Road and Drives: Tarmacadam
- Footpaths: Tarmacadam
- Shared Surface
"Marshalls Priora Block Paving" 200x100mm, brindle block pavers, herringbone or similar approved
- Grasscrete
- Private Drives: Block Paving
"Marshalls Priora Block Paving" 200x100mm, charcoal block pavers, herringbone or similar approved

Proposed Street Furniture

- Bollard: "Woodscape fixed hardwood timber bollard", round, no groove, 150mm
- Fence: Post and rail timber fence
- Timber Knee Rail

P01	05/03/25	First Issue	ERF	SLS
rev	date	description	drn	chk

client
Jelson Ltd

project
**Land at Lower Grange Farm, Markfield
Phase 2**

title		scale	
P05 Detailed Planting & Hardworks Plan (Sheet 3 of 6)		1:200 @ A1	
number		status	rev
6675-FPCR-ZZ-XX-DR-L-0003		S03	P01



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Proposed Street Furniture

- Bollard: 'Woodscape fixed hardwood timber bollard', round, no groove, 150mm
- Fence: Post and rail timber fence
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P01	05/03/25	First Issue	ERF	SLS
rev	date	description	dm	chk

client
Jelson Ltd

project
Land at Lower Grange Farm, Markfield
Phase 2

title	scale	
POS Detailed Planting & Hardworks Plan (Sheet 4 of 6)	1:200 @ A1	
number	status	rev
6675-FPCR-ZZ-XX-DR-L-0004	S03	P01



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- Footpaths: Tarmacadam
- Shared Surface 'Marshalls Priora Block Paving' 200x100mm, brindle block pavers, herringbone or similar approved
- Grasscrete
- Private Drives: Block Paving 'Marshalls Priora Block Paving' 200x100mm, charcoal block pavers, herringbone or similar approved

Proposed Street Furniture

- Bollard: 'Woodscape fixed hardwood timber bollard', round, no groove, 150mm
- Fence: Post and rail timber fence
- Timber Knee Rail

P01	05/03/25	First Issue	ERF	SL5
rev	date	description	dm	chk

client
Jelson Ltd

project
Land at Lower Grange Farm, Markfield Phase 2

title		scale
POS Detailed Planting & Hardworks Plan (Sheet 5 of 6)		1:200 @ A1
number	status	rev
6675-FPCR-ZZ-XX-DR-L-0005	S03	P01



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P01	05/03/25	First Issue	EF	SLS
rev	date	description		dwn / chk

client
Jelson Ltd

project
**Land at Lower Grange Farm, Markfield
Phase 2**

title		scale
POS Detailed Planting & Hardworks Plan		1:200 @ A1
Sheet 6 of 6		
number	status	rev
6675-FPCR-ZZ-XX-DR-L-0006	S03	P01

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APPENDIX B: Arboricultural Method Statement



Jelson Ltd

Land South of Markfield, Leicestershire

Arboricultural Method Statement

October 2021

FPCR Environment and Design Ltd

Registered Office: Lockington Hall, Lockington, Derby DE74 2RH

Company No. 07128076. [T] 01509 672772 [F] 01509 674565 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Final	AZS / 28.09.21	TCB / 05.10.21

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TABLES

Table 1: Timelines of Tree Protection for Construction Works

PLANS

Tree Protection Plans (Drawing no. 6675-TPP-01, 02 & 03)

APPENDICES

Appendix A: Tree Schedule

Appendix B: Protective Fencing Signage

Appendix C1: Tree Contractor - Tree Work Methodology

Appendix C2: Fencing Contractor – Working Methodology

Appendix C3: Excavation Under Supervision – Working Methodology

Appendix D: What you need to know about working near trees

1.0 INTRODUCTION

- 1.1 This Arboricultural Method Statement (AMS) has been prepared by FPCR Environment and Design Limited on behalf of Jelson Ltd to provide the methods of protection and pruning requirements for retained trees located at land south of London Road, Markfield (hereafter referred to as the site), OS Grid Ref SK 489 093.
- 1.2 This AMS outlines the methodology by which construction will be undertaken in order to safeguard trees in a satisfactory condition during the construction of the approved residential development. This method statement sets out a definitive account for the treatment of retained trees during construction and specifies industry approved construction methods.
- 1.3 The detail and requirements of this Method Statement comprise commitments to complete the construction phase of the development in a specific manner and will inform the production of all relevant tender documents and instructions to contractors.
- 1.4 **Failure to adhere to the correct sequence, manner and timing of operations detailed in this Method Statement may result in irremediable damage to trees or disturbance to retained tree cover. Retained trees are protected by planning law and reckless damage or tree removal could result in the serving of a stop notice or prosecution by the Local Planning Authority.**

Planning Consent

- 1.5 Planning consent for:
- Residential development of 282 dwellings (Class C3) including provision of public open space, associated infrastructure and engineering works and demolition of Vine Cottage.
- Land Off London Road Markfield Leicestershire LE67 9UY
- was granted by Hinckley and Bosworth Borough Council (Planning Reference 20/01283/FUL) on 30th September 2021.
- 1.6 This AMS has provided details to discharge Condition 1 of the planning consent granted as detailed below.

Condition 11:

'Before any development commences on the site, including site works of any description, a Tree Protection Plan prepared by a suitably qualified arboriculturist shall be submitted to and approved in writing by the local planning authority. The plan shall include protective barriers to form a secure construction exclusion zone and root protection area in accordance with British Standard 5837:2012 Trees in relation to design, any trenches for services are required within the fenced-off areas, they shall be excavated and back-filled by hand and any tree roots or clumps of roots encountered with a diameter of 25cm or more shall be left un-severed. The development shall be implemented in accordance with the approved Tree Protection Plan.

Reason: To ensure that the trees on site are to be retained and adequately protected during and after construction in the interests of the visual amenities of the area and biodiversity in accordance with Policy DM6 of the Site Allocations and Development Management Policies Development Plan Document (2016) and paragraph 174 of the National Planning Policy Framework (2021).

- 1.7 This AMS sets out the methodology for all proposed works that affect trees on the site. Compliance with this AMS, once approved by the Local Planning Authority's (LPA) Arboricultural Officer, will be a requirement of all relevant contractors associated with the development proposals.

Overview of Trees on Site

- 1.8 A total of 156 individual trees, 50 groups of trees and 28 hedgerows were surveyed as part of the Arboricultural Assessment, some of which were considered to be off-site. All detailed information on individual trees, groups and hedgerows can be found in Appendix A – Tree Schedule and identified on the Tree Survey Plan provided as part of the Arboricultural Assessment.
- 1.9 The site is located to the south of Markfield, a village in Leicestershire and comprises of a series of field parcels of either grass or ploughed ground at the time of the survey. London Road is situated to the north with a new development and existing properties forming the northern boundary. Tree cover is confined to the field boundaries or along the watercourse which runs through the site. Species consisted of predominantly ash *Fraxinus excelsior* supported by thorns such as blackthorn *Prunus spinosa* and hawthorn *Crataegus monogyna*.
- 1.10 The proposals include provision for new tree planting throughout the site as part of the accompanying landscape scheme.

Statutory Constraints

- 1.11 Local authorities reserve the right to create Tree Preservation Orders (TPO) in order to protect specific trees and woodlands in the interests of preserving the amenity value of a particular site or location. A TPO prohibits cutting down, topping, lopping uprooting or willful damage caused to trees covered by the TPO and such actions, if carried out without the prior written consent of the acting LPA, may be prosecuted and incur an unlimited fine.
- 1.12 No direct consultation with the Local Planning Authority has taken place, however, it is understood having used the online search facility on the website for the Local Planning Authority, Hinckley and Bosworth Borough Council that there are no Tree Preservation Orders and Conservation Areas that would apply to any trees present on, or in close proximity to the assessment site and therefore no statutory constraints would apply to the development in respect of trees. Before any tree works are undertaken confirmation of the online information should be sought from the Local Authority.

Limitations

- 1.13 The Method Statement is concerned solely with arboricultural issues related to the site referenced only.
- 1.14 Any changes in ground level, or excavations near to tree roots not detailed within this AMS has the potential of adversely affecting the stability and physical condition of the retained trees and as such further examinations would be required.

- 1.15 The timescales for the construction program are not absolute. The timescales set out in this AMS are based on all supplied preliminary information available at the time of writing and is subject to change. As such the processes set out in the AMS may need to be reviewed and amended to suit as required.

2.0 TREE PROTECTION METHODOLOGY

Pre-commencement Tree Work

- 2.1 All agreed works will need to be undertaken prior to the main construction activities commencing and so that tree protection fencing can be erected in the positions demonstrated on the Tree Protection Plans.
- 2.2 Appendix C1 outlines all the required pre-commencement tree work. Those trees which will be removed to facilitate the approved development layout are not detailed within the appendix.
- 2.3 All tree works undertaken will comply with *British Standard 3998 'Tree Work - Recommendations' (2010)* and be carried out by skilled tree surgeons preferably those approved by the Arboricultural Association (AA). The AA is the recognised authority for certification of tree work contractors. To become an Approved Contractor a company must satisfy the Associations Professional Committee of its consistently high standard of tree work.
- 2.4 All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist.

Tree Protection Programme – Construction Phase

- 2.5 The key stages where tree protection are to be implemented along with the requirements for site supervision have been outlined in the following sections and within the relevant tables.
- 2.6 The timing of these stages may be subject to alteration in line with any future amendments of the construction program and as such, it is important to emphasise that the timeframe is designed to be flexible to accommodate these alterations whilst ensuring the protection of the trees on site.

Table 1: Timelines of Tree Protection for Construction Works

Timetable	Actions	Arboricultural Clerk of Works (ACoW) requirements	Task Specific Method Statement / Appendix reference
Pre-commencement site meeting	Pre-commencement site meeting prior to the start of construction works on site following demolition of existing buildings and removal of areas of hardstanding. Timeline of construction processes to be shared with ACoW and changes made to the AMS as required.	Site meeting / Toolbox talk by ACoW (refer to Section 2.7) to ensure that the AMS has been read by the relevant person, including the Site Manager and Tree Surgeon. Site Manager to provide working Gantt Chart or Timetable of construction processes and to ensure that Tree Protection measures have been included. ACoW to check that copies of Task Specific Arboricultural Method Statements (located in Appendix C) are present.	AMS 6675-TPP-01 6675-TPP-02 6675-TPP-03 Appendix A Appendix B Appendix C1 Appendix C2 Appendix C3 Appendix D
During Pre-commencement site meeting	Temporary and Permanent Tree Protection Fencing positions to be marked out and pegged (where applicable) by the ACoW to ensure that all fencing is erected in the correct positions.	ACoW to assist with measuring out distances from trees in accordance with the Tree Protection Plans. Photos of evidence to be taken for auditing purposes.	Appendix C2 and relevant Tree Protection plans
Commence Earthworks			

Timetable	Actions	Arboricultural Clerk of Works (ACoW) requirements	Task Specific Method Statement / Appendix reference
Dates TBC during Pre-commencement site meeting and in line with construction program	Check fencing has been erected.	ACoW to check that all Tree Protective Fencing has been erected and is of the required type and specification (as per Appendix C2 and as specified in Section 3.0 of the AMS). Any contingencies or action points required shall be outlined.	Appendix C2
	Supervision of Earthworks where required	Exact supervision requirements to be determined during Pre-commencement site meeting	Appendix C3 Tablet based Auditing App (ACoW use only)
	Tree Protective Fencing position and suitability checked by ACoW. Compliance with AMS checked and recorded.	Record of visit to be completed by ACoW and a copy is to be handed to Site Manager and LPA upon request.	
Earthworks Completed			

Timetable	Actions	Arboricultural Clerk of Works (ACoW) requirements	Task Specific Method Statement / Appendix reference
Dates TBC during Pre-commencement site meeting and in line with construction program	Supervision of the roads and footpath installation to be carried out where these works occur within the RPA of tree T1, T13, T21, T22, T30, T32, T45, T54, T60, T62, T132, T133, G4, G7, G9 and H6. The cutting of roots shall not entirely be avoidable during these works. As such any roots located / identified during these works shall be pruned back to the face of the trench as they became exposed. Roots shall be wrapped with hessian material, which is to be kept damp, until the area can be back filled with topsoil.	Record of visit to be completed by ACoW and a copy is to be handed to Site Manager. Continuous checks that the Tree Protection Induction Record has been completed shall be made. ACoW to be present to ensure that no major / structural roots are severed or unnecessarily damaged. An assessment shall be made prior to any decision on cutting roots is made. Supervision and inspections accompanied by robust auditing.	Appendices C2, C3 Tablet based Auditing App (ACoW use only)
Construction Works Commence			
Dates TBC during Pre-commencement site meeting and in line with construction program	Periodic compliance inspections accompanied by robust auditing of visits. Tree Protective Fencing position and suitability checked by ACoW. Compliance with AMS checked and recorded.	Record of visit to be completed by ACoW and a copy is to be handed to Site Manager and LPA upon request.	Appendix C Tablet based Auditing App (ACoW use only) Refer to relevant plans
Construction Works Completed			
Post Construction			
Dates TBC during Pre-commencement site meeting and in line with construction program	Removal of Tree Protective Fencing	ACoW to check if all Tree Protective Fencing has been removed and in doing so no damage has occurred to retained trees and hedgerows.	
Tree Protection Program Completed			

Arboricultural Supervision

Appointment of Arboricultural Clerk of Works

- 2.7 The Site Manager / Project Manager will be responsible for appointing the Arboricultural Clerk of Works in advance of any operations detailed in this Method Statement and in any instance where full compliance cannot be guaranteed i.e., where construction works within areas fenced off to protect trees may be required.

FPCR Arboricultural Consultant Contact Details

FPCR Arboricultural Consultant: Aaron Shearer

Contact Email: Tom.bennett@fpcr.co.uk

Contact Number: 01509 672772 / 07957641779

- 2.8 An overview of the specific involvement of the Arboricultural Clerk of Works has been provided in Tables 1.
- 2.9 An initial site meeting prior to starting any construction works, implementing tree surgery and erection of tree protection fencing, shall be a requirement of this AMS. At the meeting the Site Manager and Arboricultural Clerk of Works will discuss the methodology and various tree protection measures to be implemented subject to approval by the LPA.
- 2.10 A toolbox talk will also be given to the Site Manager and any on site operatives on the day of the meeting. The purpose of this toolbox talk will be to inform the Site Manager and Operatives of how to protect all retained trees. The toolbox talk shall then be repeated by the Site Manager when new external trades / Contractors commence work on site.
- 2.11 The toolbox talk shall focus on informing Contractors on the following topics:
- The protection of trees is a requirement of planning approval and failure to comply could result in stop notices being applied or fines;
 - How trees can be harmed on development sites;
 - How the trees on this site will be protected by tree protection fencing and ground protection;
 - Discussion on particular methods of working near the trees as outlined in this Method Statement;
 - How to report an issue before it becomes a problem;
- 2.12 Evidence of the toolbox being carried out shall be collected. This evidence can be viewed at any time by the Arboricultural Clerk of Works and shared with both the client and the LPA upon request. A periodic review shall be conducted to ensure continued compliance.
- 2.13 The Arboricultural Clerk of Works will periodically verify compliance with this AMS and sign-off elements of the work as various stages of the development commence. This shall be recorded using an online form which the Arboricultural Clerk of Works can share with the client and LPA.

- 2.14 The Arboricultural Clerk of Works will be responsible for specifying any tree work requirements and shall assist in, where required, the appointment of a suitably qualified Arboricultural Contractor to undertake the removal and pruning of trees.

Key Appointment, Supervision and Monitoring Stages of the Arboricultural Clerk of Works

- 2.15 The following stages of supervision shall be required:
- Pre-commencement site meeting and Toolbox talk to be carried out.
 - Marking trees to be removed and to be pruned with the appointed tree contractor where relevant (**pre-commencement meeting**)
 - Walking the site with the Site Manager / Fencing Contractor to measure out the locations of the fencing (**pre-commencement meeting**)
 - Arboricultural Clerk of Works to be present to supervise construction of Primary Road Layout within the RPA of tree T1, T13, T21, T22, T30, T32, T45, T54, T60, T62, T132, T133, G4, G7, G9 and H6. (**to follow pre-commencement meeting**)
 - Full auditing of these visits / supervision requirements to be carried out (**ongoing**)
 - Ongoing visits in accordance with Table 2 to inspect the tree protection fencing and compliance with the AMS. Any other arboricultural matters arising which are unforeseen will need to be discussed with the Arboricultural Clerk of Works during these visits to decide the most appropriate course of action.
 - After each site visit a short report/record will be compiled which will be sent to the client and local authority upon request as a record of evidence.

Specific Tree Protection Measures

- 2.16 For each of the works required a Task Specific Method Statement has been provided outlining the action required. These Method Statements have been provided in chronological order and have been produced as 'pull out' sheets to be kept on record in the site office and handed to the appropriate contractors during site inductions.
- 2.17 The methodologies accompanying this AMS have been provided as separately titled appendices for ease of identification. These include:
- Appendix C1: Tree Contractor - Tree Work Methodology
 - Appendix C2: Fencing Contractor – Working Methodology
 - Appendix C3: Excavation Under Supervision – Working Methodology

General Tree Protection Measures

- 2.18 This section details non-specific precautionary measures to be applied at all times.
- 2.19 No trees will be removed or pruned during construction other than those detailed within this method statement. Any proposed deviation from the tree removal and retention presented in this document must be discussed with the project Arboricultural Consultant prior to implementation.

- 2.20 All the retained trees will need to be adequately protected during works. Measures to protect these trees should follow the best practice principles set out in *BS5837: Trees in Relation to Construction Recommendations (2012)*. These have been broadly summarised below.
- 2.21 No Root Protection Areas will be affected by excavation works, storage of materials, plant or machine access, other than as described by this Method Statement.
- 2.22 Site compounds, Portakabins, Containers and other temporary buildings can in some cases be used in root protection area if prior consent is agreed by the acting local planning authority. The method for installing the buildings and an assessment of whether temporary ground protection is required is to be agreed with the project Arboriculturalist and specified prior to installation.
- 2.23 No materials or soils are to be stored within the Root Protection Area of the retained trees.
- 2.24 Oil, bitumen, cement or other material that is potentially injurious to trees will not be stacked or discharged within 10m of a tree stem. No concrete mixing will be done within 10m of a tree. Allowance will be made for the slope of ground to prevent materials running towards the tree.
- 2.25 Wide or tall loads etc. should not come into contact with retained trees. Banks man should supervise transit of vehicles where they are in close proximity to retained trees.
- 2.26 No fires will be lit where flames are anticipated to extend to within 5m of tree foliage, branches or trunk, taking into consideration wind direction and size of fire.
- 2.27 Notice boards, telephone cables or other services will not be attached to any part of a retained tree.
- 2.28 If unexpected large roots (>25mm diameter) are encountered during excavation for construction works the arboricultural consultant should be contacted immediately. No exposed roots will be left uncovered. They will be covered over as soon as possible to minimise the risk of drying out and dying.
- 2.29 As recommended within section 8.8.3 of BS5837 Post Development Management of Existing Trees, all retained trees should be subjected to sound arboricultural management where there is public access in order to satisfy the landowner's duty of care.

Removal of Tree Protection Measures and Protective Fencing

- 2.30 Following the completion of all construction works and in agreement with the project arboriculturist the tree protection fencing will be removed carefully as to avoid causing root disturbance.

3.0 ARBORICULTURAL MONITORING AND TREE MANAGEMENT

- 3.1 Trees will require several years to adjust to environmental changes that occur during construction. Stressed trees are more prone to health problems, such as disease and insect infestations. Despite the enforcement of the recommendations continued within this AMS and the best intentions of the developer, including the implementation of the most stringent tree protection measures across the site, injury to trees may still occur.

4.0 CONCLUSIONS

- 4.1 Provided that the protection methods in this AMS are followed on site, there shall be no unnecessary or adverse Arboricultural impacts.



Scale 1:1250 @ A3



KEY

- Tree/Group to be Retained
- Tree/Group to be removed to facilitate the proposals
- Category U - Unsuitable for retention on arboricultural grounds
- Hedgerow Proposed to be Retained and Incorporated into the New Development
- Hedgerow Proposed to be Removed to Facilitate the Development upon Approval of the Application
- Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
- Individual / Group Number and BS5837:2012 Category
- Individual / Group Number and BS5837:2012 Category to be removed
- Veteran Tree Root Protection Area (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)
- Line of Protective Barriers (and distance from tree or retained structure)
- Second Position of Protective Barriers (and distance from tree or retained structure)

NOTES

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Trees are living organisms that change over time, the condition of all trees illustrated herein, are to be checked by the project Arboriculturalist should works commence 12 months after the date of this survey.

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-	28.09.21	First Issue	AZS

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FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH

t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

client
Jelson Ltd

project
**Land South of Markfield
Leicestershire**

drawing title
TREE PROTECTION PLAN

scale
1:1250 @ A3

drawn/checked
AZS / HR

date
September 2021

drawing number
6675-TPP-02 -

rev



supervised excavation
jointed arboriculturist to
or construction of the
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Scale 1:1250 @ A3



- KEY**
- Tree/Group to be Retained
 - Tree/Group to be removed to facilitate the proposals
 - Category U - Unsuitable for retention on arboricultural grounds
 - Hedgerow Proposed to be Retained and Incorporated into the New Development
 - Hedgerow Proposed to be Removed to Facilitate the Development upon Approval of the Application
 - Root Protection Area (The RPA has been altered where appropriate to reflect underground constraints)
 - Individual / Group Number and BS5837:2012 Category
 - Individual / Group Number and BS5837:2012 Category to be removed
 - Veteran Tree Root Protection Area (in accordance with Ancient and Other Veteran Trees: Further Guidance on Management)
 - Line of Protective Barriers (and distance from tree or retained structure)
 - Second Position of Protective Barriers (and distance from tree or retained structure)

NOTES

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f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

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date
September 2021

drawing number
6675-TPP-03

rev

CAD file: J:\6600\6675\ARB\AM\Plans\Tree Protection Plan.dwg

Appendix A - Tree Schedule

Measurements	Age Classes	Quality Assessment of BS Category	ULE (relates to BS Category)
Height - Measured using a digital laser clinometer (m)	YNG: Establishing, typically with good vigour and fast growth rates and strong apical dominance; c. less than 1/3 life expectancy	Category U - Trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	<10 years
Stem Dia. - Diameter measured (mm) in accordance with Annex C of the BS5837	SM: Semi-mature trees less than 1/3 life expectancy	Category A - Trees of high quality with an estimated remaining life expectancy of at least 40 years.	40+ years
Crown Radius - Measured using a digital laser clinometer radially from the main stem (m)	EM: Established, typically vigorous and increasing in apical height and lateral spread; 1/3 - 2/3 life expectancy. Offers landscape significance	Category B - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.	20-40 years
Abbreviations est - Estimated stem diameter avg - Average stem diameter for multiple stems upto - Maximum stem diameter of a group	M: Fully established over 2/3 life expectancy, generally good vigour and achieving full height potential with crown still spreading	Category C - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	10-20 years
	OM: Fully mature, at the extremes of expected life expectancy, vigour decreasing, declining or moribund	Sub-categories: (i) - Mainly arboricultural value (ii) - Mainly landscape value (iii) - Mainly cultural or conservation value	
	V: biological, cultural or aesthetic value comprising niche saproxylic habitat. Individuals of large proportions (stem girth) in comparison to trees of the same species/surviving beyond the typical age range for their species.	The BS category particular consideration has been given to the following: • The presence of any structural defects in each tree/group and its future life expectancy • The size and form of each tree/group and its suitability within the context of a proposed development • The location of each tree relative to existing site features e.g. its screening value or landscape features • Age class and life expectancy	

Structural Condition	Physiological Condition
Good - No significant structural defects	Good - No significant health problems
Fair - Structural defects that can be remediated	Fair - Symptoms of ill-health that can be remediated
Poor - Significant defects beyond remediation, present a risk of failure in the foreseeable future	Poor - Significant ill-health. Unlikely the tree will recover in the long term
Dead - Dead tree with structural integrity of tree severely compromised	Advanced Decline / Dead - Advanced state of decline and unlikely to recover or Dead

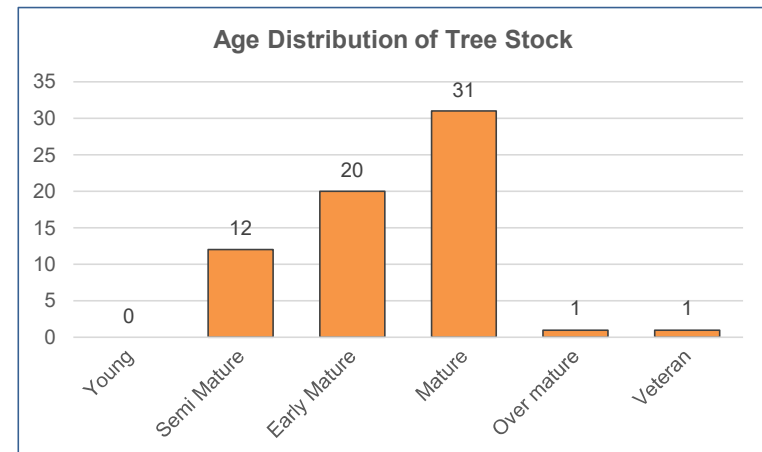
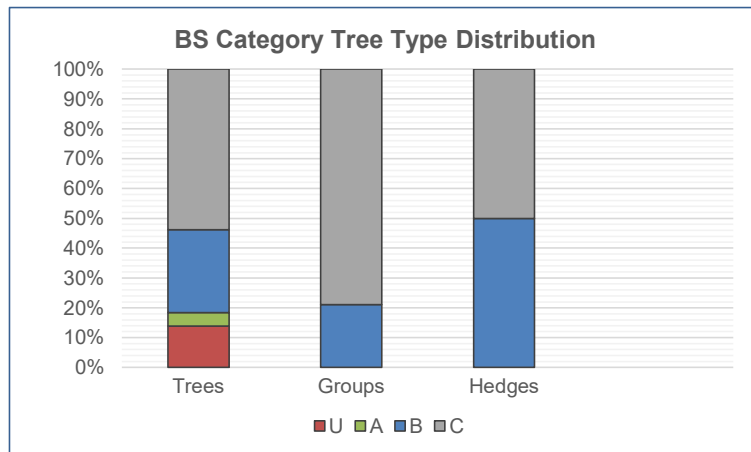
Root Protection Area (RPA)
• The RPA Radius column provides the extent of an equivalent circle from the centre of the stem (m). • The RPA is calculated using the formulae described in paragraph 4.6.1 of British Standard 5837: 2012 and is indicative of the rooting area required for a tree to be successfully retained. Tree roots extend beyond the calculated RPA in many cases and where possible a greater distance should be protected. • Where veteran trees have been identified the RPA has been calculated in accordance with Natural England guidance i.e. 15x the stem diameter, uncapped.

Appendix Summary

	Individual Trees	Totals	Tree Groups	Totals
Category U	T19, T24, T25, T31, T44, T46, T47, T59, T64	9		0
Category A	T5, T32, T67	3		0
Category B	T1, T7, T21, T22, T27, T29, T30, T33, T35, T40, T43, T51, T53, T54, T56, T58, T60, T62	18	G10, G14, G16, G17	4
Category C	T2, T3, T4, T6, T8, T9, T10, T11, T12, T13, T14, T15, T16, T17, T18, T20, T23, T26, T28, T34, T36, T37, T38, T39, T41, T42, T45, T50, T52, T55, T57, T61, T63, T65, T66	35	G1, G2, G3, G4, G5, G6, G7, G8, G9, G11, G12, G13, G15, G18, G19	15
	Total	65	Total	19

BS Category Tree Type Distribution displays the proportion of trees assessed in each type to enable a better understanding of the category distribution.

Age Distribution of Tree Stock shows the number of trees in each age category across the tree stock allowing assessment of their longevity to be made.



Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
INDIVIDUAL TREES										
T1	Ash Fraxinus excelsior	17	700	7	M	F	Basal suckers present Base obscured Branch stubs evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted Typical crown form	222	8.4	B (i)
T2	Crack Willow Salix fragilis	15	est 250 450	7	M	P	Branch stubs and broken branches evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) Situating within waterlogged ground adjacent to pond One stem leans significantly to the east Sparse crown	120	6.2	C (i)
T3	Ash Fraxinus excelsior	16	780	8	M	F	Branch stubs and broken branches evident Close cultivation of the soil Epicormic growth evident within the crown Light ivy cover on main stem Minor and major dead wood evident in the crown	275	9.4	C (i)
T4	Ash Fraxinus excelsior	6	200	2	SM	F	Branch stubs evident Crossing and rubbing branches Minor dead wood evident in the crown (<75mm)	18	2.4	C (i)
T5	Crack Willow Salix fragilis	16	1510	7	V	F	Bark wounds noted Basal cavity observed Basal suckers present Branch stubs and broken branches evident Crossing and rubbing branches Epicormic growth composes vast majority of the crown Minor and major dead wood evident in the crown Pruning wounds noted Multiple tear outs and failed branches Dense undergrowth at base Large sections of deadwood and crown on the floor Large sections of major deadwood hung up in the crown	1612	22.7	A (iii)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T6	Ash Fraxinus excelsior	13	560 300	6	EM	F	Branch stubs evident Crossing and rubbing branches Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) Twin stemmed from base	183	7.6	C (i)
T7	Ash Fraxinus excelsior	9	est 350	4	EM	F	Branch stubs evident Crossing and rubbing branches Minor dead wood evident in the crown (<75mm) Base obscured No major defects were noted Dense crown	55	4.2	B (i)
T8	Holly Ilex aquifolium	5	est 200	2	M	F	Base obscured Crossing and rubbing branches Low crown form	18	2.4	C (i)
T9	Ash Fraxinus excelsior	8	est 250	3	SM	F	Branch stubs evident Minor dead wood evident in the crown (<75mm) No major defects were noted	28	3.0	C (i)
T10	Ash Fraxinus excelsior	11	est 300	5	EM	F	Basal suckers present Branch stubs evident Crossing and rubbing branches Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm)	41	3.6	C (i)
T11	Ash Fraxinus excelsior	16	660	6	M	F	Branch stubs and broken branches evident Dieback of the crown observed Epicormic growth evident within the crown Light ivy cover on main stem Minor and major dead wood evident in the crown	197	7.9	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T12	Ash Fraxinus excelsior	17	est 660	7	M	F	Branch stubs and broken branches evident Dense ivy cover on main stem Epicormic growth evident within the crown Minor and major dead wood evident in the crown Vigorous crown	197	7.9	C (i)
T13	Ash Fraxinus excelsior	15	est 680	5	M	F	Branch stubs and broken branches evident Dense ivy cover on main stem Epicormic growth evident within the crown Minor and major dead wood evident in the crown Failed branch to the north	209	8.2	C (i)
T14	Ash Fraxinus excelsior	9	260	4	SM	F	Even crown form Included bark union No major defects were noted	31	3.1	C (i)
T15	Ash Fraxinus excelsior	8	280 170	4	EM	F	Even crown form Light ivy cover on main stem No major defects were noted Twin stemmed from base	49	3.9	C (i)
T16	Ash Fraxinus excelsior	6	est 250 150	N - 1 S - 3 E - 1 W - 1	EM	P	Base obscured Close cultivation of the soil Dieback of the crown observed Minor and major dead wood evident in the crown	38	3.5	C (i)
T17	Ash Fraxinus excelsior	10	330	5	EM	P	Branch stubs and broken branches evident Close cultivation of the soil Dense ivy cover on main stem Sparse / thinning crown	49	4.0	C (i)
T18	Horse Chestnut Aesculus hippocastanum	5	220	3	SM	P	Branch stubs evident Close cultivation of the soil Crossing and rubbing branches Dense ivy cover on main stem Epicormic growth evident within the crown Flail damage evident	22	2.6	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T19	Ash Fraxinus excelsior	6	600	N - 4 S - 3 E - 3 W - 0	M	P	Base obscured Branch stubs and broken branches evident Crossing and rubbing branches Dense ivy cover on main stem Epicormic growth evident within the crown Low crown form Major failure of main stem leaving only lower basal growth	N/A	N/A	U
T20	Ash Fraxinus excelsior	10	est 280	4	SM	F	Branch stubs and broken branches evident Epicormic growth evident within the crown Flail damage evident Minor dead wood evident in the crown (<75mm)	35	3.4	C (i)
T21	English Oak Quercus robur	18	750	N - 2 S - 8 E - 3 W - 6	M	F	Branch stubs evident Low crown form Minor dead wood evident in the crown (<75mm) No major defects were noted Poached ground at the base Suppressed crown to the north	254	9.0	B (i)
T22	Horse Chestnut Aesculus hippocastanum	18	760	N - 6 S - 3 E - 2 W - 6	M	F	Branch socket cavities observed Branch stubs evident Low crown form No major defects were noted Poached ground at the base Suppressed crown to the east Barbed wire included into the stem	261	9.1	B (i)
T23	Ash Fraxinus excelsior	7	est 250	2	SM	F	No major defects were noted Typical crown form Branch stubs Broken branches	28	3.0	C (i)
T24	Ash Fraxinus excelsior	9	est 800	N - 1 S - 4 E - 1 W - 1	M	P	Basal cavity observed Basal suckers present Major failure of main stem leaving only lower basal growth	N/A	N/A	U
T25	English Oak Quercus robur	4	est 800	0	M	D	Standing dead stump	N/A	N/A	U

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T26	Ash Fraxinus excelsior	6	260	2	SM	P	Wire fence included within stem Stem entirely split vertically, trying to occlude	31	3.1	C (i)
T27	Ash Fraxinus excelsior	20	790	8	M	F	Epicormic growth evident within the crown Low crown form Minor dead wood evident in the crown (<75mm) No major defects were noted Typical crown form Hazard beams present Poached ground at base Branch socket cavities Light ivy cover on the main stem Sparse / thinning crown Exposed roots	282	9.5	B (i)
T28	Ash Fraxinus excelsior	14	360	3	EM	P	Branch socket cavities observed Branch stubs evident Dieback of the crown observed Epicormic growth evident within the crown Minor and major dead wood evident in the crown	59	4.3	C (i)
T29	Ash Fraxinus excelsior	16	650	7	M	F	Branch stubs evident Broken branches evident Epicormic growth evident within the crown Light ivy cover on main stem Minor dead wood evident in the crown (<75mm) Fallen deadwood at base	191	7.8	B (i)
T30	Ash Fraxinus excelsior	17	660	N - 2 S - 8 E - 8 W - 8	M	F	Branch stubs evident Broken branches evident Dense ivy cover on main stem has been severed Epicormic growth evident within the crown Low crown form Minor and major dead wood evident in the crown (<and>75mm)	197	7.9	B (i)
T31	Ash Fraxinus excelsior	15	est 500	0	M	P	Failed at ground level Stump remains	N/A	N/A	U

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T32	English Oak Quercus robur	18	810	8	M	F	Branch stubs evident Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted Typical crown form Barbed wire occluded in main stem Poached ground at base	297	9.7	A (i)
T33	English Oak Quercus robur	8	270	3	SM	F	No major defects were noted Typical crown form	33	3.2	B (i)
T34	Ash Fraxinus excelsior	12	est 260 230 180 150	5	EM	F	Crossing and rubbing branches Low crown form Multi stemmed from base Vigorous crown	79	5.0	C (i)
T35	English Oak Quercus robur	14	690	5	M	F	Branch stubs evident Epicormic growth evident within the crown Minor and major dead wood evident in the crown (<and>75mm) Multi leadered form No major defects were noted	215	8.3	B (i)
T36	Ash Fraxinus excelsior	15	600	N - 6 S - 6 E - 4 W - 2	M	P	Branch socket cavities observed Crossing and rubbing branches Epicormic growth evident within the crown Large tear out at 3m to the west Retrenched crown outline forming	163	7.2	C (i)
T37	Ash Fraxinus excelsior	11	190 190 190	3	EM	F	Crossing and rubbing branches Minor dead wood evident in the crown (<75mm) Multi stemmed from base Vigorous crown	49	3.9	C (i)
T38	Ash Fraxinus excelsior	13	est 500	5	M	F	Branch socket cavities observed Crossing and rubbing branches Minor dead wood evident in the crown (<75mm) Sparse / thinning crown	113	6.0	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T39	Ash Fraxinus excelsior	5	est 400	1	M	P	Epicormic growth evident within the crown Failure of main stem with regrowth	72	4.8	C (i)
T40	Sycamore Acer pseudoplatanus	11	est 470	6	M	F	Basal suckers present Branch socket cavities observed Epicormic growth evident within the crown Minor dead wood evident in the crown (<75mm) No major defects were noted Typical crown form	100	5.6	B (i)
T41	Sycamore Acer pseudoplatanus	13	est 390 390	6	M	F	Crossing and rubbing branches Included bark union Minor dead wood evident in the crown (<75mm) Twin stemmed from base Signs of separation to base	138	6.6	C (i)
T42	Ash Fraxinus excelsior	8	280	2	SM	F	Crossing and rubbing branches Dense undergrowth at the base	35	3.4	C (i)
T43	Smooth-leaved elm Ulmus minor subsp. Minor	12	320 320 350	7	M	F	Branch stubs evident Broken branches evident Crossing and rubbing branches and stems Minor dead wood evident in the crown (<75mm) Multi stemmed from base	148	6.9	B (i)
T44	Common Lime Tilia x europaea	3	480	1	EM	P	Bark wounds noted Epicormic growth evident within the crown Heartwood exposed Minor dead wood evident in the crown (<75mm) Poached ground at the base Specimen in extensive decline	N/A	N/A	U

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T45	Ash Fraxinus excelsior	16	370 570	8	M	F	Branch stubs evident Broken branches evident Dieback of the crown observed Low crown form Minor and major dead wood evident in the crown Twin stemmed from base Daldinia concentrica King Alfreds Cakes present	209	8.2	C (i)
T46	Sycamore Acer pseudoplatanus	8	250 200	3	EM	P	Bark wounds noted Browsing damage noted on main stem Dieback of the crown observed Minor and major dead wood evident in the crown Sparse crown	N/A	N/A	U
T47	Common Lime Tilia x europaea	3	370	1	EM	P	Bark wounds noted Browsing damage noted on main stem Epicormic growth evident within the crown Minor and major dead wood evident in the crown Specimen in extensive decline	N/A	N/A	U
T48	Tree no longer present									
T49	Tree no longer present									
T50	Ash Fraxinus excelsior	6	150 100	2	SM	F	Self seeded specimen on site boundary	15	2.2	C (i)
T51	Ash Fraxinus excelsior	11.5	est 338	5	EM	F	Base obscured Situated within boundary hedgerow	52	4.1	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T52	Sycamore Acer pseudoplatanus	9	est 7x 130	3	M	F	Base obscured Multi stemmed from base Coppiced specimen situated within hedgerow	54	4.1	C (ii)
T53	English Oak Quercus robur	15	540	N - 1 S - 10 E - 5 W - 10	EM	F	Recent pruning to raise crown to east suppressed by adjacent tree to north minor die back noted in crown with minor deadwood	132	6.5	B (i)
T54	Ash Fraxinus excelsior	15	est 750	N - 9 S - 9 E - 6 W - 9	M	F	Base obscured Dense ivy cover on main stem Dieback of the crown observed Minor dead wood evident in the crown (<75mm) Ivy should be severed and removed to allow for visual assessment	254	9.0	B (i)
T55	Hawthorn Crataegus monogyna	6	200	4	M	F	Outgrown hedgerow specimen	18	2.4	C (i)
T56	Ash Fraxinus excelsior	12	400	N - 6 S - 4 E - 4 W - 6	EM	F	Base obscured Dense ivy cover on main stem Dieback of the crown observed Minor dead wood evident in the crown (<75mm) Interlocking crown with adjacent tree	72	4.8	B (i)
T57	Ash Fraxinus excelsior	12	300 150	N - 2 S - 5 E - 2 W - 5	EM	F	Base obscured Dense ivy cover on main stem Dieback of the crown observed Minor dead wood evident in the crown (<75mm) Suppressed by adjacent tree	51	4.0	C (i)
T58	Ash Fraxinus excelsior	15	365	4	EM	F	Light ivy cover High crown form to east	60	4.4	B (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T59	Ash Fraxinus excelsior	12	250 200 180	5	M	P	Dieback of the crown observed Limited future potential Minor dead wood evident in the crown (<75mm) Multi stemmed from base Sparse / thinning crown Specimen in decline	N/A	N/A	U
T60	Ash Fraxinus excelsior	14	490	N - 4 S - 4 E - 6 W - 6	EM	F	Base obscured Dense ivy cover on main stem Minor dead wood evident in the crown (<75mm)	109	5.9	B (i)
T61	Ash Fraxinus excelsior	13	est 200	N - 3 S - 1 E - 5 W - 5	SM	P / F	Basal suckers present Base obscured Suppressed crown form	18	2.4	C (i)
T62	Ash Fraxinus excelsior	14	400 300	N - 3 S - 8 E - 7 W - 6	M	F	Base obscured Dense ivy cover on main stem Flail damage evident on eastern stem Minor dead wood evident in the crown (<75mm) Twin stemmed from base	113	6.0	B (i)
T63	Ash Fraxinus excelsior	7	325	4	EM	P	Basal suckers present Base obscured Dieback of the crown observed Minor dead wood evident in the crown (<75mm) Stunted specimen	48	3.9	C (i)
T64	Ash Fraxinus excelsior	13	est 1000	N - 6 S - 4 E - 6 W - 6	OM	P	Base obscured Remnant stem with established regrowth Hollow from ground level up to 6m Approximately half of stem had rotted away Remaining stem structurally compromised Within falling distance of overhead power lines	N/A	N/A	U
T65	Ash Fraxinus excelsior	14	435	N - 11 S - 1 E - 3 W - 7	EM	P	Heavily suppressed by adjacent trees Main stem develops at 60 degree angle to north Low crown to 2m above ground level	86	5.2	C (i)
T66	Sycamore Acer pseudoplatanus	7	est 200	4	SM	F	Self seeded specimen Dense undergrowth around base did not allow for visual assessment	18	2.4	C (i)

Tree No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
T67	English Oak Quercus robur	18	est 1500	12	M	F	Pruning wounds noted Situated offsite Storm damage present Unable to gain access offsite by circa 4m within rear garden Large tear out wounds	707	Capped at 15m	A (i)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
GROUPS OF TREES										
G1	Blackthorn Prunus spinosa Elder Sambucus nigra Goat Willow Salix caprea Hawthorn Crataegus monogyna Holly Ilex aquifolium	5	avg 100 100	2	EM / M	F	Branch stubs evident Close cultivation of the soil Crossing and rubbing branches Dense ivy cover on main stems Flail damage evident Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Un-maintained hedgerow	9	1.7	C (ii)
G2	Ash Fraxinus excelsior Blackthorn Prunus spinosa Crack willow Salix fragilis Elder Sambucus nigra Hawthorn Crataegus monogyna English Elm Ulmus procera Holly Ilex aquifolium	up to 16	330 340 280	5	EM / M	F	Branch stubs and broken branches evident Close cultivation of the soil Crossing and rubbing branches Dense ivy cover on main stems Dieback of the crowns observed Flail damage evident Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Dead trees noted within group	137	6.6	C (ii)
G3	Ash Fraxinus excelsior Blackthorn Prunus spinosa Hawthorn Crataegus monogyna Midland Hawthorn Crataegus laevigata	5	avg 100 100 100	3	EM / M	F	Branch stubs and broken branches evident Crossing and rubbing branches Flail damage evident Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Un-maintained hedgerow Occasional outgrown ash specimen	14	2.1	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G4	Ash Fraxinus excelsior Blackthorn Prunus spinosa Hawthorn Crataegus monogyna	4	avg 100 100 100	2	EM / M	F	Branch stubs and broken branches evident Crossing and rubbing branches Dead trees noted Flail damage evident Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Un-maintained hedgerow Old laid forms present Occasional outgrown ash specimen	14	2.1	C (ii)
G5	Blackthorn Prunus spinosa Elder Sambucus nigra Hawthorn Crataegus monogyna	5	avg 6x 70	2	EM / M	F	Branch stubs evident Crossing and rubbing branches Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Multi stemmed from base	13	2.1	C (ii)
G6	Blackthorn Prunus spinosa Elder Sambucus nigra Hawthorn Crataegus monogyna	4	avg 8x 80	3	EM / M	F	Crossing and rubbing branches Gaps present in tree cover Interlocking crowns Low crown forms Multi stemmed from base Un-maintained hedgerow Offers screen to new development	23	2.7	C (ii)
G7	Elder Sambucus nigra Hawthorn Crataegus monogyna	4	avg 100 100 100	3	EM / M	F/P	Crossing and rubbing branches Interlocking crowns Low crown forms Multi stemmed from base Un-maintained hedgerow	14	2.1	C (ii)
G8	Ash Fraxinus excelsior	16	upto 470	5	EM	F	Bark wounds noted Branch stubs and broken branches evident Crossing and rubbing branches Epicormic growth evident within the crown Interlocking crowns Low crown forms Minor dead wood evident in the crowns (<75mm) Single stem forms Woodpecker holes observed 6 trees in group Inonotus hispidus Shaggy bracket present	100	5.6	C (iii)

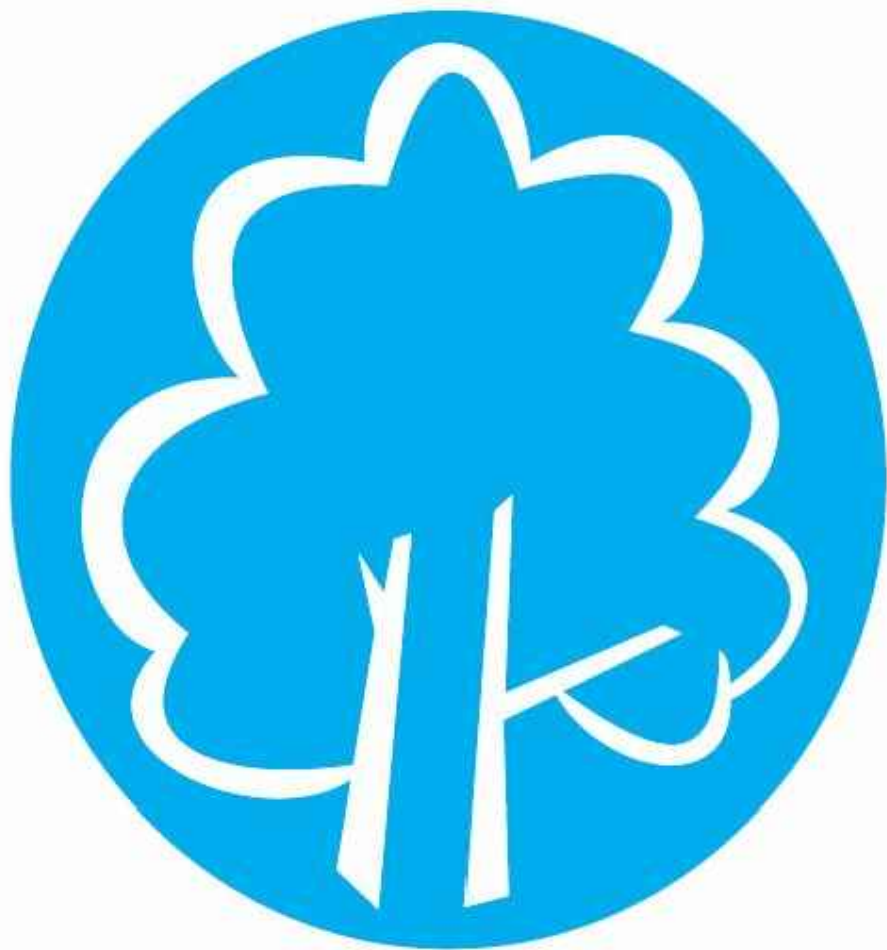
Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G9	Ash Fraxinus excelsior Common Lime Tilia x europaea Hawthorn Crataegus monogyna Horse Chestnut Aesculus hippocastanum Sycamore Acer pseudoplatanus Wild Cherry Prunus avium False Acacia Robinia pseudoacacia Holly Ilex aquifolium Purple Plum Prunus cerasifera Pissardii Scots Pine Pinus sylvestris Highclere Holly Ilex x altaclerensis	16	est 350	4	EM / M	P	Basal suckers present Branch socket cavities observed Branch stubs and broken branches evident Crossing and rubbing branches Dieback of the crowns observed Epicormic growth evident within the crown Interlocking crowns Low crown forms Minor and major dead wood evident in the crowns Group of trees associated with derelict house Approximately 13 trees Major decline with sparse and retrenching forms One healthy ash tree remains Situated within gardens of new houses	55	4.2	C (ii)
G10	Hawthorn Crataegus monogyna Holly Ilex aquifolium	6	100	1	EM	F	Outgrown hedgerow Maintained up to 4m field side moderate screening from adjacent rear gardens	5	1.2	B (ii)
G11	Ash Fraxinus excelsior	12	upto 7x 150	3	M	F	Base obscured Multi stemmed from base Two coppiced specimens within boundary hedgerow	71	4.8	C (ii)
G12	Crack Willow Salix fragilis English Oak Quercus robur	4	avg 100	1.5	SM	F	Recently planted as part of adjacent development No obvious aftercare and becoming suppressed by undergrowth	5	1.2	C (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G13	Ash Fraxinus excelsior Elder Sambucus nigra English Oak Quercus robur Hawthorn Crataegus monogyna Apple Malus domestica Holly Ilex aquifolium	7	avg 120	1.5	SM / EM	P	Scrappy boundary tree cover Unmaintained Dense undergrowth throughout	7	1.4	C (ii)
G14	Ash Fraxinus excelsior	15	upto 300	7	EM	F	Four trees situated beyond site boundary Dense ivy cover on main stem Minor dead wood evident in the crown (<75mm) Storm damage present	41	3.6	B (ii)
G15	Ash Fraxinus excelsior Elder Sambucus nigra Hawthorn Crataegus monogyna Holly Ilex aquifolium	5	est 120	2	EM	F	Outgrown un-maintained hedgerow Dense undergrowth at the base	7	1.4	C (ii)
G16	Ash Fraxinus excelsior	17	upto 450	7	M	F	Two trees within boundary hedgerow Easternmost specimen has lost most of its leaves by end September Minor dead wood evident in the crown (<75mm) Storm damage present	92	5.4	B (ii)
G17	Ash Fraxinus excelsior	16	upto 750	7	M	F	Two trees situated either side of gate Base obscured Branch socket cavities observed Major dead wood evident in the crown (>75mm) Minor dead wood evident in the crown (<75mm) Pruning wounds noted Storm damage present	254	9.0	B (ii)

Group No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
G18	Ash Fraxinus excelsior Blackthorn Prunus spinosa Elder Sambucus nigra Hawthorn Crataegus monogyna Holly Ilex aquifolium	6	upto 150 150 150	3	M	P / F	Outgrown un-maintained hedgerow Gaps present in hedgerow Crowns to ground level Dense undergrowth throughout	31	3.1	C (ii)
G19	Blackthorn Prunus spinosa	3	est 50	2	EM	P	Self seeded thicket within site boundary	1	0.6	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
HEDGEROWS										
H1	Hawthorn Crataegus monogyna	1.2	est 60 60 60	1	SM	F	Branch stubs evident Crossing and rubbing branches Flail damage evident Maintained hedgerow	5	1.2	C (ii)
H2	Blackthorn Prunus spinosa Hawthorn Crataegus monogyna English Elm Ulmus procera Holly Ilex aquifolium	2	est 100 100 100	3	M	F	Branch stubs evident Close cultivation of the soil Crossing and rubbing branches Dense ivy cover on main stem Flail damage evident Maintained hedgerow	14	2.1	B (ii)
H3	Elder Sambucus nigra Hawthorn Crataegus monogyna Holly Ilex aquifolium	3	avg 100 100	2	EM	F	Branch stubs and broken branches evident Crossing and rubbing branches Dead trees noted Dense ivy cover on main stems Flail damage evident Gaps present in hedgerow Minor dead wood evident in the crowns (<75mm) Un-maintained hedgerow	9	1.7	C (ii)
H4	Blackthorn Prunus spinosa Hawthorn Crataegus monogyna	1.2	est 6x 60	2	EM	F	Branch stubs evident Crossing and rubbing branches Flail damage evident Maintained hedgerow Old laid forms present Over run by brambles in places Unmaintained for a while	10	1.8	C (ii)

Hedge No	Species	Height	Stem Dia.	Crown Radius	Age Class	Overall Condition	Structural Condition	RPA	RPA Radius	BS5837 Cat
H5	Ash Fraxinus excelsior Blackthorn Prunus spinosa Elder Sambucus nigra Hawthorn Crataegus monogyna English Elm Ulmus procera Holly Ilex aquifolium	2	est 100 100 100	2	M	F	Branch stubs evident Close cultivation of the soil Crossing and rubbing branches Dense ivy cover on main stems Flail damage evident Gaps present in hedgerow Maintained hedgerow	14	2.1	B (ii)
H6	Hawthorn Crataegus monogyna Holly Ilex aquifolium	1.2	est 6x 60	2	M	F	Branch stubs evident Close cultivation of the soil Crossing and rubbing branches Flail damage evident Maintained hedgerow	10	1.8	B (ii)
H7	Elder Sambucus nigra Hawthorn Crataegus monogyna English Elm Ulmus procera	1.5	est 6x 60	2	EM	F	Crossing and rubbing branches Gaps present in hedgerow Maintained hedgerow	10	1.8	B (ii)
H8	Ash Fraxinus excelsior Blackthorn Prunus spinosa Elder Sambucus nigra Hawthorn Crataegus monogyna Holly Ilex aquifolium	1.5	est 80	1	EM	F	Dense undergrowth at the base Maintained hedgerow Ash dieback noted within hedgerow	3	1.0	C (ii)



PROTECTIVE FENCING. THIS FENCING MUST BE MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND DRAWINGS FOR THIS DEVELOPMENT.



**TREE PROTECTION AREA
KEEP OUT !**
(TOWN & COUNTRY PLANNING ACT 1990)
TREES ENCLOSED BY THIS FENCE ARE PROTECTED BY PLANNING CONDITIONS AND/OR ARE THE SUBJECTS OF A TREE PRESERVATION ORDER.
CONTRAVENTION OF A TREE PRESERVATION ORDER MAY LEAD TO CRIMINAL PROSECUTION
ANY INCURSION INTO THE PROTECTED AREA MUST BE WITH THE WRITTEN PERMISSION OF THE LOCAL PLANNING AUTHORITY

The following points are to be considered at all times:

1. Protective fencing has been installed at the extent of the calculated root protection area (RPA) - **DO NOT USE OR ACCESS** the ground within the fenced area. This is particularly the case for placement of site offices, stockpiles of soil or fuel and material storage, storing machinery or parking vehicles, debris or building materials or fires.
2. **AVOID** excavations, changes in ground levels or tracking machinery within the fenced area at ALL TIMES. These activities can seriously compromise the long term survival of trees due to the impact on a trees roots.
3. **REPORT** any instances where the fencing has been removed, repositioned, damaged or is not fit for purpose to the Site Manager. This shall help the Site Manager to ensure that the fencing is maintained throughout the construction process. It will also reduce the risk of any staff and contractors accidentally and inadvertently causing damage to trees as a result.

Retained trees are protected by planning law and reckless damage or non consented tree removal could result in the serving of a stop notice or prosecution by the LPA



For more information on Tree Protection please visit the website link <https://goo.gl/hpBkTv> or scan the QR code on a Smartphone or Tablet.

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masterplanning
environmental assessment
landscape design
urban design
ecology
architecture
arboriculture
FPCR Environment and Design Ltd
Lockington Hall
Lockington
Derby DE74 2RH
t: 01509 672772
f: 01509 674565
e: mail@fpcr.co.uk
w: www.fpcr.co.uk

Appendix C1: Tree Surgery Contractors – Tree Work Methodology

Table 1: Related Reference Material

Plan Name	Drawing Number
Tree Protection Plans	6675-TPP-01, 02 & 03
Appendices	Appendix Title
Appendix A	Tree Schedule

The Site Manager and tree surgery contractor must ensure that any necessary consent has been received from the local authority and that no protected species are harmed whilst carrying out site clearance or tree surgery works.

The trees to be removed to facilitate the development will be marked up by the Arboricultural Clerk of Works during the pre-commencement site meeting and, where required, with the tree surgeon present. Highly visible fluorescent paint will be used to assist in identification. A pre-commencement tool box talk will be given and the works will only be carried out once the project ecologist is satisfied that there are no ecological constraints.

The trees to be removed are shown on the Tree Retention Plans (referenced above) as red circles hatched with red criss-crossing lines. A key has been provided on each of the plans to assist with identification.

Works on all trees cannot commence until all pre-commencement conditions have been discharged.

GENERAL TREE PRUNING RECOMMENDATIONS

All works shall be in accordance with BS 3998:2010 '*Tree work. Recommendations*'. Any competent arboriculturist will be aware of this publication and will be able to carry out work to the required standard. Therefore, the use of a competent tree surgery contractor is necessary to comply with this.

Prior to any pruning operations occurring, the tree and its surroundings should be assessed for the presence of any protected species and the timing of works should best avoid the potential for any adverse impact on wildlife. Consideration should be made for the seasonal cycles of species of fauna and flora e.g. nesting birds.

Minor pruning can be carried out at any time of the year however, it is recommended that pruning is avoided when deciduous trees, particularly maples, lime and birch are coming into leaf (Spring). Equally, pruning should be avoided in the autumn months when the trees ability to seal wounds is reduced and thus vulnerability to pathogenic decay fungi is much higher. Pruning in the Autumn depletes valuable energy reserves. This is particularly important if it is necessary to carry out heavy pruning or work on older trees. Pruning should also be avoided during or soon after drought.

Before any tree work operations commence, the method of disposal, utilization or retention of arisings should be prior agreed. Disposal of arising should not involve burning unless other options of disposal are impracticable or, as in the case of Ash Dieback, the material is affected by a diseases or pest for which industry guidance on sanitation dictates.

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Details of Directors and Associates are available on our website.

Offices also at
Addlepool Business Centre, Clyst St George, Exeter, Devon EX3 0NR Tel: 01392 874499
Studio 2 Dunley Hill Court, Dunley Hill Farm, Ranmore, Dorking, Surrey RH5 6SX Tel: 01483 282523
and York Biotech Campus, Sand Hutton, York YO41 1LZ Tel: 01904 406112

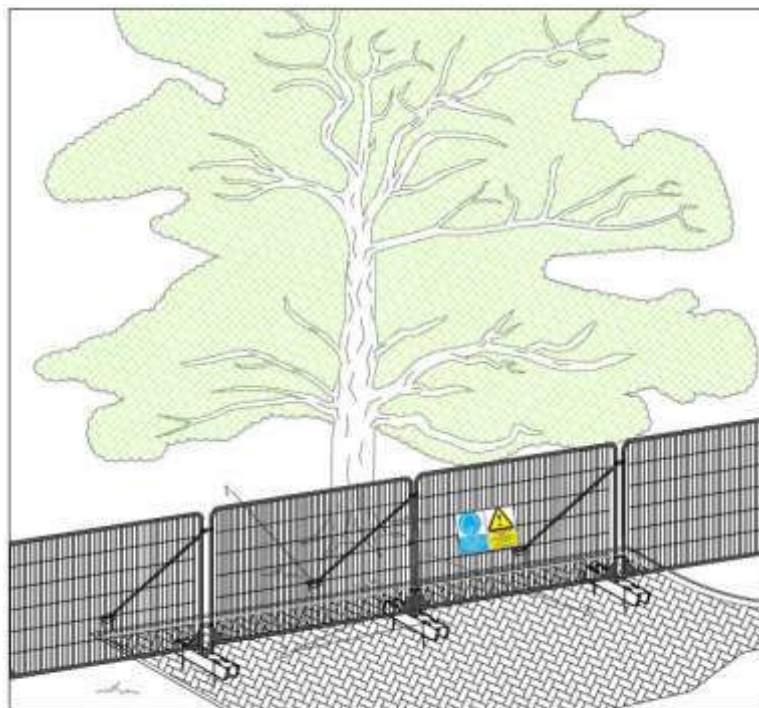


Installation Guide

- The scaffold framework shall comprise of upright poles of at least 3.0 metres in length driven no less than 0.6 metres into the ground at maximum 3.0 metre centres with horizontal and diagonal poles fixed to the uprights.
- The two horizontal rail poles shall be attached to the uprights at heights of 0.6 and 1.8 metres with clamps to each joint.
- The diagonal scaffold pole struts shall be clamped to the top rail of the scaffold framework at a 45° angle and extend back into the root protection area and clamped to a 0.7 metre length of scaffold tube that shall be driven no less than 0.5m into the ground.
- No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts.

TEMPORARY FENCING SPECIFICATION

This fencing specification shall only be used where specified on the relevant Tree Protection Plans as is not to be used as an alternative to the standard specification unless determined by the Arboricultural Clerk of Works.



Standard Specification for Above Ground Stabilizing Systems
 1. Stabiliser strut with base plate secured with ground pins
 2. Feet blocks secured with ground pins
 3. Construction Exclusion Zone signs

Heras Fence Panel to be supported by rubberised stabiliser blocks with a base plate which is secured to the ground using ground pins (as shown above).

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 and York Biotech Campus, Sand Hutton, York YO41 1LZ Tel: 01904 406112



GENERAL TREE PROTECTIVE FENCING METHODOLOGY

The fencing will be strong and suitable for the location, type and proximity of construction activity and prevent access of machinery, plant or operative beyond the area required to construct the development.

Tree Protection Fencing and work exclusion zones will be clearly marked using appropriate signage, an example of which has been included as Appendix B. These signs shall be laminated to ensure they last the duration of the construction works and shall be fixed to the fencing panels every 10 metres along its length.

All Tree Protective Fencing will remain rigid and in place for the duration of the development and should be inspected at weekly intervals by the Site Manager alongside regular inspections to be carried out by the Arboricultural Clerk of Works.

Following the completion of construction works and in agreement with the Arboricultural Clerk of Works, the Tree Protection Fencing will be removed carefully as to avoid causing root disturbance or leaving in situ any lengths of scaffold framework. This operation can be carried out prior to soft landscaping works such as new planting, mulching grass sowing etc.

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Offices also at
Addlepool Business Centre, Clyst St George, Exeter, Devon EX3 0NR Tel: 01392 874499
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and York Biotech Campus, Sand Hutton, York YO41 1LZ Tel: 01904 406112



Appendix C3: Excavation Under Supervision – Working Methodology

Table 1: Related Reference Material

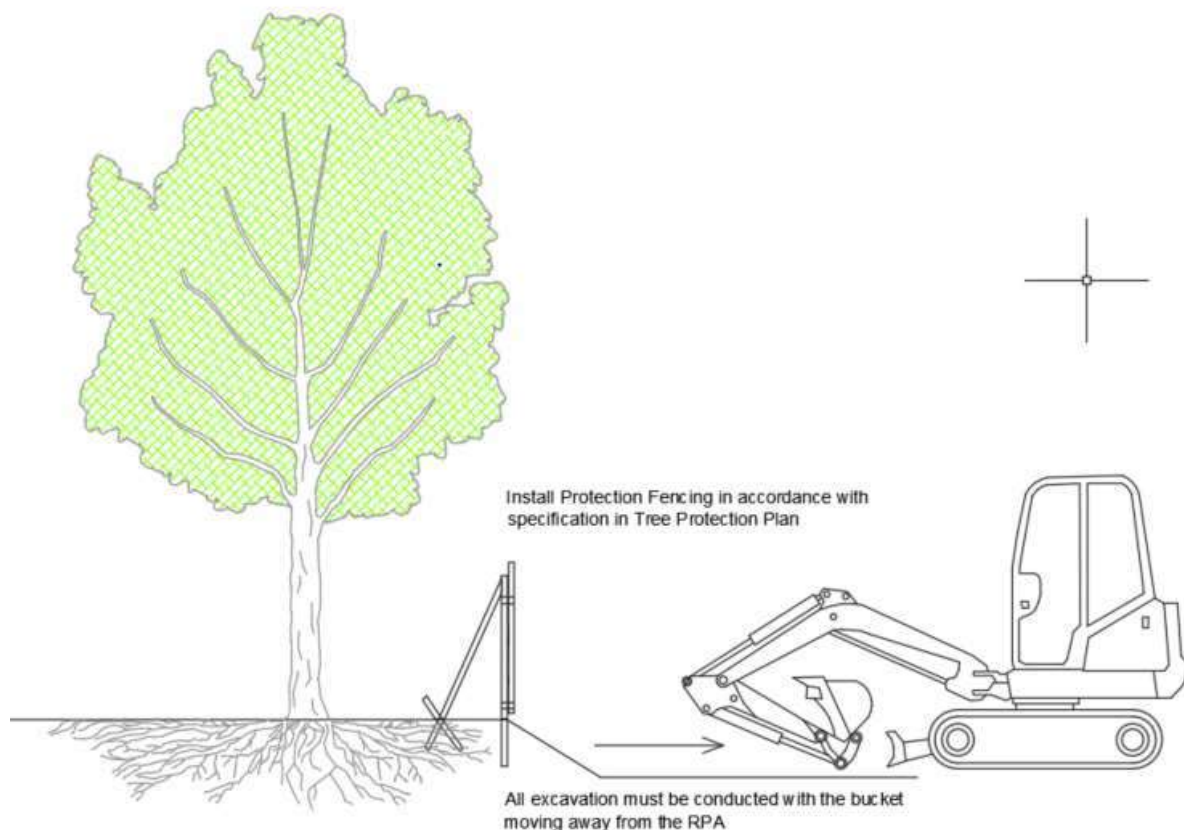
Plan Name	Drawing Number
Tree Protection Plans	6675-TTP-01, 02 & 03

The purpose of the Method Statement is to ensure that damage to the rooting area of all retained trees is protected from unnecessary damage. Due to the requirement for excavation within the root protection areas of T1, T13, T21, T22, T30, T32, T45, T54, T60, T62, T132, T133, G4, G7, G9 and H6.

it is not possible to use “no-dig” construction for all proposed works.

The cutting of roots shall not entirely be avoidable during the removal of existing ground material to construct the certain parts of access road and residential plots. As such the excavation of this material is to be carried out under the supervision of the project Arboriculturalist. Any roots located / identified during these works shall be pruned back to the face of the trench as they became exposed. Roots shall be wrapped with hessian material, which is to be kept damp, until the area can be back filled.

Tree Protection Fencing positioned as shown on the Tree Protection Plans is not to be removed or moved back. No heavy machinery is to be positioned within the RPA of the tree and excavation is to be carried out with bucket of the excavator moving away from the tree.



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Offices also at
 Addlepool Business Centre, Clyst St George, Exeter, Devon EX3 0NR Tel: 01392 874499
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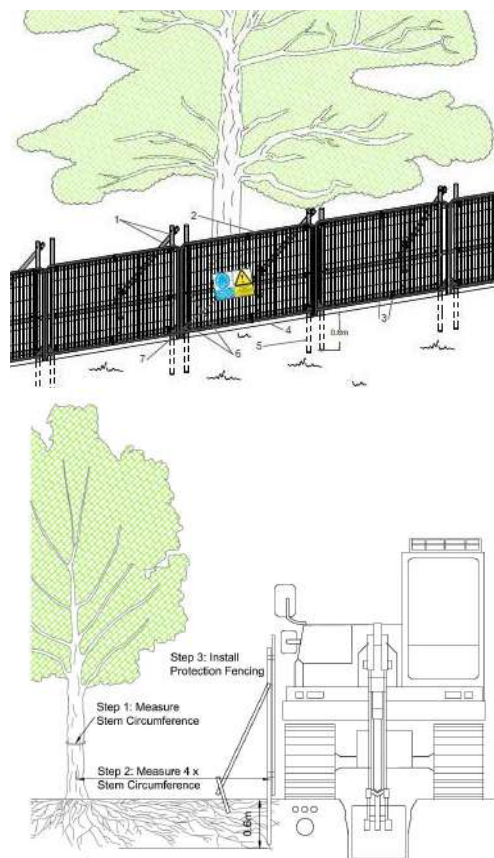
WHAT YOU NEED TO KNOW ABOUT WORKING NEAR TREES

This advice note provides a brief overview of the methods of protection for trees located across the site. Compliance with these guidelines will be a requirement of all contractors working near retained trees.

Any construction works which are to be carried out near to or within the fenced off areas should be carried out in accordance with the Arboricultural Method Statement and as explained by the Site Manager during the site induction. Failure to adhere to the correct sequence, manner and timing of operations detailed in the Arboricultural Method Statement may result in irremediable damage to trees or disturbance to retained tree cover.

Retained trees are protected by planning law and reckless damage or non consented tree removal could result in the serving of a stop notice or prosecution by the LPA.

Trees make a significant contribution to the landscape character of the development and they are to be treated as important assets. To protect these assets, tree protective fencing has been installed where required across the site.



The following points are to be considered at all times.

1. Protective fencing has been installed at the extent of the calculated root protection area (RPA) - **Do not use or access** the ground within the fenced area. This is particularly the case for placement of site offices, stockpiles of soil or fuel and material storage, storing machinery or parking of vehicles, debris or building materials or fires.
2. **Avoid** excavations, changes in ground levels or tracking of machinery within the fenced area at **all times**. These activities can seriously compromise the long term survival of trees due to the impact on a trees roots.
3. **Report** any instances where the fencing has been removed, repositioned, damaged or is not fit for purpose (see images below) to the Site Manager. This shall help the Site Manager to ensure that the fencing is maintained throughout the construction process. It will also reduce the risk of any staff and contractors accidentally and inadvertently causing damage to trees as a result.



Unacceptable example of tree protection due to a lack of adequate fencing and poor site management. Note mounds of soil have been placed within the Root Protection Area.



Tree Protection Fencing which has been erected prior to the commencement of any site works and the correct signage has been provided to clearly highlight that this is a protected zone.

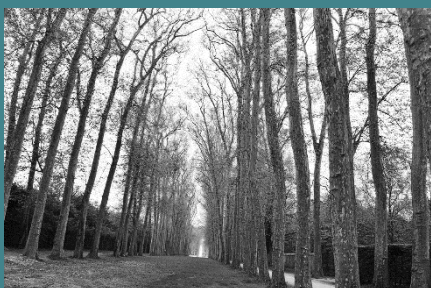
Please acknowledge you have read and understand this document by visiting the website <http://bit.ly/2EprKu8> or scanning the QR Code on a Smartphone or Tablet.



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APPENDIX C: Biodiversity Management Plan

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Biodiversity Management Plan

Client

Jelson Ltd

Project

**Land at Lower Grange Farm,
Markfield (Phase 2)**

Date

March 2025

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Figure 1: Species Enhancement Plan

Rev	Issue Status	Prepared/Date	Approved/Date
-	Final	IMS/26/02/25	JAW/06/03/25

1.0 INTRODUCTION

1.1 This Management Plan has been prepared by FPCR Environment & Design Ltd. on behalf of Jelson Ltd. in relation to Phase 2 of a development at Lower Grange Farm, Markfield in Leicestershire (Planning Permission 24/00074/CONDIT). In September 2021, Hinckley and Bosworth Borough Council granted full planning permission for the construction of up to 282 homes and associated infrastructure. This document has been prepared to address Conditions 8 and 9 in association with Phase 2 of the proposed development.

1.2 The approval is subject to the following two conditions:

Condition 8 (Biodiversity Management Plan)

No development shall commence above damp-proof course level in Phases 2, 3 and 4 until a landscape and biodiversity management plan has been submitted to and approved in writing by the Local Planning Authority. Phase 1 shall be carried out in accordance with the details - C9, C10 & C29 Landscape Management Plan Rev B received 27 July 2022 and C9 & C10 Biodiversity Management Plan received 9 December 2021 as part of the Discharge of Condition decision reference 21/01467/DISCON.'

Condition 9 (Sustainable Urban Drainage Scheme)

'No development shall take place within Phases 2, 3 and 4 until full details of the SuDs for that phase have been submitted to and approved in writing to demonstrate how they have been designed to support wildlife habitat. The SuDs shall be completed in accordance with the agreed details by the occupation of the final dwelling in each phase. The SuDs in respect of Phase 1 shall be carried out in accordance with the details - C9, C10 & C29 Landscape Management Plan Rev B received 27 July 2022 and C9 & C10 Biodiversity Management Plan received 9 December 2021 as part of the Discharge of Condition decision reference 21/01467/DISCON.'

1.3 Along with the Landscape Management Plan (LMP)¹ produced by FPCR to inform discharge of Condition 29, this Biodiversity Management Plan (BMP) includes additional information to enable these two Conditions to be discharged for Phase 2 of the development. This document forms an Appendix to the LMP.

1.4 The production of the BMP has been informed by previously submitted documents including an Ecological Appraisal² and an Arboricultural Assessment³.

1.5 The LMP provide specifications for planting and seeding within the areas of open space associated with the development and how these will be managed.

1.6 The accompanying Figure 1: Ecological Enhancements Plan provides an illustration of measures identified in this document.

¹ FPCR (2025) Land at lower Grange Farm, Markfield Landscape Management Plan

² FPCR (2018) Land off London Road, Markfield Ecological Appraisal

³ FPCR (2020) land South of Markfield, Leicestershire Arboricultural Assessment

2.0 RETAINED HABITATS AND PROTECTION MEASURES

- 2.1 Phase 2 of the site comprised poor semi-improved grassland with localised areas of tall ruderal vegetation. Additional habitats on site consisted of areas of scattered scrub and mature trees occurring largely in association with the boundary hedgerows. A stream runs along the eastern boundary of the site.
- 2.2 Full details of habitats that are to be retained within the site are provided in the abovementioned LMP and Ecological Appraisal, although in summary these comprise the following:
- Hedgerows
 - Mature trees
 - Watercourse
- 2.3 Protection measures to be implemented for retained habitats are detailed below.

Hedgerows & Mature Trees

- 2.4 The retained lengths of hedgerow and all retained mature trees will be protected from construction in accordance with *BS5837: Trees in Relation to Construction Recommendations (2012)* using their calculated Root Protection Areas (RPA) and through the erection of tree protection barriers to the specification provided within the Arboricultural Assessment³. All barrier protection will be installed prior to the commencement of any construction or site clearance operations. Retained hedgerows will also be protected by the specified protection barriers, with a minimum 2m buffer maintained from the edge of the canopy of the hedgerow to the protective barrier unless otherwise specified.
- 2.5 Barriers will remain rigid and in place for the duration of the development and in most situations will comprise a Heras panel framework supported by scaffold poles driven into the ground. Where scaffold poles driven into the ground are not feasible then Heras panels supported by rubber block feet will be installed. All-weather notices would be attached to the protective fencing to indicate that construction activities are not permitted within the fenced area.

Watercourse

- 2.6 The on-site watercourse will be protected as above through the installation of protective fencing. The distance between the fencing and the tops of the watercourse banks will be 5m however in areas where works are proposed adjacent to/affecting the watercourse directly (for instance where the internal road and footpath are proposed) appropriate distances and working methods would be agreed by an ecologist. Fencing will be in place duration of the development and in most situations will comprise a Heras panel framework supported by scaffold poles driven into the ground. Where scaffold poles driven into the ground are not feasible then Heras panels supported by rubber block feet will be installed. All-weather notices would be attached to the protective fencing to indicate that construction activities are not permitted within the fenced area.

3.0 CREATED HABITATS

3.1 Full details of habitats that are to be created within the site are provided in the LMP.

3.2 In summary, the following habitats are to be created within the site:

- Native Shrub Mix
- Amenity Grassland
- Meadow Grassland
- Wetland Grassland
- Bulb Planting
- Tree Planting
- Hedgerow Planting

Native Shrub Planting

3.3 New shrub planting is proposed throughout Phase 2. Areas of scrub and wetland scrub will add structural diversity and increase biodiversity value. The composition of this habitat should comprise an equal mix of native species including dogwood *Cornus sanguinea*, hazel *Corylus avellana*, privet *Ligustrum vulgare*, elder *Sambucus nigra* and Guelder rose *Viburnum opulus*. Where the ground is damper or retaining water, for example adjacent to the watercourse at the east site boundary, then species tolerant of water retaining ground, such as black birch *Betula nigra*, goat willow *Salix caprea*, crack willow *Salix fragilis* and alder buckthorn *Frangula alnus* will be utilised.

Amenity Grassland

3.4 Amenity grassland is to be seeded with EG21 Fine Lawn Grass Mixture from Emorsgate (or similar, approved), and will form short mown grassed areas immediately adjacent to development plots and mowing strips adjacent to footpaths and roads.

Meadow Grassland

3.5 Wildflower meadow grassland is to be sown across areas of open space and be the dominant grassland habitat created on-site. It will comprise a seed mix such as EM2 Standard General-Purpose Meadow Mixture from Emorsgate (or similar, approved). As detailed in the Ecological Appraisal, ground preparation in the form of topsoil stripping or inversion ploughing will be undertaken prior to seeding to aid successful creation of species-rich grassland, and long-term management will be limited to two cuts per year (late July and late September/October) to promote the biodiversity value of this grassland. If pernicious weeds are becoming established over time however, a third cut is recommended in mid-March. Many rare and protected species benefit from grassland with a diverse array of forb species, with potential to support a range of wildlife including invertebrates, birds and mammals.

Wetland Grassland

3.6 The SuDs basin and banks are to be seeded with EM8 Meadow Mixture for Wetlands from Emorsgate (or similar, approved). As detailed in the LMP, long-term management will consist

of mowing or strimming during late July/August with a final cut will be taken in late Autumn. Whilst the primary function of the attenuation basin is flood alleviation, its biodiversity value can be increased to provide a second function as wildlife habitat.

Bulb Planting

- 3.7 Areas of bulb planting will be scattered through the meadow grassland parcels. The bulb selection will incorporate native species such as wild daffodil *Narcissus pseudonarcissus*, as well as crocus *Crocus vernus* and winter aconite *Eranthus hyemalis*, all of which will provide nectar sources for early emerging insects.

Individual Tree Planting

- 3.8 Tree planting will include a mixture of native species including alder *Alnus glutinosa*, field maple *Acer campestre*, hornbeam *Carpinus betulus*, English oak *Quercus robur*, rowan *Sorbus aucuparia*, silver birch *Betula pendula* and bird cherry *Prunus padus*.

Hedgerow Planting

- 3.9 Hedgerow planting will be bordering access roads and to define the boundary of the built area. Areas of retained hedgerow reinforced where necessary with additional planting. Hedgerows are to comprise a mixture of native species including hazel *Corylus avellana*, dogwood *Cornus sanguinea*, spindle *Euonymus europaeus* and field maple *Acer campestre*. Hedgerows create nesting, foraging and commuting habitat for many species including birds and bats.

4.0 SPECIES ENHANCEMENTS

- 4.1 Four bat boxes and four bird boxes are to be installed on both on the existing mature trees and the residential dwellings within Phase 2 of the development (a further four bat boxes will be included within further Phases to satisfy Condition 13). Locations of bat and bird boxes are provided on Figure 1. The boxes will be installed in locations at the boundaries adjacent to the proposed and/or existing habitats which provide commuting/foraging habitat in addition to links into the wider countryside. The type and number to be installed are indicated below, however similar approved models could be used if these are not available.

Bat Boxes

- 2 x Schwegler 1FD (or similar approved)
 - 2 x Schwegler 2F-DFP (or similar approved)
- 4.2 As boxes are to be installed on existing mature trees, they will be placed at a minimum height of 4m, below the main canopy, on the south, southwest or southeast aspects (ideally each box on a different aspect). Larger more mature trees would serve as better trees for placement of these features. The boxes should ideally be installed between October and March, when there are the least number of leaves on the trees and suitable locations are easier to identify. Any necessary remedial works to these trees should be completed prior to installation.
- 4.3 Once bats have inhabited a roost site they may only be disturbed by licensed bat workers in appropriate circumstances.

Bird Boxes

- 1 x Woodstone Swift Nest Box
- 1 x 1SP Schwegler Sparrow Terrace
- 1 x 2H Schwegler Robin Box
- 1 x 1B Schwegler Nest Box

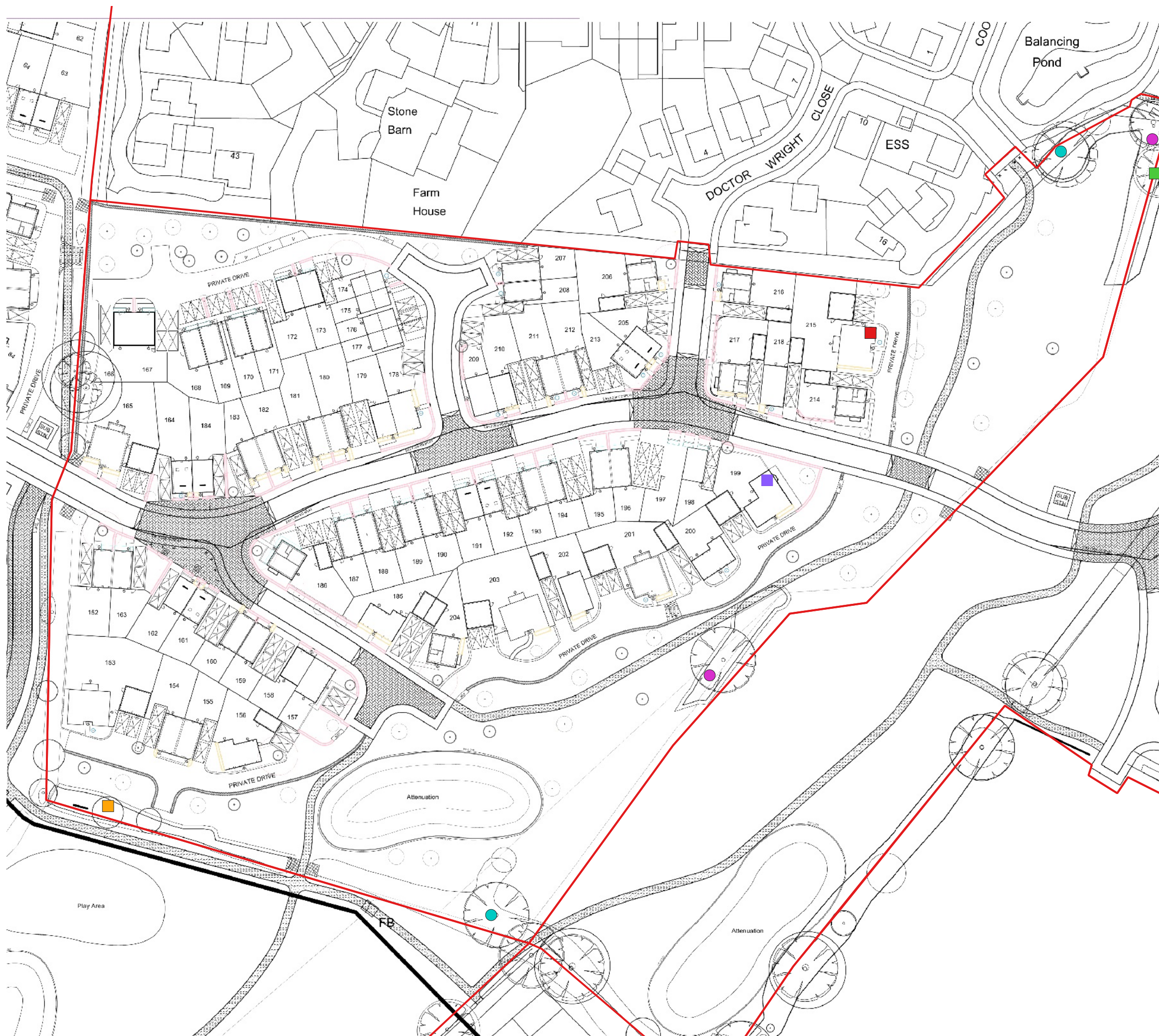
- 4.4 Where boxes are to be installed on existing mature trees, they would be placed at a minimum height of 3m from the ground (open-front boxes should be positioned lower down 2-4m), on the north and northeastern aspects, thus avoiding strong sunlight and wet winds and with a clear flight path to the box. The boxes should ideally be installed between October and March, when there are the least number of leaves on the trees and suitable locations are easier to identify. Any necessary remedial works to these trees should be completed prior to installation.
- 4.5 Where bird boxes are to be installed on new buildings within the residential development area, they should be located on the northern and eastern aspects, at least 4m from the ground.

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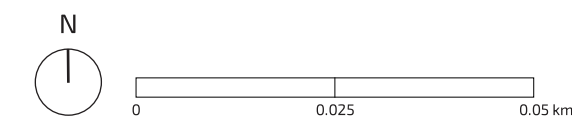
Company No. 07128076. [T] 01509 672772 [E] mail@fpcr.co.uk [W] www.fpcr.co.uk

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Key

Site Boundary

Bat Boxes

● 1FD (or similar approved)

● 2F-DFP (or similar approved)

Bird boxes

■ 1B Schwegler Nest Box (or similar approved)

■ 1SP Schwegler Sparrow Terrace (or similar approved)

■ 2H Schwegler Robin Box (or similar approved)

■ Woodstone Swift Nest Box (or similar approved)

date
06/03/25

drwn/chkd
IMS/JW

client
Jelson Limited

project
**Land at Lower Grange Farm,
Markfield**

title
SPECIES ENHANCEMENT PLAN

scale
1:1 @ A3

number

FIGURE 1

rev

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