



LYTHAM GREEN DRIVE GOLF CLUB

For

Booth Ventures Ltd / Lytham Green Drive Golf Club

BIODIVERSITY NET GAIN ASSESSMENT

Feb 2024

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1.0 INTRODUCTION

1.1 BACKGROUND

Appletons have been commissioned by Booths Ventures Limited to undertake an Biodiversity Net Gain assessment (BNG) of land at Lytham Green Drive Golf Club, Lytham, Lancashire. The assessment is required to determine whether proposals meet the statutory requirements for biodiversity enhancements following completion of the scheme. The assessment is done using the Preliminary Ecological Appraisal which includes an condition assessment of the sites current habitats.

1.2 SITE LOCATION

Lytham Green Drive Golf Club is located to the immediate north of Lytham town centre. The red line boundary for the development is located in the northeast corner of the golf course grounds, off Saltcotes Road. The sites National Grid Reference is NGR: SD 3754 2857. The application boundary of the site is provided in Figure 1 below. Habitats identified within the site are provided in Appendix A.

1.3 BACKGROUND

This report provides the results of the BNG Assessment for the proposed redevelopment at Lytham Green Drive Golf Club. The information provided within this report should be read in conjunction with the following documents:

1. Preliminary Ecological Appraisal: Lytham Green Golf Club, Lytham, Lancashire
2. Landscape Scheme (Drawing No: 2419_03)
3. Lytham Green Golf Club – Statutory_Biodiversity_Metric_Calculation Tool - macro-enabled
4. Lytham Green Golf Club - BM 4.0 - Technical Annex 1- Condition Assessment Sheets

2.0 BIODIVERSITY NET GAIN RESULTS

The biodiversity calculation concluded that the current proposal would result in a biodiversity net gain. The proposals include notable habitat and hedgerow unit gains. All habitat trading rules have been satisfied.

Habitat BNG Results

The current proposal would result in a +16.92 habitat units / 105.1% net gain. A summary of the habitat calculations are provided in Tables 2.1 and 2.2 below. Refer also to Appendix A, Figures 1 and 2.

Table 2.1: Habitat baseline calculations

Habitat	Habitat Area (ha)	Habitat Unit Value	Area Retained (ha)	Area Enhanced (ha)	Habitat Unit Loss
Modified grassland	4	8.80	0	0	8.80
Other neutral grassland	0.9923	4.37	0	0	4.37
Tall forbs	0.2559	0.56	0	0	0.56
Other woodland; mixed	0.0596	0.26	0.0248	0	0.15
Willow scrub	0.0918	0.40	0	0	0.40
Mixed scrub	0.1213	0.53	0	0	0.53
Bramble scrub	0.0247	0.11	0	0	0.11
Ponds (non-priority habitat)	0.1117	0.98	0.1117	0	0.00
Introduced shrub	0.0369	0.08	0	0	0.08
Artificial unvegetated, unsealed surface	0.0343	0	0	0	0.00
TOTAL	5.73	16.1	0.14		15.01

Table 2.2: Proposed on site habitats

Habitat	Area (Ha)	Distinctiveness	Condition	Strategic Significance	Standard Time to Target Condition (Years)	Habitat Units Delivered	Assessment Comments
Modified grassland	1.8397	Low	Poor	Location ecologically desirable but not in local strategy	1	3.91	Areas of closely mown fairway, semi-rough and tee boxes which will be frequently cut to maintain short sward. Species poor grassland
Other neutral grassland	3.571	Medium	Moderate		5	26.30	Area of rough grassland which will be sown with species rich meadow mix. Subject to two cuts annually. Cuttings to be removed. Managed as a meadow to achieve species rich sward.
Mixed scrub	0.15	Medium	Moderate		5	1.10	Area of native mixed scrub behind tee box which could include: hawthorn, holly, silver birch, hazel, willow species, dog rose.
Other woodland; broadleaved	0.03	Medium	Moderate		15	0.15	Woodland edge planted up along north and east boundary of site.
Urban tree	0.14	Medium	Moderate		27	0.47	35no. Individual trees along eastern side of rough. These will be native species e.g.: field maple, alder, silver birch, cherry, oak.
TOTAL	5.73					31.93	

Hedgerow BNG Results

The proposals will include the removal of a 20m length of predominantly Leyland cypress, with small hazel specimen. As part of the proposals, a 15m length species rich native hedgerow will be planted along the southern boundary, behind the new tee box (refer to Appendix A, Figure 2). Species to be included within the new hedge will include; hawthorn, holly, hazel, and dog rose. The hedgerow proposals would result in a +0.01 habitat units / 25.52 % net gain.

3.0 BNG CONCLUSION

The proposals provide a measurable net gain overall and all habitat trading rules have been satisfied. The headline results taken from the BNG assessment (Pennine Ecological, 2024b), can be found below.

Table 2.3: Summary of BNG Assessment taken from BNG calculation tool headline results.

On-site baseline	Habitat units	16.10			
	Hedgerow units	0.04			
	Watercourse units	0.00			
On-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	33.04			
	Hedgerow units	0.05			
	Watercourse units	0.00			
On-site net change <small>(units & percentage)</small>	Habitat units	16.94	105.21%		
	Hedgerow units	0.01	25.52%		
	Watercourse units	0.00	0.00%		
Off-site baseline	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site post-intervention <small>(Including habitat retention, creation & enhancement)</small>	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
Off-site net change <small>(units & percentage)</small>	Habitat units	0.00	0.00%		
	Hedgerow units	0.00	0.00%		
	Watercourse units	0.00	0.00%		
Combined net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	16.94			
	Hedgerow units	0.01			
	Watercourse units	0.00			
Spatial risk multiplier (SRM) deductions	Habitat units	0.00			
	Hedgerow units	0.00			
	Watercourse units	0.00			
FINAL RESULTS					
Total net unit change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	16.94			
	Hedgerow units	0.01			
	Watercourse units	0.00			
Total net % change <small>(Including all on-site & off-site habitat retention, creation & enhancement)</small>	Habitat units	105.21%			
	Hedgerow units	25.52%			
	Watercourse units	0.00%			
Trading rules satisfied?	Yes ✓				
Unit Type	Target	Baseline Units	Units Required	Unit Deficit	
Habitat units	10.00%	16.10	17.71	0.00	No additional area habitat units required to meet target ✓
Hedgerow units	10.00%	0.04	0.04	0.00	No additional hedgerow units required to meet target ✓
Watercourse units	10.00%	0.00	0.00	0.00	No additional watercourse units required to meet target ✓

To ensure the proposal achieves the specified BNG, a Habitat Management and Monitoring Plan (HMMP) should be provided, to ensure the created habitats achieve their stated target condition. The HMMP should be included as a planning condition and completed prior to the commencement of any construction activities.

REFERENCES

Appletons (2024). Lytham Green Drive Golf Club: Landscape Scheme (Drawing No: 2419_03).

Baker, J. Hoskin, R. Butterworth, T. (2019). *Biodiversity Net Gain. Good practice principles for development. Part A: A practical guide.*

Department for Environment, Food & Rural Affairs (DEFRA) (2023) - *The Statutory Biodiversity Metric: User Guide (draft)*. Date: February 2024.

Preliminary Ecological Appraisal: Lytham Green Drive Golf Club, Lytham, Lancashire.

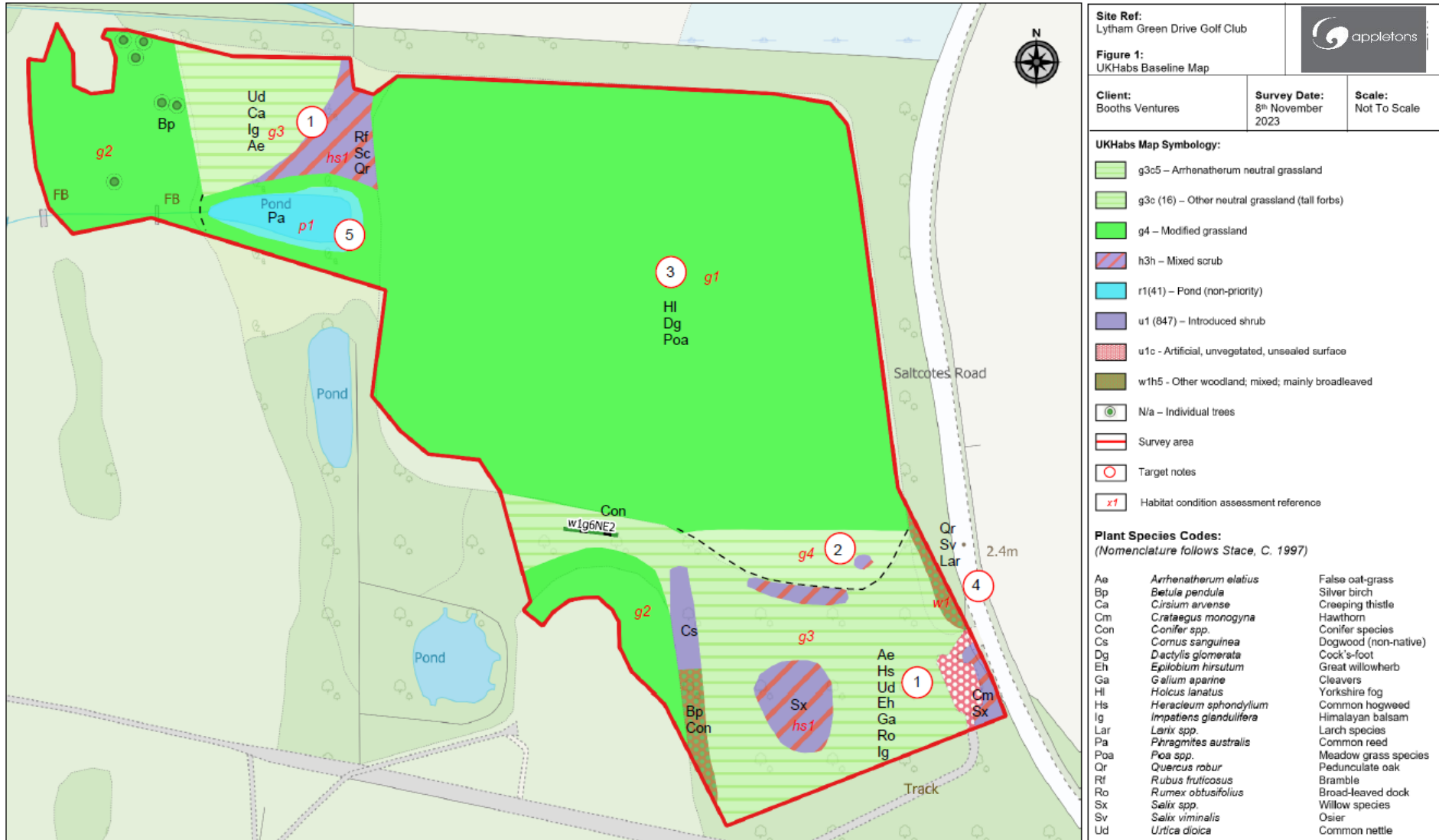
Lytham Green Drive Golf Club – Statutory_Biodiversity_Metric_Calculation Tool - macro-enabled

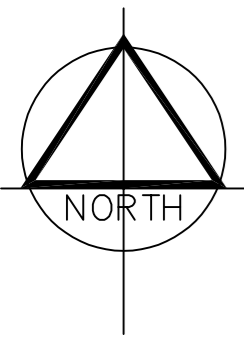
Lytham Green Drive Golf Club - BM 4.0 - Technical Annex 1- Condition Assessment Sheets

UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at <https://ukhab.org/>)

Appendix A: Figures

Figure 1: Existing Habitat Plan





LYTHAM GREEN DRIVE GOLF CLUB Landscape Proposals Plan

LANDSCAPE SPECIFICATION NOTES FOR PREPARATION AND PLANTING

(Generally to BS 4428:1989 - General Landscape Operations; excluding hardworks)

- General:**
- Site preparation for Soils: Where required all existing topsoil and subsoil shall be stripped and stored separately on site. Heaps must not exceed 3m in height and should be used within 12 months in accordance with BS 4425 (Code of practice for general landscape operations).
 - Soil Preparation: Where soil is to be retained, relatively undisturbed and where new planting vegetation on site is taking place, then compaction shall be avoided and pH testing carried out for specific species suitability, and may require addition of biochar, compost, organic fertiliser and/ or native soil.

Grass Seeding

- All areas to receive shall be clear of debris and the like.
- All areas to receive grass seed shall be cultivated and brought to a fine tilth by raking and harrowing within the top 25mm. All debris, including stones of 25mm or over, brought to the surface shall be removed off site.
- Areas of amenity grass seed mix shall receive a suitable fertiliser, seven to ten days prior to seeding. Wild flower/grass seed mix shall not receive any fertiliser.
- The specified seed mix shall be sown at the supplier's recommended rate (between 5 and 35 grams per m²). The quantities of seed shall be divided in half, and sown evenly in transverse directions. The seed shall not be drilled. After sowing the seed shall be lightly harrowed or hand raked into the immediate surface and lightly rolled.
- Areas of amenity grass seed mix shall receive a pre-emergent herbicide applied immediately after seeding.
- When amenity grass mix is 100mm high it shall be lightly tipped by approximately 25mm with an approved mower.

- Any areas which fail to germinate shall be re-cultivated and re-seeded, within one month of the original seeding.
- Areas of broad leaved weeds shall be cleared by either hand pulling or spot treatment using a selective broadleaf herbicide.

Trees:

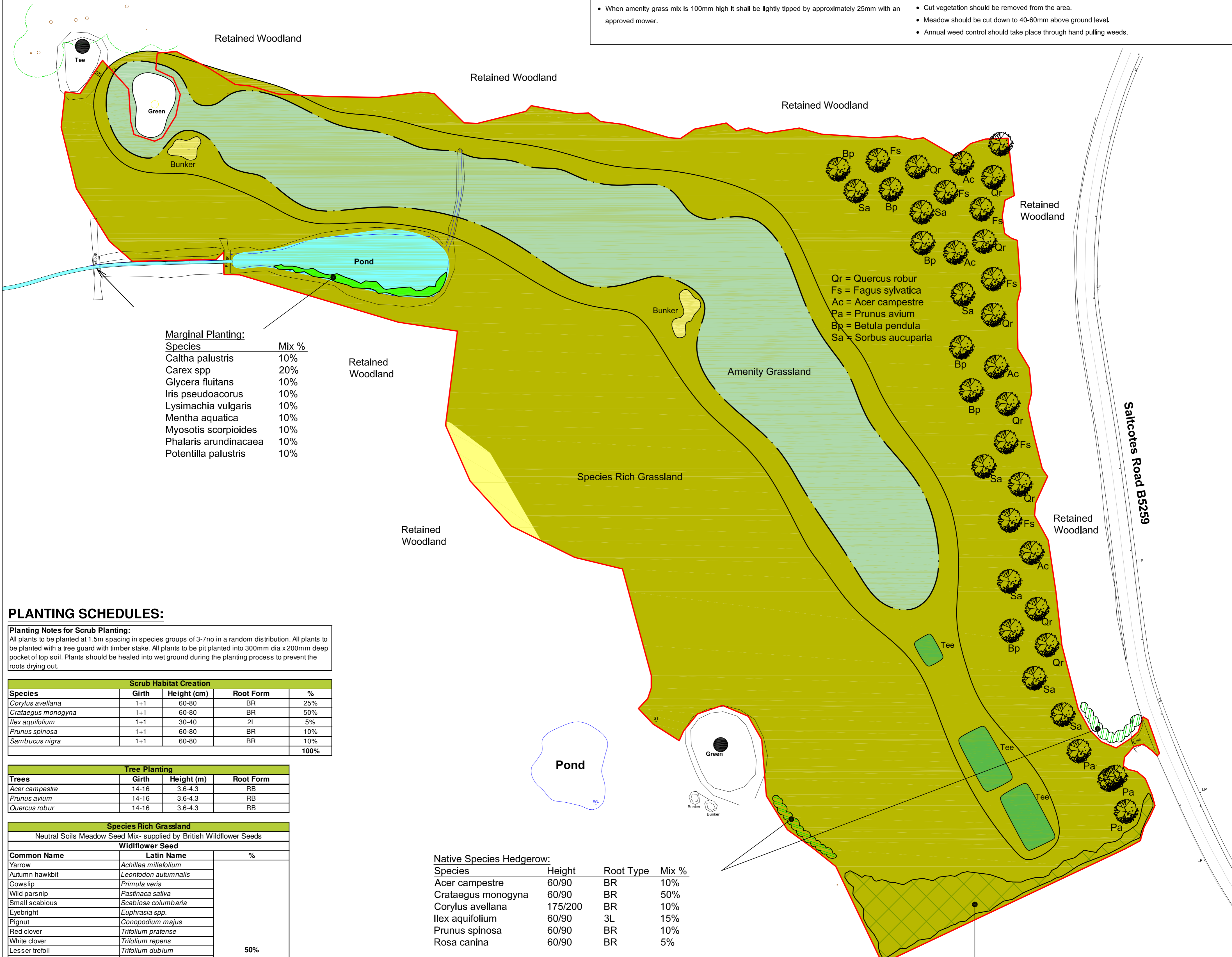
All trees to be supplied and planted in accordance with British Standards BS 8545:2014, with the nursery providers demonstrating Plant Healthy Certification and/ or an adopted biosecurity policy.

Whips and Transplants

- All whips and transplants shall be supplied and installed with 80mm diameter biodegradable tree guards to transplants with no plastic materials, fixed into ground with pegs. Do not apply to feathered stock.
- All conifers and holly species shall be supplied & installed with 250mm diameter fine mesh guard with 2 no. stakes.
- All stock shall be notch planted with the exception of feathered stock and holly species which shall be pit planted.

Wildflower Seeding: Species Rich Grassland Mix:

- Proposed wildflower grass seed mix, supplied by British Wildflower Seeds with 50% wildflower and 50% grasses.
- To be spread at 4g per m².
- On going maintenance, the wildflower area should be cut once per year, avoiding spring and early summer and autumn.
- Cut vegetation should be removed from the area.
- Meadow should be cut down to 40-60mm above ground level.
- Annual weed control should take place through hand pulling weeds.



PLANTING SCHEDULES:

Planting Notes for Scrub Planting:
All plants to be planted at 1.5m spacing in species groups of 3-7 no in a random distribution. All plants to be planted with a tree guard with timber stake. All plants to be pit planted into 300mm dia x 200mm deep pocket of top soil. Plants should be heeled into wet ground during the planting process to prevent the roots drying out.

Scrub Habitat Creation				
Species	Girth	Height (cm)	Root Form	%
<i>Corylus avellana</i>	1+1	60-80	BR	25%
<i>Crataegus monogyna</i>	1+1	60-80	BR	50%
<i>Ilex aquifolium</i>	1+1	30-40	2L	5%
<i>Prunus spinosa</i>	1+1	60-80	BR	10%
<i>Sambucus nigra</i>	1+1	60-80	BR	10%
				100%

Tree Planting			
Trees	Girth	Height (m)	Root Form
<i>Acer campestre</i>	14-16	3.6-4.3	RB
<i>Prunus avium</i>	14-16	3.6-4.3	RB
<i>Quercus robur</i>	14-16	3.6-4.3	RB

Species Rich Grassland		
Neutral Soils Meadow Seed Mix - supplied by British Wildflower Seeds		
Common Name	Latin Name	%
Yarrow	<i>Achillea millefolium</i>	50%
Ailumn hawkbit	<i>Leontodon autumnalis</i>	
Cowslip	<i>Primula veris</i>	
Wild pansy	<i>Pastinaca sativa</i>	
Small scabious	<i>Scabiosa columbaria</i>	
Eyebright	<i>Euphrasia</i> spp.	
Pignut	<i>Conopodium majus</i>	
Red clover	<i>Tribolium pratense</i>	
White clover	<i>Tribolium repens</i>	
Lesser trefoil	<i>Tribolium dubium</i>	
Sticky Mouse-ear	<i>Cerastium glomeratum</i>	
Common knapweed	<i>Centaurea nigra</i>	
Ox Eye Daisy	<i>Leucanthemum vulgare</i>	
Black medic	<i>Medicago lupulina</i>	
Ribwort plantain	<i>Plantago lanceolata</i>	
Hoary plantain	<i>Plantago media</i>	
Selheal	<i>Prunella vulgaris</i>	
Meadow buttercup	<i>Ranunculus acris</i>	
Yellow rattle	<i>Rhinanthus minor</i>	
		50%
Common bent	<i>Agrostis capillaris</i>	
Meadow foxtail	<i>Aloperceris pratensis</i>	
Crested dog's tail	<i>Cynosurus cristatus</i>	
Cocksfoot	<i>Dactylis glomerata</i>	
Fescue sp	<i>Festuca</i> sp.	
Timothy	<i>Phleum</i> sp.	
Yorkshire fog	<i>Holcus lanatus</i>	
Quaking grass	<i>Briza media</i>	
Soft brome	<i>Bromus mollis</i>	
		100%

Amenity Species Grassland		
A13 Golf Roughs & Habitat Areas: supplied by Germinal		
Common Name	Latin Name	%
Browntop bentgrass	<i>Agrostis capillaris</i>	3%
Chewings fescue	<i>Festuca rubra commutata</i>	25%
Creeping red fescue	<i>Festuca rubra rubra</i>	63%
Sheeps fescue	<i>Festuca ovina</i>	10%
		100%

Native Species Hedgerow:				
Species	Height	Root Type	Mix %	
<i>Acer campestre</i>	60/90	BR	10%	
<i>Crataegus monogyna</i>	60/90	BR	50%	
<i>Corylus avellana</i>	175/200	BR	10%	
<i>Ilex aquifolium</i>	60/90	3L	15%	
<i>Prunus spinosa</i>	60/90	BR	10%	
<i>Rosa canina</i>	60/90	BR	5%	

Native Scrub Habitat Creation:				
Species	Girth	Height	Root Type	Mix %
<i>Corylus avellana</i>	1+1	60/80	BR	25%
<i>Crataegus monogyna</i>	1+1	60/80	BR	45%
<i>Ilex aquifolium</i>	1+1	30/40	BR	5%
<i>Prunus spinosa</i>	1+1	60/80	3L	10%
<i>Sambucus nigra</i>	1+1	60/80	BR	10%
<i>Ulex europaeus</i>	-	30/50	2L	5%

Landscape Management:

Habitats and planting to be managed in accordance with the Biodiversity Net Gain Report dated February 2024 by Appletons. This will be carried out as part of the regular landscape maintenance of the golf course.

REVISIONS	
No.	Description

Project LYTHAM GREEN DRIVE GOLF CLUB		Scale 1:750@A1
Title Landscape Proposals Plan		
Client Booth Ventures Ltd.		Drawing No. 2419_03
Date FEBRUARY 2024	Drawn SW	
Checked DS	Revision	Status Planning-Final

KEY:

- Site Application Boundary
- Existing Ponds
- Proposed Species Rich Grassland seed mix
- Proposed Amenity Species seed mix
- Marginal Planting
- Proposed Hedgerows

