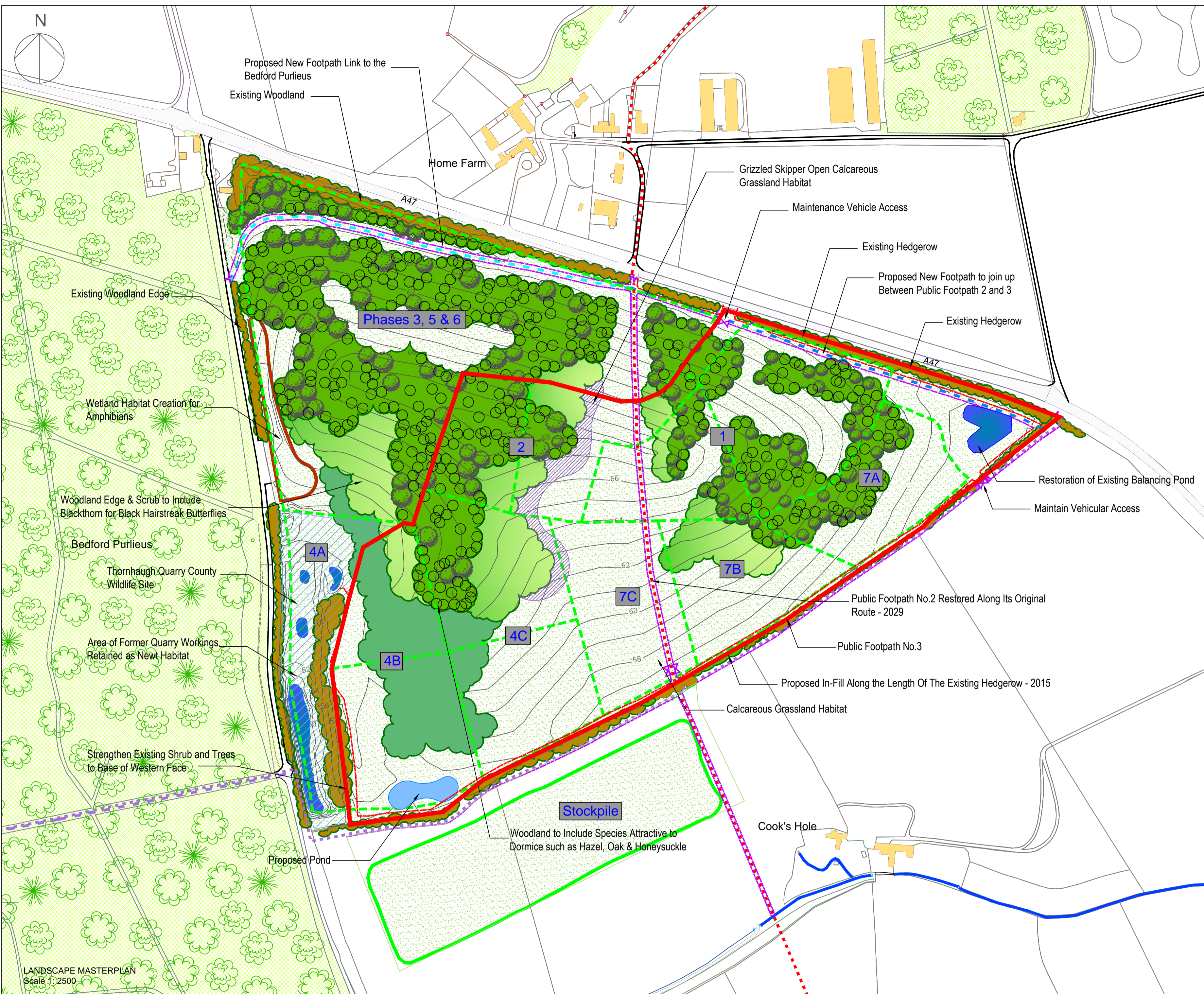


APPENDIX PS1.2

**APPROVED RESTORATION SCHEME FOR THORNHAUGH LANDFILL SITE (DRAWING
NUMBER TLS6)**



Species	Common Name	% Size (cm)	Pot/Bare-Root	3, 5 & 6							
				1	2	4B	4C	7A	7B	7C	
Woodland Planting Mix				48100m ²	17408m ²	12956m ²	760m ²	6289m ²	7097m ²	908m ²	0m ²
<i>Acer campestre</i>	field maple	10	40-60	B-R	534	193	144	9	70	79	10
<i>Betula pendula</i>	birch	10	40-60	1L	534	193	144	9	70	79	10
<i>Corylus avellana</i>	hazel	10	40-60	B-R	534	193	144	9	70	79	10
<i>Malus sylvestris</i>	crab apple	5	60-80	B-R	267	97	72	4	35	39	5
<i>Quercus robur</i>	English oak	40	60-80	B-R	2138	774	578	34	280	315	40
<i>Rhamnus cathartica</i>	purging buckthorn	5	40-60	B-R	267	97	72	4	35	39	5
<i>Sorbus torminalis</i>	wild service tree	5	60-80	B-R	267	97	72	4	35	39	5
<i>Tilia cordata</i>	small leaved lime	10	40-60	B-R	534	193	144	9	70	79	10
<i>Viburnum lantana</i>	wavyleaved tree	5	60-80	B-R	267	97	72	4	35	39	5
Shrub/Scrub Planting Mix				7700m ²	1627m ²	5092m ²	1958m ²	9628m ²	0m ²	4608m ²	164m ²
<i>Betula pubescens</i>	downy birch	10	40-60	B-R	86	18	57	22	74		51
<i>Crataegus monogyna</i>	hawthorn	40	40-60	B-R	342	72	228	87	295		205
<i>Corylus avellana</i>	hazel	10	40-60	B-R	86	18	57	22	74		51
<i>Malus sylvestris</i>	crab apple	10	60-80	B-R	86	18	57	22	74		51
<i>Rosa arvensis</i>	field rose	10	60-80	B-R	86	18	57	22	74		51
<i>Rhamnus cathartica</i>	purging buckthorn	10	40-60	B-R	86	18	57	22	74		51
<i>Viburnum lantana</i>	wild service tree	10	60-80	B-R	86	18	57	22	74		51
Open Shrub/Scrub Planting Mix				1200m ²	0m ²	0m ²	14201m ²	3953m ²	0m ²	0m ²	0m ²
<i>Betula pubescens</i>	downy birch	10	40-60	B-R	4			45	13		
<i>Crataegus monogyna</i>	hawthorn	40	40-60	B-R	15			178	50		
<i>Corylus avellana</i>	hazel	10	40-60	B-R	4			45	13		
<i>Malus sylvestris</i>	crab apple	10	60-80	B-R	4			45	13		
<i>Rosa arvensis</i>	field rose	10	60-80	B-R	4			45	13		
<i>Rhamnus cathartica</i>	purging buckthorn	10	40-60	B-R	4			45	13		
<i>Viburnum lantana</i>	wild service tree	10	60-80	B-R	4			45	13		
Hedge Row Planting Mix				0m	0m	0m	0m	0m	0m	118m	45m
<i>Crataegus monogyna</i>	hawthorn	70	40-60	B-R						405	156
<i>Corylus avellana</i>	hazel	10	40-60	B-R						58	22
<i>Comus sanguinea ssp. sanguinea</i>	dogwood	5	40-60	B-R						29	11
<i>Rosa arvensis</i>	field rose	10	60-80	B-R						58	22
<i>Rhamnus cathartica</i>	purging buckthorn	5	40-60	B-R						29	11

Phase	3, 5 & 6	1	2	4B	4C	7A	7B	7C
Calcareous Grassland	30600m ²	18611m ²	5455m ²	12063m ²	16289m ²	16180m ²	11675m ²	18805m ²
Open Calcareous Grassland	100m ²	0m ²	2346m ²	0m ²	1177m ²	0m ²	0m ²	256m ²

Aquatic Planting

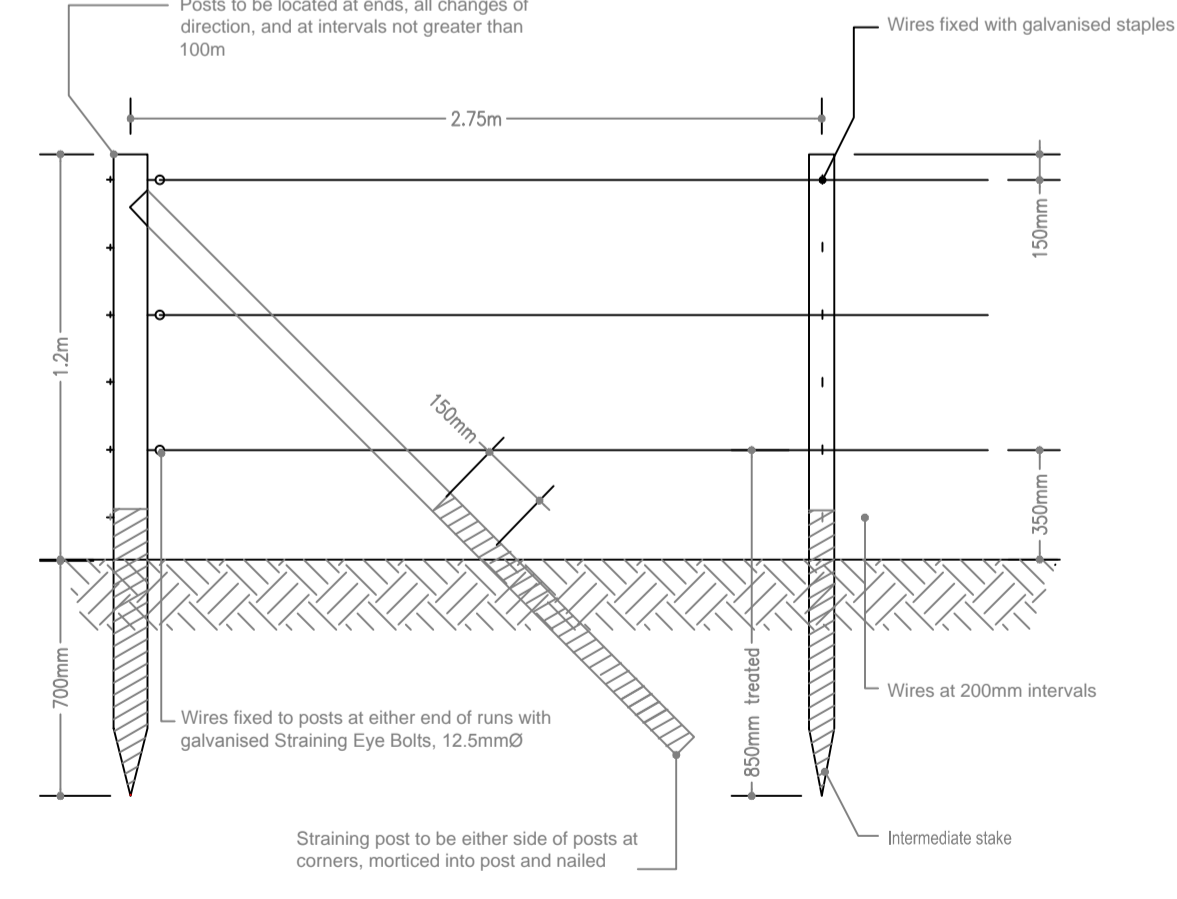
Pond Zone	Latin name	Common name	Root Condition	Size	% Mix	No
open level	<i>Lychnis flox-cucull</i>	Ragged robin	RT	110cc	35	115
	<i>Juncus effusus</i>	Soft rush	RT	110cc	30	100
shallow margins	<i>Filipendula ulmaria</i>	Meadowweet	RT	110cc	35	115
	<i>Caltha palustris</i>	Kingcup/marsh marigold	RT	110cc	20	200
	<i>Lythrum salicaria</i>	Purple loosestrife	RT	110cc	15	100
	<i>Veronica beccabunga</i>	Brooklime	RT	110cc	15	100
	<i>Menba aquatica</i>	Water nut	RT	110cc	15	100
shallow aquatic zone	<i>Tris pseudoceras</i>	Yellow flag iris	RT	110cc	15	100
	<i>Alisma plantago-aquatica</i>	Water plantain	RT	110cc	20	200
deep water zone	<i>Myosotis scorpioides/ Palustris</i>	Water (True) forget-me-not	RT	110cc	25	210
	<i>Hesperis matronalis</i>	Common night-flowered cerise	RT	110cc	25	210
	<i>Sagittaria sagittifolia</i>	Arrowhead	RT	110cc	25	210
	<i>Ranunculus aquatilis</i>	Water-crowfoot	RT	110cc	25	210
	<i>Callitriche stagnalis</i>	Common water-starwort	RT	110cc	50	75
<i>Potamogeton natans</i>	Broad leaved pondweed	RT	110cc	50	75	

Calcareous Grassland Seed Mix

EM6: Meadow Mixture for Chalk and Limestone Soils			
Herbs			
%	Latin name	Common name	
0.5	<i>Achillea millefolium</i>	Yarrow	
1.5	<i>Anthriscus vulgaris</i>	Kidney yetch	
1	<i>Centaurea nigra</i>	Common knapweed	
1	<i>Centaurea scabiosa</i>	Greater knapweed	
0.5	<i>Clinopodium vulgare</i>	Wild basil	
1	<i>Daucus carota</i>	Wild carrot	
0.5	<i>Filipendula vulgaris</i>	Dropwort	
1	<i>Galium verum</i>	Lady's bedstraw	
1.5	<i>Knaulia arvensis</i>	Field scabious	
0.5	<i>Leontodon hispidus</i>	Rough hawkbit	
1	<i>Leucanthemum vulgare</i>	Oxeye daisy	
2	<i>Lotus corniculatus</i>	Birdfoot trefoil	
0.5	<i>Origanum vulgare</i>	Wild marjoram	
0.5	<i>Pimpinella saxifraga</i>	Burnet saxifrage	
1	<i>Plantago media</i>	Hoary plantain	
1	<i>Prunella veris</i>	Cowslip	
1	<i>Prunella vulgaris</i>	Selfheal	
1	<i>Ranunculus acris</i>	Meadow buttercup	
0.5	<i>Reseda lutea</i>	Wild mignonette	
2	<i>Sanguisorba minor (Potentium sanguisorba)</i>	Salad burnet	
0.5	<i>Scabiosa columbaria</i>	Small scabious	
Grasses			
%	Latin name	Common name	
1	<i>Briza media</i>	Ox-eye grass (w)	
32	<i>Cynosurus cristatus</i>	Crested dogstail	
22	<i>Festuca ovina</i>	Sheep's fescue	
16	<i>Festuca rubra</i>	Slender-creeping red-fescue	
1	<i>Koeleria macrantha</i>	Crested hair-grass (w)	
5	<i>Phleum bertolonii</i>	Smaller cat's-tail	
3	<i>Trisetum flavescens</i>	Yellow oat-grass (w)	
20			

KEY

- Application Boundary
- Footpath No.3
- Footpath No.2 Reinstated
- Proposed Footpath To Join Footpaths No.2 And No.3
- Proposed Footpath To Bedford Purvius
- Area Of Wetland Habitat Creation
- Phased Restoration Areas
- Proposed Post and Wire Fencing
- Proposed Tree Protection Fencing
- Proposed Field Gate
- Proposed Kissing Gate
- Proposed Stile
- Existing Vegetation
- Proposed Hedge Row Mix
- Proposed Woodland Planting Mix
- Proposed Shrub/Scrub Mix
- Proposed 'Open' Shrub/Scrub Mix
- Existing Pond
- Proposed Pond
- Calcareous Grassland (BAP Target Contribution)
- Grizzled Skipper Habitat (Open Calcareous Grassland)
- Elevation Contour mAOD



Grass seeding
All grass seeding to be undertaken during spring or autumn and to be sown at 20g/m2 and firmed in by rolling. Areas to receive tree and shrub planting will be sown with the calcareous grassland mix prior to planting.
Open calcareous grassland to be seeded to 70% of the total area with un-seeded areas not to exceed 5m2.
All seeds shall be of British Provenance and are to include provenance certification where applicable to proprietary mixes.
Seeding will occur either in the first Spring (mid April/mid May) or first autumn (mid August/mid September) following placement of the soils.

In advance of undertaking the seeding all areas to be seeded will:
• be sampled for soil analysis of pH and nutrient status, not more than one month before seeding, in accordance with Appendix 3 "Sampling for Soil pH, P, K and Mg" of Fertiliser Manual RB209 (2010) published by Defra in order to establish that the substrate is suitable for the wildflower mix;
• be sprayed with translocated herbicide (glyphosate or similar) 14 days before cultivation if weed growth has established between the placement of the soils and the period of seeding;
• be cultivated to a depth of 100mm by disc/harrow to produce a fine tilth free of stones larger than will pass through a 75mm mesh sieve;
• no fertiliser will be applied to the planting areas in order to limit fertility as a means of promoting the wildflower sward and reducing grass growth competition with the trees/shrubs.

Proposed Trees and Shrubs
Native shrub and tree mixes to be notched planted at 3m centres in same species groups of 5 - 9 with a random distribution of species in a random configuration avoiding straight lines and regular geometric patterns.
Open shrub mix to be notched planted at 4m centres, over 50% of the area, in same species groups of 5 - 9 with a random distribution of species in a random configuration avoiding straight lines and regular geometric patterns.
Hedge mix to be notched planted at 350mm centres in a double staggered row 350mm apart. All trees and shrubs to be fitted with 600 mm high Tubex standard tree protector supported by an appropriate wooden stake and fitted as per manufacturers recommendations.
Planting will be undertaken in the period November to March into areas previously seeded with a calcareous grassland seed mix.
A 50 cm diameter weed free area shall be maintained around each planted tree.

Existing Shrub and Trees to Western Face
Additional planting to area of existing shrubs and trees to be undertaken where sufficient gaps are present.

Aquatic Planting
The pond planting will use plant materials gained from site (Pond 7 clearance) where possible with off site supplementation where necessary.
Plants to be planted at a rate of 6m2 spread in groups over 30% of the overall pond area. Plants to be grouped in 3-9 of each species.

Planting Notes
The handling of plants to be in accordance with National Plant Specification 'Handling and Establishing Landscape Plants'.
All plants and planting operations are to comply with the requirements and recommendations of all current relevant British Standard specification including but not limited to:
• BS 3936-1:1992. Nursery stock. Specification for trees and shrubs
• BS 3882: 2007 Specification for topsoil and requirements for use (incorporating Corrigendum No.1)
• BS 4428:1989. Code of practice for general landscape operations (excluding hard surfaces) (AMD 6784)
• BS 5837: 2012 Trees in relation to construction - Recommendations (AMD Corrigendum 15988)
• BS 7370-3:1991. Grounds maintenance. Recommendations for maintenance of amenity and functional turf (other than sports turf)

Maintenance
Management operations during the 10 year aftercare period would include:
• monitoring establishment of the grass/wildflower sward
• mowing/trimming of the vegetation between the plants in May and August as required
• spot weeding of unwanted ruderal weeds or noxious weeds;
• maintenance of tree guards or other forms of protection until trees are established;
• maintenance of a 50cm radius around each tree/shrub through herbicide application;
• fertiliser application to the base of plants as required to ensure continued growth;
• maintenance of any stakes and ties;
• removal of guards, stakes and ties at appropriate times;
• carry out replacement planting in the event that losses of greater than 10% of the original planting occur.
• grazing or mowing of the calcareous grassland sward in spring/late summer. (April/May and August/Sept)

Losses of less than 10% of the total numbers of plants will introduce an element of randomness and habitat variation within the planting areas, particularly the scrub, which is desirable.

Note: Phases as shown on figure TLS1

DESIGNED BY RC DRAWN BY RC CHECKED BY NW APPROVED BY [Signature] DATE [Date]

Scale @ A1
Zone / Mileage
Zone / Mileage

PLANNING

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Drawing Number
Rev

TLS6

PURPOSE OF ISSUE: PLANNING

CLIENT: Thornhaugh Landfill / Cook's Hole Quarry

PROJECT TITLE: PROPOSED DEVELOPMENT THORNHAUGH LANDFILL SITE ENVIRONMENTAL STATEMENT PHASED RESTORATION SCHEME

CONSTRUCTION RISKS	MAINTENANCE / CLEANING RISK	DEMOLITION RISKS

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX