

PLANTING SCHEDULE				Percentage Mixes			
TREES	Size	Notes	Hedgerows	Wet Woodland - Tree Mix	Wet Woodland - Scrub Mix	Dry Woodland - Phases 1-5	
Natural Colonisation:							
Fraxinus excelsior	(Ash)	Self Set	To develop as standards	(up to 10% of total plantation area - left as open ground to allow colonisation)	(up to 5% of total plantation area) - left as open ground to allow colonisation)	(up to 5% of total plantation area) - left as open ground to allow colonisation)	
Planting Material from onsite sources:							
Populus nigra var betulifolia	(Black Poplar)	0.9-1.2m setts	Taken from specimen on boundary in late winter	To develop as standards	(up to 5% of total plantation area)	(up to 5% of total plantation area)	
Salix fragilis	(Crack Willow)	0.9-1.2m setts	Taken from specimens on boundary in late winter	To develop as standards	(up to 5% of total plantation area)	(up to 5% of total plantation area)	
Stock planting:							
Acer campestre	(Field Maple)	0.4-0.6m t/s	All planting to be protected			15	
Alnus glutinosa	(Alder)	0.4-0.6m t/s	All to be planted at 2.1m c/s		25	10	
Betula pubescens	(Downy Birch)	0.4-0.6m t/s		1	15	10	
Malus sylvestris	(Crab Apple)	0.4-0.6m t/s		3			
Quercus robur	(Oak)	0.35-0.45m t/s		1	25	25	
Salix fragilis	(Crack Willow)	0.4-0.6m t/s		1			
Tilia cordata	(Small Leaved Lime)	0.4-0.6m t/s				5	
TOTAL TREES				5	65	5	65
SHRUBS							
Stock planting:							
Acer campestre	(Field Maple)	0.4-0.6m t/s	All planting to be protected	5			
Corylus avellana	(Hazel)	0.4-0.6m t/s	with "Tubex" ecostarts or similar	10		10	
Crataegus monogyna	(Hawthorn)	0.4-0.6m t/s		62	15	10	
Prunus spinosa	(Blackthorn)	0.4-0.6m t/s		10		5	
Frangula alnus	(Alder Buckthorn)	0.4-0.6m t/s			5		
Rhamnus cathartica	(Purging Buckthorn)	0.4-0.6m t/s			5		
Rosa canina	(Dog Rose)	0.4-0.6m t/s		3			
Salix aurita	(Eared Willow)	0.4-0.6m t/s	1.0m diameter weedfree area to be maintained around each tree and shrub for five years	5	10	15	
Salix caprea	(Goat Willow)	0.4-0.6m t/s			10		
Salix cinerea	(Salix)	0.4-0.6m t/s			10		
Salix purpurea	(Purple Willow)	0.4-0.6m t/s	after planting, or until canopy closes, whichever is sooner		5	10	
Salix viminalis	(Osier)	0.4-0.6m t/s			5		
TOTAL SHRUBS				95	35	95	35
TOTAL TREES AND SHRUBS				100	100	100	100

Programme of Implementation
To be carried out in November-March planting season for bare root stock.
Prior to planting, any areas of compaction to be broken up to a depth of 450mm.
Trees and shrubs to be notch planted.
Natural colonisation will be encouraged in all parts of the restored site, including grassland, aquatic margins, hedgerows, wet woodland and lakeside areas.

Maintenance
All planting to be maintained by use of glyphosate to create a 1.0m diameter circle around each tree and shrub during the five year aftercare period, or until canopies close. This will permit rapid establishment.
Two maintenance visits will be carried out per year during the aftercare period, one in spring and one in early summer.
Visits will include weed control (including noxious weeds), litter removal and checking and firming up tree shelters.
Any plants dying during the five-year aftercare period will be replaced with a size and species to be agreed with the Mineral Planning Authority to maintain 100% stocking rate during the aftercare period.
Should Ash trees fail to colonise the new hedgerows, then additional Field Maple standards will be planted during Year 5 of the aftercare period.
Any plants loosened by frost or wind will be firmed up and any damaged branches will be removed using a sharp pruning knife.
At the end of the aftercare period, or before, should growth warrant it, tree shelters will be removed from the planting.



- Key Restoration Objectives:**
- To enhance recreational opportunities - extend public access around the site and along the Rivers Trent and Dove;
 - To create a new wet woodland framework for the application area and for the adjacent consented area;
 - To create new wetland with a diversity of habitat types for biodiversity and to provide recreational users with a more varied experience of the local landscape - open water, ponds, reedbeds, wet woodland and wet grassland;
 - To provide improved habitats for target mammal species - bats and otters.

KEY:

- APPLICATION BOUNDARY
- EXTRACTION AND PHASE BOUNDARIES (Subject to Tree Protection Stand-offs)
- OPERATIONAL AREA TO BE RESTORED UPON CESSATION OF MINERAL WORKING
- RESTORATION CONTOUR (mA.O.D.)
- EXISTING PUBLIC RIGHT OF WAY
- PROPOSED PUBLIC RIGHT OF WAY OR PERMISSIVE PATH
- PERMANENT OPEN WATER
- EXISTING TREES AND HEDGEROWS RETAINED
- EXISTING TREES IDENTIFIED AS TARGET NOTE IN PHASE 1 HABITAT SURVEY RETAINED
- PROPOSED WILLOW OR BLACK POPLAR SINGLE SPECIES TREE GROUP For Future Pollarding Groups of 19 plants at 3.0m c/s
- DRY WOODLAND PLANTING (Mix modified - refer to Planting Schedule)
- PROPOSED WET WOODLAND PLANTING (Refer to Schedule for Application area OR Mix approved under previous permission)
- PROPOSED WET WOODLAND PLANTING - Shrub Component Only - Pipelines And Powerlines (Refer to Schedule for Application area OR Mix approved under previous permission)
- PROPOSED NEW HEDGEROW
- LOWLAND MEADOW
Low Intensity Grazing - Neutral Grassland
To include localised low lying areas and scrapes
- LOWLAND MEADOW - Potential for Agricultural Use
Moderate Intensity Grazing - Neutral Grassland
To include localised low lying areas and scrapes
- LOWLAND MEADOW - Low Intensity Grazing Wet Grassland, Floodplain Marsh and Fen Meadow
- REEDBED / MARGINAL SHELVE
Selected areas (15% of margin length) to be planted and fenced once water levels reach equilibrium
- EXISTING / POTENTIAL RIVERINE FEATURE (Shingle / Bank Face)
- PROPOSED POND / SCRAPE COMPLEX (Ponds 1.0-1.5m below maximum WL, Depth of scrapes 0.5-1.2m below ground level)

Revisions	C West margin Phase 2 added for clarification of timetable	Dec 16	aw
	B Planting schedule amended	Feb 16	aw
	A Planting added	Nov 15	aw

Based on the Ordnance Survey Land Line Data with the Permission of Her Majesty's Stationary Office. © Crown Copyright. Licence No. 100018131

CEMEX
Planning Department
CEMEX UK Operations Limited
CEMEX House, Coldharbour Lane
Thorpe, Egham, Surrey
TW20 8TD
Telephone 01932 568833
Facsimile 01932 568933

Drawn By	AW	Company	CEMEX UK Operations Limited
Date	Issued 7 Dec 2016	Site	WILLINGTON- Southern Extension
Scale(s) @A1)	1: 5,000	Project	SAND & GRAVEL EXTRACTION
Chkd		Title	RESTORATION CONCEPT MASTER PLAN
Site Ref.		Drawing No.	P1 / 210 / 31 C