



## 2 - Extraction Phase 1

Legend	
	Advanced Screen Earthworks
	Scrub / Woodland Edge (Schedule 2)
	Reinstated Grass Mix (Schedule 1BC)
	Indicative Future Pathways (Public Rights of Way)
	Existing Stone Walls
	Extraction Area
	Overburden Backslopes Graded and Hydroseeded
	Existing Scrub and Woodland
	Restoration Woodland (Schedule 1)
	Areas where restoration is complete.
	Existing Public Rights of Way
	Proposed Stone Walls
	Proposed Light Standard Trees within blocks as indicated

client	job no.	date	scale	by	notes	Rev
Suffles	16.102	June. 16	1:2000 @A1	pjm		

### EXTRACTION PHASE 1

**Introduction**  
The design of the proposed extension site has been through numerous iterations and refinement in order to strike a balance between viable operation and appropriate integration into what is recognized as a sensitive landscape. The unusually narrow footprint of the application area combined with phased extraction and progressive restoration presents the most compact commercially viable operation possible of this site. Various final restoration solutions have also been explored with submitted proposals currently committed to reinstatement of agricultural lands and ground levels as per existing.

**Extraction Phase**  
With screen berms established and access bridge constructed between existing operation area and proposed, extraction of Phase 1 would commence.

This would initially involve removal of overburden material with the west faces in particular graded, and temporarily hydroseeded to green up for the duration of Phase 1 mineral extraction.

### PLANT SCHEDULES - NOTE: MIX SUBJECT TO AUTHORITIES AGREEMENT

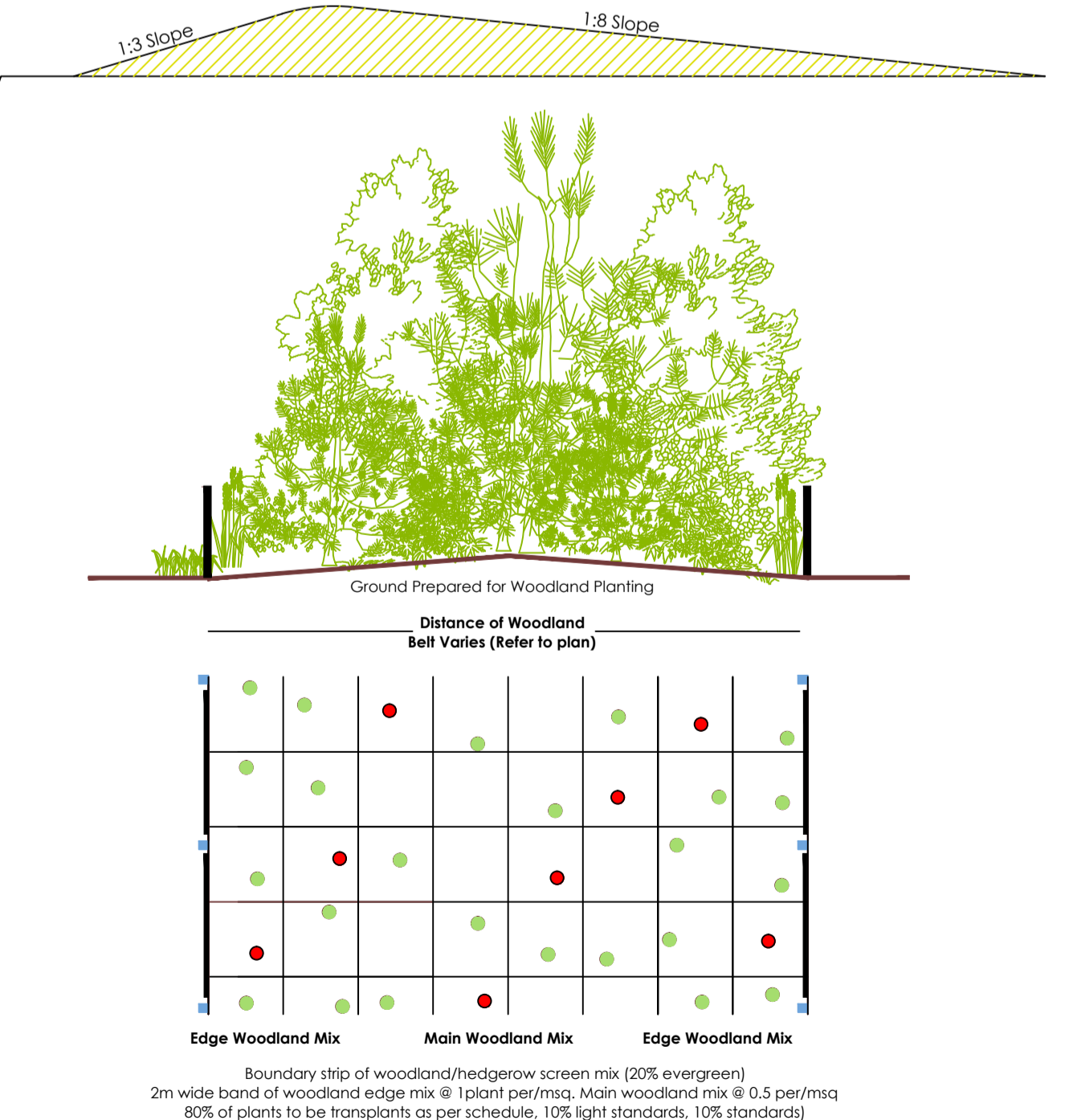
MAIN WOODLAND MIX (W1) (DRAFT)							
%	SPECIES	COMMON	SIZE	GROWN	HEIGHT/TRANSPL	DENSITY	
Ac	40	Acer campestre	Field Maple	40-60cm	BR	1 + 1 Branched	0.5 per m2
Fr	10	Fraxinus excelsior*	Ash*	40-60cm	BR	1 + 1 Branched	0.5 per m2
Ms	15	Malus sylvestris	Crabapple	40-60cm	BR	1 + 1 Branched	0.5 per m2
Bp	10	Betula pubescens(w)	Downy Birch	40-60cm	BR	1 + 1 Branched	0.5 per m2
Ag	10	Alnus glutinosa (w)	Alder	40-60cm	BR	1 + 1 Branched	0.5 per m2
Sa	10	Sorbus aucuparia	Rowan	40-60cm	BR	1 + 1 Branched	0.5 per m2
Ug	5	Ulmus glabra	Wych Elm	40-60cm	BR	1 + 1 Branched	0.5 per m2

WOODLAND EDGE MIX (W2) (DRAFT)							
%	SPECIES	COMMON	SIZE	GROWN	HEIGHT/TRANSPL	DENSITY	
Ca	40	Coryllus avellana	Hazel	40-60cm	BR	1 + 1 Branched	1.5 per m2
Cm	15	Crataegus monogyna	Hawthorn	40-60cm	BR	1 + 1 Branched	1.5 per m2
Ps	10	Prunus spinosa	Blackthorn	40-60cm	BR	1 + 1 Branched	1.5 per m2
la	15	Ilex aquifolium	Holly	40-60cm	BR	1 + 1 Branched	1.5 per m2
Ql	5	Cornus sanguinea	Dogwood	40-60cm	BR	1 + 1 Branched	1.5 per m2
Ue	5	Viburnum opulus	Guelder Rose	40-60cm	BR	1 + 1 Branched	1.5 per m2
Ag	5	Salix caprea (w)	Goat Willow	40-60cm	BR	1 + 1 Branched	1.5 per m2
Sr	5	Salix cinerea (w)	Grey Willow	40-60cm	BR	1 + 1 Branched	1.5 per m2

\*All - Due to Chert surface, alternative species to be agreed with local authority  
(w) - To be planted in localized areas of wet ground

**Broadleaf and Scrub woodlands**  
Once extraction is complete, where woodland or scrub planting is proposed, the ground will be crossrippled, topped and prepared, finally a quarter of all areas illustrating scrub habitat will be planted to provide a 'kick-start' to the process of succession. Whilst natural succession should eventually result in establishment of native species woodland, the aim in this reinstatement is to speed up the process of establishment by providing a seedbase and starting point for regeneration. Tree and shrub species will be planted directly into previously prepared pits incorporating 30gms of approved slow release fertiliser per planting station. Transplant material of height range 300-600 mm, either cell grown or bare root stock as per schedule. Shrub and hedgerow planting would be protected by rabbit-proof guards and staked appropriately. No fertiliser or soil improver will be used in the scrub or grassland areas. The proposed plant species will consist of native species of local provenance, where possible, but as a minimum, of Irish provenance. This habitat will be allowed to grow to maturity with minimal maintenance and intervention.

**Indicative Section Through Temporary Northern Boundary Earthwork (c.3-4m High)**  
Grassed Berm with shallow external c.1:8 slope allowing continued grazing and agriculture use - Grazing etc. The purpose of a wide shallow external profile is to create a screen landform which will appear as a natural roll in topography whilst screening operations beyond therefore minimizing visual disruption from the operation. Note: This earthwork would be graded back to existing levels post extraction.



Extraction Phase 1	16 - 102-101
--------------------	--------------

Swanage Quarry, Swanworth

**mda** mullin design associates  
559 Ormesau Road, Rosetta, Belfast, BT7 3JA  
mail@mullindesignassociates.com  
chartered landscape architects