



**PROPOSED HOUSING
SCHOOL BROW, MORESBY**

LANDSCAPE MAINTENANCE & MANAGEMENT PLAN

RAEMORE DEVELOPMENTS LTD

07.02.25

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1.0 Introduction

- 1.1 This report has been prepared to accompany a Planning Application for the construction of 54 houses and associated infrastructure.
- 1.2 The report will detail the Landscape Management requirements and incorporate measures to protect the existing and proposed landscape features during the construction and maintenance phases.
- 1.3 Westwood Landscape, Chartered Landscape Architects have been appointed by Raemore Developments Ltd to provide a Landscape Maintenance and Management Plan which fully complies with the Planning requirements.
- 1.4 The site is currently agricultural land on the north-western edge of Moresby village on the outskirts of Whitehaven to the west of Moresby Primary School grounds which it adjoins. Refer to the location and context plans below.

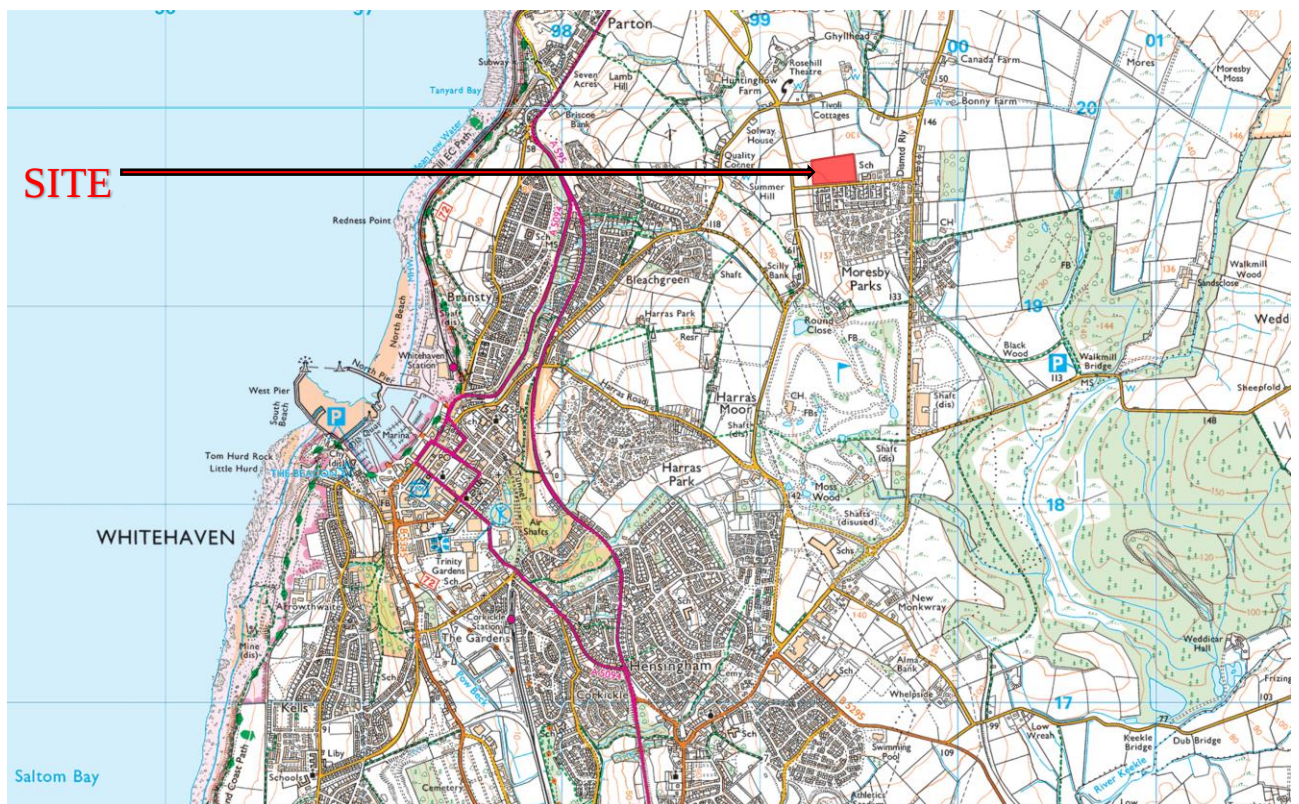


Figure 1 Location Plan showing the site in the context of Whitehaven and the coast.
Westwood Landscape Design LLP Ordnance Survey Licence Number TT:009737163



Figure 2 Site location plan showing the context of the adjacent residential areas, roads, Moresby Primary School and the surrounding agricultural land.

Westwood Landscape Ltd Ordnance Survey Licence Number 100062836



Figure 3 Site aerial plan showing the context of the adjacent agricultural land, residential areas and Moresby Primary School.

Westwood Landscape Ltd Ordnance Survey Licence Number 100062836

2.0 Management Plan Objectives

The landscape management strategy will ensure that the design objectives are realised and sustained in the long term. The landscape and ecological design objectives can be summarised as:

- Enhance local biodiversity by extending existing habitats including Hedgerows and trees and creating new habitats including native scrub shrubs and wildflower grassland. A high proportion of British native species have been selected.
- Create an attractive landscape setting and environment for residents and visitors which integrates well with the adjacent landscape character and capitalises on views.
- Retain and protect the trees on and adjacent to the site and reinforce these with additional planting of native species hedges and trees to enhance the ecological diversity and wildlife value.
- Enhance the streetscape of School Brow and reduce the intervisibility of the existing and proposed houses and improve the natural screening.
- Establish tree and shrub areas which define and enhance private gardens and access road streetscapes, reinforce boundaries, provide shelter and create year-round colour displays. This will include trees along the access roads with low shrubs and flowering groundcover.

- Create a distinct identity for the area with high quality landscape features through the use of local materials and bold planting.
- Integrate the development with the adjacent rural landscape character with tree and hedge planting to the boundaries and throughout the development.
- Accommodate the requirements of the service statutory authorities keeping access, easements and sightlines clear.
- Ensure that the maintenance requirements for the landscape areas are minimised through design and specification of high quality, robust materials from sustainable, energy efficient sources and appropriate plant species.
- To develop a landscape management strategy to ensure that the design objectives are realised and sustained in the long term.

3.0 Proposed planting

- 3.1 The planting design includes native species-rich boundary hedges to achieve linear habitats to the margins of the public open space and to the west boundary which will help to integrate the development with the surrounding agricultural field pattern. These are enhanced with native tree and shrub groups adjacent to the hedge and around the POS margins.
- 3.2 Bold shrub planting, streetscape trees, evergreen hedges and flowering ground cover concentrated along the access roads, high-profile corners and focal points to create bold colourful displays and partially enclose some of the front gardens to give some semi-privacy and variety within the estate.
- 3.3 Narrow canopy fastigate trees have been selected to highlight the position of the pedestrian entrance. Trees within front gardens combine to achieve an avenue effect.
- 3.4 Sensitive treatment of the southern boundary to create a partial screen of trees and feature shrubs to reduce the landscape and visual impact of the proposed houses on adjacent residential visual receptors and the road corridor.
- 3.5 The boundary hedgerow will be a species rich native hedge with native trees and native wildflower grassland verges which will enhance the ecological value of the site through increased diversity. Evergreen Holly content has been included in the proposed infill and extended hedges to ensure good winter cover and interest.
- 3.6 The proposed trees hedges and feature shrub beds within the plot gardens will enhance the streetscape and create some partition between the front gardens.
- 3.7 Rabbit damage is likely in this setting therefore guards have been specified for native hedge plants and trees. Further protection may be required if rabbit activity is significant in the ornamental shrub beds which should be monitored by the Management Company.
- 3.8 The plant schedule below provides details of the trees and shrubs proposed. Species have been selected which are appropriate to the site conditions, topsoil and extreme coastal situation. A high proportion of British native species have been selected.

	<u>NATIVE TREES</u>			Number	
	<i>Acer platanoides</i>	Norway Maple	AP	3	8-10cm rootballed
	<i>Alnus glutinosa</i>	Alder	AG	1	8-10cm rootballed
	<i>Betula pendula</i>	Silver Birch	BP	5	8-10cm rootballed
	<i>Malus sylvestris</i>	Crab Apple	MS	2	2-2.5m high bare rooted
	<i>Prunus avium</i>	Gean	PA	5	8-10cm rootballed
	<i>Sorbus aucuparia</i>	Rowan	SAU	3	2-2.5m high bare rooted
	<i>Sorbus aria</i>	Whitebeam	SA	4	8-10cm rootballed
	TOTAL			19	
	<u>ORNAMENTAL TREES</u>				
	<i>Carpinus betulus</i> Frans Fontaine'		CB	3	8-10cm rootballed
	<i>Crataegus</i> Crimson Cloud		CC	7	8-10cm rootballed
	<i>Crataegus</i> Pauls Scarlet		CP	5	8-10cm rootballed
	<i>Malus</i> Golden Hornet		MG	2	8-10cm rootballed
	<i>Prunus</i> Pink Perfection		PP	4	8-10cm rootballed
	<i>Sorbus aria</i> Lutescens		SAL	11	8-10cm rootballed

	Sorbus aucuparia Embley	Rowan	SS	3	8-10cm rootballed
	Sorbus commixta	Rowan	SC	4	8-10cm rootballed
	TOTAL			39	
	SPECIMENS	Key		Number	Specification
	Amelanchier lamarckii	AL		5	90-100cm CG15
	Euonymus Green Spire	EG		3	40-50cm CG10
	Olearia Haastii	OH		3	40-50cm CG10
	Ilex Golden King	IK		8	90-100cm CG15
	Cordyline Red Star	CR		2	90-100cm CG15
	Phormium Sundowner	PS		4	60-80cm C10
	Pinus mugo	PM		3	60-80cm C10
	Syringa vulgaris	SV		1	60-80cm C10
	Skimmia Rubella	SR		2	40-50cm CG10
	TOTAL			31	
	<u>NATIVE TREES AND SHRUB MIX</u>	1/ sq.m.	80 sq.m.		
	Plant name	Common name	% in mix	Number	Specification
	<i>Crataegus monogyna</i>	Hawthorn	25%	20	40/60cm bare root
	<i>Corylus avellana</i>	Hazel	25%	20	40/60cm bare root
	<i>Euonymus japonicus</i>	Spindle	10%	8	40/60cm bare root
	<i>Prunus spinosa</i>	Blackthorn	10%	8	40/60cm bare root
	<i>Ilex aquifolium</i>	Holly	10%	8	30/40cm in C2 container
	<i>Sambucus nigra</i>	Elder	10%	8	40/60cm bare root
	<i>Viburnum opulus</i>	Geulder Rose	5%	4	40/60cm bare root
	<i>Rosa canina</i>	Dog Rose	5%	4	40/60cm bare root
	<u>HEDGE: Species rich native mix</u>	5/ linear metre	NBH	284m	1420 plants
		Double staggered row			
	Plant name	Common name	% in mix	Number	
	<i>Crataegus monogyna</i>	Hawthorn	50%	710	40/60cm bare root
	<i>Prunus spinosa</i>	Blackthorn	10%	142	40/60cm bare root
	<i>Ilex aquifolium</i>	Holly	10%	142	30/40cm in C2 container
	<i>Euonymus japonicus</i>	Spindle	10%	142	40/60cm bare root
	<i>Corylus avellana</i>	Hazel	5%	71	40/60cm bare root
	<i>Rosa canina</i>	Dog Rose	5%	71	40/60cm bare root
	<i>Lonicera periclymenum</i>	Honeysuckle	2%	28	30/40cm in C2 container
	<i>Sambucus nigra</i>	Elder	3%	43	40/60cm bare root
	<i>Viburnum opulus</i>	Geulder Rose	5%	71	40/60cm bare root
			100%	1420	
	<u>HEDGE: native Holly</u>	4/ linear metre	NHH	104m	
		Double staggered row			

	Plant name	Common name	% in mix	Number	
	<i>Ilex aquifolium</i>	Holly	100%	412	30/40cm in C2 container
	<u>ORNAMENTAL HEDGE</u>	4/ linear metre single row			
	Plant name	Common name	Key	Number	
386 m	<i>Eleagnus ebbingeii</i>	Oleaster	EEH	1544	30/40cm in C3 container
63m	<i>Euonymus Ovatus Aurea</i>	Eunumus	EOH	252	30/40cm in C2 container
5m	<i>Ligustrum ovalifolium Aureum</i>	Privet	LOH	20	30/40cm in C2 container
	<u>NATIVE BULBS</u>			Number	
	<i>Crocus Blue/ White mix</i>	Crocus	C	500	As shown
	<i>Narcissus pseudonarcissus</i>	Daffodil	N	3000	As shown
	<u>ORNAMENTAL SHRUBS</u>		sq.m.		No/ sq.m.
	<i>Bergenia cordifolia</i>	Bc	20-30cm	C2	4
	<i>Escallonia macrantha Rubra</i>	Em	20-35cm	C2	3
	<i>Euonymus Emerald Gaiety</i>	Ee	20-35cm	C2	3
	<i>Euonymus Blondy</i>	Eb	20-35cm	C2	3
	<i>Ceanothus Puget Blue</i>	Cpb	20-30cm	C2	3
	<i>Ceanothus Blue mound</i>	Cb	20-30cm	C2	3
	<i>Cistus Silver Pink</i>	Cp	20-35cm	C2	3
	<i>Cornus alba elegantissima</i>	Ce	40-60cm	C2	2
	<i>Geranium Johnsons Blue</i>	Gp	20-30cm	C2	5
	<i>Hebe Blue Gem</i>	Hb	20-30cm	C5	4
	<i>Hebe Autumn Glory</i>	Ha	20-30cm	C5	4
	<i>Hebe Sutherlandii</i>	Hs	20-30cm	C5	4
	<i>Hebe 'Mrs Winder'</i>	Hw	20-30cm	C5	3
	<i>Hebe Marjorie</i>	Hm	20-30cm	C5	4
	<i>Hebe Rakaiensis</i>	Hr	20-30cm	C5	4
	<i>Heuchera Palace Purple</i>	He	20-35cm	C2	4
	<i>Hydrangea Vanille Fraise</i>	Hy	40-60cm	C2	2
	<i>Hypericum calycinum</i>	Hp	20-35cm	C2	4
	<i>Lonicera pileata Maigreen</i>	Lm	30-45cm	C2	2
	<i>Potentilla Lovely Pink</i>	Pp	20-35cm	C2	4
	<i>Potentilla Elizabeth</i>	Pe	20-35cm	C2	4
	<i>Pyracantha rogersiana</i>	Pr	40-60cm	C2	3
	<i>Rosemary Miss Jessups Upright</i>	Rm	20-30cm	C2	3
	<i>Rosemary prostratus</i>	Rp	20-30cm	C2	4
	<i>Sedum Autumn Glory</i>	Sa	20-30cm	C2	5
	<i>Senecio sunshine</i>	Ss	20-30cm	C2	3
	<i>Skimmia rubella</i>	Sr	20-30cm	C2	3
	<i>Vinca minor Atropurpurea</i>	Vm	15-20cm	C2	5

4.0 Specification for landscape Maintenance and Management works

- 4.1 TOPSOIL CULTIVATION** In accordance with BS 3882. Apply glyphosate herbicide prior cultivation and allow the recommended period before further action. Ensure ground is free draining by breaking up subsoil and installation of land drainage as required. Do not work the soil in frozen or waterlogged condition. Remove any debris and stones greater than 50mm from surface and cultivate to suitable tilth for planting. Rake surface to achieve required level flush with adjacent paving for turf and 50mm below for planting to allow for mulch layer and smooth flowing contours for open space areas without hollows or soft areas. Topsoil depths to be minimum 150mm for grass and 450mm for planting.
Site topsoil to be supplemented with imported topsoil in accordance with BS 3882. Shrub beds in grass areas to be neatly cut to layout shown.
- 4.2 PLANTING** Plant material shall conform to the National Plant Specification and be healthy, vigorous specimens, well rooted but not pot bound, free from pests and disease, hardy and undamaged by transport operations in accordance with HTA 'handling and establishing landscape plants'. Planting and turfing to be in accordance with BS 3936 and 4428. Plant species substitutes will be permitted to accommodate availability and to include stock of particular good quality in nursery provided these are of a similar habit, size, colour, value etc and that they are approved by the Landscape Architect. Native species to be local provenance. Bare root and rootballed plants to be planted between November and March. Backfill of planting holes and tree pits to be excavated topsoil with 25% by volume tree and shrub planting compost. Shrub pits to be generally 300 x 300 x 300mm or 75mm wider and deeper than the root spread. Tree pits to be 900 x 900 x 600mm or 150mm wider than the root spread. Stakes to be two 75mm diameter pointed stakes driven until firm and trimmed to 900mm above G.L. with 50 x 100mm crossbar screwed to stakes. Rubber tree cushion nailed to crossbar and rubber tree belting nailed to secure tree. Single 75mm diameter stake for bare-rooted trees with rubber tree belting with spacer. Apply slow release fertiliser (16:10:10) at rate of 100g/ sq.m. to planting areas and 250g per tree. Thoroughly water planting.
- 4.3 TREE ROOT BARRIER** At locations where root restriction is required adjacent to service positions as directed by the Landscape Architect Greentech Ltd root barrier 600mm to be installed in accordance with manufacturers guidelines.
- 4.4 TREE RABBIT GUARDS** If rabbit activity is noted in the area and guarding is authorised each bare-rooted native plant hedge plant to receive a 12/14 weight 900mm cane and 60cm clear spiral guard. Trees to receive 90cm spiral guard. If extensive rabbit activity is observed rabbit fencing to ornamental areas will be required as directed by the Landscape Architect.
- 4.5 MULCH** Spread 50mm layer of general purpose bark mulch free from large sticks, and debris over all shrub areas, 800mm wide strips for hedging and 800mm diameter circles for tree pits in grass with neatly trimmed edge.
- 4.6 SEEDING AMENITY GRASS** Following cultivation preparation specified above apply Cropwise Low maintenance amenity mix or similar approved at a rate of 35gms/ sq.m. and roll with quad or hand drawn ballast grass roller. Apply water with sprinkler hose in dry conditions to ensure germination. Levels to be flush with adjacent paving following firming and settlement of topsoil. Further stone-picking, top-dressing and re-seeding of bare patches to ensure uniform, level grass is established. Re-roll as required at first cut stage.
- 4.7 SEEDING WILDFLOWER GRASS** Prepare as for amenity grass and sow 3-5 g/ sq.m. of mix EP1, EM1 and EM8 supplied by Emorsgate Seeds and applied in accordance with their recommendations.

5.0 Protection of existing trees and hedges within or close to site boundary

- 5.1 Refer to the Appendix 2 and the Tree Survey report for details of tree protection fence requirements during the Construction Phase. Fencing measures during the ongoing maintenance phase are only required if maintenance operations may affect the Root Protection Area (RPA) of retained trees. The RPA can be measured as a radius from the trunk of 12 times the trunk diameter at 1.5m above ground level. Trees to be protected in accordance with British Standard 5837:2012 Trees in Relation to Construction. Signs should be erected on the fencing to say 'TREE PROTECTION AREA KEEP OUT. The fencing shall be retained for the duration of any approved works. Refer to AIA for fencing layout.
- 5.2 Protective fencing must remain intact and in place, and protection procedures must be adhered to throughout the construction period. Removal of protective fencing should be the last job carried out on completion of the project.
- 5.3 No mechanical traffic should be allowed within the tree RPA, since this could cause compaction and damage roots. No excavations of any kind to take place within the root zone area of protected trees. No materials should be stored within the RPA or any ground level increase. No fires to be lit within the RPA.
- 5.4 In certain circumstances it is possible to accommodate construction activities within the distances recommended by the B.S. 5837:2012 calculation. This may be unavoidable for the viability of the project but will not necessarily lead to tree damage. Such intrusive work within the RPA should be restricted to one side of the tree and the protection zone extended on the other sides to compensate. In these circumstances sympathetic construction methods must be implemented in accordance with the AIA recommendations. Any unavoidable alterations required to the surface above the root zones within the fenced off Root Protection Area should only be carried out after having first produced specific method statements for these activities without the use of mechanical excavators i.e. all works within this zone should be carried out by hand. These should be submitted by the contractor to the Chartered Landscape Architect or Arboriculture Consultant for approval.
- 5.5 Seven days written notice shall be given to the Local Planning Authority that the protection measures are in place prior to commencement of the approved works, to allow inspection and approval of the protection fencing and signage.

6.0 Management Tasks

The following tasks should apply and can be summarised as:

YEAR 1

- **Existing trees** and shrubs adjacent to boundaries. Arboricultural monitoring survey at the end of the first year to check for signs of deterioration, Action the recommendations of the Tree Survey Report and any additional requirement arising from subsequent surveys. Pruning to trees should include removal of any storm damage or deadwood and to maintain a balanced crown with suitable ground clearance in public areas to maintain safety. Pruning to proceed in September to mid-February to avoid bird nesting season and wildlife disturbance.
- **Proposed Trees.** Check stakes and ties 12 times, prune once, fertilise once, water as required. Replace failed plants. Existing trees to be monitored for health and appropriate pruning and pest & disease control adopted. Pruning to remove dead, diseased, crossed or dangerous branches including trees growing outside the site boundary with branches overhanging the site. Treat for pest and disease emergence as required to maintain healthy growth.
- **Ornamental shrubs and hedges.** Apply herbicide 6 times, selective hand weed 6 times, re-firm plants 12 times, check canes and guards 12 times, prune once, fertilise once, water as required. Treat for pest and disease emergence as required to maintain healthy growth. Replace failed plants. Top up mulch to maintain uniform cover. For new hedges pruning will be to control overhanging branches and maintain healthy growth for the first year until the target hedge height is exceeded when a uniform height and width cut will be required.
- **Wild flower grassland** species rich grassland areas will be maintained in order to prevent ecological succession and to maintain a healthy structural diversity. A cut should be undertaken twice in year 1 in the winter months to ensure that all the species have seeded. The sward should be cut down to a minimum of 8 cm to maximise the value of the retained sward for invertebrates. Varied sward heights should be incorporated (20% less than 7cm and 20% more than 7cm). In addition, 10% of the area should be retained as a refuge each year to provide habitat for invertebrates, however these areas should be rotated so that each refuge area is cut at every second rotation. All arisings should be left in situ for a week to allow invertebrates to move into the retained areas and then removed. Spot herbicide to control invasive species and prevent establishment of seeded tree species such as *Salix spp*, *Prunus spinosa* and *Acer spp* which will quickly establish and change the habitat and character of the area. Monitor the spread of Dock, Nettle and check for signs of Himalayan Balsam and Japanese Knotweed. Apply Glyphosate herbicide repeatedly to control spread. Monitor species diversity and percentage cover of each species. Mow grass at paved edges 6 times (90cm width) to prevent obstruction to walkers and untidy edge. Replace failed areas. When cutting grass adjacent to the swale adopt protection measures to ensure no arisings or pollutants enter the watercourse.
- **Amenity grass.** Remove debris, mow grass 16 times minimum with additional cuts if required, trim edges as required. Water as required. Apply Spring fertiliser and weed/ moss killer as required. Top dress, aerate and re-seed patches as required to maintain a uniform healthy sward. Replace failed areas.
- **Invasive Weeds.** Monitor regularly at each herbicide inspection for noxious invasive weeds registered in Schedule 9 of the Wildlife and Countryside Act updated 2013 including in particular Japanese Knotweed *Fallopia japonica*, Himalayan Balsam *Impatiens glandulifera* or Giant Hogweed *Heracleum mantegazzianum*. Government guidance states that it is an offence to allow such weeds to spread to other areas and therefore prompt treatment to eradicate them is advised. If Bracken is present it should be no more than 20% of the wildflower grass area.

YEARS 2 – 10 and on-going annual maintenance

- As for year 1 with reduction in herbicide and hand weeding as ground cover foliage extends. Anticipated 30% reduction in year 2 and further 30% in year 3. Application of fertiliser as required.
- Remove tree guards where applicable at end of year 3 and stakes from year 3 onwards when trees are showing evidence of adequate support. Replace any failed plants within the defects period specified by the Planning Authority.
- Pruning to maintain healthy growth appropriate target habit for each species and maintain co-dominance of species in mix to prevent one species taking over. Also to maintain adequate foliage cover at lower level to prevent bare patches and loss of screening effect. Dead wood and suckers to be removed.
- Monitoring of pests and diseases and application of appropriate pesticides, fungicides and herbicides as required. DEFRA to be contacted if pests observed which have been identified as significant risk of spreading. Planting maintenance standards in accordance with BS4043 BS 7370-4 (pruning) and BS 3998 (tree work).
- The wild flower grassland will continue to require an annual cut in September to selective areas as required with approximately 50% areas being left undisturbed and spot application of Glyphosate herbicide to prevent the spread of invasive species or the succession to scrub and woodland. All as described for Year 1. The annual cut will prevent the establishment of new trees and shrubs but spot application of some herbicide may also be required to prevent new tree seedlings becoming established.
- For new hedges pruning will be to control the width and maintain healthy growth for the first 2-3 years until the target hedge height is exceeded when a uniform height and width cut will be required. For established hedges cut back to the previous years' pruning line to maintain a uniform height and width. Remove all arisings.

7.0 Responsibility and Programme for Management Tasks

Raemore Developments Ltd will be responsible for implementing the Landscape Management tasks including replacement of defective planting during the Defect Liability Period which is 5 years. The communal open space areas shown on Westwood Landscape Design drawing number WW/L01 Landscape Plan will be managed by a Management Company and the private gardens will be managed by residents on completion of purchase.

The programme for the Management Company maintenance tasks is indicated on the Landscape Management Scheduled Tasks in Appendix 4 and should commence on completion of the Contract Phase Works to the satisfaction of the LPA.

The nominated landscape management contractor appointed by the Management Company must set up a system which identifies the precise areas to be maintained and the particular specifications which are appropriate for the landscape type. Clear instructions and guidance for an operative should be included on a pro- forma for each area which records the date the operation is carried out and by which operative and include evidence that the operations were undertaken satisfactorily (photographs). This facilitates verification of the work by representatives from Management Company or from the LPA.

APPENDICES

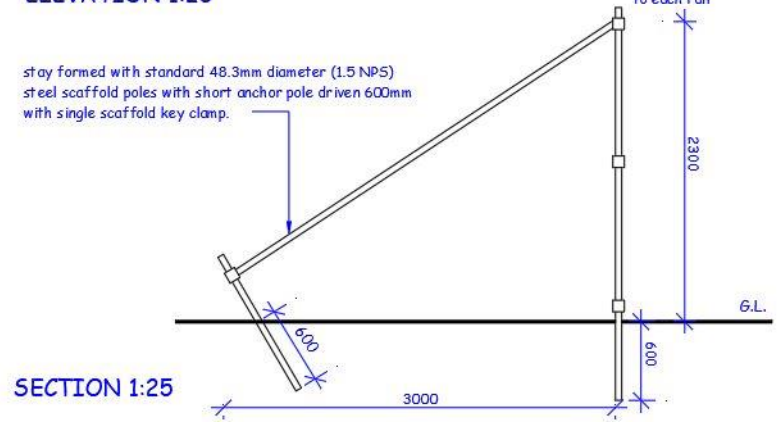
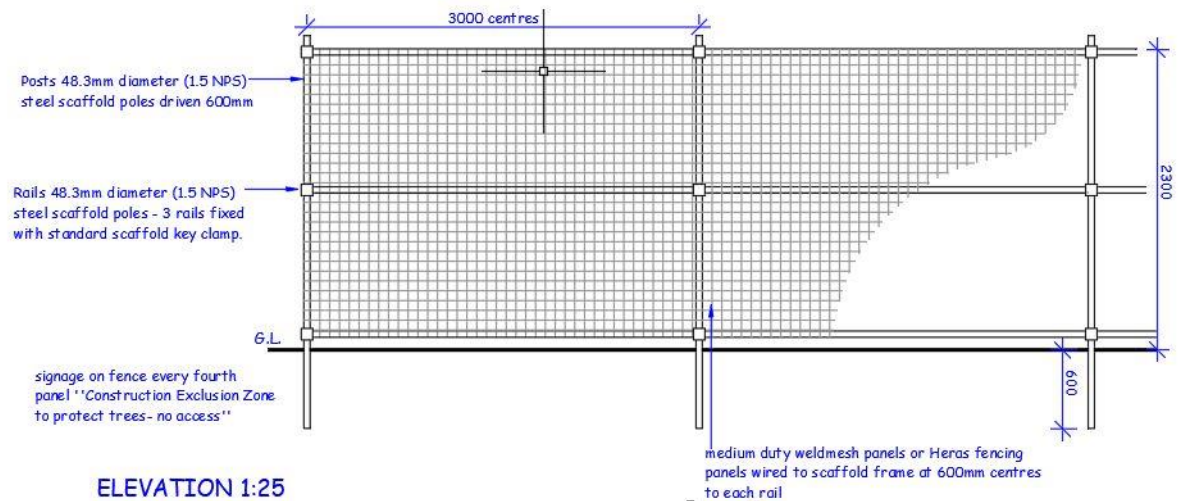
APPENDIX 1

- WW/L01 Landscape Plan

APPENDIX 2

TREE PROTECTION FENCE DETAIL

Fence complies with BS5837 (2012).



CHARTERED LANDSCAPE ARCHITECTS	
TREE PROTECTION FENCE	
DATE:	DRAWING NUMBER: WWED11
SCALE: 1:25 (A1)	

APPENDIX 3

LANDSCAPE MANAGEMENT SCHEDULED TASKS

APPENDIX 4

LANDSCAPE IMPLEMETATION PROGRAMME