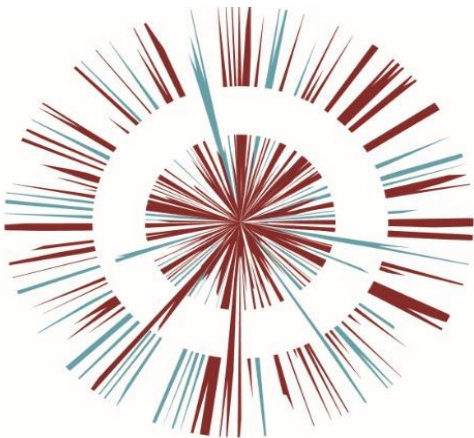




OMEGA ZONE 8, ST HELENS

Omega St Helens Ltd / T J Morris Ltd



Landscape Management
Plan – INFRA
INFRA DOC. 3b.



Omega Zone 8: Landscape Maintenance Strategy

March 2020 (Rev D – issued 05:08:20)

Prepared on behalf of Omega St Helens Ltd and T.J.Morris Limited

PlaceOnEarth
landscape design

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Cover photograph: BP Headquarters Aberdeen. Establishment landscape management by PlaceOnEarth Ltd.

The Omega Zone 8 site lies to the north west of Warrington Town centre, and to the immediate south of the M62 trans Pennine motorway. It is overlooked to the north west by Clock Face Country Park and sits adjacent to Omega South to the east. The detailed application site focuses on a major distribution unit for T.J.Morris Limited, with on plot landscape works developed by JB Landscape associates. The following landscape maintenance guidelines therefore focus on those substantial areas of landscape infrastructure and mitigation that are considered "off site" but remaining within the detailed application boundary, and as referred to on the accompanying POE Landscape drawings.

The proposal incorporates significant new areas, of woodland, edge mix planting, native hedgerow planting, wildflora meadow and wetland areas that combine to create a significant and publically accessible setting for the development, but will over time also serve to enhance the ecological character and biodiversity of the current site.

The proposal includes the retention of existing boundary hedgerow, scrub and mature trees and woodland such as Plain Plantation and Booth's Wood, and to complement this with new native mix hedgerow, structural woodland, wild flora grassland, wetland and amenity grassland in combination to create the setting for the proposed development, which at the same time is aimed at mitigating over time the potential visual impact that the proposed development may have on neighbouring properties and the wider landscape setting.

A new footpath / cycleway encourages access across the site in an east west direction and provides new connectivity between Warrington and St Helens District Council where this has not previously existed.

The site can be broken down into two distinct character zones; the green triangle or wedge to the west of the TJM plot and the footpath cycleway corridor to the south. Over time, and as detailed proposals come forward, each of these will form important components in a wider landscape strategy currently outlined in concept form within the current outline application. This document does not at this stage embrace those works for obvious reason, though the principles contained herein will remain consistent across the wider landscape.

The existing woodland / copses recognised as Plain Plantation and Booth's Wood , are being retained and appropriately protected as part of these proposals and strategy. Both are protected under the 1957 Lancashire County Council (Whiston Rural District) Tree Preservation Order No.5 –W16 and W8 respectively, and as such are offered statutory protection. Ecological reporting by others notes the presence of stands of non native species, Rhododendron and Himalayan Balsam. Whilst there is no legal obligation on the Developer to remove these , there is a requirement to control their spread, this document therefore includes these as part of the overall programme of works and longer term maintenance strategy.

The success of any new landscape scheme cannot be left to chance, and the following tables, set out a periodically reviewable strategy for the management and maintenance of the proposed development over the five years of its life, thereafter, the strategy is to be reviewed and amended or added to as local influence dictates and indeed in line with any potential changes in climate which are currently inevitable but unpredictable at this stage.

All management activities including tree and shrub thinning and invasive species clearance will be undertaken in complete accordance with the timing constraints imposed, for example, by the bird nesting season. In this regard, no Rhododendron clearance will be allowable between the months of March and August; in the unlikely event that this is not practicable, such works will be done under the guidance and control of an appropriately qualified Ecologist.

The purpose of this document therefore, supported by Landscape drawing nos. POE 199-002,004,005a and b,006,007 and 009, is to ensure that this development can proceed and mature in line with a recognised series of objectives and priorities in mind.

In establishment year 1 of all soft landscape works, this document is to be read in conjunction with a NBS soft landscape specification that will be prepared as part of any tender documentation that may be prepared going forward . This will offer a more prescriptive view of measured works during the first twelve months of establishment maintenance. That document will continue to form part of the short to medium term landscape maintenance strategy but will be supported and ultimately subsumed thereafter by the strategy outlined here.

The measures identified in the following tables and within the above drawings should also be read in conjunction with British Standard 4428:1989 "Code of practice for general landscape operations (excluding hard surfaces) and British Standard 7370:Part 4:1993 Grounds Maintenance. Tree planting will be undertaken in accordance with BS 8545: 2014. Trees: from nursery to independence in the landscape – Recommendations.

Further guidance and reading in relation to the proposed works can be found in the following amongst others;

- "The Management of Semi-natural woodlands" : Forestry Commission.
- "Wildlife Law: The Control of Invasive Non-native species" : Law Commission.
- "Helping to prevent the spread of invasive non-native species" : Defra.
- "Himalayan Balsam" identification guide : NNSS.
- "Rhododendron: identification guide : NNSS.
- " Illustrated guide to ponds and scrapes" : Natural England.
- "Wildlife and Countryside Act 1981" : Her Majesty's Government Office.

Notwithstanding the current constraints impacting many activities across the UK economy, and also on the assumption that permission is granted, the proposal is to undertake all soft landscape operations identified on PlaceOnEarth drawing numbers POE 199-002,004,005a and b,006,007 and 009, during the first available planting season following commencement of the works.

Therefore, assuming a start on site of August 2020, the landscape infrastructure works would be completed by the end of planting season 2020-21, perhaps with the exception of some smaller areas of seeding, which may have to be undertaken at the appropriate time and season immediately thereafter. An initial twelve month period of management and maintenance will follow, and conclude at the end of planting season 2021-22.

All management activities including tree and shrub thinning and invasive species clearance will be undertaken in complete accordance with the timing constraints imposed, for example, by the bird nesting season. In this regard, no Rhododendron clearance will be allowable between the months of March and August; in the unlikely event that this is not practicable, such works will be done under the guidance and control of an appropriately qualified Ecologist.

Furthermore, no works within or close to either Plain Plantation or Booth's Wood, both protected under Tree Preservation Order 5/2 Bold Area (original Order No.5 prepared in 1957 by Lancashire County Council), will be permissible without the prior and express written consent of St Helens Metropolitan Borough Council. In this regard, appropriate protective fencing measures in accordance with BS 5837:2012: Trees in relation to design, demolition and construction-Recommendations, will be installed prior to the commencement of initial construction works. Such fencing will remain in place at the discretion of the Developer and until such time as these management practices are enacted following an initial period of establishment maintenance.

Section 3: Landscape Management and Maintenance.

The following project tables summarise the management requirements for the proposed landscape framework associated with the development at Omega West Zone 8 for the first five to ten years of operation and beyond. This information shall not be treated as a definitive maintenance schedule; it should be treated as a reference point only. It shall be reviewed on a continuous basis following site visits throughout the life of the development. Climate change conditions shall be regularly reviewed to ensure that the most appropriate maintenance methods are employed over time to respond to changes in conditions. In all instances works shall be undertaken in accordance with best practice guidance through either British or European Standards.

Priority 1: to maintain the wildlife value of the site and its value to local people

Priority 2: to meet legal obligations and safety requirements

Area	Prescription	Priority	Description
All grass areas	Litter clearance	2	Litter will impact on visual amenity and may also be a danger to wildlife. This should be monitored regularly by site maintenance staff.
Wildflora grassland and wetland grassland areas	Management	1	Generally, seed distribution and establishment shall be in accordance with the suppliers' recommendations. In the first year, grassland areas should be cut in October for spring-seeded grass to allow wildflowers to shed their seeds, or May and October for autumn seeded grasses. The cut height should be between 4 and 7cm. In subsequent years cuts shall take place in March and September of each year to a height of between 10 and 15cm. This timing will reduce the potential for harmful impacts on any invertebrate populations and help maintain a variety of different grassland species. Arisings left in-situ will cause nutrient enrichment, smother small plants and prevent seeds from reaching the soil surface and re-germinating. It is therefore important to remove all arisings.
Amenity grass areas and verges	Management /mowing	1	Cut at least once per fortnight to a height of 50mm from March through to November as required. Arising's to be left as a mulch following the first cut. Operatives must ensure that this intensive mowing or strimming regime takes place to amenity grass areas only as noted on Landscape drawings POE 199. These areas are clearly defined on this drawing and shall not be amended with prior written consent from St Helens Metropolitan Council. This cutting regime shall not take place beyond this zone where wild flora grassland has been sown. High Priority: In order to create a good impression for users areas should be well maintained at all times.

Section 3: Landscape Management and Maintenance.

Area	Prescription	Priority	Description
Hedgerow	Management	1	For the existing hedgerow sections, and in-order to encourage wildlife, the hedgerows will be trimmed every 3rd year, on an annual 15m length rotation, trimming towards an A-shaped section and approximately 2-3m minimum bottom width, allowing the shrubs to produce more flowers and berries. The hedgerows will not be trimmed between April and September due to the likely presence of invertebrates and nesting birds. Trimming will normally take place between January and February. Care will be taken to ensure that hedgerow trees (existing and new plantings) are not damaged by mechanical hedge trimming operations. Over time coppicing may be considered where hedge bottoms have become thin and any failures will also be replaced during this period. For new planting, a management regime will be implemented to ensure continued growth and establishment. This will consist of maintaining and managing weed growth control for at least three seasons through mulching, translocated Glyphosate based herbicides(applied in accordance with supplier recommendations and by appropriately qualified operatives or hand and or mechanical weeding. Trimming (pruning) of the hedgerow plants will be carried out immediately after planting to encourage vertical and horizontal regrowth in accordance with good horticultural practice.
Woodland and structure planting areas	Management	1	Newly planted woodland areas will be managed toward a climax mix of English and Sessile Oak, with all other "nurse species" being reviewed thinned and removed on a three yearly cycle. Woodland edge species shall be maintained in a weed free environment using a translocated Glyphosate based herbicides applied in accordance with manufacturers recommendations and by appropriately qualified operatives or hand weeding. Alternatively the base of each plant can be kept weed and competition free by mechanical means ensuring that protective guards are in place to protect from mechanical damage. Species will be allowed to mature largely as indicated in the planting specie mix, but with appropriate thinning as required to ensure overcrowding does not occur and that a balance of deciduous and evergreen species is retained in the mix. At its base, each plant shall be maintained in a weed free environment using a translocated Glyphosate based herbicides applied in accordance with manufactures recommendations and by appropriately qualified operatives or hand weeding. Alternatively the base of each plant can be kept weed and competition free by mechanical means ensuring that protective guards are in place to protect from mechanical damage.
All woodland areas	Litter clearance	2	Litter will impact on visual amenity and may also be a danger to wildlife. This should be monitored regularly by site maintenance staff.

Section 3: Landscape Management and Maintenance.

Area	Prescription	Priority	Description
Individual trees	Management / checking/ pruning	1	Trees shall be regularly inspected throughout each of the first five years of establishment, with all supporting stakes and ties, adjusted , repaired or removed as may be required at the time of inspection. Stakes should, as a matter of course be removed during the fifth full growing season, to prevent damage. Trees shall be pruned to maintain forms typical of respective species and to ensure the safety of site users. Pruning will also focus on wind damage and vandalism as may be required. Clear stem heights shall be uniform. Pruning shall be carried out to ensure dark, overgrown spaces are avoided.
Non native invasive plant species	Management	2	Detailed ecological reporting has established the presence of Himalayan Balsam (<i>Impatiens glandulifera</i>) and Rhododendron (<i>Rhododendron ponticum</i>) in Plain Plantation, which forms part of the current plan proposals area. Whilst there is no legal requirement incumbent upon the Developer to remove this, there is an obligation to control the spread of these non native species. Therefore in year one of the planned programme of implementation and maintenance, all stands of Himalayan Balsam and Rhododendron will be carefully removed in accordance with best practice guidance and in line with protected species constraints – in the case of the former, after growth has started and before flowering and seeding, and disposed of on site in an appropriate manner, in all instances taking care not to disturb habitat within the immediate vicinity .
New wetland scrapes and ponds	Management	1	A series of smaller ponds and scrapes are proposed throughout the plan area. The establishment of these will largely be left to natural colonisation and progression. They are intended to be seasonal ponds, and as such more attractive to amphibian such as Great Crested Newt, a key target species here. Management will included regular inspections for litter and deleterious matter, but annually to assess plant establishment, and to control blanket weed and duck weed in the first year or two. Careful thinning of pond vegetation both marginal and submerged will be undertaken at three yearly intervals, removing up to a third of all plant material, and where necessary, using the arisings to inoculate new ponds as may be further developed in future. Bulrush, is an aggressive visitor to new ponds and its spread throughout these new features should also be monitored and controlled accordingly.
Monitoring and review		1	Continually re-assess whether or not, habitat objectives set in the Management Plan have been achieved. This will provide information to quantify and evaluate the effects of management operations onsite, i.e. what was done and what happened as a result. Performance of key species should be reviewed in order that management techniques may be refined. The intended plan life of this current strategy is five years and a full review will be undertaken at that time. Climate change is a key influencer in terms of ecology and habitat diversity, the apparent rapid change in climate could therefore influence an early review of this plan and will therefore will be reviewed periodically to assess the continued appropriateness of the measures outlined above and as required.

Section 4: Detailed Management Objectives.

Procedure	Years	J	F	M	A	M	J	J	A	S	O	N	D	Notes
Hedgerow and Woodland														
Plant inspection / review and replacement	1-5													Annual inspection
Non native invasive species control.				*	*	*								* Himalayan Balsam only
Replacement planting	1-5													
Watering	1													First establishment season only
Re firming of new planting	1-2													As required
Check rabbit guards	1-5													Adjust / replace.
Pest and disease control	1-5													As required
General pruning	1-10													In accordance with best practice
Slow release fertilizer	1-5													
Weed control	1-3													Refer to management priorities.
Formative pruning for health and form	1-5													
Thinning	3-15													
Grass and wildflora cutting	1-10													

Note: The above schedule does not indicate the number of visits but the months in which operations must or should be undertaken. This will be reviewed and varied throughout the life of the management plan to suit changing site, plant and climate conditions. At year five of the plan, a full review and amendment as required should be undertaken.

Section 4: Detailed Management Objectives.

Procedure	Years	J	F	M	A	M	J	J	A	S	O	N	D	Notes
Grassland														
Annual review	1-10													
Litter control	1-10													
Cutting (spring sowing)	1													Remove all arisings
Cutting (autumn sowing)	1													Remove all arisings
Annual cutting	1-10													Remove all arisings
Amenity grass														Leave arisings as a mulch. Spread evenly
Trees														
Annual inspection/review	1-10													
Replacement planting	1-5													
Watering	1													Establishment only
Re firming new trees	1-2													And after all storms.
Check stakes and ties	1-5													
Remove stakes and ties	5													Subject to review
Prune dead or damaged wood	1-10													All in accordance with best practice
Thinning	3-15													To oak woodland

Note: The above schedule does not indicate the number of visits but the months in which operations must or should be undertaken. This will be reviewed and varied throughout the life of the management plan to suit changing site, plant and climate conditions. At year five of the plan, a full review and amendment as required should be undertaken.

Section 4: Detailed Management Objectives.

Procedure	Years	J	F	M	A	M	J	J	A	S	O	N	D	Notes
Seasonal Scrapes and Ponds														
Annual review	1-10													
Litter control	1-10													
Remove duck and blanket weed	1-3													Remove all arisings
Thin and or remove bulrush before it sets seed	1-10													
Thin established planting by up to 40% of total plant area	3-10													Review need prior to works
Monitor edge mix or scrub planting to optimise partial shade	3-10													Prune and or remove as required
Monitor for non native invasive species and remove	1-10													In accordance with best practice
Monitor water loss, and repair / re-puddle	1-5													inspect sudden water loss as required.
Remove excess sediment to limit nutrient build up	3-10													
Monitor for pollution	1-10													Incidence unlikely given intended location

Note: The above schedule does not indicate the number of visits but the months in which operations must or should be undertaken. This will be reviewed and varied throughout the life of the management plan to suit changing site, plant and climate conditions. At year five of the plan, a full review and amendment as required should be undertaken.

