

Landscape Management Plan for River Adacemy, Reading

FS0949-ALA-XX-00-RP-L-0003

15.12.2022

Landscape Management Plan

This document has been prepared by Ares Landscape Architects to define the long term management and maintenance requirements for the planting areas associated with the new River Academy school in Reading.

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Introduction

The purpose of the Maintenance Schedule is to guide the establishment and maintenance of the landscape works for a period of 5 years following completion as well as to provide a basic framework and standard for maintenance beyond the 5 years. To achieve this, the document sets out specific proposals for maintenance tasks which will help achieve the Long term design objectives listed below.

Long term design objective

- Create an attractive environment for learning which is sympathetic to the character of the existing setting and architectural context,
- Provide a safe and secure external space,
- Provide an easily maintained and managed landscape.
- Successful establishment of all planting.

Site Area

The area to be managed is indicated on the following drawing:

- FS0949-ALA-XX-ZZ-DR-L-0002 Landscape General Arrangement

In addition this management plan should be read in conjunction with the following drawings and specification:

- FS0949-ALA-XX-ZZ-DR-L-0013 Planting Plan
- FS0949-ALA-XX-ZZ-DR-L-0014 Planting Schedule

Management Responsibilities

It is understood that on completion of the works the installing contractor will be responsible for the maintenance of the planting during the defects liability period in line with the operations set out in this document.

The following schedule of maintenance operation tasks are identified as either **Routine** maintenance including regular (assumed weekly) site inspections and monitoring and **Responsive** maintenance activities which need to be implemented on an 'as required' basis in response to specific site events.

When reference is made to seasons, this meant by:

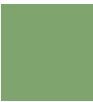
- Winter – Mid November to Mid-March – 17 weeks
- Spring – Mid-March to Early May – 8 weeks
- Summer – May to Late September – 20 Weeks
- Winter – October to Mid-November – 7 weeks

Restrictions

Use of mechanical equipment is not permitted outside the hours of 7am to 6pm Monday to Friday and 7am to 1pm Saturday.



The development of the planting character types identified below is central to achieving the Landscape Objectives:

-  **Amenity Planting**
A combination of single species blocks, specimen plants and mixes with emergent planting has been used to provide year round structure and interest.
-  **Dry Swale Planting**
The swales are intended to provide visual amenity and be of ecological value within the site. The practical function of the swales network is to treat surface water runoff from developed and landscaped areas of the new school.
-  **Meadow Planting**
Meadow planting areas intended to provide visual amenity and to be of high ecological value within the site
-  **Wildflower Planting**
Wildflower mix to be grown on a brownfield substrate within the landscape depression to the north-west of the site
-  **Amenity grass**
Amenity grass will provide areas for informal recreation
-  **Native Shrub Planting**
Mixture of native shrubs planted along the watercourse to enhance the already existing area of scrub and to attract wildlife
-  **Hedgerows**
Hedges are placed in key locations. They are used to add structure and form, and provide screening to the external areas.
-  **Tree planting**
Trees are located all around site, both to enhance the designed spaces. Some feature species are placed in key locations to create visual interest.

GENERAL OPERATIONS

ITEM	DESCRIPTION	TIMINGS												NOTES
		J	F	M	A	M	J	J	A	S	O	N	D	
Routine Maintenance Operations (Year1 -5)	Mulch Coverings -Top up all mulches (as required) to the depth specified in the NBS document.				1									
	Debris & Litter - Remove rubbish, debris and litter. Litter collection, areas should be regularly inspected and litter removed, especially after periods of strong wind and rain. Site to be in a clean and tidy condition.	4	4	4	4	4	4	4	4	4	4	4	4	
	Weed Control - All legally designated weeds shall be controlled. - Vegetation which supresses, inhibits the development of planted species and is incongruous with the planting scheme and / or the surrounding context shall be removed by hand - Treat all planting areas with a winter herbicide to control weed growth [Early Spring and Early Autumn]				1				1					
	Watering - Water all areas of grass, perennials, shrub and tree planting to ensure healthy development and survival.	as needed												Water regularly for 12 months during establishment
Responsive Maintenance Operation (Year 1 -5)	Plant replacements & pruning - Prune to remove dead, dying and diseased vegetation to promote healthy growth. All plant deaths should be replaced as soon as practical. Remove dead plants within one week and replace within 2 weeks with originally specified species at a size to match maturity of established planting or a soon as practical if the season does not allow for immediate planting.	as needed												Once a year
	Clearing of services - All plant material is to be keep clear of the following structural elements where present: Ventilation ducts and openings, drainage channels and gullies, service access points, CCTV cameras, fencing, gates and Light fittings	as needed												Once a year
	Compaction of planting areas – All areas of planting suffering compaction by pedestrian or vehicular movements area should be lightly forked over; Prick surface to a depth of 75mm, Reduce soil to crumbs and level off, Do not damage plant roots. All planting beds, should be lightly forked over to maintain health soil condition to a depth of 75mm	as needed												Once a year
	Soil Amelioration - Incorporate 50mm depth of composted green waste into top of soil to maintain soil quality. Apply as a top dressing and forking to a depth of 75m.	as needed												Once a year
	Wind / Storm repair – immediate inspections should be carried out after such event, work should be carried out to remediate and clean up.	as needed												

AMENITY PLANTING

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N	D	
Routine Maintenance Operations (Year1 -5)	HERBACEOUS, PERENNIALS PLANTING & GRASSES	Lift, divide and replant				1									Every three years
	SHRUBS	YEAR ONE: -Remove dead plant material at end of growing season, -Check all shrubs and remove all dead foliage, wood and broken or damaged branches and stems. -Prune				1						1			In accordance with good horticultural and arboricultural practice.
		YEAR 2 TO 5: - Remove dead plant material at end of growing season, - Check all shrubs and remove all dead foliage, wood and broken or damaged branches and stems. - Remove shelters and stakes or replace as required				1						1			Remove all shelters and stakes subject to inspections by the LA at the end of year 4
		Pruning Ornamental Shrubs in accordance with good horticultural and arboricultural practise to suit species to encourage healthy and busy growth and desirable ornamental features, such as flowers, fruit or autumn colour				1						1			In accordance with good horticultural and arboricultural practice.
		Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.				1						1			In accordance with good horticultural and arboricultural practice.
		HERBACEOUS										1			1 per year for first 5years
		Remove dead flower heads, fallen leaves and debris to encourage healthy growth													
		Large Shrub Specimens to suit individual species – every 2-3 years	As needed												
		At the end of the growing season, trim older flowering stems, Remove redundant plant support, and fork over soil and top dress with sanitized and stabilised compost or similar. Protect tender crowns with 100mm covering of bark mulch	As needed												
	GRASSES & SEDGES	Deciduous Species - Prune to remove dead and remaining foliage in late November to 150mm. Remove remaining last season's foliage by hand when first buds of new growth appear											1		As needed, to suit individual species
		Evergreen Species - Trim alternative grouping down foliage to 150 mm above ground											1		As needed, to suit individual species
Responsive Maintenance Operation (Year 1 -5)	SHRUBS, HERBACEOUS PLANTING & GRASSES	Trim branches that overhang paths in order to maintain a neat appearance of the planting bed and maintain clear sight lines for security. Support necessary herbaceous species as required											1		As needed, to suit individual species
		Inspect short lived wood stemmed shrub species and carry replacement planting to maintain healthy stock and appearance	As needed												
		Carry out thinning and division over mature clumps and replant to encourage new juvenile growth and maintain healthy stock	As needed												

3.0 SCHEDULE OF MAINTENANCE OPERATIONS - PLANTING

DRY SWALES

Item	Relevant areas	Operation	Timing	Frequency	Notes
Swale maintenance		Inspect grass along side slopes for erosion and formation of rills or gullies and correct. Inspect and correct erosion problems in the sand/soil bed of dry swales. Rototill or cultivate the surface of the sand/soil bed of dry swales if the swale does not draw down within 48 hours. Remove sediment build-up within the bottom of the swale once it has accumulated to 25% of the original design volume.	March and August August	2 x per year during first year then 1 x per year As needed	Any obvious damage to planting or to the swales bottom soil bed should be repaired immediately. Repairs need to conform to original swale design. If selected plants for swale is not performing select and plant new species. For wet swales replant with a revised selection of wetland plants if current plants are establishing slowly or failing.
Replanting		Based on inspection, plant an alternative grass species if the original grass cover has not been successfully established. Replant wetland species if not sufficiently established.	As necessary		
Mowing		Mow grass to maintain a height of 5-10cm		As needed	
Litter		The planting should be checked regularly for plastic bags, especially after strong winds, and removed.	As necessary	Weekly	

3.0 SCHEDULE OF MAINTENANCE OPERATIONS - PLANTING

MEADOW PLANTING

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N		
Establishment Maintenance Operations (Year 1)	SOWN MEADOW AREAS.	To deter birds dust-bathing in your new seed bed, place red plastic fencing around the areas and stretch light string tied with lengths of silver foil across the area. Standing on a plank will prevent you disturbing the newly sown seeds.	as needed												
		For establishment, weed control and reduction of competition from grasses, during the first year, cut the grass four times during the year as follow:	as needed												
		Before Cuts: -Remove all litter and debris.													
		Height and frequency of cut in first growing season:													
		-First cut at 40-75 mm high			1										
		-Second and third cut at 40-70mm high				as necessary: every two months or when the sward reaches 15cm high.									
		-Fourth cut at 40mm high after flowering								1					
		After cutting: -Remove all arisings	as needed												
		-Water as required to ensure establishment	as needed												
Routine Maintenance Operations (Year 2 -5) Responsive Maintenance Operation (Year 1 -5)	SOWN MEADOW AREAS.	Before cuts: -Remove all litter and debris.	as needed												
		Initial cut of the year to be 75mm high			1										
		Second cut to be 75mm high								1					
		After cutting: -Remove all arisings	as needed												
		Do not cut:													
		Reseed the site in early year two only.													

WILDFLOWER PLANTING

The area of wildflower planting to the north west of the site is proposed above a stone/ capping layer required through the remedial works. The lack of soils in this area presents an opportunity to establish areas of annual and bi-annual species which would not typically establish due to competition from broadleaved and perennial weed and grass.

The sub-grade will have very little nutrient content so the slower growing wildflower species have chance to establish.

It is anticipated that the content of fines in the sub-grade/ stone layer will allow some nutrient uptake from the ground below

Maintenance of this area will be less intensive than other flowering meadows and grasslands. It is important however that the arisings from cuttings be removed to avoid the in-situ decay and potential nutrient build-up.

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N		
Routine Maintenance Operations (Year 6)	ALL AREAS	Before cuts: -Remove all litter and debris.	as needed												
	CUTTING/ TOPPING TO CHALK GRASSLAND	The remainder 1/5 of the area left from the previous years Summer cut should now cut to ground then collected and removed from site to reduce soil fertility and to stop new seedlings from being smothered.			1										
		Main cut/ rotational cut: After flowering in July or August, a ‘Hay cut’ is to be taken using a tractor mower to 70-100mm. This cut should be to 1/2 of the whole area and be cut in sections, leaving one week to a fortnight between cuts. The remainder 1/2 of the area should be left to stand uncut through the winter and cut down in the following year main cut/ rotational cut							1	1				This ongoing routine cutting rotation is to replicate the methods The Magog Trust manage the Downs currently.	
Routine Maintenance Operations (Year 7 onwards)	ALL AREAS	Before cuts: -Remove all litter and debris.													
	CUTTING/ TOPPING TO CHALK GRASSLAND	Main cut/ rotational cut: The remainder 1/2 of the area left from the previous years Summer cut should now cut to ground then collected and removed from site to reduce soil fertility and to stop new seedlings from being smothered. The remainder 1/2 of the area should be left to stand uncut through the winter and cut down in March the following year, or left till the ‘main cut’ in July/ August.								1	1				
	REVIEW OF ONGOING CUTTING METHODS	The methods employed by The Magog Trust to cut the Chalk Grassland on a bi-annual rotation is to be maintained going forward. This method should be reviewed regularly as alternative methods such as those noted in year 6 could be adopted; cutting 4/5 of the area and leaving only 1/5 through the winter and cutting in March, then a main ‘hay cut’ in July/ August													

AMENITY GRASS

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N		
Establishment Maintenance Operations (Year 1)	SOWN GRASS	As per manufacturers recommendations, including recommended spring / summer & autumn/ winter fertiliser	as needed												
		To deter birds dust-bathing in your new seed bed, place red plastic fencing around the areas and stretch light string tied with lengths of silver foil across the area. Standing on a plank will prevent you disturbing the newly sown seeds.	as needed												
		The new grass seedlings will appear 14-28 days after sowing depending on the weather. If the weather is dry, water the area daily with a fine rose watering can or sprinkler to keep the seed bed moist	as needed												
		Encourage new shoots: Firm the soil when the grass has reached a height of 2.5cm using the back roller of your mower with the cutter head held high, or alternatively firm with feet.	as needed												
		Cutting the lawn: On the first cut, when the lawn is 50-60Mm, set the mower blades height to take off only 1.5. On subsequent cuts, gradually lower the blades until the required height is achieved.	as needed												
Routine Maintenance Operations (Year 2 -5) Responsive Maintenance Operation (Year 1 -5)	SOWN EXISTING GRASS AREAS	Mow and remove arising’s. Note: where bulbs in grass, cutting to be deferred until the foliage has died back, 6 weeks (min) after flowering)	Note												Objectives: To BS 7370-3, table 6. Mowing methods: To BS 7370-3, table 3.
		Initial cut	as needed												
		Spring cut:			as needed										
		Summer cut:						as needed							
		Later summer cut:									4				
		Autumn cut:										2			
		Trim edges to adjacent planting beds and paths			1										
		Rolling, consolidate turf and reduce frost heave.			1										
		Reseed the site in early year two only.			1						1				
		Aeration									1				
		Scarification									1				
		Top dressing									1				
		Fertiliser Application			1		1		1		1				
		Autumn leaf collection	as needed								as needed				
		Irrigate to ensure full soil profile is moist at all times.	as needed												

NATIVE SHRUB PLANTING

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS										NOTES
Routine Maintenance Operations (Year1 -5)	SHRUBS	YEAR ONE: -Check all shrubs and remove all dead foliage, wood and broken or damaged branches and stems at end of growing season. -Prune			1					1			In accordance with good horticultural and arboricultural practice.
		YEAR 2 TO 5: - Remove dead plant material at end of growing season, - Check all shrubs and remove all dead foliage, wood and broken or damaged branches and stems. - Remove shelters and stakes or replace as required			1					1			Remove all shelters and stakes subject to inspections by the LA at the end of year 4
		Pruning Ornamental Shrubs in accordance with good horticultural and arboricultural practise to suit species to encourage healthy and busy growth and desirable ornamental features, such as flowers, fruit or autumn colour			1					1			In accordance with good horticultural and arboricultural practice.
		Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.			1					1			In accordance with good horticultural and arboricultural practice.
		Evergreen Species - Trim alternative grouping down foliage to 150 mm above ground. As needed to suit individual species.									1		

HEDGEROW

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N	D	
Routine & Responsive Maintenance Operations (Year1 -5)	HEDGEROW	YEAR ONE: -Cut back broken/diseased branches -Check for general health -Monitor species hedgerow quality and species composition				1						1			In accordance with good horticultural and arboricultural practice.
		YEAR 2 TO 5: -Cut back broken/diseased branches -Check for general health - Monitor species hedgerow quality and species composition - Thinning out a third to a fourth of the oldest branches - Shelters and stakes to be replaced where necessary				1						1			Remove all shelters and stakes subject to inspections by the LA at the end of year 4. Monitor species composition 1 x per year for first 5 years then every 3 years
		CUTTING : Trim to specified heights Remove diseased, damaged, congested and crossing shoots (1.2m is absolute minimum height at which hedges can be cut)				1						1			New hedges will first be cut six years after planting and then every three years; existing hedges will be cut on a three-year rotation.
		Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.				1						1			In accordance with good horticultural and arboricultural practice.

TREE PLANTING

ITEM	SUB CATEGORY	DESCRIPTION	TIMINGS												NOTES
			J	F	M	A	M	J	J	A	S	O	N	D	
Routine Maintenance Operations (Year1 -5)	TREES	YEAR ONE: - Cut back broken/diseased branches - Check for general health - Monitor species hedgerow quality and species composition - ensure mulches are topped up in a circle 500mm radius from the base of each tree shall be kept free of grass and weed growth.		1						1					In accordance with good horticultural and arboricultural practice.
		YEAR 2 TO 5: -Cut back broken/diseased branches -Check for general health - Monitor species hedgerow quality and species composition - Thinning out a third to a fourth of the oldest branches - Shelters and stakes to be replaced where necessary - ensure mulches are topped up in a circle 500mm radius from the base of each tree shall be kept free of grass and weed growth.		1						1					Remove all shelters and stakes subject to inspections by the LA at the end of year 4. Monitor species composition 1 x per year for first 5 years then every 3 years
		All trees that fail should be replace as necessary within the next available growing season	as needed												
		Check root balls of irrigated trees for moisture. Water regularly for first 12 months after planting.	as needed												New hedges will first be cut six years after planting and then every three years; existing hedges will be cut on a three-year rotation.
		Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.	as needed												In accordance with good horticultural and arboricultural practice.
Routine Maintenance Operations (Year 2 -5)		Check underground guying systems. Loosen / tighten as required. Check aeration systems are not blocked and are working	as needed												
		Formative pruning as required	as needed												

General items

Item	Relevant areas/type	Operation	Timing	Frequency	Notes
Litter	Bins and all surfaces	Empty the public area bins and remove litter from paved and planted areas.	AYR	Weekly	
Litter bins		Wash and clean bins.	AYR	Once per month	
Fly tipping	Whole area	Check the site for fly tipping and depending on size of items bag and remove or arrange for removal to skip	AYR	Weekly	Target must be removed within 36 hours
Leaf fall	Under trees and windblown in the area	Sweep up leaf fall	AYR	Twice weekly	Adjust frequency during to reflect leaf fall at different times of year or in spells of windy or frosty weather.
Detritus	Paving	Sweep to remove all dust and debris	AYR	Weekly	
Weeds	Between paving and around base of trees	Hand weed areas of weed growth	March - November	4 x per year	
Disposal of containers	All	Rinse & recycle	As necessary	As necessary	In accordance with the College's policy; Containers to be rinsed 3 times and the rinse used on the relevant application. Containers should then have their labels removed and put in recycling bins.
Disposal of containers (which cannot be rinsed) and canisters	All	Dispose off	As necessary	As necessary	In accordance with College Waste policy.

Health & Safety

Certain cleaning methods described involve the use of chemicals. Therefore it is important that any safety warnings issued by the chemical suppliers should be carefully read and strictly adhered to at all time. In general the following precautions should be taken:

- Prior to maintenance/cleaning being undertaken a site specific risk assessment is to be carried out.
- Prior to any chemicals being used a COSHH assessment is to be undertaken.
- When using chemicals, protective clothing such as gloves, goggles, boots and overalls should be worn.
- Adequate ventilation is required when using chemicals in confined spaces.
- When using flammable materials i.e. cigarettes, naked flames and other sources of ignition should be carefully controlled.
- When diluting acids, ALWAYS add acid to water and not water to acid.
- Any clothing that is contaminated with chemicals should be disposed of safely.
- When using any chemicals, care must be taken not to damage, contaminate or stain any adjoining materials, landscaping or finishes.

- Care must be taken to protect personnel operating in the area of the cleaning from any injury or hazard created by the cleaning. The appropriate First Aid must be available on-site.

Before undertaking any cleaning operation a trial should be carried out on a small, preferably inconspicuous area, to determine the effect of the chemicals before treating a large area.