Stansty Road, Wreaxham

(4852 502 A)

Landscape Management Plan

Client: Castle Green

Prepared by

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1.0 Introduction

1.1 General

TPM Landscape were commissioned by Castle Green to produce a Landscape Management Plan for the residential development proposed at Stansty Chain Road, Wrexham.

This report has been produced to ensure that the future management objectives are achieved for the longevity of the project following practical completion.
Once approved, this report will provide guidance for the establishment, maintenance and future management of all external landscaped areas, planting around the site and ecological features.

The plan will be implemented as soon as the project reaches Practical Completion. After the rectification period, the management and maintenance objections need to remain in place for the following operational years of the development site.

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1.2 Aims of the report

This report has been developed to establish long-term management objectives and practices for all of the areas associated with the POS, streets, boundaries and areas detailed on the masterplan drawings.

The report presumes that all of the external elements have been built in accordance with the approved planning drawings:

- 4852 101 D Landscape Masterplan
- 4852 102 C Extract of Landscape Masterplan (1 of 4)
- 4852 103 C Extract of Landscape Masterplan (2 of 4)
- 4852 104 C Extract of Landscape Masterplan (3 of 4)
- 4852 105 D Extract of Landscape Masterplan (4 of 4)
- 4852 201C, 202-209B, 210C, 211-213B Planting Plan

The management report provides 12-month schedules, which are to be applied to 5-year guidance and actions. It is considered that these actions will continue beyond the 5-year period to a **minimum of a 30-year period** unless identified within the text of the report.

A clear understanding of the design aims and intentions will help to ensure that the landscape reaches maturity in the form in which it has been designed.

1.3 Site Maintenance and Responsibility

The company responsible for maintaining the landscape, including the streetscape (shrubs and tree planting), areas of public open space, existing drainage channels and buffer planting will be responsible for inspecting the site and for keeping a logged record of inspections, faults and rectified works. The management company is yet to be confirmed. Any issues noticed by residents are to be reported directly to the management contractor representative on site.

The client is required to appoint a Landscape Contractor, whether that is the original installation contractor or a separate, competent and appropriately certified contractor. It is recommended that the landscape contractor is BALI registered.

1.4 Objectives

The overall objectives for the maintenance of the landscape include the following;

- Maintain all grassed areas as healthy, neat lawns and biodiverse grassland;
- Allow shrubs and flowers to reach their species potential to ensure that they produce flowers and seed heads and grow in their natural shape and form to provide texture and interest;
- Ensure that proposed and retained trees maintain a healthy and safe condition and are allowed to reach their potential form and characteristics;
- Maintain wildflower meadow to support establishment and allow a diverse mix of flowers and grasses to thrive;
- Keep all hard surfaced areas and paths in a good state of repair and free from any potentially dangerous arisings that could cause a slip or trip hazard or reduce visual quality;
- Ensure that all furniture and features are looked after and maintained in a good state of repair and safe condition so that they do not fail or have the potential to cause harm to users.
- SUDs to be maintained as an attractive feature with a clean and tidy appearance.
- Ensure the site is free from litter and deleterious material to maintain a clean and tidy appearance.
- Ensure the play area is in good working order, structurally sound and is safe to use by all users.

2.0 General Description

2.1 Existing Context

The proposal site is an 8.17 ha area of undeveloped land on the western edge of Wrexham, North Wales. Divided by Stansty Chain Road, it includes a northern parcel adjacent to a railway line, commercial area, and residential properties, and a southern parcel bordered by the A541 and A483 roads.

The site sits within a transitional landscape between urban and rural character, surrounded by housing, green space, and remnants of farmland. The landscape mainly consists of semi-improved grassland, scattered trees, overgrown hedgerows, scrub, and a shallow intermittent ditch. Native hedgerows largely enclose the site, with open views from the west. Access is via a field gate on Stansty Chain Road, and a public right of way crosses the northern parcel.

2.2 Site Proposals

The proposal is for a new residential development. The overall scheme comprises of a range of soft landscaping including ornamental shrub beds, tree planting, ornamental hedges, native hedge mixes, grassed areas, wildflower areas and an attenuation pond.

Presuming all properties are occupied, the private gardens will be individually maintained by the resident. Communal areas including Public Open Space (POS) will be maintained by the contractor.

Key objectives

The landscape associated with this development and future phases of the masterplan are to be managed in line with the following key objectives:

- Improve and promote new ecological corridors
- Incorporate new buffers to site boundaries

Site Entrance

The main accesses to this development are via a newly constructed spine road off Mold Road (A541) to the west of the site for the southern parcel, and another primary access from Stansty Chain Road for the northern parcel. The entrances to the development will be marked by avenue and native tree planting, shrub planting, and structural hedgerows.

These soft landscape features alongside a site entrance aim to provide formality to the arrival point of the development, as well as providing seasonal interest and giving structure to the street scene. Other entrances are taken from the surrounding highway network.

Public Open Space

The soft landscape features are to be maintained to provide an attractive setting for the development. Generally, the public open space will consist of retained trees and hedgerows, native tree planting, hedgerow planting, native and ornamental shrub planting, wildflower meadows, species-rich grassland, and attenuation areas.

The hard landscape within the site consists of railings, fencing, footpath and circular area surfacing, edges, and furniture.

3.0 Health and Safety

The following potential hazards have been identified within the proposed development site that may have implications for maintenance operations:

- Contractors working on the site should make themselves aware of the location of underground services, defining the exact locations with the Statutory Authorities prior to commencing works below the surface;
- Working in areas used by general public and visitors; on foot, on bicycles, in wheelchairs and vehicles; ensuring surfaces are kept clear at all times and potentially dangerous tools or machinery are not left lying around.
- Working at elevated positions;
- Working adjacent to and on highways;
- Lifting heavy objects and working with heavy machinery;
- The use of chainsaws, working at height and with heavy objects during tree works;
- The possibility that hazardous material may be deposited in or inadvertently left in areas requiring cleaning (glass, etc.); and
- Working adjacent to or within water in and around the attenuation areas and swales.

Methods for reducing the potential site risks are well established and are common practice of competent contractors. The contractor is expected to identify the hazards associated with any maintenance operations, together with an assessment of the risks involved and methods for reducing the risks. The Risk Assessment should be recorded and retained for reference in the future if necessary.

3.1 Site Operations

All operations on site are to be carried out by suitably qualified operatives with appropriate safety clothing and equipment. The maintenance contractor is to adhere to the latest guidance on safe working practice, including information from the recognised industry body, the local authority and the government Health and Safety Executive. The maintenance contractor is to carry out all operations with regard to the safety and welfare of the general public, private and public property, domestic and native flora and fauna and Statutory Services.

3.2 Disposal of materials from site

All, rubbish, leaves, grass and general arisings removed from the site are to be deposited at a licensed tip and recycling facility in the appropriate section.

4.0 Hard Elements

Maintenance operations are to be carried out in order to provide a clean, inviting and safe environment for all users of the site. For the purposes of this report, it is assumed that all the works required by the planning approval have been carried out in accordance with the approved drawings.

All paving, kerbs, edges, walls and street furniture should be fit for purpose, robust and in good condition. Any damage arising from the management and maintenance works must be reinstated to the original condition and in accordance with the relevant specification of the client.

All hard works to be installed under the recommendations of the manufacturer's instructions. Hard works should not be carried out in undesirable weather conditions.

4.1 Pedestrian Surfaces and Roads

Maintenance objective

Pedestrian surfaces and roads are to be maintained in a safe and clean condition free from any defects, weeds or debris that could potentially cause injury, inaccessibility or damage to vehicles. Surfaces are to be level and free from trip or slip hazards.

Inspections

A formal visual inspection is to be carried out by the maintenance contractor at 6 monthly intervals or following reports from the client / public that surfaces require repairing, cleaning or clearing following inclement weather. A report of the inspections and rectified works should always be logged.

An annual inspection of the paving jointing and overall uniformity should be carried out to ensure the stability of the footways is maintained.

Contractors Maintenance Operations

Surfaces are to be kept free of litter, mud, arisings, deleterious material, algae, hazardous obstructions and fly tipping. Surfaces are to be uniform in appearance, a level surface and constructed from a homogenous material, free from ruts, grooves, cracks, hollows and potholes (holes greater than 75mm in diameter and 10mm depth).

Paved areas and rights of way including those with a self-compacted gravel surface are to be repaired within 1 week of a reported fault, unless the potential hazard is severe (trip hazard) in which case the area is to be cordoned off and repaired at the earliest available opportunity.

All surfaces and foundations are to be repaired to the original specification, unless otherwise agreed with the service provider.

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) - **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Litter and Fly tipping													
Visual inspection of site				1						1			Carry out 6 monthly inspections, report to be logged; any faults reported should be rectified as required.
General Cleaning and clearance across site	1	1	1	1	1	1	1	1	1	1	1	1	Keep surfaces free of litter, leaves, mud, arisings and any hazardous objects. Sweep and remove any arisings.
Bin Emptying	1	1	1	2	2	2	4	4	1	1	1	1	Increased emptying of bins during summer.

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Pedestrian Surfaces and Roads													
Visual inspection of footways, roadways and paving areas				1						1			Carry out 6 monthly inspections, report to be logged; any faults reported should be rectified as required.
General cleaning of paving	1	1	1	1	1	1	1	1	1	1	1	1	Keep surfaces free of litter, leaves, mud, arisings and any hazardous objects. Sweep and remove any arisings, keep all areas weed free. Any build up of moss or algae should be treated as required to ensure surfaces are not slippy or dangerous.
Clean paved areas annually by relevant washing techniques for varying materials e.g. granite/concrete						1							(acid and bleach should not be used)
Apply sealant to paving	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	(as required after cleaning)
Apply herbicide						1				1			Apply to weeds if appear between paving, when weeds have been suppressed hand hoe out and refill mortar joints
Repair	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Repair surfaces when reported or inline with faults as identified in the inspections report. Repair to original specification. Check grouting to paving and reinstate where necessary
Ensure water is drained from footways to prevent pooling				1						1			When specified or as necessary after prolonged periods of wet weather

Clear snow from pathways and roads	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Clear snow following adverse weather (a/r) and apply suitable grit to key vehicle and pedestrian access routes (avoid plant areas).

4.2 Boundaries - Gates, Fences, Railings

Maintenance objective

Gates, railings and fences are to be maintained in a secure, safe and clean condition and in good working order.

Inspections

A formal visual inspection is to be carried out at six monthly intervals or following reports from the client / users of the site that a fault or damage has occurred. A report of the inspections and rectified works should always be logged.

Maintenance Operations

Gates, railings and fences are to be kept free of litter, deleterious material and hazardous protuberances. Surfaces and finishes are to be maintained uniform in appearance and coated in a homogenous paint, stain, enamel, or plastic coating in accordance with the original specification.

All items are to be repaired within 1 month of a reported fault, unless the potential hazard is severe, in which case the area surrounding the fault should be cordoned off and the boundary made secure, the fault should be repaired at the earliest available opportunity.

Repaint/stain railings, fencing and gates as required if the paint starts to flake off and look unsightly to the same specification as the original ensuring that any rust is removed and the surface prepared and primed before the paint is applied.

These works will be the sole responsibility of the contractor and at all times the boundaries should be maintained in sound condition.

One operation per month (within month / months specified) - **1**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Boundaries – Gates, railings, Fences													
Visual inspection of boundaries				1						1			Carry out 6 monthly inspections, report to be logged; any faults reported should be rectified as required. Repair if required
Clean metalwork						1							Carry out annually, removing dust and dirt being careful to not remove or damage surface finish.
Re-paint / Re-stain	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	As required following inspection
Strip back and repaint metalwork to match existing	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Every 5years or as required following inspection

4.3 Edges - Kerbs, Edging and Walls

Maintenance objective
All 'Edges' should be maintained in a safe and clean condition and fit for purpose. All cladding, copings kerbs should be secure and firmly in place.

Inspections
A formal visual inspection is to be carried out at six monthly intervals or following reports from the client / users of the site that a fault or damage has occurred. A report of the inspections and rectified works should always be logged.

Maintenance Operations
All 'Edges' are to be kept free of litter, deleterious material and hazardous protuberances. Surfaces are to be maintained uniform in appearance and with seamless levels vertically and horizontally for copings and cladding. Grout mortar between kerbs, cladding and copings to be inspected and topped up where necessary with matching colour. Metal and timber edging to be neat and secured firmly in place and aligned straight, or follow smooth uniform curves. Loose edging to be reinstated and secured. Any damaged edging to be removed and replaced with same specification.

Faults are to be repaired within 1 month of a reported fault, unless the potential hazard is severe, in which case the area surrounding the fault should be cordoned off, the fault should be repaired at the earliest available opportunity.

These works will be the sole responsibility of the contractor and at all times the edges should be maintained in sound condition.

One operation per month (within month / months specified) - **1**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Edges – Kerbs, Edging & Walls													
Visual inspection of edges				1						1			Carry out 6 monthly inspections, report to be logged; any faults reported should be rectified as required.
Clean edges						1							Carry out annually and remove detritus / chewing gum using a stiff brush and soapy water.
Apply anti-graffiti coating to raised edges if misuse becomes apparent						1							Carry out once a year or as necessary
Apply non residual herbicide				1						1			Apply herbicide to spot treat weed problems. Hand removal after herbicide has taken effect

4.4 Street Furniture – Picnic Sets, Benches, Litter Bins

Maintenance objective

All street furniture should be maintained in a safe and clean condition. Surfaces should be smooth to the touch (avoiding potential for splinters/ injury), fixings secure and flush with the finished surface. The wood structures should be sound avoiding the potential for failure due to rot.

Inspections

A visual inspection is to be carried out at six monthly intervals or following reports from the client/ users of the site that a fault/ damage has occurred. A report of the inspection should be logged.

Maintenance Operations

Any timbers that have originally been stained should have the wood stain (or similar approved) reapplied annually in the spring to rejuvenate the appearance of the wood. The wood should be pressure treated timber, however if this is not the case then the wood should be treated with a wood preserver at least once every two years (this could be combined with the wood stain application if the colour or products matches the original specification). Repainting street furniture should be done immediately following the descaling of rust.

Clean metalwork, including signage to ensure that the face can be clearly read. Remove any rust, bird droppings, graffiti, litter, debris etc.

The street furniture should be repaired within 1 month of a reported fault. If the section of wood/metal that is damaged or rotten should be replaced with a piece of timber/metal of the original specification. Where the fault may cause a risk to the user of the site the item should be cordoned off until the fault is repaired.

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Street Furniture – Picnic Sets, Litter Bins													
Visual inspection of furniture				1						1			Carry out 6 monthly inspections, report to be logged; any faults reported should be rectified as required.
Clean any metalwork						1							Carry out annually and remove detritus / rust. Remove bird droppings and graffiti.
Empty litter bins	4	4	4	4	4	4	4	4	4	4	4	4	Empty litter bins on a weekly basis.
Repair	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Repair street furniture when reported or in line with faults as identified in the inspections report. Repair to original specification.
Re-paint/ re-stain as required	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Repainting street furniture should be done immediately following the descaling of rust.

4.5 Proposed Play Areas

Maintenance objective
All play elements and safety surfaces specified for the play areas should be maintained in a safe, clean condition and good working order to the original specification.

Inspections
Routine visual inspections are to be carried out regularly at a minimum of monthly intervals or following reports from the residents that a fault/damage has occurred within the play area. The equipment supplier should provide a checklist, and a report of the inspection should be logged. In line with RoSPA guidance, inspections are to be carried out to EN1176, and it is recommended that the maintenance contractor has undertaken training in playground inspections. Operational inspections are to be carried out quarterly, and/ or, an annual inspection carried out by a specialist not connected with the playground operator or manager.

Maintenance Operations
The play area is to be kept free of litter, plant debris, deleterious material and hazardous protuberances. Leaf debris to be collected and disposed of appropriately.

All play equipment and safety surfaces should be maintained to the supplier's management specification and in line with RoSPA guidelines. Routine inspections should involve checking the basic condition of the play equipment, particularly for any faults due to vandalism. Annual and/ or quarterly inspections are to be carried out to check for minor/ major wear and long-term structural problems to ensure that equipment is sound and all components are in a good state of repair. Fixings should be checked to ensure they are secure, and any moving parts are in good working order and not subject to any signs of wear.

Timber play elements should be maintained to ensure that surfaces are smooth to the touch and free from sharp edges or points. Remove algae build up on surfaces to ensure that there is no potential for slip or trip hazards when play elements get wet. RoSPA recommend power washing (a small area should be tested first for surface stability). Timber is to be checked for early signs of rot or where hazards are created from the splitting of the timber (avoiding the potential for injury).

Play equipment requiring repair is to be cordoned off and repaired by the original manufacturer within 1 month of a reported fault, unless the potential hazard is severe, in which case the area surrounding the fault should be cordoned off and the fault repaired at the earliest available opportunity.

One operation per month (within month / months specified) - 1
Two operations per month (within month / months specified) – 2
Four operations per month (within month / months specified) – 4
As required - a/r

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Play Equipment – General Inspection													
Post Installation Inspection (by specialist e.g. RoSPA)						1							New playgrounds and equipment should be carefully checked for compliance with claims, specifications and installation procedures before being accepted.
Routine Inspection:													
Visual Inspection of basic condition of play equipment and general play areas, vandalism etc.	1	1	1	1	1	1	1	1	1	1	1	1	Carry out a minimum of monthly routine inspections to equipment supplier's checklist and in line with RoSPA guidelines, report to be logged; any faults reported should be rectified as required.
Inspect and maintain safety surfaces, rubber mulch.	a/r	a/r	a/r	1	a/r	a/r	a/r	a/r	1	a/r	a/r	a/r	Check rubber mulch is fixed to original specification and if there are any signs of erosion. Ensure any litter, debris etc. is removed
Remove litter	1	1	1	1	1	1	1	1	1	1	1	1	Dispose of appropriately
Remove algae from play equipment and timber elements	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Power washing as recommended by RoSPA. Small test patch to be carried out first to check surface stability
Empty litter bins	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	May require more frequent emptying during summer months.
Benches to be maintained in line with section 4.4	**See Section 4.4**												
Quarterly Checks (Report to be logged; any faults reported should be rectified as required):													
All proprietary play equipment			1			1			1			1	Maintenance checks to equipment supplier's checklist and in line with RoSPA guidelines.
Annual Inspection:													
(Specialist Contractor e.g. RoSPA)						1							This should be carried out by a specialist not connected with the playground operator or manager.

5.0 Soft Elements

For the purposes of this report, it is assumed that all planting and initial tree work has been carried out inline with the approved planning drawings and any failed plants or trees replaced by the original contractor at the end of the 12 months Rectification Period.

5.1 Existing Trees

Objectives
Retain all existing trees as indicated on the approved plan to preserve their contribution to the visual amenity and enclosure of areas. Ensure that the trees continue to thrive and to provide visual amenity to the area.

Ensure that trees are maintained in a safe condition and do not cause any obstructions on site or pose any health and safety risk (same applies to the off-site trees overhanging into the site).

All tree works undertaken should comply with British Standard 3998 and should therefore be carried out by skilled tree surgeons. It would be recommended that quotations for such work be obtained from Arboricultural Association Approved Contractors as this is the recognised authority for certification of tree work contractors.

Works to trees will be carried out in accordance with British Standard BS 5837: Tree Protection Measures. All vegetation and, particularly, woody vegetation proposed for clearance should be removed outside of the bird-breeding season (March - September inclusive) as all birds are protected under the Wildlife and Countryside Act, 1981 (as amended) whilst on the nest. Where this is not possible, vegetation should be checked for the presence of nesting birds prior to removal by an experienced ecologist. No ground works or storage of materials should take place within these areas.

Inspections
The existing trees should be inspected annually by a suitably qualified arboricultural consultant for a period of 5 years post completion to ensure that they are in good health and are not hazardous to the users. Further inspections may also be required following severe winds and storms or following a report by a member of the public.

Maintenance Operations
Any works proposed should be solely for the purpose of ensuring the health and safety of the users of the site, staff and general public and to promote longevity of the trees and hedgerows. Any works carried out on the off-site trees overhanging into the site should be with the prior consent of the landowner. Any tree works should be carried out to avoid the bird-breeding season. It is the contractor's responsibility to ascertain if any trees are covered by Tree Preservation Orders, and if so to gain the appropriate consent from the local authority. Avoid carrying out any works to hedgerows when full of berries, to preserve its ecological value and valuable food source to wildlife.

Long-term Management
Routine pruning should include the following operations:

- The removal of dead, diseased, damaged or dying branches only where they pose a risk to the health and safety of the users of the site.

- The removal of vegetation where it is obscuring lighting columns or restricting access.

- Inspection and reporting of any incidence of pests and diseases which could cause trees or limbs to fail.

- Any surgery to existing trees must maintain the natural shape of the tree, after any tree works the trees should not appear to be topped or lopped.

- No tree works should be carried out on parts of the tree which are outside of the site boundary (only overhanging branches can be cut back). If a tree appears dead/ dying or dangerous then the landowner must be contacted immediately and the appropriate action taken to prevent harm or damage to people and property.

These works will be the sole responsibility of the contractor or appointed arboriculturalist.

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) – **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Existing Trees													
Visual inspection of trees								1					Inspect trees for signs of disease, damage or as required following adverse weather. replant if necessary
Remove dead, diseased or damaged limbs to promote a healthy shape								1					Avoid bird nesting season
Prune to retain shape								1					Avoid bird nesting season
Remove and dispose of accumulation of winter leaves.											1	1	Check leaves for mammals before disposal as mammals may be in hibernation. Only to be carried out on areas that affect public access such as surfaced footpath routes, vehicle carriageways and car parks.

5.2 Proposed Individual Trees

Objectives

Trees will play an important role in providing structure to the landscape proposals and will provide a valuable asset to the site, provide screening and contribute to the visual amenity of the local area. Therefore, it is important that they are given the best chance of successful establishment.

Inspections

Inspect on an annual basis when the trees are in full leaf to ensure that the trees are thriving, and record defects requiring remedial works.

Maintenance Operations

Newly planted trees take some time to establish, and until this occurs, they are subject to competition from weeds. Any weeds should be removed by hand from the base of each tree and 75mm deep mulch maintained around the trunk. For woodland areas weed growth may be removed by applying a herbicide spray to the base of saplings during autumn or early spring before trees are in leaf.

If the trees show signs of poor growth or reduced vigour an application of the appropriate fertiliser can be applied. If the trees do not improve with the fertiliser treatment, further investigations should be carried out, including the ground conditions for signs of compaction, contamination, poor quality topsoil. Remediate any problems uncovered with the soil. Should the remediation works not resolve the problem a replacement tree may need to be planted to replace the dead/dying tree.

During establishment trees will require regular watering particularly during prolonged dry periods. Mulch should also assist in retaining moisture within the soil. Water the spine road trees a minimum of once every two weeks during periods of limited rainfall over May-September (during the first full growing season) ensuring that the soil is fully saturated. Ensure all irrigation pipes are free from debris. Water shall be applied at 40litres per individual tree. Where water restrictions apply (hosepipe bans, drought orders) an alternative supply of water shall be used if possible.

Tree ties should be inspected twice annually as part of the general maintenance visits and adjusted accordingly. Damaged ties or stakes should be replaced. When the trees are established and can support themselves the ties should be carefully removed and the stakes cut down to ground level. This operation is likely to be required after 3 to 5 years dependant on establishment rates, stability and growing conditions. Underground tree guys, tree stakes and tree ties should be inspected twice annually as part of the general maintenance visits and adjusted accordingly. Damaged guys/ties should be replaced. Guys/ties will require adjusting as it is likely to take 3 to 5 years for the trees to establish dependant on stability and growing conditions.

Pruning of young trees should not generally be required unless they have dead or diseases branches, except on topiary trees. In such cases the tree branch should be pruned back (using a sharp clean knife) to an outward facing bud whilst maintaining the natural shape of the tree.

Topiary trees located on the roundabout centre are to be maintained to the shape of which they are specified on the approved plan.

These works will be the sole responsibility of the contractor, and where required a qualified arboriculturist, and at all times trees should be maintained in good health and in a safe condition.

One operation per month - 1
Four operations every month – 4

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Individual Trees													
Visual inspection of trees					1								Inspect trees for signs of disease, damage or as required following adverse weather. Replant if necessary.
Slow release fertiliser					1								Only when necessary.
Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree.
Tree stakes and ties				1					1				Check and adjust, replace or remove as required until the tree has established. Check and re-adjust after strong winds. Remove in year 3-5 or as required.
Tree guying				1					1				Repair and adjustment. Check and re-adjust after strong winds
Watering (Spine Road trees only)					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first 2 years until the trees have established.
Routine pruning				1					1				Should not be required for the first few years, except on topiary, after which pruning should only include the removal of dead or diseased branches.
Tree Replacements	1	1									1	1	Any trees that have failed should be replaced to the original specification and planted within the next planting season.

5.3 Proposed Orchard Trees

Objectives
The proposed orchard trees will play an important role in providing ecological value to the landscape proposals and will provide a valuable asset to the site and community for the local area.

Inspections
Inspect on an annual basis when the trees are in full leaf to ensure that the trees are thriving and record any defects requiring remedial works as soon as they arise.

Maintenance Operations
Newly planted fruit trees take some time to establish, and until this occurs, they are subject to competition from weeds. Maintain a 1m diameter circle around the base of the trees and cover with 75mm depth of bark mulch. Any weeds should be removed by hand from the base of each tree.

During establishment, trees will require watering when necessary, during prolonged dry periods. Mulch should also assist in retaining moisture within the soil.

Tree ties should be inspected twice annually as part of the general maintenance visits and adjusted accordingly. Damaged ties or stakes should be replaced. When the trees are established and can support themselves the ties should be carefully removed and the stakes cut down to ground level. This operation is likely to be required after 2 to 5 years dependant on establishment rates, stability and growing conditions.

Pruning of young trees should not generally be required unless they have dead or diseases branches. In such cases the tree branch should be pruned back (using a sharp clean knife) to an outward facing bud whilst maintaining the natural shape of the tree. After the first few years, pruning is required to reduce excessive weight in the crown or top of the tree. This is carried out to get better quality fruit, to ensure the fruit is accessible to its users, and to let light and air into the tree to help minimise disease outbreaks.

If the trees show signs of poor growth or reduced vigour an application of an appropriate fertiliser should be carried out. If the trees do not respond to a treatment of fertiliser, further investigations should be carried out, including the ground conditions for signs of compaction, contamination, poor quality topsoil. Remediate any problems uncovered with the soil. Should the remediation works not resolve the problem; a replacement tree may need to be planted. The replacement tree should be planted to the same specification 10-12cm girths from MM106 rootstock.

All trees should be installed with stock-proof guards which are to be checked to ensure they remain stock-proof and that they are not inflicting damage on the tree.

One operation per month (within month / months specified) – **1**.
Four operation per month (within month / months specified) – **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Orchard Trees													
Visual inspection of trees after year 2					1								Inspect trees for signs of disease, damage or as required following adverse weather. Replant if necessary.

Monitoring of newly planted trees for the first two years	1	1	1	1	1	1	1	1	1	1	1	1	New trees should be monitored monthly for the first 2 years to check for signs of poor growth.
Watering					a/r	a/r	a/r	a/r	a/r				Water trees when necessary, during periods of limited rainfall ensuring that the soil is fully saturated. Only required in the first 2 years of planting until the trees have been established.
Slow-release fertiliser					1								Only when necessary
Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree
Tree stakes and ties				1					1				Check and adjust, replace or remove as required until the tree has established. Check and re-adjust after strong winds. Remove in year 3-5 or as required.
Tree guying				1					1				Repair and adjustment. Check and re-adjust after strong winds
Routine pruning										1			Should not be required for the first few years, after which pruning should include the removal of dead or diseased branches and, reducing excessive weight in the crown (top of the tree). Do not prune more than 30% of the tree in any one year.
Remove and dispose of accumulations of winter leaves											1	1	To be carried out to reduce risk of slipping and to maintain a tidy environment
Tree Replacements	1	1									1	1	Any trees that have failed should be replaced to the original specification and planted within the next planting season.

5.4 Proposed Evergreen Hedgerow

Objectives

The hedgerow should be maintained to support strong early establishment and ongoing development to form a thriving hedgerow, which will provide important habitats for birds and mammals.

Inspections / Monitoring

Inspect the hedgerows twice annually when they are in full leaf to ensure that they are thriving and record gaps which need filling with additional plants or trimming to encourage growth to fill gaps. Record if there are any areas of significant failure to thrive which may require remedial works to the soil. Ensure the shelter guards are intact, installed correctly and are not restricting growth.

Short Term Management Operations (5 years)

Newly planted whips and bare rootstock take some time to establish, and until this occurs, they are subject to competition from weeds. To reduce competition, an area around the plants should be maintained with an area of bark mulch around the base and kept weed free. Herbicides should be avoided if possible unless grass and weeds are affecting the establishment of the plants. After 3-5 years or after the plants have established this should not be necessary. If they show signs of poor growth or reduced vigour an application of the appropriate fertiliser should be carried out.

Any failed shrubs should be replaced to the original specification; however, this should be carried out outside of the bird-nesting season.

During establishment, the evergreen hedgerow may require regular watering particularly during prolonged dry periods during the summer months. Watering should take place a minimum of once every two-week during periods of limited rainfall over May-September (during the first full growing season) ensuring that the soil is fully saturated.

Shelter guards, canes and ties should be inspected and adjusted accordingly to ensure they are not restricting growth. Damaged guards, canes or ties should be replaced. When the plants are established and can support themselves the guards, canes and ties should be removed to avoid constricting growth. This operation is likely to be required after 3 to 5 years dependent on establishment rates, stability and growing conditions. The guards should be checked after strong winds and reaffixed where necessary.

Trimming the top of the hedgerows should be avoided until the desired height has been reached; 1.5m along site boundaries, 1.2m internally along footpaths and 0.6m within centre of roundabout to maintain visibility. The sides of the hedgerow can be trimmed to encourage dense growth. Trim on an annual basis during the spring to promote bushy growth during years 1-4.

Long Term Management Operations (5+ years)

More regular / routine pruning of the hedgerow on establishment should only be carried out on the hedgerow to retain the desired height or if branches are obstructing publicly accessible areas/ lighting and they pose a potential safety risk. These operations should include the following operations:

Remove dead, diseased, damaged or dying branches where they pose a risk to the safety of the users of the site. (Dead wood is an important habitat for wildlife within a healthy woodland ecosystem and should not be removed unnecessarily).

After the hedges have established lightly, trim annually back to the desired height.

These works will be the sole responsibility of the contractor; the hedgerows should not be allowed to exceed the height as specified above to ensure visibility and safety across the site is not compromised.

One operation per month - 1
As required - a/r

First 5 years

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Evergreen Hedgerow													
Visual inspection of hedgerow				1					1				Inspect hedgerow for signs of disease, damage or as required following adverse weather, replant if necessary
Inspect hedges after strong winds (as required)	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Repair and adjustment. Check and re-adjust after strong winds and firm ground at base
Slow release fertiliser					1								Only when necessary
Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree. Report any non-native invasive species and carry out process for removal in accordance with national legislation.
Shelter guards, canes and ties				1					1				Check and adjust, replace or remove as required until the plants have established. Check and re-adjust after strong winds. Remove in year 3-5 or as required.
Watering					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first growing season until the vegetation has established
Routine pruning/ trimming				1					1				Pruning/trimming should only be carried out to maintain desired height or where in close proximity to public access, or where they pose a potential safety risk

Replacements	1	1									1	1	Any plants that have failed should be replaced to the original specification and planted within the next planting season
Remove and dispose of accumulations of winter leaves											1	1	To be carried out to reduce risk of slipping and to maintain a tidy environment
Weed control and tidying at base of hedgerow					1		1						Remove and dispose of weeds

5 + years

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Evergreen Hedgerow													
Visual				1					1				Inspect shrubs for signs of disease, damage or as required following adverse weather, replant if necessary
Weeding/ tidying at base of hedgerow				1					1				Remove weeds (mulch should not be required). Report any non-native invasive species and carry out process for removal in accordance with national legislation
Routine pruning/trimming				1					1				Pruning/trimming should only be carried out to maintain desired height and where in close proximity to public access, or where they pose a potential safety risk
Deadwood				1					1				Large woody material (girth of over 10cm) should be collected to create log piles within the woodland areas. Other deadwood to be retained unless cause identified as being due to disease or if the deadwood poses a risk to public safety

Remove and dispose of accumulations of winter leaves											1	1	To be carried out to reduce risk of slipping and to maintain a tidy environment. To be applied to areas affecting public footpaths or roadways.

5.5 Proposed Native Hedgerow

Objectives

The proposed native hedge will define the edges of the site and create shelter belts. The hedgerow should be maintained to support strong early establishment and ongoing development to form a thriving hedgerow, which will provide important habitats for birds and mammals.

Inspections / Monitoring

Inspect the hedgerows twice annually when they are in full leaf to ensure that they are thriving and record gaps which need filling with additional plants or trimming to encourage growth to fill gaps. Record if there are any areas of significant failure to thrive which may require remedial works to the soil. Ensure the shelter guards are intact, installed correctly and are not restricting growth.

Short Term Management Operations (5 years)

Newly planted whips and bare rootstock take some time to establish, and until this occurs, they are subject to competition from weeds. To reduce competition, an area around the plants should be maintained with an area of bark mulch around the base and kept weed free. Herbicides should be avoided if possible unless grass and weeds are affecting the establishment of the plants. After 3-5 years or after the plants have established this should not be necessary. If they show signs of poor growth or reduced vigour an application of the appropriate fertiliser should be carried out.

Any failed shrubs should be replaced to the original specification; however, this should be carried out outside of the bird-nesting season.

During establishment, the evergreen hedgerow may require regular watering particularly during prolonged dry periods during the summer months. Watering should take place a minimum of once every two week during periods of limited rainfall over May-September (during the first full growing season) ensuring that the soil is fully saturated.

Shelter guards, canes and ties should be inspected and adjusted accordingly to ensure they are not restricting growth. Damaged guards, canes or ties should be replaced. When the plants are established and can support themselves the guards, canes and ties should be removed to avoid constricting growth. This operation is likely to be required after 3 to 5 years dependent on establishment rates, stability and growing conditions. The guards should be checked after strong winds and reaffixed where necessary.

Trimming the top of the hedgerows should be avoided until the desired height of 1.2m has been reached. The sides of the hedgerow can be trimmed to encourage dense growth. Trim on an annual basis during the spring to promote bushy growth during years 1-4.

Long Term Management Operations (5+ years)

More regular / routine pruning of the hedgerow on establishment should only be carried out on the hedgerow to retain the desired height or if branches are obstructing publicly accessible areas/ lighting and they pose a potential safety risk. These operations should include the following operations:

Remove dead, diseased, damaged or dying branches where they pose a risk to the safety of the users of the site. (Dead wood is an important habitat for wildlife within a healthy woodland ecosystem and should not be removed unnecessarily).

After the hedges have established lightly, trim annually back to the desired height.

These works will be the sole responsibility of the contractor, the hedgerows should not be allowed to exceed the height as specified above to ensure visibility and safety across the site is not compromised.

One operation per month - 1
As required - a/r

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Native Hedgerow													
Visual inspection of hedgerow				1					1				Inspect hedgerow for signs of disease, damage or as required following adverse weather, replant if necessary
Inspect hedges after strong winds (as required)	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Repair and adjustment. Check and re-adjust after strong winds and firm ground at base
Slow release fertiliser					1								Only when necessary
Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree. Report any non-native invasive species and carry out process for removal in accordance with national legislation.
Shelter guards, canes and ties				1					1				Check and adjust, replace or remove as required until the plants have established. Check and re-adjust after strong winds. Remove in year 3-5 or as required.
Watering					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first growing season until the vegetation has established

Routine pruning/ trimming				1					1				Pruning/trimming should only be carried out to maintain desired height or where in close proximity to public access, or where they pose a potential safety risk
Replacements	1	1									1	1	Any plants that have failed should be replaced to the original specification and planted within the next planting season
Remove and dispose of accumulations of winter leaves											1	1	To be carried out to reduce risk of slipping and to maintain a tidy environment
Weed control and tidying at base of hedgerow					1		1						Remove and dispose of weeds
Deadwood				1					1				Large woody material (girth of over 10cm) should be collected to create log piles within the woodland areas. Other deadwood to be retained unless cause identified as being due to disease or if the deadwood poses a risk to public safety

5.6 Proposed Ornamental Shrub Beds

Objectives

The shrub beds should have total vegetation cover with no gaps as they establish in order to minimise maintenance requirements, and to provide a neat and tidy appearance to the proposed landscape setting. The pruning operations should be carried out under guidance of a horticulturally qualified manager, with a view to allowing the shrubs and herbaceous plants to achieve their species potential in terms of form, flower and structure.

Inspections

Inspect the shrub beds twice annually and record gaps that need filling with additional plants, areas thinned, or pruning operations to encourage growth to fill gaps. Where there has been a significant failure of plants to thrive, carry out investigations to locate the source of the problem and consult the landscape architect prior to replacement planting.

Maintenance Operations

Newly planted areas take some time to establish. Until this occurs, young plants are subject to competition in their root zone from weeds. During this time, weeds should be removed by hand and the bark mulch should be maintained to the original specified depth (75mm) until the canopies meet. After which weed growth should be more suppressed and only localised weeding should be required.

During establishment, all the plants will require regular watering particularly during prolonged dry periods. Water the shrub beds min once every two-week during periods of limited rainfall over April-September (during the first full growing season) ensuring that the soil is fully saturated. Watering should be undertaken by low-pressure hose sprinkler or evenly sprayed over the whole area at a rate of 25litres/m2. Ensuring watering is not undertaken during the heat of the day to avoid scorching of the plants.

Routine annual pruning of shrubs should not be required within the first three years, although some of the herbaceous plants and flowering shrubs should be maintained in accordance with the list below to encourage new growth and longer flowering periods.

In years one to three, newly planted shrubs will be lightly trimmed to encourage dense growth. After three years, the shrubs will be maintained on a two-year cycle, cutting only half of the stock within the site annually to ensure that there is a continuous supply of fruit during the winter months for birds and small mammal species.

Shrubs that grow over paths or obscure sight lines should be pruned. Should individual species grow excessively during the first five years, pruning should consist of the removal of individual branches to maintain the natural shape of the plant or selective thinning.

Herbaceous Plants General: these are the plants which generally have soft stems and will die back in the winter months. Any dead stems and leaves should be tidied up in the spring when the threat of frost has gone. Old and dead vegetation can be cut with secateurs back to the base or gently pulled by hand, to encourage the new growth to push through, arisings should be disposed of in the green waste. Allow seed heads to remain on the plants for winter interest and insect habitats. Some herbaceous plants can be spilt and replanted if they start to become open or scruffy.

Some of the more prolific early summer flowering plants will benefit from a light prune after flowering to encourage a second flowering in early autumn, prune the plants back to young new leaf growth removing all of the old flower heads.

Grasses: Seed heads on the grasses should be allowed to remain on the plants throughout the winter for visual interest. In the spring for deciduous grasses cut back old seed heads and any dead vegetation to encourage new growth.

Specimen shrubs in planting beds: allow the shrubs to establish as individual specimens, in the case of the multi stemmed woody shrubs, clear leaves from the base to allow herbaceous vegetation and shrubs to establish underneath.

Cornus: the shrubs should be reduced in height to 300mm every three years in the spring to encourage strong stem colour and vigour

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) - **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Ornamental Shrub Beds													
Visual inspection of shrubs and perennials				1					1				Inspect Plants for signs of disease, damage or as required following adverse weather. replant if necessary
Hand weed				1	2	2	2	2	1				Hand weed beds up to once a fortnight during the summer months, remove weeds and tidy up the bark mulch surface. If necessary treat prolific weeds with a non-residual glyphosate based herbicide ensure that after the weeds have died, they are removed to prevent the bed from looking unsightly.
Watering					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first two years until the shrubs have established.
Mulch				1									Top up mulch in the spring once the bed has been weeded, this should not be required after year 3-5 when the planting has established.
Plant replacement	1	1									1	1	Replace dead and dying plants to original specification during the next planting season
Remove dead foliage and old flower stems	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	Remove and dispose of foliage and stems. If diseased, remove as necessary as soon as possible.
Apply slow release fertiliser				1									Only if plants have shown signs of poor health in the previous season. Apply a slow release fertiliser or well-rotted manure in the spring.
General pruning				1									Should not be required in the first 1-3 years, however remove any branches that are obstructing paths, growing into the grassed areas or taking over other plants in the bed.
Selective thinning				1									In year 5 when the plants have established, thin out plants if overcrowded in the bed.
Plant specific maintenance				1									For maintenance of Cornus and Viburnum carry out specific maintenance operations as fully described in item 5.5
Clear snow	a/r	a/r	a/r	a/r						a/r	a/r	a/r	Remove snow from foliage after excessive fall if weight of accumulation may cause damage

5.7 Proposed Native Buffer Planting Mix

Objectives

The native shrubs should be maintained to ensure strong early establish and ongoing development to form a buffer. They will also provide important habitats for birds and mammals.

Inspections / Monitoring

Inspect the shrubs annually when they are in fully leaf to ensure that they are thriving and record defects requiring remedial works. Ensure the shelter guards are intact, installed correctly and are not restricting growth.

Management Operations

Newly planted bare rootstock takes some time to establish, and until this occurs, they are subject to competition from weeds. To reduce competition, an area around the plants should be maintained with an area of bark mulch around the base and kept weed free. Herbicides should be avoided if possible unless grass and weeds are affecting the establishment of the plants. After 3-5 years or after the plants have established this should not be necessary. If they show signs of poor growth or reduced vigour an application of the appropriate fertiliser should be carried out.

Any failed shrubs should be replaced to the original specification; however, this should be carried outside of the bird nesting season.

During establishment, shrubs may require regular watering particularly during prolonged dry periods during the summer months. These areas should be watered if there has been a period of dry weather between May to September.

Shelter guards should be inspected and adjusted accordingly to ensure they are not restricting growth. Damaged guards should be replaced. When the plants are established and can support themselves the guards should be removed to avoid constricting growth. This operation is likely to be required after 3 to 5 years dependent on establishment rates, stability and growing conditions. The guards should be checked after strong winds and reaffixed where necessary.

One operation per month - 1
As required - a/r

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Native Buffer Planting Mix													
Visual inspection of native shrub mix				1					1				Inspect shrubs for signs of disease, damage or as required following adverse weather, replant if necessary
Slow release fertiliser					1								Only when necessary

Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree. Report any non-native invasive species and carry out process for removal in accordance with national legislation
Shrub guards				1					1				Check and adjust, replace or remove as required until the plants have established. Check and re-adjust after strong winds. Remove in year 3-5 or as required
Watering					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first growing season until the vegetation has established
Routine pruning				1					1				Pruning should only be carried out where shrubs are in close proximity to public access, or where they pose a potential safety risk.
Replacements	1	1									1	1	Any plants that have failed should be replaced to the original specification and planted within the next planting season

5.8 Proposed Wildflower Meadow

Objectives

To create and maintain a biodiverse and balanced wildflower meadow that is free from invasive weeds for the benefit of wildlife and visual amenity. A mix will include 20% flowers and 80% grasses, as requested by Environmental Agency. The proposed mix is Emorsgate – EM2 Standard General-Purpose Meadow Mix or a similar approved mix.

Management Operations

The condition of the meadow areas would be reviewed within 6 months of its original seeding and any areas that have failed to establish should be re-seeded. In order to encourage the growth of yellow rattle and development of the meadow, the area should not be cut until after yellow rattle has finished flowering in late July. All arisings would be removed within a 48-hour period.

First Year

Most sown meadow wildflower and grass species are perennial; they will be slow to germinate and grow and will not usually flower in their first growing season. There will often be a flush of annual weeds from the soil in the first growing season which may grow up and obscure the meadow seedlings beneath. This annual weed growth is easily controlled by topping or mowing.

Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense. This will control annual weeds and help maintain balance between faster growing grasses and slower developing wildflowers.

Avoid cutting in the spring and early summer if the mixture has been sown with a nurse cover of cornfield annuals, or is autumn sown and contains Yellow Rattle. These sown annuals should be allowed to flower, then in mid-summer cut back and the cut vegetation removed. It is important to cut back cornfield annuals before they die back, set seed or collapse: this cut will reveal the developing meadow mixture and give it the space it needs to develop.

Carefully dig out or spot treat any residual perennial weeds such as docks.

Once Established

Following the initial year of its creation, the condition of grassland would be reviewed for the first 2 years for any areas of pernicious weeds (i.e. docks Rumex spp., thistles Cirsium spp. Or ragwort Senecio spp.), which would be controlled by the application of target herbicides.

In the second year and subsequent years, management to maintain the floristic diversity of the meadow grassland would entail an annual 'hay cut' using a scythe, petrol strimmer or tractor mower to a height of c.50mm, in August or September.
Following each mechanical cut of the meadow during its establishment or longer-term management, arisings would be raked off within a 7-day period, and deposited in a designated composting area or removed from the site.

One operation per month (within month / months specified) – **1**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Wildflower Meadow													
Inspection of meadow				1									Carry out an inspection of the establishment of the sward to identify any damaged areas, excessive weed growth, poor cover etc. which may require remediation works over the coming year.
Cut year 1			1					1	1				Mow newly sown meadows regularly throughout the first year of establishment to a height of 40-60mm, removing cuttings if dense.

Cut once established			1						1				Once established. Annual cut 'hay cut' with a scythe, petrol strimmer or tractor mower to a height of *c.*50mm between August and September once yellow rattle has flowered, followed by an autumn or spring cut if required to a height of *c.*50mm. Cuttings to be deposited in a designated composting area or removed from the site following 1-7 day period.
Inspect for weed growth and hand weed where necessary				1		1		1					Hand hoe out any weeds and remove
Remove fallen leaves, debris and litter	1	1									1	1	Remove prior to cutting (do not blow or sweep into adjacent planting beds)

5.9 Proposed Wildflower Meadow – Wetland Areas

Objectives

Wildflower mix suitable for wetland (EM8 Meadow Mixture for Wetlands by Emorsgate or similar approved) areas has been proposed within the attenuation areas and nearby. This area will provide a valuable habitat for aquatic insects, foraging birds and small mammals. A mix will include 20% native wildflowers and 80% slow growing grasses. The attenuation area should be well maintained at all times, ensuring any standing water is visible for safety and in a clean condition.

Inspections

The wildflower mix will require a specific maintenance regime in its first year to ensure that the swathe establishes without competition, please refer to year 1 maintenance operations for further details. Meadow Areas in general can be inspected as part of the regular maintenance operations.

Management

Remove litter before cutting. On an annual basis, ensure that all dead growth is removed before the start of the growing season and any sediment are removed from inlets/ outlets if required. The attenuation area may need to be re-seeded in areas of poor growth.

Operations should be restricted to when the attenuation area is not holding any water. Care should be taken when working on embankments.

First Year

In the first year, annual weed growth shall be cut back to encourage the development of a good perennial ground cover. Establishment on site may be patchy and may take several years to fully colonise as the area is prone to flooding.

Immediate management would require the removal of aquatic vegetation to ensure at least 70% of the water is maintained as open water, free from marginal and aquatic vegetation.

Autumn Sown (First Year)

March - Cut to 40-70mm if there is sufficient material (sward above 100mm).
May - Cut to 40-70mm.

August/September - Cut to 40mm after flowering. in all cases remove clippings.

Maintenance thereafter

April - Cut to 40-70mm.
August/September - Cut to 40mm after flowering. in all cases remove clippings.

Spring Sown (First Year)

6 weeks after sowing - Cut to 40-70mm if there is sufficient material (sward above 100mm).
May - Cut to 40-70mm if there is sufficient material (sward above 100mm).
August/September - Cut to 40mm after flowering. in all cases remove clippings.

Maintenance thereafter

April - Cut to 40-70mm.
August/September - Cut to 40mm after flowering. In all cases remove clippings.

Once Established

Following this, management will focus on maximising the nature conservation interest of the attenuation areas and require that the vegetation is cut back with removal short, wedge-like sections of vegetation every 2-3 years in rotation. Any dense stands of single species (e.g. yellow iris) will require selective thinning.

Aquatic and marginal vegetation should be checked annually and where necessary cleared to maintain 70% open water. Only 1/3 or less of marginal areas should be cleared annually on a rotational basis during autumn; arisings should be left next to the attenuation area for at least 7 days before taking to a designated composting area.

Any bankside vegetation will be strimmed annually to 150mm in 1/3 sections on rotation to maintain cover and shelter for fauna. Areas of pernicious weeds should be removed by hand only, and no fertiliser is to be applied to the banks in order to minimise the risk of algae blooms and risk of deoxygenating the water. Where the meadow areas are close to the paths maintain a minimum 1m wide regularly mown strip between the path and the meadow, incorporating this area into the amenity grass areas. Should it be too steep for the mower, then alternative grass-cutting methods need to be employed on the attenuation area.

These operations are the sole responsibility of the contractor and should be restricted to when the area is not holding any water. All inspections and maintenance tasks should comply with the all relevant Health and Safety information and include the development of risk assessments when working close to water or on an embankment.

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) - **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Wildflower Meadow – Suitable for Wetland													
Inspection of Meadow				1									Carry out an inspection of the establishment of the sward to identify any damaged areas, excessive weed growth, poor cover etc. which may require remediation works over the coming year.
In the first year, annual weed growth cut back				1		1		1					Annual weed growth shall be cut back to encourage the development of a good perennial ground cover. Hand hoe out any weeds and remove.
Cut back vegetation			1						1				Vegetation is cut back and removal of short wedge-like sections of vegetation on rotation every 2-3 years in rotation with long armed exactor.
Thinning of dense stands from year 2									1				Any dense stands of single species (e.g. yellow iris) will require selective thinning from the year 2.
Remove fallen leaves, debris and litter	1	1									1	1	Remove prior to cutting (do not blow or sweep into adjacent planting beds)

5.10 Proposed Species Rich Grassland (in POS areas)

Objectives

A mixture designed to create a species rich grassland that can be kept trimmed or left longer to flower.

Grass areas should be well maintained at all times as overgrown and patchy grass can be unsightly.

Inspections

Grassed areas can be inspected as part of the regular maintenance operations, although they should be formally inspected annually to assess requirements in terms of topdressing, over seeding etc.

Maintenance Operations

Remove any litter or leaves before cutting. Arising's should be removed from site.

To provide the formal appearance desired, following the initial year of its creation, the amenity grassland would be cut regularly to a minimum height of 70mm through the growing season (up to 21 cuts a year) which may require fortnightly cuts during some months. Cutting should be suspended during April and May to allow the earlier flowing species (such as cowslip) to flower and again in late June for a 4-8 week period. All arisings would be removed within a 48-hour period.

A fertiliser application to be applied only as required, either as a spring feed for shoot growth or as an autumn feed for root growth using the appropriate feed application.

In addition, these applications should compensate for any areas of poor growth or excessive wear. An application of selective herbicide should be made during early summer to prevent any weed species from

having a detrimental affect to the appearance of the sward and to prevent any infestation becoming severe.

In periods of dry weather conditions, it may be required to water the grass at a rate of 15litres/m2. Ensuring watering is not undertaken during the heat of the day to avoid scorching of the grass.

Other maintenance applications, which will be required from time to time, include the following: topdressing, overseeding, scarifying, spiking etc to alleviate common problems such as thatch, compaction, poor drainage, malnourishment etc. These items should be addressed in the annual check.

The Public Rights of Way will be maintained by the Land Trust and that will include mowing of the grass pathways and litter picking.

Proposed Mown Grass Path within Species Rich Grassland (in POS areas)

Objective

To maintain safe, functional, and visually pleasing grass pathways through regular mowing and edge management, while balancing ecological health and usability.

Maintenance Operations

1. Mowing:
-Frequency: Bi-weekly during growing season (adjust for weather/use).
-Height: Maintain 50–75mm height to withstand foot traffic and discourage weeds.
-Method: Use rotary or cylinder mowers; alternate mowing directions to prevent ruts.

2. Edging:
-Trim edges every 4–6 weeks with strimmer or mechanical edgers for a crisp boundary.
-Redefine edges annually if erosion or encroachment occurs.

3. Debris Management:
-Remove clippings if excessive (to prevent thatch) or leave *in situ* for nutrient recycling in low-traffic areas.
-Clear fallen leaves/obstructions seasonally.

4. Wear & Tear Repair:
-Reseed bare patches in spring/autumn with hard-wearing grass mixes.
-Rest compacted areas by aerating (e.g., spike aeration annually).

5. Ecological Considerations:
-Allow occasional flowering margins (e.g., 10–20cm unmown edges) to support pollinators.
-Avoid mowing during wet conditions to prevent soil compaction.

6. Safety & Compliance:
-Inspect paths for hazards (e.g., uneven surfaces, animal holes) before mowing.
-Ensure equipment is cleaned to prevent invasive weed spread.

These works will be the sole responsibility of the contractor.

One operation per month (within month / months specified) - **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) - **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Species Rich Grassland													
Inspection				1									Carry out an inspection of the establishment of the grass sward to identify any damaged areas, excessive weed growth, poor grass cover etc which may require remediation works over the coming year.
Cut - First Year				1		1		1		1			Mow grassland when it reaches 100mm and regularly within the first year. Cut to 70mm to encourage tillering of new plants, repeat as desired. Regular topping back will encourage vegetative growth of the perennial species but will stop the sward from flowering. Once mowing or strimming ceases the plants will grow to the point of flowering. If flowering is required in the first year then one or two strims early on will suffice, alternatively a strategy of mowing throughout the first year will produce tight sward that will be more resistant to encroachment by weed species in future years. Cutting to be removed from the site following 48-hour period.
Cut- Once Established						1		1		1			Once established, cut as required to 70mm with no cuts taken during April and May and again in late June for 4-8 weeks. Cuttings to be removed from site following 48-hour period.
Cut edges				1	1	1	1	1	1	1			Edges to paths and shrub beds to be cut with a neat edge avoiding damage to the shrubs and tree trunks and the arisings removed from the beds or swept off the paths and disposed of in a licensed tip.
Reform edges				1				1					Twice a year the soft grass edges should be redefined with a half moon spade to form neat straight edges and any grass encroaching onto footpaths taken back
Apply fertiliser application in year 1 -2				1						1			Once in the spring and once in the summer as required

Topdressing, over seeding, scarifying, spiking	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	As required if identified in the annual inspection
Remove fallen leaves, debris and litter	1	1	1	1	1	1	1	1	1	1	1	1	Remove prior to cutting (do not blow or sweep into adjacent planting beds)

5.11 Proposed Native Bulb Planting

Objectives

To ensure bulbs thrive within lawned areas providing seasonal interest and biodiversity resources at key locations within the public spaces.

Inspections

Bulb planting in grassed areas can be inspected as part of the regular maintenance operations associated with the lawn maintenance. They should be formally inspected annually to assess requirements in terms of gaps, flower quality, etc.

Maintenance Operations

Most bulb species require a prolonged period of winter chilling after sowing to break dormancy and therefore should be sown in late summer or autumn. Germination will take place the following spring.

Where grass areas are planted with naturalising bulbs, the grass will be cut 6-8 weeks after the bulbs have flowered to allow sufficient time for the bulb to regain the necessary nutrients to ensure it will flower the following season. Normal mowing will then resume until the bulbs start to reappear. Apply fertiliser towards the end of February if required.

One operation per month (within month / months specified) – **1**
Two operations per month (within month / months specified) - **2**
Four operation per month (within month / months specified) - **4**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Native Bulb Planting													
Inspect bulbs during flowering season			1	1	1								Visual inspection to identify any issues
Cut back foliage after 6-8 weeks after flowering ends					1	1	1						Season varies depending on species and cultivar
Apply fertiliser if required		1											To promote healthy growth

5.12 Proposed Woodland Mix

Objectives

The proposed woodland mix will define the edges of the site and create visual screening against unit boundaries. They will also provide important habitats for birds and mammals. The mix should be maintained to ensure strong early establish and ongoing development.

Inspections / Monitoring

Inspect the woodland mix twice annually when they are in fully leaf to ensure that they are thriving and record defects requiring remedial works. Ensure the shelter guards are intact, installed correctly and are not restricting growth.

Short Term Management Operations (5 years)

Newly planted whips and bare rootstock take some time to establish, and until this occurs, they are subject to competition from weeds. To reduce competition, an area around the plants should be maintained with an area of bark mulch around the base and kept weed free. Herbicides should be avoided if possible unless grass and weeds are affecting the establishment of the plants. After 3-5 years or after the plants have established this should not be necessary. If they show signs of poor growth or reduced vigour an application of the appropriate fertiliser should be carried out.

Any failed whips or bare rootstock should be replaced to the original specification; however, this should be carried outside of the bird-nesting season.

During establishment, the woodland mix may require regular watering particularly during prolonged dry periods during the summer months. These areas should be watered if there has been a period of dry weather between May to September.

Shelter guards, canes and ties should be inspected and adjusted accordingly to ensure they are not restricting growth. Damaged guards, canes or ties should be replaced. When the plants are established and can support themselves the guards, canes and ties should be removed to avoid constricting growth. This operation is likely to be required after 3 to 5 years dependant on establishment rates, stability and growing conditions. The guards should be checked after strong winds and reaffixed where necessary.

Long Term Management Operations (5+ years)

Once the whips have established and their canopies begin to touch, it is important to consider thinning. This is likely to be required at around 10 years of growth. The operation must be carried out by a qualified contractor with a felling licence. Ensure thinning works are carried out outside the bird-nesting season.

More regular / routine pruning of the whip planting on establishment should only be carried out on the shrubs/trees which are close to publicly accessible areas and should include the following operations:

Remove dead, diseased, damaged or dying branches only where they pose a risk to the safety of the users of the site. (Dead wood is an important habitat for wildlife within a healthy woodland ecosystem and should not be removed unnecessarily). Large woody material (girth of over 10cm) should be collected to create log piles within the planted areas, these should be stacked neatly and safely to ensure that they do not pose a risk to the users of the site.

One operation per month (within month / months specified) - **1**
As required - **a/r**

First 5 years

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Woodland Mix													
Visual				1					1				Inspect woodland mix for signs of disease, damage or as required following adverse weather. Replant if necessary
Slow release fertiliser					1								Only when necessary
Weeding/ mulch				1	1	1	1	1	1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree. Report any non-native invasive species and carry out process for removal in accordance with National legislation.
Tree stakes, ties and guards				1					1				Check and adjust, replace or remove as required until the tree has established. Check and re-adjust after strong winds. Remove in year 3-5 or as required.
Watering					2	2	2	2	2				Water once every two weeks during the growing season and as necessary in periods of drought only during the first 2 years until the trees have established.
Routine pruning		1							1				Pruning should only be carried out where trees are in close proximity to public access, or where they pose a potential safety risk.
Tree Replacements	1	1									1	1	Any trees that have failed should be replaced to the original specification and planted within the next planting season.

One operation per month (within month / months specified) - **1**
As required - **a/r**

5+ years

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Woodland Mix													
Visual				1					1				Inspect woodland mix for signs of disease, damage or as required following adverse weather. Replant if necessary

Weeding/ mulch				1					1				Remove weeds and top up mulch (mulch topped up once annually) to retain a weed free around the base of each tree. Report any non-native invasive species and carry out process for removal in accordance with National legislation.
Tree stakes, ties and guards				1					1				Check and adjust, replace or remove as required until the tree has established. Check and re-adjust after strong winds. Remove in year after 5 years or as required.
Thinning / felling trees	a/r	a/r							a/r	a/r	a/r	a/r	Thin out woodland trees once canopies begin to touch to allow sufficient sunlight to reach understorey planting. Felling to be carried out by a qualified contractor approximately every 10-15 years.
Routine pruning		1							1				Pruning should only be carried out where trees are in close proximity to public access, or where they pose a potential safety risk.
Deadwood				1					1				Large woody material (girth of over 10cm) should be collected to create log piles within the woodland areas. Other deadwood to be retained unless cause identified as being due to disease or if the deadwood poses a risk to public safety.

5.13 Proposed Marginal Planting and Wildflowers for Marginal Areas

Objectives

Marginal vegetation has been proposed for the edge of wildlife ponds and attenuation areas and should be maintained for the establishment and ongoing longevity of the planting. This area will provide a valuable habitat for aquatic insects, foraging birds and small mammals.

In addition to marginal plug planting, N8 Water's Edge Wildflower seed mixture has been sown in the upper marginal zone to support biodiversity, provide visual interest, and create a seamless transition between wet grassland and aquatic edge habitats.

Inspections / Monitoring

Inspect the marginal planting and adjacent wildflower seeded areas (N8) **twice annually** when vegetation is in full growth to ensure both zones are thriving. Record any defects requiring remedial works. Assess vegetation in terms of density, weed growth, species diversity, and ground coverage to determine maintenance requirements.
Where there has been a significant failure of either plug plants or wildflower areas to establish, carry out investigations to identify the source of the problem and consult the landscape architect before

undertaking replacement works. N8 areas should be monitored for grass dominance and invasive species encroachment.

Management Operations

Newly planted areas take some time to establish. Until this occurs, young plants are subject to competition in their root zone from weeds. During this time, weeds should be removed by hand, and the bark mulch should be maintained to the original specified depth (75mm) until established. After which, weed growth should be more suppressed and only localised weeding should be required.
N8 wildflower areas: Spot-weed manually during the first two years to control aggressive competitors. Avoid the use of herbicides unless essential and approved.

During establishment, all the plants will require regular watering, particularly during prolonged dry periods. Water the shrub beds a minimum of once a week during periods of limited rainfall over April-September (during the first full growing season), ensuring that the soil is fully saturated.

Watering is required in the first two years after planting, which will be the responsibility of the developer before handover to the management company. N8 areas: Do not water routinely unless in extreme drought. Overwatering can reduce species diversity.

N8 wildflower zones: Once annually in late summer (August–September) after flowering and seed set. Remove all arising to reduce soil fertility and support perennial wildflower development. Avoid cutting in year 1 unless grass is dominant.

Routine pruning of the scrub and marginal planting should only be carried out on the plants which are close to publicly accessible areas or are causing an obstruction and pose a potential safety risk.

These operations are the sole responsibility of the contractor and should be restricted to when the area is not holding any water. All inspections and maintenance tasks should comply with the all relevant Health and Safety information and include the development of risk assessments when working close to water or on an embankment.

One operation per month (within month / months specified) - **1**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Marginal Planting and Wildflowers for Marginal Areas													
Visual Inspection of scrub/marginal planting				1					1				Inspect planting for signs of disease, damage or as required following adverse weather, replant if necessary
Weeding				1					1				Remove weeds. Report any non-native invasive species and carry out process for removal in accordance with National legislation.
Routine pruning				1					1				Pruning should only be carried out where planting is in close proximity to public access, or where they pose a potential safety risk.

Mulch				1									Top up mulch in the spring once the bed has been weeded, this should not be required after year 3-5 when the planting has established.
Plant replacement	1	1									1	1	Replace dead and dying plants to original specification during the next planting season
Cutting of the N8 wildflower area								1	1				Annual cut after flowering. Remove arisings. Do not cut in Year 1 unless needed.

6.0 Attenuation Area

This document outlines the maintenance schedule to be carried out upon completion of construction to ensure the continued working operation of the Attenuation Area and Natural Swales. Drainage system to be maintained in line with the drainage engineer's guidance.

For guidance on vegetation management within the attenuation area, please see the section

5.9 Proposed Wildflower Meadow – Wetland Seed Mix and 5.13 Marginal Planting and Wildflowers for Marginal Areas

6.1 Proposed Attenuation Area

Objectives

Proposed Attenuation area are designed to assist managing water run-off on site and will have varying levels of water throughout the year, and may be dry, or boggy during the summer months. Nevertheless, they should be maintained as an attractive feature with a clean and tidy appearance. Areas with water or partial water represent a potential hazard to users of the site and should be monitored regularly to check they are performing as originally intended, are not subject to vandalism or tipping, and do not represent a hazard through lack of maintenance.

Inspections

As part of the maintenance operations, attenuation area and associated drainage system are to be formally inspected at 6-monthly intervals by the maintenance contractor (particularly during the period of vegetation establishment), following a report by users of the site or a significant storm event. A report of the inspections and rectified works should be logged.

Check for any litter, debris, deleterious or dangerous material. Inlets, outlets, culverts and control structures should be inspected to ensure the basin is in a good condition. Inspect the drainage system, including bypass separators and associated pipe work to ensure they are operating effectively and determine any remedial works that are required. Assess the vegetation in terms of density, weed growth and coverage to determine maintenance requirements. Silt levels and sediment accumulation should be monitored and managed accordingly.

Inspect area after extreme weather events. Monitor the inflow and overflow areas to make sure they are still intact and can continue to carry water into and out of the rain garden. Remove any debris or litter that may interfere with flow. Keep the inflow pipe accessible and flush out pipe if necessary. Look for areas where water may not be soaking into the ground. This may be due to fine sediment or compaction of the soil. Remove sediment that may be building up and rake the soil surface. If you suspect compaction, break up and loosen the soil when it is not saturated.

Maintenance Operations

On a monthly basis, ensure attenuation areas are cleared of debris, litter, and deleterious or dangerous material. They should be free from visible or potential blockage risks to the system. Inlets, outfalls, and culverts are to be cleaned out thoroughly to maintain the free flow of water, including the removal of silt accumulation as required. Should water levels fall below 50cm, desilting may be required. This should be undertaken between November and January by a long armed excavator.

For the management of vegetation, please refer to **Section 5.9 Proposed Wildflower Meadow – Wetland Seed Mix and 5.13 Marginal Planting and Wildflowers for Marginal Areas** for mowing regimes. These operations should be restricted to when the area is not holding any water.

Any remedial works required to the infrastructure should be carried out by skilled operatives under the guidance of a qualified engineer and manufacturer of any proprietary systems. The area should be cordoned off until the problem can be resolved at the earliest opportunity.

The bypass separators and associated pipe work linking the attenuation area to the wider drainage system should be maintained by the management company in accordance with the manufacturer's recommendations.

All inspections and maintenance tasks should comply with all relevant Health and Safety information and include the development of risk assessments when working close to water or on an embankment.

Great care should be taken if standing water is present. Clear any vegetation to prevent blockages and ensure the area is free draining. A safe and acceptable system of clearance should be developed to deal with the build-up of any litter, debris or weeds that are beginning to establish. This system should be developed and/or refined over time to ensure the screen (if applicable) does not impede flow during normal operating conditions or become a hazard in itself. Take appropriate safety measures to remove deleterious or dangerous material. Record types and number of debris removed, frequency of cleaning and problems experienced.

One operation per month (within month / months specified) - **1**
As required - **a/r**

Operation	MONTHS												Notes
	J	F	M	A	M	J	J	A	S	O	N	D	
Proposed Attenuation Area													
Visual inspection and monitoring of attenuation area and drainage system.				1						1			Visual inspection of operating system and infrastructure etc. - Identify areas of erosion, scour or gullies - Identify locations of silt deposits - Determine the health of the vegetation and soil - Identify areas of excessive waterlogging or other damage
Debris removal, inlet and outlet cleaning.	1	1	1	1	1	1	1	1	1	1	1	1	Remove litter/debris/dead vegetation from attenuation area and drainage system etc. Inlet and outlet cleaning if present.
Inspect water flowing within the attenuation area.				1						1			Inspect annually and remove any built up soil, debris or leaves that is blocking the inlets or outlets. Cut back or remove any vegetation or grass that is growing into inlets. Remove sediments that build inside the inlet areas. If suspect compaction, break up and loosen the soil when it is not saturated.

Inspect attenuation area after storms.	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	After heavy storms, check the inflow and overflow areas to make sure they are still intact and can continue to carry water into and out of the attenuation area. Remove any debris or litter in the swale that may interfere with flow. Keep the inflow pipe accessible and flush out pipe if necessary. Look for areas where water may not be soaking into the ground. This may be due to fine sediment or compaction of the soil.
Inspect for any exposed soil or erosion within the attenuation area.			1							1			Look for any exposed soil or erosion caused by fast or high volume water flows. Realign of rip-raps or other erosion controls. Repair or relocate of damaged barriers. Reinstate the levels and turf due to erosion by rills or gullies. If erosion persists, water may be flowing into the swale too rapidly, in this case, the slope of the pipe or swale directing water may need to be reduced, or the amount of water flowing into the swale may need to be decreased.
Removal of excess silt.	a/r										a/r	a/r	Attenuation areas accumulate silt naturally. The accumulation of silt occurs slowly, unless there is an unforeseen incident or badly managed construction site. If the silt accumulation is a problem: - Should water levels fall below 50cm, desilting should be undertaken using a long armed excavator - Remove (reuse or compost) turf - Remove accumulated silt (subject to toxicity test) and land or dispose of to tip - Cultivate remaining topsoil to levels - Reuse or re-turf area to agreed levels

7.0 Monitoring and Review

In order to ensure that the existing and proposed landscape within the site reach and maintain their maximum value. All landscaping should be monitored every year to check establishment. It is recommended that the inspection take place in July/August. The inspection will identify any issues and future landscape management objectives.

Results of this monitoring should be used to inform annual changes to the management plan, and at the end of the five-year rolling work programme.

A programme of monitoring is to be established by appointed Maintenance Contractor that will allow the success of landscape management and maintenance operations to be assessed. It will feed into periodic reviews of this Landscape Management Strategy to ensure that management protocols remain appropriate to achieving the broad aim of conserving biodiversity on site.

If the maintenance of the approved Landscape Management Strategy is proposed to be changed, this is to be first approved in writing by the Local Authority.

8.0 Handover Procedures

The maintenance period will run concurrently with the rectification period so it may be prevalent to have the same contractor for both the construction side of the operations and the Maintenance Contractor, to help avoid disputes. After the rectification period, the management and maintenance objections need to remain in place for the following operational years of the development site.

To ensure a smooth handover between management contractor companies a clearly documented record of works will be required.