
ANCOATS GREEN

PLANIT

This document is copyright protected and may not be reproduced
in whole or part without written authority from the owner.

© 2023 Planit I.E. Limited

Contents

1		
Introduction of Principles	4	
2 Hardworks	6	
Hardworks General Arrangement - Area 1	7	
Hardworks General Arrangement - Area 2	8	
Maintenance Operations	9	
Edgings General Arrangement - Area 1	14	
Edgings General Arrangement - Area 2	15	
Maintenance Operations	16	
3 Site Furniture	18	
Furniture General Arrangement - Area 1	19	
Furniture General Arrangement - Area 2	21	
Maintenance Operations	23	
Play Furniture General Arrangement Area	24	
4 Boundaries	28	
Boundary General Arrangement - Area 1	29	
Boundary General Arrangement - Area 2	31	
Maintenance Operations	32	
5 Softworks	33	
Softworks General Arrangement Area 1	34	
Softworks General Arrangement Area 2	35	
Trees pruning Schedule	36	
Management Plan	37	
Herbaceous Planting	42	
Wildflower Meadow	45	
Rain Gardens	46	
Lawn	48	

1 INTRODUCTION OF PRINCIPLES

There should be a commitment to the ongoing high quality management and maintenance of any public realm. The long-term success of any landscape is reliant upon a detailed understanding of the parts and how they go together, but that is just the start of the journey. Perhaps the most important aspect and invariably overlooked, is to ensure that there is a defined and committed programme of maintenance.

Brief

The brief below describes the framework:

- The management plan will cover a time period of 5 years.
- The Management Plan must give consideration to environmentally sensitive design and management.
- The conservation of existing features will be a prime consideration.
- The Management Plan will seek to provide a net increase in the nature conservation value of the site.

Monitoring

The Management Plan's life span has been divided into key stages of 5 yearly intervals. These will be used as the basis for developing the plan and setting reviewing targets.

Monitoring is of fundamental importance, since this is the means by which the success of the plan will be measured. It is therefore important to establish standardised survey and monitoring methods, which enable valid year on year comparisons to be made. There will be a need for flexibility during its implementation. The Management Plan must be an evolving one, able to adapt to the specific needs of the space.

Management principles

Hardworks / Edgings / Site Furniture:

- To put in place procedures for regular inspections of all paved areas.
- To outline specification and requirements for work by Public Utilities and general surface reinstatement.
- To outline specification and sources of materials for repair / reinstatement (NBS Spec Public Realm).
- To establish winter maintenance procedures.
- To put in place procedures for street cleaning.
- To outline procedures for the maintenance of Site Furniture.

Proposed individual trees:

- To ensure satisfactory establishment and continuing health.
- To maintain the plants in a healthy condition and develop the site tree structure.
- To ensure the successful establishment and continuity of the overall design concept.
- To establish a valued and appropriate amenity.

Ornamental, herbaceous planting:

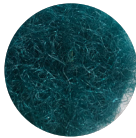
- To ensure satisfactory establishment and continuing health.
- To maintain plants in a healthy and attractive condition.
- To ensure the successful establishment and continuity of the overall design concept.
- To establish a mechanism for the replacement of any failing plant or one which has reached maturity.
- To ensure planting within public areas is maintained below a maximum height of 1m to meet the guidance set within Secure by Design.

2 HARDWORKS

Hardworks General Arrangement

Area 1

The drawings to which this section relates to are:
2895-PLA-XX-XX-DR-L-1002

 	 
ST1 Porous Tarmacadam	ST2 Reclaimed Granite Setts
 	 
ST3 Sand Filled Carpet	ST4/ST7 Tarmacadam
 	 
ST5/ST18 Natural Stone	ST6 Natural Stepping Stones
 	 
ST8/ST16 Metal Inlays	ST9 Road Markings
 	 
ST10 Play Surface	ST11 Crossing



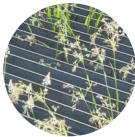
Hardworks General Arrangement

Area 2

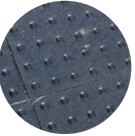
The drawings to which this section relates to are:
2895-PLA-XX-XX-DR-L-1003



ST12 Gateway Surface
Natural Stone Granite
Setts



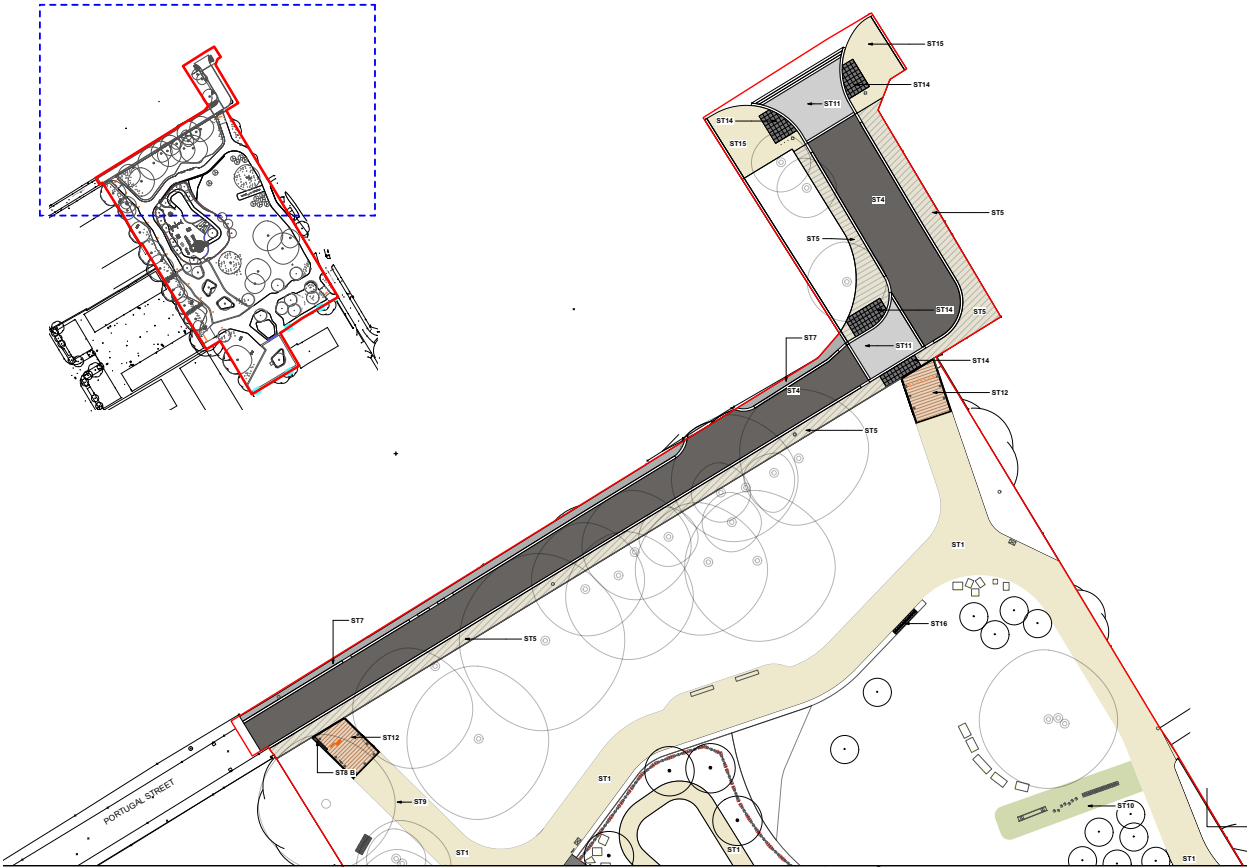
ST13 Walkway
Platform



ST14 Tactile Paving



ST15 Granite Setts



Maintenance Operations

Surfaces need to be maintained such that they provide a safe passage for all pedestrians. The success of any streetscape project will greatly depend on the attention given to the maintenance. Typically, early life maintenance or aftercare of new works will be the responsibility of the Main Contractor that delivered the works. The maintenance and defects liability period will generally be 12 months. The Main Contractor should visit the site at regular intervals during the maintenance period, to inspect all areas and to undertake any remedial works. At the end of the maintenance period the contractor will be required to undertake remedial works to the satisfaction of the Client.

Tarmacadam

After Installation

- Protect the system from construction and maintenance trades involving heavy plant and equipment.
- Prevent loose building and landscaping materials being dropped on the surface as these will clog the pores of the asphalt.
- Traditional pressure washing equipment should not be used as this forces dirt deeper into the asphalt.

New Building Work

Any new building or landscaping works on site may place the system at risk, hence an effective protection method should be agreed with all trades using the system area. In particular those requiring heavy plant, equipment and materials which may damage or clog the surface.

Emergency Intervention

Oil and fuel spillages can be cleaned up using absorbent cloths with any residues left for treatment within the pavement itself.

High levels of spillage or long term deposits of oil and fuel may force minor repairs to the system layers. An experienced contractor should be employed.

Routine Maintenance

Litter, leaves and spillages should be brushed or if possible vacuumed off the surface. Periodic use of a standard road sweeper is permitted.

Winter Maintenance

Winter maintenance can be undertaken using BS 3247 Fine Grade 6.3mm rock salt however, effective dispersal across the surface is highly recommended and reduces clogging of the asphalt pores. As such, applicators or spreaders should be employed.

Snow clearance by unmodified or general plant must be prohibited. All clearance equipment such as JCB type loading shovels or tractors should use either plastic / rubber ploughs or buckets protected with rubber sheaths to prevent damage to the surface.

Supplier

- Tarmac
- T: 03443 630 046
- E: tpsmmailbox@tarmac.com

Loose Bark Play Surface and Gravel

- Cleansed to NI 195 Grade A standard for litter, including checks of loose bark within play area and gravel to S1 planting at monthly intervals.
- Maintained at NI 195 Grade A standard for detritus. Deep sweeps at monthly intervals.
- Reports of detritus to be attended and swept within 1 Business Day.
- Loose bark and gravel to be reinstate to original depth as required.

Maintenance Operations

Natural Stone - ST2,ST5,ST6,ST8,ST11, ST12, ST14, ST15, ST18

Initial Maintenance

Materials are available for sealing the surface of the paving. These can be either impregnators or sealants to help with stain removal or to provide some benefit in stabilising the sand in the joints in the short and longer term. If a surface sealant is used on paving, it must be applied in strict accordance with the manufacturers instructions. Sealants may affect the colour of the pavement and its slip / skid resistance and may require ongoing maintenance during the life of the paving. It is important that the surface of the paving is dry and clean before any sealant is applied.

Should any paving become loose or start to rock, the reason for the damage should be ascertained and then appropriate measures taken to avoid any ongoing problems. Where new services are to be installed or access is required to existing services under the paved area, the paving should be lifted carefully, cleaned and stockpiled for later use. Devices for removing individual slabs are available. Once the initial paving has been removed, it should be relatively straightforward to uplift the area of paving. During relaying a slight surcharge should be created in the sand bedding course to allow for settlement of the paving following initial compaction and early trafficking.

Typically, reinstated areas of paving should have a surcharge of 2-3mm over the surrounding paved area. As the majority of paving is rectangular in shape, there should be no difficulty in obtaining replacement paving. Ideally, these should be obtained from the original supplier. Any replacement paving should be mixed with the existing paving to ensure an adequate colour blend between the old and new products.

Cleaning of Paving

General Dirt and Detritus

To remove general dirt and detritus a cyclic maintenance regime is required. If detritus dulls the colour of the paving, it can be re-established by pressure washing or scrubbing with proprietary solutions following the manufacturers guidelines. This can be carried out by hand or by using industrial cleaning equipment. Ensure all soap has been thoroughly washed from the surface on completion of the cleaning.

Moss, Lichen and Algae

Moss, lichen and algae may grow on paving in areas which are heavily shaded or under trees, or are not laid to an adequate fall leading either to slow running off or ponding of surface water. If such growths do occur, the areas should be treated with an appropriate proprietary weed killer, used in accordance with the manufacturers instructions.

Such products are most effective when applied during a spell of dry weather.

Rust Stains

If rust stains occur on the paving, the first requirement is to eliminate the source of the staining. To remove rust stains, the surface should be wetted and the affected area treated with a prop solution. After cleaning, the paving should be well washed down to remove all traces of the acid.

Oil Stains

Oil does not penetrate readily into the body of granite paving, but if oil is spilt on the paving the spillage should be removed promptly with an absorbent material. After soaking up the majority of small spills, prompt washing with a prop solution should remove the stain. Steam cleaning can be used on paving to remove more extensive or stubborn stains, but if this is unsuccessful, an emulsifying degreasing agent should be employed. Brush the cleaner onto the affected area and then wash the emulsified oil away with plenty of water. Neither hot water, steam cleaning nor emulsifying agents will affect the colour of the paving.

Bitumen Stains

Bitumen does not penetrate readily into granite. The best method of removal is to leave the bitumen until it has cooled and remove it with a paint scraper or similar mechanical device.

SUPPLIER:
Hardscape
T: 08345 260 1748
E: enq@hardscape.co.uk

If it is particularly resistant, the use of ice to make the bitumen even more brittle may be required prior to scraping it from the paving. Any residue should be removed with an abrasive powder and finally the whole area rinsed with clean water. Certain proprietary cleaning agents are available to remove bitumen, but these should be tested on an inconspicuous area of paving first.

Paint and Graffiti

Both paint and graffiti are difficult to remove. Wet paint should be soaked up with an absorbent material. The area should not be wiped, as this will spread the paint. The spillage should then be treated with a suitable solvent, such as white spirit and the area washed with a strong detergent and hot water solution. Steam cleaning can also be employed. When paint has dried, it should be scraped off as far as possible and an appropriate paint stripper applied. This should be used in accordance with the manufacturers instructions. Once the paint has been removed by the chemical, the area again should be washed with a strong detergent and hot water solution. Paint manufacturers may often be able to give more detailed advice on the removal of their own products. There are companies specialising in the removal of graffiti and it may be necessary to Head Office Eagley House, Deakins Business Park, Egerton, Bolton BL7 9RP PLEASE NOTE – Any advice, recommendation or representation given by

an employee of Hardscape Products Ltd shall not be made liable and therefore acted upon entirely at the Customer's own risk. Consult them if there are large areas affected by the accident or as a result of vandalism.

Epoxy and Polyester Stains

Solidified epoxy or polyester resin can be removed by carefully burning the spillage with a blow torch or other heat source. Care must be taken not to inhale the fumes given off during the process. If after burning, a black stain remains on the paving, this can normally be removed by scrubbing the paving with a strong detergent and hot water solution. A small area should be tested before any large scale cleaning is undertaken.

Smoke and Fire Stains

Normally these stains can be removed by scrubbing with a strong detergent and hot water solution. Where the stains persist, a mixture of scouring powder and household bleach can be used, but this should only be used in very well ventilated area. When using bleach, it is important that the affected area is thoroughly washed once cleaning is completed.

Beverage Stains

These can normally be removed by scrubbing with a strong detergent and hot water solution. If the stain is persistent, apply a bleach solution and then rinse the area well with clean water.

Chewing Gum

Chewing gum is difficult to remove from all paving surfaces. Newly discarded gum can be scraped off using a scraper, but hardened gum can only be removed by either freezing the gum and chiselling it from the surface of the paving, or by using a high pressure water jet.

Scuff Marks

These can normally be removed by steam cleaning, or by scrubbing the area with a strong detergent and hot water solution.

Winter Maintenance

Granite paved areas may be treated with de-icing materials. Normal de-icing salts can be applied without any risk of damage to the pavement. Once the pavement has dried out after any thaw, however, the paving may be temporarily discoloured by the de-icing salts, as is the case for any other surfacing material. Normal weathering should soon remove such discolouration. If there is concern about the temporary discolouration of paved areas, then other de-icing materials, such as urea should be used.

Maintenance Operations

Sand Filled Carpet - ST3, ST10

ChildsPlay system does not need much maintenance over its lifetime, but aftercare assistance can be reached through the below contact.

Supplier: Nottsport
Tel: +44 (0)1455 883730
Email: info@nottssport.com

Walkway Platform - ST13

Inspect weekly for damage, debris, and corrosion. Clean monthly with mild detergent and a soft brush to remove dirt and stains. Use suitable solvents to remove graffiti promptly. Every six months, apply a passivation solution to prevent corrosion. Conduct annual structural checks, tightening loose bolts and ensuring stability. In winter, use plastic tools and non-corrosive de-icers to remove snow and ice without damaging the surface. Keep detailed records of all maintenance activities to ensure accountability and track the platform's condition over time.

Galvanised Finishes

The cleaning of any galvanised products should be limited to jetwash water to remove dirt and rubbish, a soft bristled brush and warm soapy water. The use of wire brushes and abrasive cleaning agents may compromise the protective surface of the product. The grating should be lifted and unclogged every 6-12months.

Galvanising has the ability to “self-heal” any minor nicks or scratches. However, there will be occasions whereby the coating has been damaged to base steel at a size that will not allow for self healing. Where the surface is scratched or damaged through to base steel, a check should be made to establish if rusting has occurred. Where rusting is present, then the area should be wire brushed / sanded to bring back to a bright steel surface.

Gullies

Cleaning to check for blockage (leaves, debris and litter or nay vegetation overgrowth). Removal of sediment build up needed every 6 - 12 months.

Supplier: Lichtgitter
Tel: +44 (0)1922 711611
Email: sales@lichtgitter.co.uk

Metal Inlays- ST8

All grades of stainless steel will stain and discolour due to surface deposits so cannot be considered completely maintenance free. In order to retain maximum corrosion resistance and aesthetic appeal, the surface of stainless steel must be kept clean. Cleaning may vary from one to four times a year for external applications or up to once a day for items in hygienic or aggressive situations. Technically, it just needs cleaning whenever it gets dirty. It is advised you wash stainless steel with soap or a mild detergent and warm water, followed by a clear water rinse. An enhanced aesthetic appearance will be achieved if the cleaned surface is wiped dry

Supplier: Urban Street Design
Tel: +44(0) 1282 507 656
Email: enquiries@urbanstreetdesign.com

Surface Marking - ST9

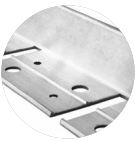
Clean monthly with a mild detergent and water to remove dirt and debris, avoiding harsh chemicals that can damage the markings. Promptly address any signs of wear or peeling by consulting Start Safety for repair or replacement options.

Supplier: Start Safety
Tel: +44(0) 1905 794875
Email: sales@startsafety.uk

Edgings General Arrangement

Area 1

The drawings to which this section relates to are:
2895-PLA-XX-XX-DR-L-1004



E1 Aluminium Edge



ET2/ET3/ET5/ET8 Granite Kerb



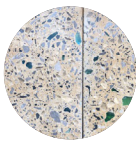
E4 Interface Steel Edging



ET6/ET6B/ET6A Bespoke
Drainage Channel with
metal inlay



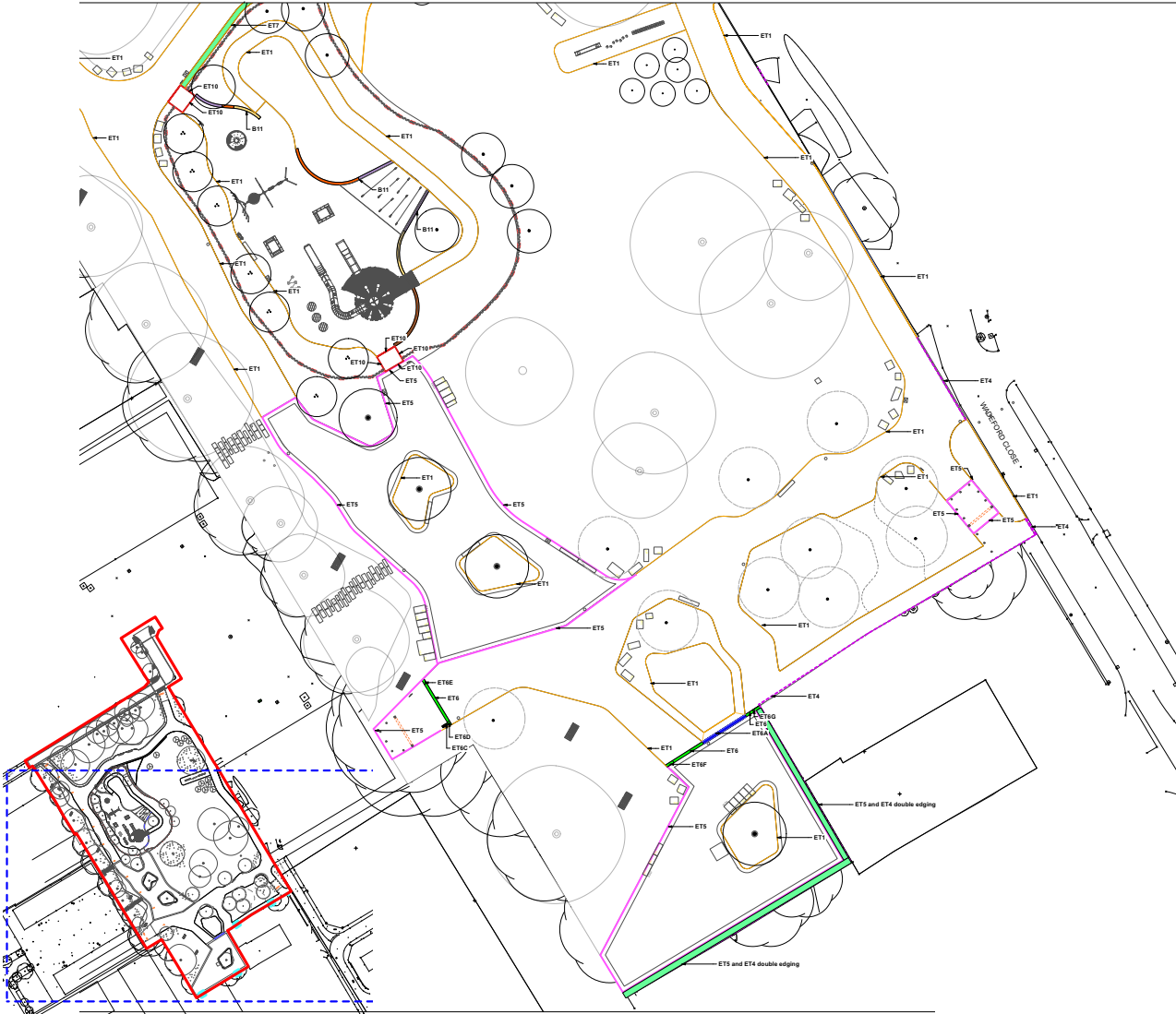
ET7 Drain Channel
sandstone angular
chipping



B11 Retaining Wall



ET10 Steel Edging

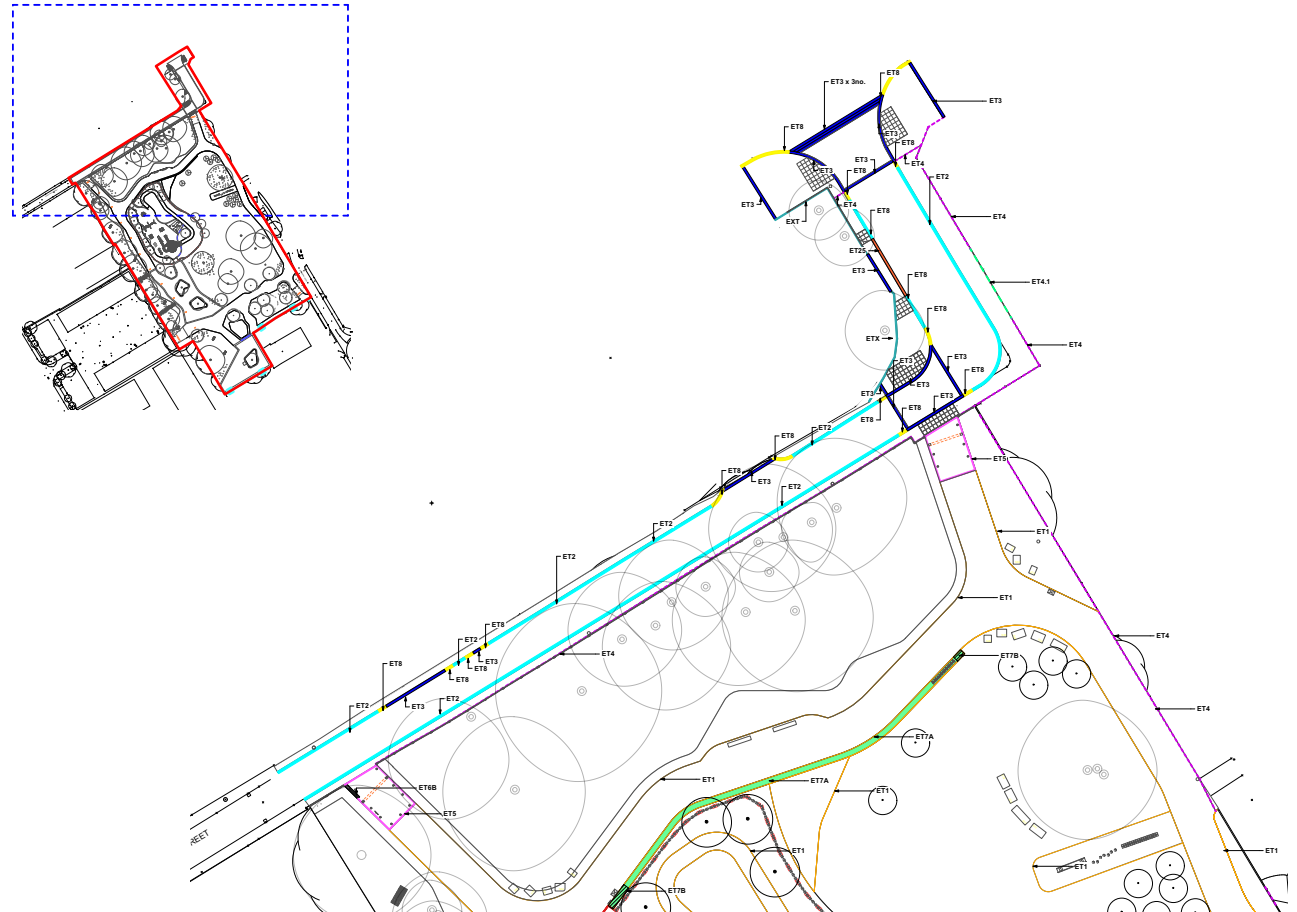


Edgings General Arrangement

Area 2

The drawings to which this section relate

2895-PLA-XX-XX-DI



Maintenance Operations

In addition to the recommendations below, also refer to the maintenance and operational instructions from the individual suppliers. Advice from the suppliers can also be sought regarding the maintenance of their products using the contact details supplied.

Drainage Channels - ET6, 6A, 6B

Inspection routines are essential to maintaining efficient performance of drainage channels and they should be carried out at frequent and regular intervals. The frequency will depend upon the location and the environment, and should be based on local knowledge, but inspections should be carried out at least once a year, and more regularly in locations with high footfall or where there are street trees.

Supplier: Hardscape
Tel: +44 (0) 1204 565 500
Email: antonycollins@hardscape.com

Ensure this edging remains flush and secure to avoid trip hazard.

Steel Edging -ET1, ET4

Metal Edges

Check for loose or damaged edging pieces. Tighten or replace screws, bolts or fastening. For severe dents or cracks, replace the damaged section

Supplier : Kinley
Tel:+44 (0) 1580 830 688

Natural Stone Edgings/ Kerbs - ET2, 3,5,8

Same procedures at hardworks (see above pg 8-9)
Additional maintenance required due to drainage gullies. See previous section.

Supplier: Hardscape
Tel: +44 (0) 1204 565 500
Email: antonycollins@hardscape.com

Steel Edging -ET7

Sandstone chipping and pebbles

Bi-weekly Check for accumulation of debris (leaves dirt sticks). Check for weed growth and uneven surface.

Supplier : Offerton
Tel: 0161 456 4636
Email: offertonsandandgravelsales@outlook.com

Rills, slot drains and Gullies

Slot drains, rills and gullies should be inspected and cleaned in accordance with the manufacturer's details. Slot units can be cleaned using a high-pressure hose; this can be fed into the channel system through access units strategically placed along the channel run.

Locking bolts should be replaced and sufficiently tightened, taking care that the bolt heads do not stand above the top surface of the cover or grate. If covers are allowed to move within their frame, this may cause damage to the frame or seating. Table 2 on the following page sets out the maintenance schedule for the drainage channel and gullies components of the proposed drainage systems.

Maintenance Operations

Maintenance Schedule	Required Action	Typical Frequency
	Litter and debris removal	Monthly or as required
Regular Maintenance	Check and remove large debris and/or vegetation growth near pipe runs.	Monthly or as required.
	Inspect for evidence of poor operation and/or weed growth. If required, take remedial action.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.
	Inspect silt accumulation rates and establish appropriate brushing frequencies.	
Remedial Actions	Inspect access/outlet boxes and rod through poorly performing channels and outlets as initial remediation	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue.	As required, if above actions do not improve performance
Monitoring	Initial inspection including channel outlet boxes and gully sumps.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.

Drainage Channels & Gullies Maintenance Schedule

Refer to Engineer's Drainage Maintenance Schedule Document 1826-CIV-XX-XX-R-C-30002

3 SITE FURNITURE

Furniture General Arrangement

Area 1

The drawings to which this section relates to
are: 2895-PLA-XX-XX-DR-L-4007

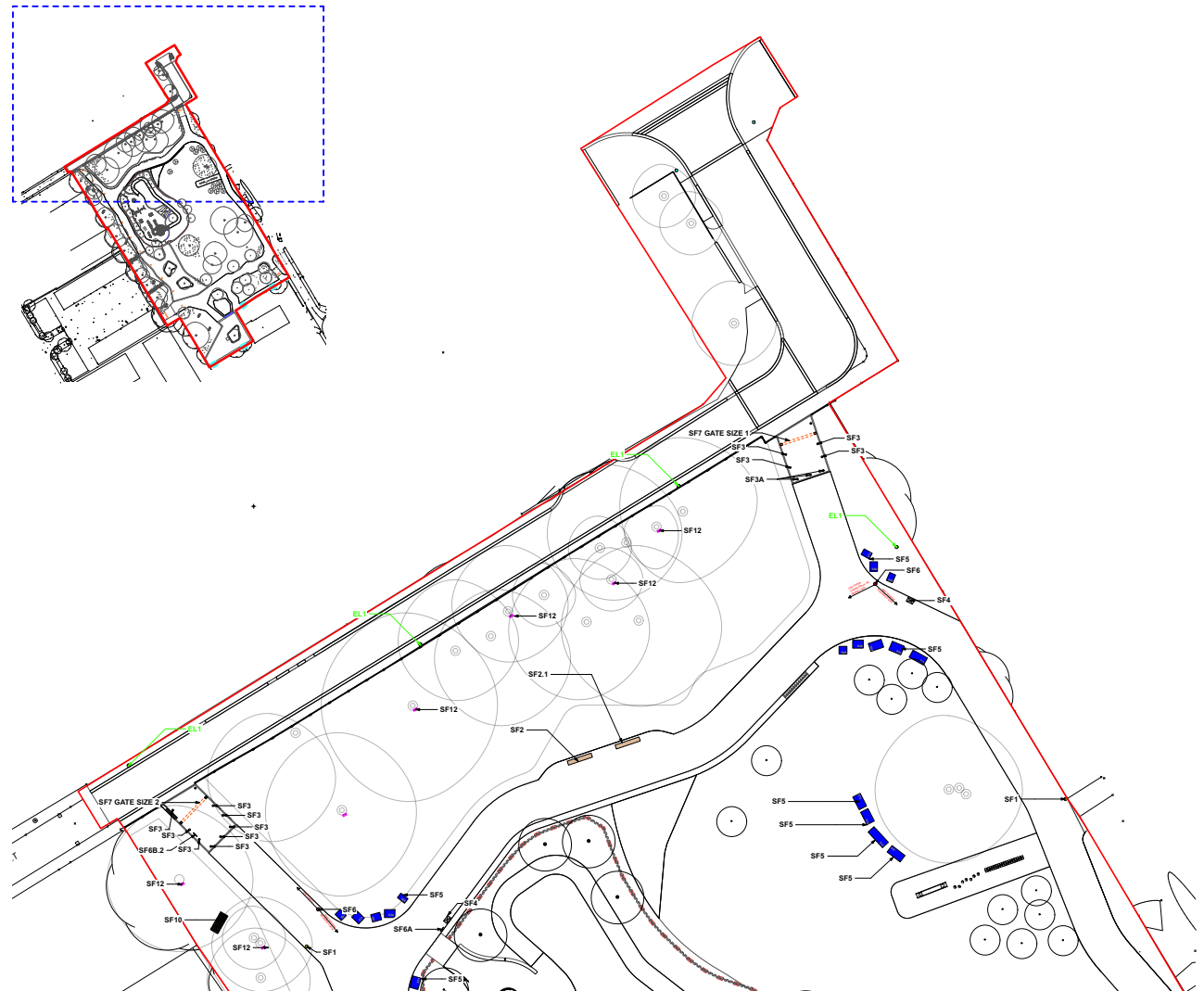


	Phase 1 Boundary		Bespoke Removable Bollard - SF3A Product: Quick Bollard - 0212614 Material: p.p.c Steel Size: (H) 1000 X (D) 101 (170mm baseplate diameter) Finish: PPC RAL 8014 Fixing: Removable Guidance for specification supplied with a lockable 114mm steel tube insert Supplier: Artform Urban Furniture or equal approved Refer to Q50/190A.		Coping Stone - SF9/9.1/9.2/9.4/9.5 Material: Reclaimed coping stone from Jersey St bridge for relocation along prussia Greenway and Ancoats Green to reinterpret the Prussia Canal Arm. Sandstone to be reclaimed and stored by MCC. expressed heritage asset to stone seating through: steel inlay relating to site heritage asset; laser jet, cut out with inlay with jet laser glass pattern. Resin inlay pinned and resin fixed into stone, and Photo laser engraving print of historical elements associated with Ancoats Green and wider ancoats area. Size: Refer to Jersey Bridge Coping Stones Audit - 2895-ID-029-01 Number of Stones to be Reclaimed: 84no. F21/110 Refer to drawing 2895-PLA-XX-XX-DR-L-7022, 2895-PLA-XX-XX-DR-L-7027 & 2895-PLA-XX-XX-DR-L-7028 for details. SF9.1 Stone Quantity: 7no. SF9.2 Stone Quantity: 5no. SF9.4 Stone Quantity: 5no. SF9.5 Stone Quantity: 3no.
	Existing lighting Column To Be Retained in existing location		Litter Bin- SF4 Product: Box Solid Material: 3CR12 Steel Size: 1005mmH x 517mmW x 400mmD. Finish: Powder coated Colour: Outer Frame - RAL 8014 Front / Back - RAL 8014 To include Screen printed Pattern RAL 2000 Supplier: Bailey Street Scene or equal approved. Accessories: Galvanised steel liner Refer to Q50/240.		
	Lighting Column - SF1 Product: Philips CitySoul Gen2 Colour: PPC RAL 3009 hinged column with integrated City Touch control unit Quantity: 12no Size: (H) 6000mm above ground Supplier: Philips or equal approved Product subject to detail design by M&E Engineer and Suppliers details. Refer to V91/365.		Play Boulders - SF5 Product: Existing free issue jersey bridge Stone Material: Sandstone Size: (H)300-500 x (L)1000-2000 X (W) 400-800mm Finish: Mechanical cleaning to stone on site SF5 Stone Quantity: 46no. Supplier: MCC (free issue) 2895-PLA-XX-XX-DR-L-4007 and 4008 layout and 2895-PLA-XX-XX-DR-L- 7014 for details Refer to Q52/340.		
	Bench Type 1- SF2 Material: UK sourced Oak hardwood (FSC Certified). Supplier: Woodscape or equal approved. Refer to Q50/220B.		Way Finding & Signage - SF6 Steel Wayfinding and Signage, Refer to drawing 2895-PLA-XX-XX-DR-L-7023 for details. Refer to N91/120 And 550.		
	Bench Type 2- SF2.1 Material: UK source Oak hardwood (FSC Certified). Accessory: back and arm rest on steel support frame Refer to Q50/220A.		SF6A Steel play Signage subject to further details. Quantity: 2no. Refer to drawing 2895-PLA-XX-XX-DR-L-7031 for details. SF6B.1 Steel information Signage subject to further details. Quantity: 2no. SF6B.2 Steel information Signage subject to further details. Quantity: 1no. Refer to N91/120B And 550 Refer to drawing 2895-PLA-XX-XX-DR-L-7032 for details.		
	Tree Log Piles - SF10 for Wildlife, to be allowed to decompose over time Materials: Tree logs Size: Varied Sizes (L) 800 x 400-800 -diameter overall layout size 800 x 2000mm Supplier: Use cut down logs from existing trees. Internal MCC parks department/ tree surgeons might be able to supply material. If none available then use Treestation (local tree surgeon) or similar approved. Refer to Q50/340		Gateway Feature - SF7 4 no. sunken bottle profile gateways with integrated glass bottle visual reinterpretation into archways design. every entrance to have unique glass-like colour and quality. Material: Steel Finish: PPC ,RAL 8014 with resin layer between laser cut "WELCOME TO ANCOATS GREEN" & 'ANCOATS GREEN' text at the centre of archway and glassworks patterns integrated into the archway design. Size 1: (H)5193 x (w) 3800mm Size 2: (H)5193 x (w) 3540mm Supplier: Urban Street Design or similar approved Subject to detail design Refer to Q50/340		
	Bespoke Fixed Bollard - SF3 Product: Quick Bollard Material: Galvanised Steel Size: (H) 1000 X (D) 101 (170mm baseplate diameter) Finish: PPC RAL 8014 Fixing: Root fixed to supplier / engineer's detail. Supplier: Artform Urban Furniture or equal approved Refer to Q50/190.				

Furniture General Arrangement Area 2

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-4008



KEY		Bespoke Removable Bollard - SF3A Product: Quick Bollard - 0212614 Material: p.p.c Steel Size: (H) 1000 X (D) 101 (170mm baseplate diameter) Finish: PPC RAL 8014 Fixing: Removable Guidance for specification supplied with a lockable 114mm steel tube insert Supplier: Artform Urban Furniture or equal approved Refer to Q50/190A.		Coping Stone - SF9/9.1/9.2/9.4/9.5 Material: Reclaimed coping stone from Jersey St bridge for relocation along prussia Greenway and Ancoats Green to reinterpret the Prussia Canal Arm. Sandstone to be reclaimed and stored by MCC, expressed heritage asset to stone seating through: steel inlay relating to site heritage asset; laser jet, cut out with inlay with jet laser glass pattern. Resin inlay pinned and resin fixed into stone; and Photo laser engraving print of historical elements associated with Ancoats Green and wider ancoats area. Size: Refer to Jersey Bridge Coping Stones Audit - 2895-ID-029-01 Number of Stones to be Reclaimed: 84no. F21/110 Refer to drawing 2895-PLA-XX-XX-DR-L-7022, 2895-PLA-XX-XX-DR-L-7027 & 2895-PLA-XX-XX-DR-L-7028 for details. SF9.1 Stone Quantity: 7no. SF9.2 Stone Quantity: 5no. SF9.4 Stone Quantity: 5no. SF9.5 Stone Quantity: 3no.
	Phase 1 Boundary			
	STREET FURNITURE			
	Existing lighting Column To Be Retained in existing location		Litter Bin- SF4 Product: Box Solid Material: 3CR12 Steel Size: 1005mmH x 517mmW x 400mmD. Finish: Powder coated Colour: Outer Frame - RAL 8014 Front / Back - RAL 8014. To include Screen printed Pattern RAL 2000 Supplier: Bailey Street Scene or equal approved. Accessories: Glavanised steel liner Refer to Q50/240.	
	Lighting Column - SF1 Product: Philips CitySoul Gen2 Colour: PPC RAL 3009 hinged column with integrated City Touch control unit Quantity: 12no Size: (H) 6000mm above ground Supplier: Philips or equal approved Product subject to detail design by M&E Engineer and Suppliers details. Refer to V91/365.			
	Bench Type 1- SF2 Material: UK sourced Oak hardwood (FSC Certified). Supplier: Woodscape or equal approved. Refer to Q50/220B.		Play Boulders - SF5 Product: Existing free issue jersey bridge Stone Material: Sandstone Size: (H)300-500 x (L)1000-2000 X (W) 400-800mm Finish: Mechanical cleaning to stone on site SF5 Stone Quantity: 46no. Supplier: MCC (free issue) 2895-PLA-XX-XX-DR-L-4007 and 4008 layout and 2895-PLA-XX-XX-DR-L- 7014 for details Refer to Q52/340.	
	Bench Type 2- SF2.1 Material: UK source Oak hardwood (FSC Certified). Accessory: back and arm rest on steel support frame Refer to Q50/220A.		Way Finding & Signage - SF6 Steel Wayfinding and Signage, Refer to drawing 2895-PLA-XX-XX-DR-L-7023 for details. Refer to N91/120 And 550.	
	Tree Log Piles - SF10 for Wildlife, to be allowed to decompose over time Materials: Tree logs Size: Varied Sizes (L) 800 x 400-600 -diameter overall layout size 800 x 2000mm Supplier: Use cut down logs from existing trees. Internal MCC parks department/ tree surgeons might be able to supply material. If none available then use Treestation (local tree surgeon) or similar approved. Refer to Q50/340		SF6A Steel play Signage subject to further details. Quantity: 2no. Refer to drawing 2895-PLA-XX-XX-DR-L-7031 for details. SF6B.1 Steel information Signage subject to further details. Quantity: 2no. SF6B.2 Steel information Signage subject to further details. Quantity: 1no. Refer to N91/120B And 550 Refer to drawing 2895-PLA-XX-XX-DR-L-7032 for details.	
	Bespoke Fixed Bollard - SF3 Product: Quick Bollard Material: Galvanised Steel Size: (H) 1000 X (D) 101 (170mm baseplate diameter) Finish: PPC RAL 8014 Fixing: Root fixed to supplier / engineer's detail. Supplier: Artform Urban Furniture or equal approved Refer to Q50/190.		Gateway Feature - SF7 4 no. sunken bottle profile gateways with integrated glass bottle visual reinterpretation into archways design. every entrance to have unique glass-like colour and quality. Material: Steel Finish: PPC, RAL 8014 with resin layer between laser cut "WELCOME TO ANCOATS GREEN" & "ANCOATS GREEN" text at the to centre of archway and glassworks patterns integrated into the archway design. Size 1: (H)5193 x (w) 3800mm Size 2: (H)5193 x (w) 3540mm Supplier: Urban Street Design or similar approved Subject to detail design Refer to Q50/340	

Maintenance Operations

In addition to the recommendations below, also refer to the maintenance and operational instructions from the individual street furniture suppliers. Advice from the suppliers can also be sought regarding the maintenance of their products using the contact details supplied.

Timber To Benches / Seating - SF2, 2.1

The timber should be treated with Osmo or Owatrol Rubbing Oil. Every 2 years the wood should be cleaned down using the a pre treatment solution which de-oxidises the wood before re-coating with the Oil. As long as this is done, the wood will keep its colour and will have a much greater lifespan than if left untreated. Osmo/Owatrol Oil are commercially available products and will be available through any good wholesaler or exterior furniture supplier.

Supplier: Woodscape or equal approved
Tel: 01254 685185
Email: sales@woodscape.co.uk

Powder Coated Finishes -SF3,3A,6,6A,6B.1,6B.2,SF7

Powder coatings can be treated like most other paints and will benefit from regular washing. If the powder coating is chipped or the steel is exposed in anyway, it is recommended that this should be

'touched up' using external grade paint. Cleaning should take place every 6 months. A mild detergent applied by cloth, sponge or soft brush should be used. The aesthetic life will be prolonged by waxing or polishing with good quality car shampoos and waxes.

Box Solid Litter Bin - SF4

All hinges on bins to be checked and oiled regularly being careful not to leave oil stains on surrounding paving.

Supplier: Urban Street Design
Tel: +44(0)01625 877554
Email: enquiries@artformurban.co.uk

Coping Stones - SF5, SF9,9.1,9.2, 9.4, 9.5

Refer to stone paving maintenance operation schedule for sand stone maintenance. Structural to be carried out to ensure structural integrity every 3-6 months. Apply stone sealer to protect against stains and moisture. re-apply stone sealer every 1-2 years.

Use stone specific polish or paste wax suitable for polish and apply a small amount with a microfibre cloth and buff in circular motion every 6-12 months.

Bird Boxes, Bug Hotels and Tree Log Piles -SF10, 11,12

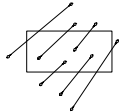
Inspect regular check for signs of decay. avoid disturbing settled insects. use gloves to handle materials gently to prevent disturbing ecosystem. add new materials to ensure to encourage diversity

Play Furniture General Arrangement Area

The drawings to which this section relates to
are: 2895-PLA-XX-XX-DR-L-4011



KEY

**Phase 1 Boundary****Climbing Ropes- PF1**

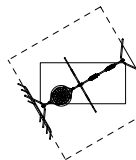
Post Material: Robina support post
200 above ground 150mm diameter
Quantity: 12no.

Rope Size: 20mm galvanised steel core
Hercules Rope, length:
2,3 & 5m
Quantity: 6no.

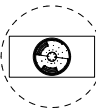
Colour: Black
Supplier: Timber Play or equal approved

**In-ground Trampoline - PF3**

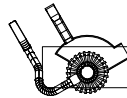
Product: MA-SA-41-I
Material: galvanised steel, 36 steel spring
wire reinforcement jumping bed
Padding Colour: RAL9005
Jumping Matt Colour: RAL4001
Size: (L) 2000 x (W) 1500mm
Supplier: Massey and Harris or equal
approved
[Refer to Q52/325](#)

**Swing & 1 Basket Swing- PF4**

Product: IP28 Double Bay Swing & 1
Basket Swing
Material: Galvanised Steel
Size: (H) 2400mm x (W) 2300mm x (L)
5780mm
Finish: PPC RAL 2000
Supplier: Massey & Harris or similar
approved
Note: subject to further design
[Refer to Q52/440](#)

**IP12 Wheel Spin/Round about - PF5**

Product: Wheel chair accessible round
about with glasswork patterns
Size: (H) 831mm x 2080mm radius
Material: Galvanised Steel
Finish: PPC RAL 2000
Supplier: Inclusive play or similar
approved
Note: subject to further design
[Refer to Q52/430](#)

**Bespoke Double Accessible Slide - PF6**

Material: Mild Steel
Finish: PPC, PPC RAL 2000
Size: (H) 10100 x 4412 diameter
Frame depth: To manufactures
recommendation
Accessories: internal layer of 3mm
Polycarbonate to inner frame, subject to
further design.
Bottle nominal section with T section
(76x76mm) T section fixed to exterior face
of play unit through plate to have 'timber
effect' powder coated finish, to
manufacture's specification
Manufacture: Massey & Harris
[Refer to Q52/420](#)

Upper slide

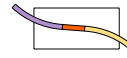
Material: grade 304 Stainless steel
Size: 760 diameter (H) 466-6550mm
accessories: 3no. portoles windows, RAL to
match upper bottle. subject further design
Manufacture: Massey & Harris

Accessible Slide

Material: grade 304 Stainless steel
Size: (w) 992 (H) 272-2000mm
to manufacture's specification
Manufacture: Massey & Harris

**Fall Zone****Special stepping log - PF7**

Product no: S1.10100
Material: Robinia
Size: (H) 2200 x diameter 180-300mm
Supplier: Timber Play or equal approved
[Refer to Q52/320](#)



Supplier: Timber Play or equal approved
[Refer to Q52/320](#)

Low Wall B11

Material: Insitu Concrete with reinforced
re-bar
Size: (H) 0-2000mm x width 300 (additional
50mm to account for wall polish x Length
(varies)
Concrete matrix colour:
Artevia exposed ECOPact Prime with SLP
pigment
PA RAL: 2000,
PB RAL: 1032 &
PC RAL: 4001)
Concrete matrix component: 20-10mm blue,
green and clear recycled glass at 30% of
aggregate,
Concrete strength: C40/50 to engineer's
specification
Finish: polished.
Accessories: to include glow-in-the dark
aggregate applied to top of wall, Product: Eli
glow Photo Luminescent Pebbles (EGLOWF)
Size: (L) 43mm X (W) 33mm
Colour: Mixed pebbles (Cobalt blue & Green
pebbles)
Supplier: SLP Colour Tone & Aggregate or
similar approved
[Refer to E10/105](#)

2 - Climbing holds

Material: High quality PU Resin pre-fixed to
posts
Colour: mixture mixture of (A) orange (B)
yellow
Size: Approx 80mm diameter
Climb hold spacing: 300mm centers,
minimums allowance spacing up to 200mm
apart.
Supplier: Timber Play or equal approved
[Refer to Q52/335.](#)

**Stepping Post - PF9**

Product: Stepping Post
Product no: 6.6000
Material: Untreated European Larch
Size: (H) 300 x 200mm diameter
Supplier: Timber Play or equal approved
[Refer to Q52/320](#)

**Balance Block- PF10**

Product no: 6.51700
Material: Untreated European Larch
Size: (H) 450 x (L) 3850mm X (W) 400mm
Supplier: Timber Play or equal approved
[Refer to Q52/320](#)

**Jumping Disc - PF12**

Product no: 6.6000
Material: Untreated European Larch
Size: (H) 350 x 1000mm diameter
Supplier: Timber Play or equal approved
[Refer to Q52/390](#)

**Totter Beam - PF13**

Product no: 6.05000
Material: Untreated European Larch
Size: (H) 300 x (L) 3000 x (D) 450mm
Supplier: Timber Play or equal approved
[Refer to Q52/320](#)

**IP19 Microsphere - PF14**

Product: IP19 - Microsphere
Material: HDPE frame and polycarbonate
cover with support frame
Size: 900mm diameter x (D) 169mm
Supplier: Inclusive Play or equal approved
[Refer to Q52/350](#)

**IP308 Tactile Topiary - PF15**

Product: IP308 - Tactile Topiary
Material: HDPE Densetec X and recycled
materials
Size: (H) 1400 x (L) 799 x (D) 231mm
Supplier: Inclusive Play or equal approved
[Refer to Q52/350](#)

Swing and Nest Swing - PF4

Daily Inspection - Check for swing seat or frame damage. Usually vandalism. Monthly Inspection – Swing Chains. If any chain links wear 30% or more of their thickness, it should be changed. Swing shackles should be changed if the pin or shackle wears 30% or more of its thickness.

The monthly maintenance schedule should be carried out every two weeks for the Nest Swing due to the increased loads placed upon the unit.

Oilite Bushes are intended to wear, but should last at least 6 months assuming heavy use. To change, push out of hole and replace.

Anti-wrap Bearing Shells – Grease. They should last at least 5 years unless near sand. (We rarely sell spares) Frame fixing bolts. Check for any loose bolts, but do not over tighten.

Touch up any chipped paintwork.

Spinning Wheel / Roundabout - PF5

The base frame has a bearing housing welded to it. This housing is filled with oil to ensure that the slew bearing moves with little resistance. A quarterly physical check should include an oil level inspection to ensure the bearing is still running in the oil. This can be done by unscrewing the bolts fixing the

inspection plate down, unscrewing the oil cap and then dipping a stick / rod into the bearing housing to check the levels. There should be a minimum of

30mm of oil which can be measured against the bottom of the stick. If there isn't enough oil, top up the unit as soon as possible to ensure the bearing will run as smooth as it can. Please contact Massey and Harris if you require the specification of oil to be used.

Maintenance of the roundabout requires that it is visually checked each week and physically checked once a month.

Visual checks should establish that no part of the platform or rails are distorted, bent or broken.

Stainless Steel Slide - PF6

Weekly/Monthly Inspection – Check for vandalism and any damage to sliding surface. Check safe edges to ensure these remain smooth to the touch. Keep clean. Confirm ground footings are secure and that there is no movement.

Weekly Inspection – Check that all Security bolts are tight. Check for vandalism on the decks. Visual

inspection of all paintwork for damage/vandalism.

Monthly Inspection – Check that fixings are in place and tight. Check footings are all secure and that

there is no movement of the legs in the ground.

Timber Play Items - PF1, 7, 9, 10, 12, 13

Remove dirt, moss, algae, or debris to avoid timber degradation.

Use mild detergent and water; avoid harsh chemicals. Replace damaged or decayed timber promptly. Tighten or replace loose or corroded fixings. Sand down splintered areas to avoid injury.

Apply wood preservatives or weatherproof coatings annually to protect against moisture, UV rays, and pests.

Check finishes like paint or sealants for peeling or cracks and reapply as necessary. Use non-toxic, child-safe treatments for timber.

Choose sustainable timber where replacements are needed.

Supplier: Timber play
Tel: +44 114 282 3474
Email: info@timberplay.com

IP19 Microsphere - PF14

IP308 Tactile Topiary - PF15

Supplier: Inclusive Play

Tel: +44(0)131 214 1180

Email: info@inclusiveplay.com

Frequency	What to Do	Items required	Maintenance
Every month	- Routine visual inspection to identify any risks stemming from acts of vandalism, use or unusual weather conditions. - Inspect tightness of bolts and fixings. - Check for missing or broken parts. - Ensure all protective covers are in place. - Inspect surfacing below equipment.	- Loctite Grade 2700 - Spare parts are available - Pin Hex Allen Key M8, M10, M12 - Surfacing	If fixings are loose or not tight, consider replacing the fixings. Loctite Grade 2700 must be used to adhere the fixings. Ensure surfacing conforms to EN1177.
Every 3 months	- Functional check to make sure that the equipment, or the part concerned is operating correctly. - Check all fixings, joints and stability of equipment and tighten or replace if necessary. - Check all parts for wear and tear. - Thorough cleaning of equipment and any galvanised steel parts.	- Spare parts are available - Pin Hex Allen Key M8, M10, M12 - Water and detergent - High pressure cleaner - Abrasive sponge - Loctite Grade 2700 - Zinc Galvanizing Spray - Wetpour rubber - HDPE Parts	If there is evidence of scratched galvanizing, protect this with Zinc Galvanizing Spray. If fixings are loose or not tight, tighten or consider replacing the fixings. Loctite Grade 2700 must be used to adhere the fixings. Carry out wetpour repairs or replace if necessary. HDPE – Spare parts available. Ensure foundations are stabilised and secure, reinstate foundation if not.
Every 12 months	- Inspect the anchoring system. - Inspect moving parts. - Check overall condition of paintwork - repaint if necessary. - Check chains for wear or damage. - Ensure moving parts such as bearings or tensioning systems are flowing correctly and free from obstruction. - Ensure ropes are in a good condition.	- Spray Paint, Paintbrush - Loctite Grade 2700 - Zinc Galvanizing Spray - Spare Parts - Waterproof Grease	If there is evidence of scratched galvanizing, protect this with Zinc Galvanizing Spray. Repair galvanizing by removing all corrosion, spray and replace parts if necessary. If fixings are loose or not tight, tighten or consider replacing the fixings. Loctite Grade 2700 must be used to adhere the fixings. If chains are worn more than 50% these must be replaced. Grease bearings using the grease nipple provided. If steel cores are visible from ropes, these must be replaced.

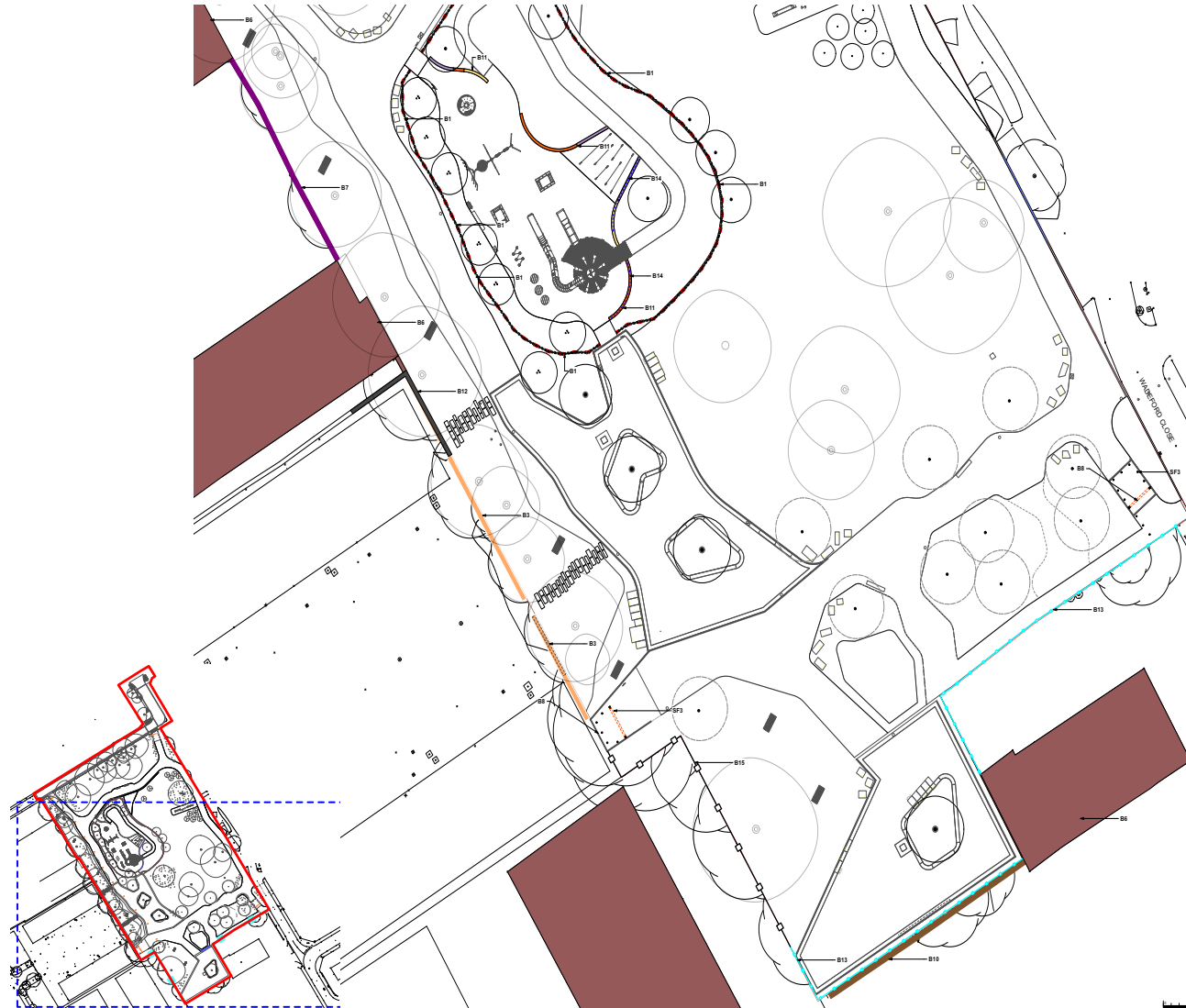
4 BOUNDARIES

Boundary General Arrangement Area 1

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-4009

2895-PLA-XX-XX-DR-L-4010





Bespoke Informal Post - B1
1 - Inner Post
Product: Bespoke post
Material: Hot dip galvanised Steel
Finish: Powder coated.
Colour P1: RAL 2000
Colour P2: RAL 4001
Colour P3: RAL 1032
Height: 1275mm x 80 diameter
(overall height above ground 1200mm)
Fabricator: Urban Street design
[Refer to Q40/120.](#)

2 - Outer Post
Product: Bespoke post
Material: Hot dip galvanised Steel
Finish: Powder coated.
Colour P1: RAL2000
Colour P2: RAL 4001
Height:1275mm x 80 diameter
(overall height above ground 1200mm)
Fabricator: Urban Street design
[Refer to Q40/120.](#)



Bespoke Railing - B2
Finish: PPC ,RAL 8014
Size: H)1200 (1275)mmx (w) 40mm (10mm gauge) above ground
Supplier: Urban Street Design or similar approved
[Refer to Q40/340](#)



Proposed Gabion Wall B3
installed as part of Mobility Hub development .
Gabion wall with timber top seating



Existing Steel Railing B4 - retained.
1.8m high, Painted black



Existing warehouse facade B6 - retained
Existing wall to be retained 3-2.2m high



Existing palisade fence topped wall B7 - retained
Existing wall to be retained 2.2m high.



Bespoke Gateway Feature - SF7
5 no. bottle profile archways with integrated. to have unique glass-like colour and quality. recessed from main road.
Material: Steel
Finish: PPC ,RAL 8014 with resin layer between laser cut "WELCOME TO ANCOATS GREEN" text at the to centre of archway and glassworks patterns integrated into the archway design.
Size: (H)5193 x (w) 3800mm
Subject to further detail design
[Refer to Q50/340](#)



Bespoke Fixed Bollard - SF3
Product: Quick Bollard
Material: Galvanised Steel
Size: (H) 1000 X (D) 101 (170mm baseplate diameter)
Finish: PPC RAL 8014
Fixing: Root fixed to supplier / engineer's detail.
Supplier: Artform Urban Furniture or equal approved
[Refer to Q50/190.](#)



Bespoke Removable Bollard - SF3A
Product: Quick Bollard - 0212614
Material: p.p.c Steel
Size: (H) 1000 X (D) 101 (170mm baseplate diameter)
Finish: PPC RAL 8014
Fixing: Removable Guidance for specification supplied with a lockable 114mm steel tube insert
Supplier: Artform Urban Furniture or equal approved
[Refer to Q50/190A.](#)



Existing Brick Wall B10 - retained
Partially demolished with welded mesh installed within the site boundary.



Existing brick wall removed as part of the Mobility Hub development B12



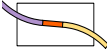
Weldmesh Fencing - B13
Material: Hot dip galvanised Steel
Finish: Powder coated flat top
Colour: RAL 9005.
Height: 3m.
Fixing: Root fixed to engineer's specification.
Supplier: Submit proposals.
[Refer to Q40/125](#)



Edge Protection To Retaining Wall - B14
Material: Galvanised Steel
Finish: PPC ,RAL 8014
Size: H)1100 x (w) 40mm (10mm gauge) above ground
Supplier: Urban street design or similar approved
Fixing to engineer's specification



Existing Fence-B15
barbwire to be removed and painted black



Low Wall B11
1- Insitu Retaining Wall
Material: Insitu Concrete with reinforced re-bar
Size: (H) 0-2000mm x width 300 (additional 50mm to account for wall polish x Length (varies)
Concrete matrix colour:
Artevia exposed ECOPact Prime with SLP pigment.
PA RAL: 2000,
PB RAL: 1032 &
PC RAL: 4001)
Concrete matrix component: 20-10mm blue, green and clear recycled glass at 30% of aggregate,
Concrete strength: C40/50 to engineer's specification
Finish: polished.
Accessories: to include glow-in-the dark aggregate applied to top of wall, Product: Eli glow Photo Luminescent Pebbles (EGLOWF)
Size: (L)43mm X (W) 33mm
Colour: Mixed pebbles (Cobalt blue & Green pebbles)
Supplier: SLP Colour Tone & Aggregate or similar approved
[Refer to E10/105](#)

2 - Climbing Holds
Material: High quality PU Resin pre-fixed to posts
Colour: mixture mixture of (A) orange (B) yellow
Size: Approx 80mm diameter
Climb hold spacing: 300mm centers, minimums allowance spacing up to 200mm apart.
Quantity: final number to be confirmed by play specialist, allow for 200 no.
Supplier: Timber Play or equal approved
Fixing: Stainless steel M10 CSK bolt fixed into preformed climbing holds drilled and fixed in place with resin anchor. depth of drill subject to wall build up.
Note: Final climbing hold positions to be confirmed by playspecialist
[Refer to Q52/335.](#)

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-4009

2895-PLA-XX-XX-DR-L-4010

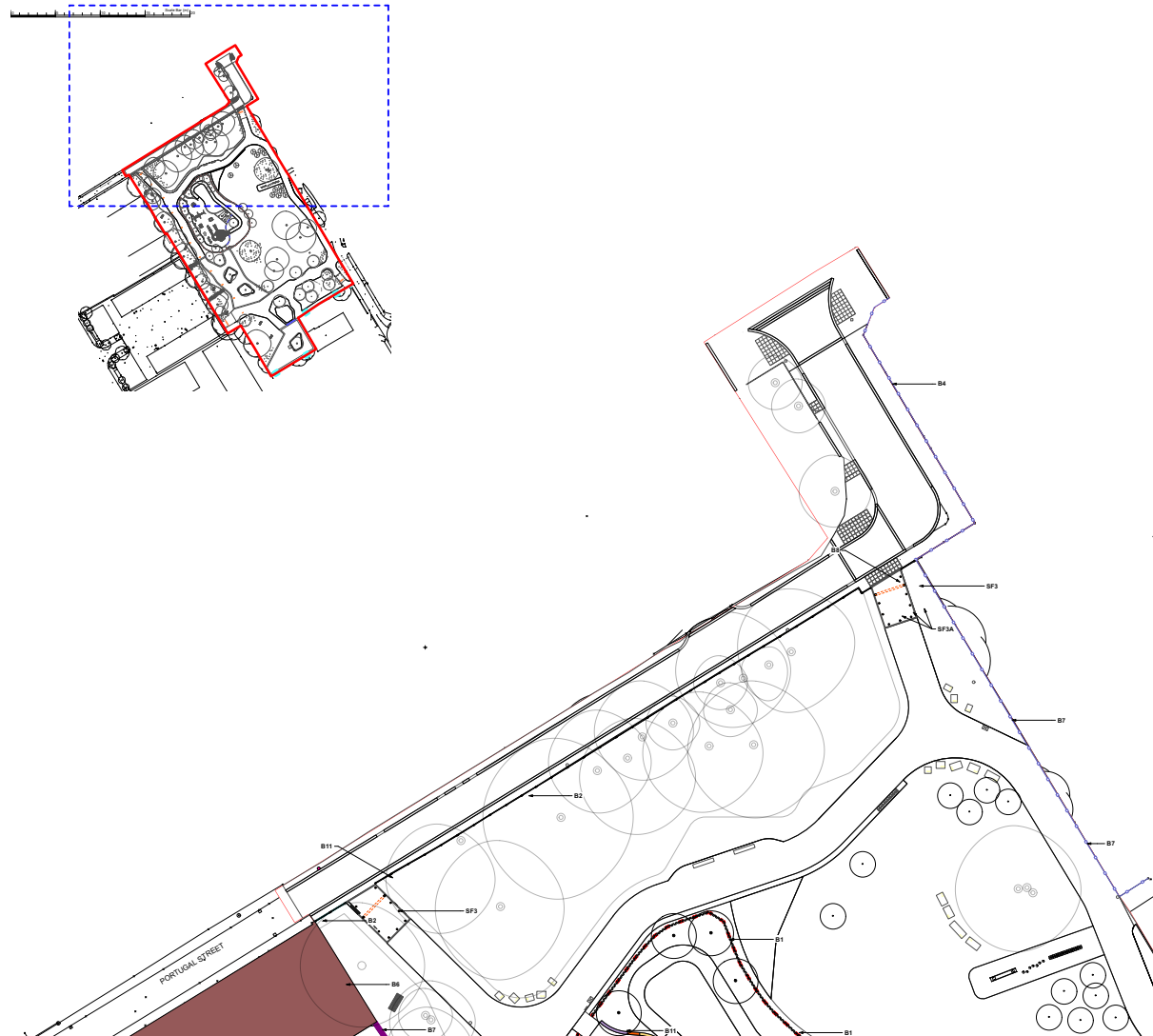
Boundary General Arrangement

Area 2

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-4009

2895-PLA-XX-XX-DR-L-4010



Maintenance Operations

Powder Coated Finishes -B1,2,13,14

Powder coatings can be treated like most other paints and will benefit from regular washing. If the powder coating is chipped or the steel is exposed in anyway, it is recommended that this should be 'touched up' using external grade paint. Cleaning should take place every 6 months. A mild detergent applied by cloth, sponge or soft brush should be used. The aesthetic life will be prolonged by waxing or polishing with good quality car shampoos and waxes..

Climbing Wall - B11

Check for spinning, loose or missing holds Replace worn holds and hardware as required. Check for dirt chalk or grime build up on the polished surface and clean with damp cloth to remove dirt and ensure proper grip. Check the wall regularly for signs of graffiti, stickers or marks. If graffiti is found use graffiti-removal cleaner compatible with graffiti coating.

5 SOFTWARES

Softworks General Arrangement

Area 1

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-2005

2895-PLA-XX-XX-DR-L-2006

Planting Design Vision

The key aims that have been incorporated into the planting design:

- Create a sense of place and local distinctiveness in an area where these characteristics have previously been absent.
- Ensure that the planting is an integral focal feature of the public realm design.
- To use the landscape as a means of facilitating sustainable drainage.

The maintenance schedules on the following pages should be read in conjunction with the landscape design proposals.

The landscape design proposals can be separated into a number of character types illustrated on the plan opposite and below.



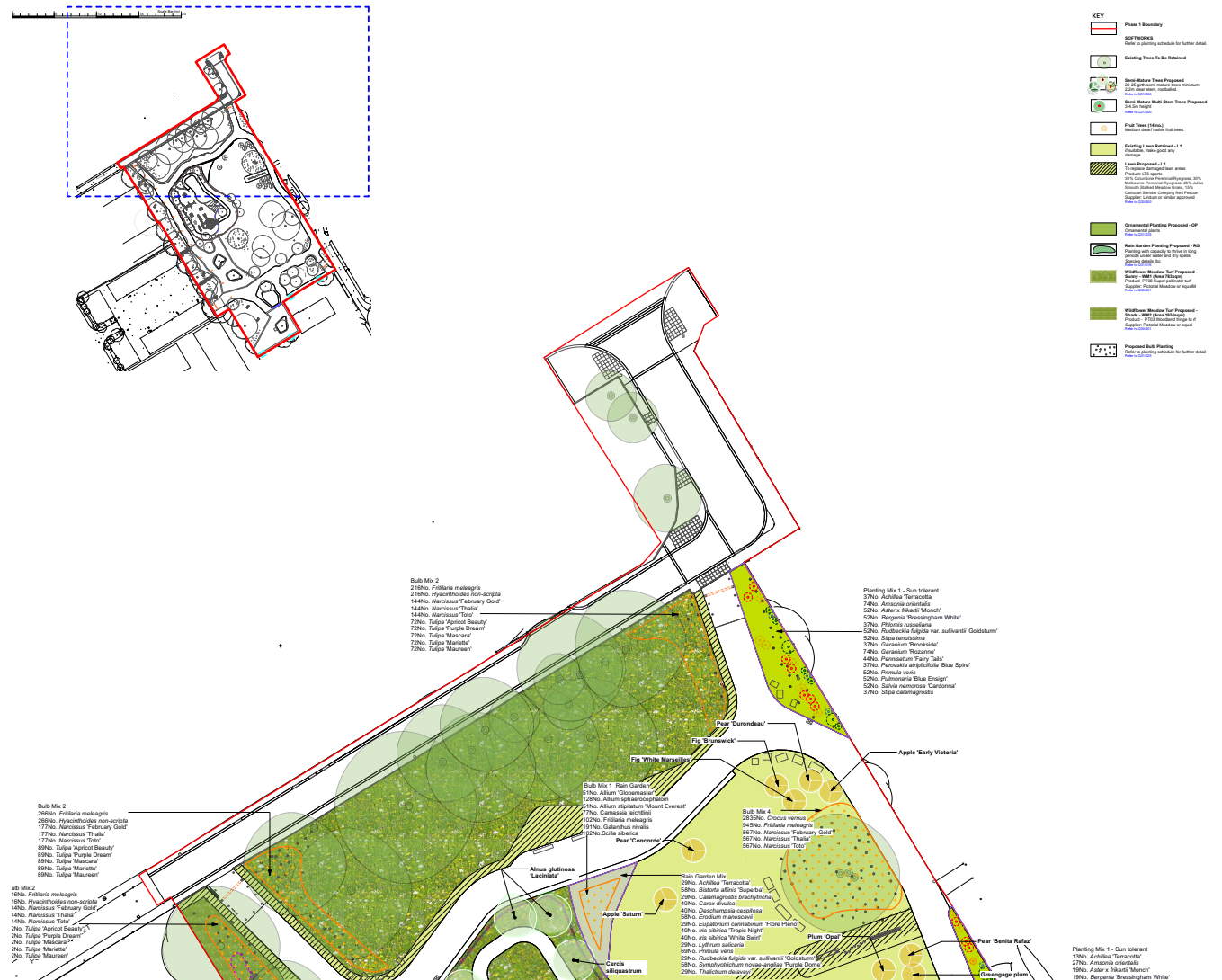
Softworks General Arrangement

Area 2

The drawings to which this section relates to are:

2895-PLA-XX-XX-DR-L-2005

2895-PLA-XX-XX-DR-L-2006



Trees Pruning Schedule

Trees	Action	Frequency
<i>Betula pubescens</i>	Prune	Autumn through mid-winter
<i>Cercis siliquastrum</i>	Prune	Spring /summer after flowering
<i>Alnus glutinosa</i> 'Laciniata'	Prune	early spring
<i>Liquidamber styraciflua</i>	Prune	late autumn , early spring
<i>Prunus</i> 'Accolade'	Prune	spring after flowering
<i>Acer x freemanii</i> 'Autumn Blaze'	Prune	Late winter late spring
<i>Malus domestica</i>	Prune	Winrter
<i>Prunus domestica</i> 'Greengage'	Prune	Summer
<i>Pyrus communis</i> Benita 'Benita Rafaz'	Prune	late winter early spring
<i>Prunus domestica</i> 'Opal'	Prune	Spring for young trees, mid-summer for established

<i>Prunus</i> 'Morello'	Prune	early winter - early spring
<i>Pyrus communis</i> 'Durondeau'	Prune	winter
<i>Prunus amerianca</i> 'Goldcot'	Prune	Mid summer
<i>Prunus persica</i> 'Rochester'	Prune	summer
<i>Malus domestica</i> 'Saturn'	Prune	winter
<i>Pyrus communis</i> 'Concorde'	Prune	early spring
<i>Ficus carica</i> 'White Marseilles'	Prune	early spring/ summer
<i>Ficus carica</i> 'Brunswick'	Prune	early spring/ summer
<i>Ficus carica</i> ' Brown Turkey'	Prune	early spring/ summer

Management Plan

Objectives

Consideration has been given to the future management requirements of the softworks elements within the public realm associated with the Ancoats Green development. As a result the following objectives have been identified:

- To ensure the successful establishment and continuity of the overall design concept.
- To prescribe all necessary management and maintenance principles and management tasks to ensure satisfactory establishment and to maintain plants in a continuing healthy and attractive condition.
- To establish appropriate amenity and biodiversity value.
- To provide a mechanism for the ongoing monitoring and reviewing of the management plan and the specific maintenance operations contained therein.
- To establish a mechanism for the replacement of any failing plant or one which has reached maturity.
- To ensure planting within public areas is maintained below a maximum height of 1m to meet the guidance set within Secure by Design.

Duration

Once the construction defects and maintenance period is complete, all of the general activities highlighted below will need to be addressed by the maintenance team as part of the standard maintenance procedures.

The management plan will cover a time period of 15 years. After this time a full review of the site should be undertaken and a new management and maintenance plan produced.

Monitoring

The Management Plan's life span has been divided into key stages of 5 yearly intervals. These will be used as the basis for developing the plan and setting reviewing targets.

Monitoring is of fundamental importance, since this is the means by which the success of the plan will be measured. It is therefore important to establish standardised survey and monitoring methods, which enable valid year on year comparisons to be made. There will be a need for flexibility during its implementation. The Management Plan must be an evolving one, able to adapt to the specific needs of the site.

This maintenance provider should undertake an annual review of the site, providing written documentation as to the ongoing establishment of the planting.

This report should include a condition review of all new and existing plant material, success rates of newly planted material, and recommendations for future management regimes and immediate management requirements.

Health and Safety

A Health and Safety plan is an important consideration for any area of public realm. The landscape maintenance team will be expected to produce a risk assessment and method statement for the maintenance of the planting areas.

Highways

Maintenance works associated with works adjacent to highways will need to be considered as part of the general management and maintenance procedures.

Chemicals

Chemicals generally should be restricted in use. All chemicals, herbicides, pesticides and fertilisers, should be approved by English Nature and should be used, stored and disposed of in accordance with EN guidelines and COSHH Regulations 2002.

Maintenance Operation

Set out in the tables overleaf are the maintenance operations that should be carried out over the next 15 years in order to achieve the design objectives.

They have been set out in a format that can be easily followed by all parties, ensuring that the Management Plan exists and a working document and not an archived report. The management prescriptions are flexible such that each section can be changed and updated on an annual basis, allowing targets to be set, progress monitored and accurate reporting made.

Trees

Projected Maintenance

The tree species have been carefully chosen for their suitability to the location. Formative pruning has already been carried out on the nursery and this will produce suitable growth and canopy shape for the space provided.

In the event of any structural damage to the trees by unknown circumstances such as an extreme weather event the following guidelines should be observed:

Where possible, pruning should be carried out in the dormant season to avoid excessive sap loss. Some deciduous trees and shrubs will bleed if pruned in

late winter.

Irrigation

Irrigation of the trees and shrub areas particularly during the frost growing season will be fundamental to their long term successful establishment.

Nutrition

The tree pits have been backfilled with a suitable growing medium containing nutrition sufficient for the initial period of establishment.

After three years it would be advisable to apply an application of fertiliser in the Spring as a top dressing. A broad spectrum fertiliser such as HortiTop Complete (available from Hortifeeds) would be suitable. A routine soil test carried out every 2 years would establish the need for any supplementary fertiliser.

Trees with hard standing should have a liquid fertiliser applied annually during spring.

Maintenance Operation

- Identification: Before starting work agree which trees are to be removed or pruned
- Protection: Avoid damage to neighbouring trees, plants and buildings
- Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'
- Removing branches: Cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'. Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater

- Appearance: Leave trees with a well balanced natural appearance
- Chain saw work: Operatives must hold a Certificate of Competence
- Tree work: To be carried out by an approved member of the Arboricultural Association

Additional Work

Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

Prevention of Wound Bleeding

Standard: To BS 3998, clause 8.

Prevention Of Disease Transmission

Standard: To BS 3998, clause 9 and Appendix B.

Water Restrictions

General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

Prescription	Year (s)	Season	Frequency (per year)
TREE PLANTING To establish new planting, maintain a 1m diameter weed free area around all trees	1 – 15	Spring - Autumn	1
UNDERGROUND TREE GUY WIRES Inspection / maintenance times: Quarterly and after strong winds Operations: Replace or re-secure loose or missing guy wires Adjust to suit stem growth and to provide correct and uniform tension	1 – 15	Throughout year	2

Prescription	Year (s)	Season	Frequency (per year)
Apply granular fertiliser according to manufacturer's recommendations	1 – 15	Spring - Autumn	Bi-annual
Ensure trees remain firmly bedded after disturbance and re-firm as necessary	1 – 15	As required	1
Control all pests and diseases as necessary	1 – 15	As required	TBD
Prune in accordance with good horticultural practice, thin, trim and shape as appropriate. Eg. Removing branches: Do not damage or tear the stem. Wounds: Keep as small as possible and cut cleanly back to sound wood. Cutting: Make cuts above and sloping away from an outward facing healthy, angled so that water will not collect on cut area. Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide. Tools: Use clean sharp secateurs, handsaws or other approved tools. Disease of infection: Give notice if detected. Growth retardants, fungicide or pruning sealant: Do not use unless instructed Prune all trees annually as needed to maintain a minimum 2.2m clear stem and desired form.	1 – 15	Autumn - early Winter	1 As required
Watering – Regular checks using a moisture probe testing during the first two years after planting on a monthly cycle during the summer months of May-September	1 – 2	Monthly	24
Water as necessary to ensure healthy growth	1 - 15	As required	As required
Replace dead or damaged trees to original specification. Remove within 1 month or as soon as possible and replace within the next available planting season	1 - 15	Autumn	1
Top up mulching to original specification annually	1 - 15	Spring/ Autumn	1
LEAF REMOVAL			
Collect accumulations of drifted leaves from the vicinity and from paved area	1 - 15	Autumn/Winter	As required
Arisings: Remove			

Prescription	Year (s)	Season	Frequency (per year)
New Tree Planting-Orchard Tree			
Exclude aggressively competitive plants from around the base of each plant. Weed control to be carried out by hand or by strimming (using appropriate guards to avoid damage to the plant) and / or herbicide application	1 – 3	As required	As required
Check stakes and ties for looseness, breaks or decay and adjust, re-fix or replace defective items	1 – 5	As required	Each maintenance visit / 12 visits
Remove all stakes and ties	5	Autumn	As required
Plants are to be maintained upright and adjustments to be made during strong winds. Ensure trees remain firmly bedded after disturbance and re-firm as necessary	1 – 5	As required	Each maintenance visit / required
New trees to be inspected by a suitably experienced arborist. Monitoring to inform action required to aid establishment, including watering and application of mulch and / or fertilisers	1 - 5	May-September	1
Water as necessary to ensure establishment and continuing health	1 - 3	As required	As required
Control all pests and diseases as necessary	1 - 5	As required	As required
Replace any dead or dying trees with trees of similar species and local origin	1-5	Autumn	1
Pruning-To be carried out in Winter to encourage growth. Deadwood and diseased limbs to be removed in Spring / Summer	1 - 5	Winter/Spring	As required

Herbaceous Planting

Maintenance Operation

Weed control

Keep planting beds clear by a combination of hand operations and herbicide applications

Watering

As necessary to ensure establishment of planting

Soil condition

Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.

Prescription	Year (s)	Season	Frequency (per year)
Maintain weed free area to the surface of all planting areas	1 – 15	March / October	9
Application of granular fertilizer (15:15:15)	1 – 15	Spring	1
Ensure plants remain firmly bedded after disturbance and re-firm as necessary	1 – 15	As required	Each visit
Re-firm plant supports and replace as needed	1 – 15	As required	Each visit
Prune as necessary to encourage healthy growth as illustrated on the drawings: Prune herbaceous perennials as required to maintain form and supply supports as needed during the growing season.	1 – 15	Spring / Summer	1
Prune hardy herbaceous perennials in autumn retaining feature flower heads or seed heads to provide interest through the winter months	1 – 15	Autumn	1
Prune tender perennials and borderline hardy perennials in spring once the risk of frost has passed (April / May). This is to protect the growing crown during winter.	1 – 15	April/May	1
Cut back early flowering perennials near to ground level after flowering to encourage fresh foliage and later summer flowering. Cut back again in spring.	1 – 15	Summer & spring	2

Prescription	Year (s)	Season	Frequency (per year)
Control all pests and diseases as necessary	1 – 15	As required	As required
Replace any dead / under performing plants. Where planting continually fails to establish, undertake investigations to ascertain any underlying cause.	1 - 15	March / October	As required
Watering – Regular checks using a moisture probe testing on a monthly cycle during the first two years after planting on a monthly cycle during the summer months of May-September.	1 - 2	May-September	5
Water as necessary to ensure healthy growth. If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.	1 – 15	As required	As required
Top up mulch planting to original specification at the start of each year after the cutting back of tender perennials.	1 – 15	Spring	1
Divide large groups of perennials every 3 years:			
Divide summer flowering plants in spring or autumn providing that the ground is dry enough to work.	3	Spring / Autumn	1
Divide spring flowering plants in summer after flowering.	3	Summer	1
Gaps in planting: Refill by replanting, allow 5 % replacement planting, species to be agreed with the LA.	1 - 15	As required	1

Prescription	Year (s)	Season	Frequency (per year)
Aquatic Wildflower Grassland			
In the first year annual weed growth may be cut back to encourage the development of a good perennial ground cover.	1	As required	As required
Establishment on sites prone to flooding may be patchy and may take several years to become fully colonised	2-5	As required	As required
Cut back and remove short sections/wedges of vegetation in rotation every 2-3 years			
Control undesirable herbaceous and woody material via hand weeding. Herbicides must not be used unless with prior approval.	2-5	As required	As required

Wildflower Meadow

Maintenance Operation

Aims

- To establish a healthy and bio-diverse wildflower sward that positively contributes to the ecological value of the site.
- To improve the habitat opportunities of the site and to improve the green network / interconnectivity.

- To contribute to the aesthetic qualities of the site.

Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.

Key Actions

- To establish appropriate maintenance regimes that ensure that the sward is managed successfully and the anticipated bio-diversity value realised.
- Utilise a native species mix to maximise bio-diversity value.

Prescription	Year (s)	Season	Frequency (per year)
Wildflower Grassland			
Ensure paths are mown to allow recreational uses. Remove any grass in the area around the tree, for about 1m ring around the trunk.	1-5	Spring, Summer Autumn	As required As required
Cut to minimum 150mm height using an appropriate mechanical mower or brushcutter / strimmer where access or larger machinery is not possible. Arisings to be collected after 1 week of cutting to allow seed distribution	1-5	Aug and October/ November and/or during February	As required
Weed and scrub control by manual or chemical means to prevent pernicious perennial weed species from becoming established	1-5		
Removal of undesirable broadleaved species. Hand pulling or spot treatments to be carried out with suitable selective herbicide as appropriate	1-2		
Assessment of condition of grassland to be made by qualified and experienced ecologists to inform the ongoing management and ensure successful establishment	1,3,5	Completion of each phase of development	As required

Rain Gardens

Maintenance Operation

Weed control

Keep planting beds clear by a combination of hand operations and herbicide applications

Watering

As necessary to ensure establishment of planting

Soil condition

Fork over beds to keep soil loose, with gentle cambers and no hollows.

Do not reduce depth or effect of mulch.

Prescription	Year (s)	Season	Frequency (per year)
Maintain weed free area to the surface of all planting areas. This will require fortnightly hand weeding visits in the summer and Autumn, from May/June until October/ November.	1 – 15	May-November	12
Remove weeds entirely, including roots.			
Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.			
Completion: Rake area to a neat, clean condition.			
Mulch and Gravel: Reinststate to original depth.			
Ensure plants remain firmly bedded after disturbance and re-firm as necessary	1 – 15	As required	Each visit
Re-firm plant supports and replace as needed	1 – 15	As required	Each visit
Pruning - 'Big Cut' to be undertaken annually - Cut back and trim to 150mm, all arisings to be taken off site. All methods agreed by SCC landscape designers. Some of the grass species are left longer in the season so a second visit is required every year	1 – 15	Jan / Feb	1 / 2

Prescription	Year (s)	Season	Frequency (per year)
Prune shrubs to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour. Suckers: Remove by cutting back level with the source stem or root. Time of year: Winter flowering shrubs: Spring. Shrubs flowering between March and July: Immediately after the flowering period. Shrubs flowering between July and October: Back to old wood in winter.	1 – 15	As described	3
Control all pests and diseases as necessary	1 – 15	As required	Each visit
Replace any dead / under performing plants. Where planting continually fails to establish, undertake investigations to ascertain any underlying cause.	1 – 15	Summer	1
Watering – Regular checks using a moisture probe testing on a monthly cycle during the first two years after planting during the summer months of May-September.	1 - 2	May-September	5
Wet full depth of topsoil. If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding. As a minimum allow for watering all planting areas twice in the first year of maintenance and once in the following year.	1 – 15	As required	As required
Maintenance of mulch and gravel - Allowance should be made (2.5% of total quantities of mulch) for settlement of the growing medium This may require filling in small riverlets or reducing build ups of soils from specific areas.	1 – 15	Summer	2
Gaps in planting: Refill by replanting allow 5 % replacement planting within the 3 years of maintenance. species to be agreed with the LA.	1 – 15	As required	2

Lawn

Maintenance Operation

Aims

- To maintain a neat and attractive grass edge to prominent approach routes.
- To establish a grassed landscape treatment that reflects the remainder of the campus.
- To ensure that grassed areas establish well and continue to thrive.

Key Actions

- Undertake the appropriate maintenance operations needed to ensure a healthy and complete grass sward.
- Manage broad leaved weeds in an appropriate manner.

Prescription	Year (s)	Season	Frequency (per year)
Water as necessary during the establishment period to ensure healthy growth. This may require weekly or even daily watering in particularly hot and dry spells	1-5	March - November	As needed to establish sward
Cutting - maintain grass between 25-30mm (not the reinforced grass wall) using suitable machinery and remove arisings	1-5	March - November	As needed to maintain sward height
Edge all close mown areas	1-5	Spring	1
Apply a spring fertiliser at a rate of 60g/m2 or as per manufacturers recommendations	1-5	Spring	1

Apply a winter fertilizer at a rate of 60g/m2 or as per manufacturers recommendations	1-5	Autumn	1
Undertake hand weeding operations to remove broad leaved weeds, only apply herbicide when absolutely necessary. Maintain the sward substantially free (95%) of broad leaved weeds	1-5	March - November	1
Reinstatement of damaged areas	1-5	As required	As required
Remove damaged turf to a depth of 40mm, cultivate substrate to a fine tilth, re-seed or turf and water as needed to ensure establishment. Quality and appearance of the grassed area is to match existing	1-5	Spring	As required

Tree Planting: Ancoats Green						
Code	Species - Latin	Common Name	Quantity	Size: girth (cm)	Size: height (cm)	Rootball
Bu	<i>Betula pubescens</i>	Downy Birch	7	-	Multi-stem specimen, 300-450cm high, 3 x transplanted	RB or Containerised if outside tree planting season
Bu	<i>Betula pubescens</i>	Downy Birch	3	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
Cs	<i>Cercis siliquastrum</i>	Judas Tree	3	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
AgI	<i>Alnus glutinosa 'lacinolata'</i>	Common Alder	2	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
Ls	<i>Liquidamber styraciflua</i>	American Sweetgum	1	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
Pa	<i>Prunus 'Accolade'</i>	Cherry	8	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
Afu	<i>Acer x freemanii 'Autumn Blaze'</i>	Freemans Maple	3	20-25	Single-stem minimum 220cm clear stem	RB or Containerised if outside tree planting season
Md	<i>Malus domestica</i>	Apple 'Early Victoria'	1	2 year maiden, MM106 rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
G	<i>Prunus domestica 'Greengage'</i>	Greengage plum	1	2 year maiden, Colt rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
Pbr	<i>Pyrus communis Benita 'Benita Rafaz'</i>	Pear 'Benita Rafaz'	1	2 year maiden, Quince A rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
Po	<i>Prunus domestica 'Opal'</i>	Plum 'Opal'	1	2 year maiden, St Julian 'A' rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
P'M	<i>Prunus -</i>	Morello cherries	2	2 year maiden, Colt rootstock	Vigorous rootstock	RB or Containerised if outside tree planting season
PD	<i>Pyrus communis 'Durendeu'</i>	Pear 'Durendeu'	1	2 year maiden, Quince A rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
P-Ag	<i>Prunus americana 'Goldcot'</i>	Apricot 'Goldcot'	1	2 year maiden, Colt rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
Pr	<i>Prunus persica 'Rochester'</i>	Peach 'Rochester'	1	2 year maiden, St Julian 'A' rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
MAs	<i>Malus domestica 'Saturn'</i>	Apple 'Saturn'	1	2 year maiden, MM106 rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
PcC	<i>Pyrus communis 'Concorde'</i>	Pear 'Concorde'	1	2 year maiden, Quince A rootstock	Standard specimen, 250-300cm high,	RB or Containerised if outside tree planting season
P	<i>Ficus carica 'White Marseilles'</i>	Fig Tree	1	Semi vigorous rootstock	Standard fan trained espalier	RB or Containerised if outside tree planting season
Fc	<i>Ficus carica 'Brunswick'</i>	Fig Tree	1	Semi vigorous rootstock	Standard fan trained espalier	RB or Containerised if outside tree planting season
Fc	<i>Ficus carica 'Brown Turkey'</i>	Fig Tree	1	Semi vigorous rootstock	Standard fan trained espalier	RB or Containerised if outside tree planting season

Shrub Planting						
Plan Code	Species - Latin	Common Name	Habit	Size: Pot (Ltr)	Location	Total No.
Cd	<i>Choisya x dewitteana 'Aztec Pearl'</i>	Mexican orange blossom	Container grown	5L min	As shown	15
Cr	<i>Cornus sanguinea 'midwinter fire'</i>	Dogwood 'Midwinter Fire'	Container grown	5L min	As shown	18
CF	<i>Cornus sericea 'Flaviramea'</i>	Golden twig dogwood	Container grown	5L min	As shown	15
Eu	<i>Euonymus fortunei 'Emerald Gaiety'</i>	Fortune's spindle	Container grown	5L min	As shown	19
HA	<i>Hebe albicans</i>	white hebe	Container grown	5L min	As shown	21
HM	<i>Hebe 'Mrs Winder'</i>	Shrubby veronica	Container grown	5L min	As shown	23
Sn	<i>Sambucus nigra f. porphyrophylla 'Eva'</i>	Black elder	Container grown	10L min	As shown	5
Sc	<i>Sarcococca confusa</i>	Sweet box	Container grown	5L min	As shown	8
SJ	<i>Spiraea japonica 'Goldflame'</i>	Japanese spiraea	Container grown	5L min	As shown	22
Vt	<i>Viburnum tinus 'Lisrose'</i>	Laurustinus	Container grown	10L min	As shown	6

315m2 Planting Mix 1 - Sun Tolerant @ 9 per m2					
Species - Latin	Common Name	Habit	Size: Pot (Ltr)	Percent of Mix (%)	Total No.
<i>Achillea</i> 'Terracotta'	Yarrow	Container grown	2L	5%	155
<i>Amsonia orientalis</i>	European bluestar	Container grown	1-2L	10%	312
<i>Aster x frikartii</i> 'Monch'	Michaelmas daisy	Container grown	2L	7%	217
<i>Bergenia</i> 'Bressingham White'	Elephant's ears	Container grown	2L	7%	217
<i>Phlomis russelliana</i>	Turkish sage	Container grown	2L	5%	155
<i>Rudbeckia fulgida</i> var. <i>sullivantii</i> 'Goldsturm'	Black-eyed Susan	Container grown	2L	7%	217
<i>Stipa tenuissima</i>	Mexican feather grass	Container grown	2L	7%	217
<i>Geranium</i> 'Brookside'	Cranesbill	Container grown	1-2L	5%	155
<i>Geranium</i> 'Rozanne'	Cranesbill	Container grown	2L	10%	312
<i>Pennisetum</i> 'Fairy Tails'	Fountain grass	Container grown	1-2L	6%	186
<i>Perovskia atriplicifolia</i> 'Blue Spire'	Russian sage	Container grown	2L	5%	155
<i>Primula veris</i>	Cowslip	Container grown	1L	7%	217
<i>Pulmonaria</i> 'Blue Ensign'	Lungwort	Container grown	1-2L	7%	217
<i>Salvia nemorosa</i> 'Cardonna'	Woodland sage	Container grown	2L	7%	217
<i>Stipa calamagrostis</i>	Pheasant grass	Container grown	2-3L	5%	155
Total				100%	

Notes: Individual species to be planted in groups of 3, 5 or 7. *Amsonia*, *Geranium* 'Rozanne' & *Salvia* to be planted to the front of beds.

180m2 Planting Mix 2 - Shade Tolerant @ 7 per m2					
Species - Latin	Common Name	Habit	Size: Pot (Ltr)	Percent of Mix (%)	Total No.
<i>Asplenium scolopendrium</i>	Hart's-tongue fern	Container grown	2L	7%	88
<i>Aster divaricatus</i>	White wood aster	Container grown	2L	7%	88
<i>Asplenium scolopendrium</i>	Hard's tongue fern	Container grown	2L	5%	63
<i>Carex divulsa</i>	Grey sedge	Container grown	2L	5%	63
<i>Cyclamen coum</i>	Eastern sowbread	Container grown	9cm	5%	63
<i>Deschampsia cespitosa</i>	Tufted hair grass	Container grown	2L	8%	100
<i>Dryopteris erthrosora</i>	Shielf fern	Container grown	2L	7%	88
<i>Epimedium x versicolor</i> 'Sulphureum'	Barrenwort	Container grown	2L	5%	63
<i>Geranium</i> 'Dreamland'	Cranesbill	Container grown	2L	5%	63
<i>Geranium</i> 'Rozanne'	Cranesbill	Container grown	2L	7%	88
<i>Hakonechloa macra</i>	Japanese forest grass	Container grown	5L	5%	63
<i>Helleborus x hybridus</i>	Hellebore	Container grown	2L	7%	88
<i>Lamium maculatum</i> 'Beacon Silver'	Dead nettle	Container grown	1-2L	5%	63
<i>Omphalodes cappadocia</i> 'Cherry Ingram'	Cappadocian navelwort	Container grown	1L	5%	63
<i>Primula veris</i>	Cowslip	Container grown	1L	5%	63
<i>Pulmonaria</i> 'Blue Ensign'	Lungwort	Container grown	1-2L	5%	63
<i>Thalictrum delavayi</i>	Meadow rue	Container grown	2L	7%	88
Total				100%	

Notes: Individual species to be planted in groups of 3, 5 or 7. *Epimedium*, *Hakonechloa*, *Lamium*, *Omphalodes* & *Pulmonaria* to be planted to the front of beds

122m2 Rain Garden Mix @ 12 per m2					
Species - Latin	Common Name	Habit	Size: Pot (Ltr)	Percent of Mix (%)	Total No.
<i>Achillea</i> 'Terracotta'	Yarrow	Container grown	2L	5%	73
<i>Bistorta affinis</i> 'Superba'	Bistorta	Container grown	2L	10%	147
<i>Calamagrostis brachytricha</i>	Korean feather reed grass	Container grown	2L	5%	73
<i>Carex divulsa</i>	Grey sedge	Container grown	2L	7%	102
<i>Deschampsia cespitosa</i>	Tufted hair grass	Container grown	5L	7%	102
<i>Eradium manescavii</i>	Garden stork's-bill	Container grown	1L	10%	147
<i>Eupatorium cannabinum</i> 'Flore Pleno'	Hempagrimony	Container grown	5L	5%	73
<i>Iris sibirica</i> 'Tropic Night'	Siberian iris	Container grown	2L	7%	102
<i>Iris sibirica</i> 'White Swirl'	Siberian iris	Container grown	2L	7%	102
<i>Lythrum salicaria</i>	Purple loosestrife	Container grown	2L	5%	73
<i>Primula veris</i>	Cowslip	Container grown	1L	12%	175
<i>Rudbeckia fulgida</i> var. <i>sullivantii</i> 'Goldsturm'	Black-eyed Susan	Container grown	2L	5%	73
<i>Symphyotrichum novae-angliae</i> 'Purple Dome'	New England aster	Container grown	2L	10%	147
<i>Thalictrum delavayi</i>	Meadow rue	Container grown	2L	5%	73
Total				100%	

Notes: Individual species to be planted in groups of 3, 5 or 7. *Achillea*, *Rudbeckia* and *Symphyotrichum* to be planted to the dryer edges of the rain garden.

Bulb Mixes				
81m2 Bulb Mix 1 - Rain Garden @ 30 per m2 (unless stated)				
Species - Latin	Common Name	Size/Grade	Percent of Mix (%)	Total No.
<i>Allium</i> 'Globemaster'	Oranamental onion	Grade 12/14	10%	243
<i>Allium sphaerocephalum</i> @ 75 per m2	Drumstick Allium	Grade 4+	10%	608
<i>Allium stipitatum</i> 'Mount Everest'	Persian shallot	Grade 20/22	10%	243
<i>Camassia leichtlinii</i>	Great camas	Grade 14+	15%	365
<i>Fritilaria meleagris</i>	Snake's head fritillary	Grade 6/7	20%	486
<i>Galanthus nivalis</i> @ 75 per m2	Snowdrop	Grade 4+	15%	911
<i>Scilla siberica</i>	Siberian squill	Grade 8+	20%	486
Total			100%	
443m2 Bulb Mix 2 @ 30 per m2				
Species - Latin	Common Name	Size/Grade	Percent of Mix (%)	Total No.
<i>Fritilaria meleagris</i>	Snake's head fritillary	Grade 6/7	15%	2193
<i>Hyacinthoides non-scripta</i> , seed: british origin	English Bluebell	Grade 6/8	15%	2193
<i>Narcissus</i> 'February Gold'	Daffodil	Grade 10/12	10%	1461
<i>Narcissus</i> 'Thalia'	Daffodil	Grade 10/12	10%	1461
<i>Narcissus</i> 'Toto'	Daffodil	Grade 10/12	10%	1461
<i>Tulipa</i> 'Apricot Beauty'	Tulip	Grade 11/12	5%	732
<i>Tulipa</i> 'Purple Dream'	Tulip	Grade 11/12	5%	732
<i>Tulipa</i> 'Mascara'	Tulip	Grade 11/12	5%	732
<i>Tulipa</i> 'Marianne'	Tulip	Grade 11/12	5%	732
<i>Tulipa</i> 'Maureen'	Tulip	Grade 11/12	5%	732
Total			85%	
82m2 Bulb Mix 3 @ 30 per m2				
Species - Latin	Common Name	Size/Grade	Percent of Mix (%)	Total No.
<i>Allium</i> 'Globemaster'	Oranamental onion	Grade 12/14	10%	243
<i>Allium stipitatum</i> 'Mount Everest'	Persian shallot	Grade 20/22	15%	396
<i>Allium</i> 'Purple sensation'	Flowering Onion	Grade 12/14	10%	243
<i>Narcissus</i> 'February Gold'	Daffodil	Grade 10/12	15%	396
<i>Narcissus</i> 'Thalia'	Daffodil	Grade 10/12	10%	243
<i>Narcissus</i> 'Toto'	Daffodil	Grade 10/12	15%	396
<i>Puschkinia scilloides</i> var. <i>libanotica</i>	Striped squillis	Grade 6+	10%	243
<i>Tulipa</i> 'Apricot Beauty'	Tulip	Grade 11/12	5%	122
<i>Tulipa</i> 'Purple Dream'	Tulip	Grade 11/12	5%	122
<i>Tulipa</i> 'Mascara'	Tulip	Grade 11/12	5%	122
<i>Tulipa</i> 'Marianne'	Tulip	Grade 11/12	5%	122
<i>Tulipa</i> 'Maureen'	Tulip	Grade 11/12	5%	122
Total			100%	
333m2 Bulb Mix 4 @ 30 per m2 (unless stated)				
Species - Latin	Common Name	Size/Grade	Percent of Mix (%)	Total No.
<i>Crocus vernus</i> @ 75 per m2	Dutch crocus	Grade 4/5	30%	7499
<i>Fritilaria meleagris</i>	Snake's head fritillary	Grade 6/7	25%	2505
<i>Narcissus</i> 'February Gold'	Daffodil	Grade 10/12	15%	1503
<i>Narcissus</i> 'Thalia'	Daffodil	Grade 10/12	15%	1503
<i>Narcissus</i> 'Toto'	Daffodil	Grade 10/12	15%	1503
Total			100%	