



Studio Egret West
3 Brewhouse Yard
London EC1V 4JQ

studioegretwest.com
hello@egretwest.com
+44 (0) 20 7549 1703

Architecture/Urban Design/Landscape/Graphics/Film/Models

Mayfield Park

Planning Permission Ref. 124972/FO/2019Last

PLANNING CONDITION DISCHARGE

Project:	Mayfield Park
Project Number:	0345
Document Title:	Planning Condition Discharge Summary
Document Number:	0345-SEW-ZZ-ZZ-SH-L-PL1100
Issue:	01
Status:	Planning

Issue Record:			
Rev	Date	Reason for Issue	Issued by
00	05.03.21	DRAFT For Planning	DP
01	25.03.21	For Planning	MA

Mayfield Park

Planning Permission Ref. 124972/FO/2019Last

DISCHARGE OF PLANNING CONDITIONS

Condition No: 67: Landscape and Ecological Management Plan,
Condition No. 71a: Hard Landscape – Phase F
Condition No. 74: Hard Landscape – Phase F
Condition No. 77a: Hard Landscape – Phase H
Condition No. 79: Hard Landscape – Phase H
Condition No. 82a: Hard Landscape – Phase I
Condition No. 83: Hard Landscape – Phase I

Condition 74, 79 and 83 are covered by the same information in each of the sub-conditions, as set out below:

- a) Hard Materials
- b) Soft Landscape
- c) Tree Planting
- d) Biodiversity
- e) Site Furniture (excluding lighting)
- f) (Including All) Lighting
- g) Routes, Disabled, Pedestrian and Cyclists
- h) Temporary Landscape
- i) Age Friendly Public Realm

Condition 71(a), 77(a) and 82(a) – Circularity - is covered by the same information set out in the response to following Conditions

Condition 74(a), 79(a) and 83(a) – Hard Materials
Condition 74(e), 79(e) and 83(e) – Site Furniture

General Summary

The Design Access Statement (DAS) submitted early as part of this application, proposes that Mayfield Park should provide a unique, world class statement park that celebrates the site's post-industrial character and locality with supporting public realm and strong infrastructure connections. The Park should be large and green, soft rather than hard and support a sequence of spaces with different character areas and curated programmed uses that invite visitors on a journey of discovery.

Hard Materials

In terms of Hard Materials, the DAS proposes that the industrial past has shaped the look and feel of Mayfield. The site's existing materials palette are a mix of the restrained and unfussy, and typical of industrial detailing, with simplicity, functionality and robustness being the key design considerations of industrial design.

The design approach for the new Mayfield Park is therefore is to capture Mayfield's spirit through the choice of materials already associated with Mayfield - clay, concrete, and stone, set off with simple detailing. This will be balanced by a more natural approach to planting celebrating the wildness of the Park and its association with nature.

In terms of the Paving the following materials are proposed:

- Clay:** Staffordshire traditionally provided much of the brick used to build many of the mills and city centre buildings. We propose to create a strong link between the site's existing heritage and the park design. Using locally sourced clay pavers is important to this narrative.
- Concrete;** Concrete takes a background role, its cool colours allow planting to stand out whilst there are various options with regards to texture and finish to add subtle edge detailing. Its large coverage provides fewer joints for greater comfort.
- Stone:** Natural stone cobbles or cubes was traditionally used on the surrounding streets. We are keen to reference the use of natural stone through the use self-bound gravel, rock boulders within the river corridor and the use gravel within some areas of planting and in some cases as a mulch to suppress weed growth.

Site Furniture and Lighting

In terms of the Site Furniture and Play Equipment, Lighting and also the Structures (Bridges, Jetty's and Retaining Walls), Concrete and Stone will continue to be used and be supplemented by the use of Timber and Steel, both of which are prominent in Mayfield's industrial past.

- Steel:** Steel is a prominent industrial material and will be used again in Site Furniture, including handrails and balustrades, the Play equipment and predominantly as part of the structures. Steel will be used in a simple structural manner as well as celebrating its surface finish with either the use of galvanised or a weathered/ Corten finish.
- Timber:** Timber has a long industrial heritage, where it used in larger blocks for structural purposes, props and in association with river or marine uses. We intend to use timber in simple blocks of untreated hardwood as part of the seating and other street furniture, as well as part of the play equipment.

This documents seeks the discharge of the following conditions; Hard Materials: Condition 74(a), 79(a) and 83(a), Site Furniture: Condition 74(e), 79(e) and 83(e), and Lighting Condition 74(f), 79(f) and 83(f), and also in terms of Circularity: Condition 71(a), 74(a) and 82(a) and Condition 71(e), 74(e) and 82(e).

Soft Landscape and Biodiversity

The Design and Access Statement (DAS) is based on letting 'Nature find its Way' celebrating the way that plants had recolonised the old Mayfield industrial area. The DAS also proposed restoration and naturalisation of the River Medlock as part of creating a rich urban ecology based creating planting communities similar to that found in nature. The Design Team are proposing 'designed ecology', where art and science creates richly vegetated and floral landscapes that boost ecosystem services and seasonal interest, this will include resilient plant species, sustainable drainage systems and accommodating future floods.

Early public consultation (reported in the DAS), supported this more natural, informal and less structured approach to the planting. The soft landscape proposals have gone through a series of iterations from our initial proposals envisaged by the DAS, and have been commented on by Greater Manchester Ecology Unit (GMEU), ecologists within the Design Team from Buro Happold and in terms of soil specification from Tim O'Hare Associates.

In terms of Biodiversity, this document outlines the Ecology Strategy proposed by Buro Happold and the consultation responses and advice from Greater Manchester Ecology Unit and the Environment Agency. These and advice have feed into and directed the proposals described in this document, both directly into our response on Biodiversity, but also to Soft Landscape and Tree Planting, and the preparation of a Landscape and Ecological Management Plan.

This documents seeks the discharge of the following conditions; Soft Landscape: Condition 74(b), 79(b) and 83(b), Tree Planting: Condition 74(c), 79(c) and 83(c), and Biodiversity: Condition 74(d), 79(d) and 83(d). Additionally it seeks the discharge of the Landscape and Ecological Management Plan: Condition 67.

Design Criteria

The Design Access Statement (DAS), proposes that Mayfield Park should be used and accessed by all members of the local community as well as workers and residents in adjacent plot developments. The public and highway spaces should support the movement of pedestrians and cyclists whilst minimising the impacts of motorised vehicles.

A key Design Criteria is that the Park should be Inclusive and be able to be used safely, easily and with dignity by all regardless of disability, age, gender, culture or ethnicity. The Park is intended to create inclusive spaces for all age groups and people whether this is through inclusive level access points, play, access to nature, by removing barriers and by being realistic, offering more than one solution to help balance everyone's needs.

This documents seeks the discharge of the following conditions; Routes: Condition 74(g), 79(g) and 83(g), Temporary Landscape: Condition 74(h), 79(h) and 83(h), and Age Friendly Public Realm: Condition 74(i), 79(i) and 83(i),

Condition 71(a), 77(a) and 82(a)

Prior to commencement of Phase H (as detailed in condition 3 above) a Strategy for the how the circularity in all features of material sourcing, design, construction and stewardship will be secured and monitored shall be submitted to an approved in writing by the City Council as Local Planning Authority, with reference to the Phase 1 Sustainability Statement (Application 1) 27 September 2019.

Condition 74(a), 79(a) and 83(a)

Details of all hard (to include use of natural stone or other high quality materials) which and which demonstrably fully considers and promote inclusive access (including older and disabled people);

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102, PL7103 and PL7114.

Proposed Materials and Response to Consultation

Generally there has been broad support for the approach we have taken on hard materials and the detailing that has been developed. No adverse comments have been received through consultation or from Manchester City Council.

However, we have certainly developed our approach to the hard materials, and refined the materials we are proposing to work with. The specialist advice has been taken and incorporated into the specification for insitu, exposed aggregate concrete paving, to achieve a paving which will closely resemble the existing concrete finishes on site. We have also reconsidered the use of gravel as a mulch for the planting areas. We are now proposing a 4-6mm grit/ scalpings/ gravel in a series of complementary colours and textures that will closely relate to the historic materials, colours and texture that would have been found at Mayfield

Hard Surfaces - Clay Paving					
Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P01a	Paving Type 01a Vehicular Clay Paving Bricks	Dimensions: 200 x 100 x 65mm	Product: Staffordshire patterned pavers Finish: Diamond Chequer Edge: square edged Colour: Staffordshire Blue Raw Material: Etruria Marl Clay	Laying pattern Running bond - to be laid at third bond in order to maintain the pattern throughout the paved area. Bedding Fine dry bedding sand and jointing sand, flexible 3mm joint.	Ketley Brick Company Ltd. Dreadnought Works Dreadnought Road Pensnett Brierley Hill West Midlands DY5 4TH

Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P01c	Paving Type 01c Staggered Pedestrian Clay Paving Brick edge	Dimensions: 200 x 100 x 65mm	Product: Staffordshire patterned pavers Finish: Diamond Chequer Edge: square edged Colour: Staffordshire Blue Raw Material: Etruria Marl Clay	Laying pattern Running bond - to be laid at third bond in order to maintain the pattern throughout the paved area. Jointing - Jointing mortar. Steintec 'Tufftop non-permeable jointing mortar slurry'. Minimum 3mm wide joint.	Paving Supplier Ketley Brick Company Ltd. Dreadnought Works Dreadnought Road Pensnett Brierley Hill West Midlands DY5 4TH Jointing Mortar Supplier Steintec
-	Paving Trim Clay Paving Brick Trim	Dimensions: 200 x 100 x 65mm	Product: Staffordshire plain clay pavers Finish: Dragfaced Edge: square edged Colour: Staffordshire Blue Raw Material: Etruria Marl Clay	Laying pattern Laid as single stretcher course against slot drain retaining wall. Refer to drawing Landscape Drawings for clay paving patterns. Jointing Sand Fine dry bedding sand and jointing sand, flexible 3mm joint, laid to falls.	Paving Supplier Ketley Brick Company Ltd. Dreadnought Works Dreadnought Road Pensnett Brierley Hill West Midlands DY5 4TH
P01d	Paving within smoke vent cover Clay Quarry Tiles within recessed cover	Dimensions: 200 x 100mm x 18mm	Product: Staffordshire Blue Quarry Tiles Finish: Non-textured finish Colour: Staffordshire Blue Raw Material: Etruria Marl Clay	Laying pattern Running bond - to be laid at third bond in order to maintain the pattern throughout the paved area. Lay bond within recessed smoke vent cover aligned with surrounding paving pattern. Jointing - Jointing mortar. Steintec 'Tufftop non-permeable jointing mortar slurry'. Minimum 3mm wide joint.	Paving Supplier Ketley Brick Company Ltd. Dreadnought Works Dreadnought Road Pensnett Brierley Hill West Midlands DY5 4 TH Jointing Mortar Supplier Steintec



Staffordshire patterned pavers - Diamond Chequer



Staffordshire plain clay pavers



Staffordshire Blue Quarry Tiles - Non-textured finish

Installation & Quality Control

Laying:

Clay pavers should be laid by hand, commencing from a straight starting edge on the prepared bedding course. They should be laid slightly open to provide a finished joint width between pavers of 3mm beyond the edge protection nibs to permit infill and to minimise damage in compaction and subsequent use.

Flexible Laying/Bedding: (Paving types P01a)

Clay pavers should be laid in accordance with BS 7533-3:2005+A1:2009.

Once a sufficient area of clay pavers has been placed (approximately 40m²) fine dry sand should be brushed into the joints.

Bedding course sand should be obtained from a single source in order to maintain consistency.

Rigid Laying/Bedding: (Paving types P01c)

The Standard covering the technical specification for Pavers for rigid laying is BS EN 1344:2013 Clay Pavers Requirements and Test Methods.

When pavers are fixed rigidly the mortars used for jointing and bedding must have a sufficiently low permeability and adequate cement content to ensure good frost resistance.

Paving Cuts:

As far as possible whole pavers should be used. Pieces of less than 1/3rd of a full paver should be avoided.

Paver cutting should be carried out by a disc cutter, not by the use of a splitting machine or hammer and chisel.

Access/Manhole Covers:

The positioning of inspection covers is important to preserve the aesthetics of a paved area. Covers must be sited with some care, located within an area of paving and aligned with the pattern. They should not straddle different colours or patterns.

Control samples:

Sample areas: Complete as part of the finished work.

- Size (minimum): 2 x 2 m

Approval of appearance and surface: Obtain before proceeding.

Regularity of paved surfaces:

Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface: 3 mm.

Joints between paving units or utility access covers:

- Joints flush with the surface: difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).
- Recessed, filled joints: difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
- Unfilled joints: difference in level between adjacent units to be no greater than 2 mm.
- Sudden irregularities: Not permitted.

Performance Standard: BS EN 1344:2013

Circularity – Clay Paving

Staffordshire Blue Patterned Pavers are a key component within the current Mayfield Site and industrial Manchester. Their colour, texture and composition form a strong identity across Manchester and the Potteries and have stood the test of time in many of Manchester's key public buildings and space, with over a 100 year heritage. Their durability and enduring aesthetic ensures a long life, contributing to the sustainability in the built environment.

Following a Life Cycle Assessment carried out by the BRE for Sustainable Products, the Brick Development Association representing the industry, have awarded an Environmental Product Declaration for Staffordshire Blue as a generic brick. The generic brick is the first construction industry product to be verified under BRE Global's recently launched EN15804 Environmental Product Declaration (EPD) scheme. EPD are generated based on data obtained through Life Cycle Assessment (LCA). A LCA is performed using a peer reviewed Product Category Rules document (PCR) in line with EN 15804, ISO 14025, and other related international standards.

Brick manufacturers making Staffordshire Blue Patterned Pavers have over 100 years' experience of this type of brick which is still in use today. This longevity demonstrates their sustainability. The most relevant measure of sustainability is the embodied energy in their production divided by their useful life. In terms of Staffordshire Blue, the high initial energy cost is offset by a very long useful life.

Brick manufacturers making Staffordshire Blue Patterned Pavers use their resources as efficiently as possible, to reduce waste, minimise the energy used in manufacture, encourage the re-use of materials and ensure their products has the longest possible lifespan. It is important that when reviewing energy use it is appropriate that the quantity of resources consumed is evaluated over the whole life of the product. The brick manufacturers believe that the evaluation should cover the total quantity of energy embodied in the product and include all material and energy inputs in the supply chain. Transport is a big issue and there should be special consideration given to the environmental costs from imports into the UK of heavy clay products. The Staffordshire Brick manufacturers are located within 100 miles from the Mayfield site, reducing the amount of transportation required to deliver the bricks.

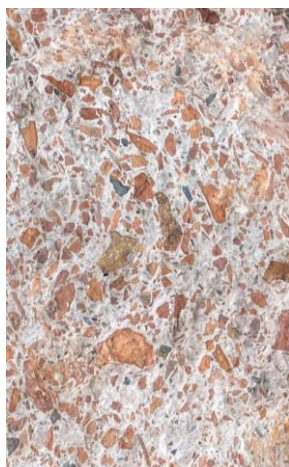
Brick manufacturers continually invest to make the use of clay as efficient as possible. The Quarry where the clay is dug is located close to their Works, minimising transport and allowing more efficient transport, where only the readily needed material is transported instead of larger quantities. During the production process of making the bricks, waste clay from the production process is recycling with other unfired clay. Because no artificial stains or pigments are used, this reduces the input of further materials, avoids toxic or harmful chemical additives and helps to minimise water pollution. As energy is a major cost of manufacturing bricks, manufacturers are continually investing in more fuel efficient production, including alternative sources of energy and improvements to insulation.

Hard Surfaces - Concrete Finishes				
Ref	Material Description	Size/Dimensions	Concrete Finish	Laying Pattern/Bedding
P02	Paving Type 02 In situ reinforced Concrete	Depth: Typically 190mm	Seeded stone carpet with exposed aggregate (depth 2mm) <u>Seeded Stone Carpet</u> Distribute 10-14mm selected rounded aggregates over the compacted and levelled concrete surface to create a dense, saturated coating of stones. Tamp the aggregates just into the wet concrete surface and level the concrete so that the aggregates are fully embedded. Aggregate: Staffordshire Pink (10-14mm) with a density of 25kg/m2 Aggregate <u>Exposed Aggregate Finish</u> Create Exposed Aggregate Finish by either A. Surface Abrasion <u>or</u> B. Surface Retardation, followed by use of Water Jet. <u>A/ Surface Abrasion</u> Allow concrete to fully harden 2- 3 weeks, then abrade or score the surface with selected SPE machine with wire brush roller, shot blast with vacuum recovery, surface planing with drum cutters for greater texture. <u>B/ Surface Retardation</u> Once the water sheen has disappeared from the compacted concrete surface, apply the specified surface retarder. <u>Water Jet:</u> When the concrete has hardened, usually after 24 or 36 hours under normal conditions the concrete shall then be water jetted and brushed with a soft nylon brush, to remove the retarded cement mortar and to expose the aggregates. .	Bedding: laid above a dpm Edging: formwork removed, no edging necessary Movement joints: located approximately every 6m or less.

Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding
P03	Paving Type 03 In situ reinforced Concrete	Depth: 190mm Plan sizes vary	Seeded Stone In-Situ Concrete with exposed aggregate (depth 5mm) <u>Seeded Stone Carpet</u> <i>Distribute 10-14mm selected rounded aggregates over the compacted and levelled concrete surface to create a dense, saturated coating of stones. Tamp the aggregates just into the wet concrete surface and level the concrete so that the aggregates are fully embedded</i> Aggregate: Staffordshire Pink (10-14mm) with a density of 25kg/m²Aggregate <u>Exposed Aggregate Finish</u> Create Exposed Aggregate Finish by either A. Surface Abrasion <u>or</u> B. Surface A/ Surface Abrasion <i>Allow concrete to fully harden 2- 3 weeks, then abrade or score the surface with selected SPE machine with wire brush roller, shot blast with vacuum recovery, surface planing with drum cutters for greater texture.</i> B/ Surface Retardation <i>Once the water sheen has disappeared from the compacted concrete surface, apply the specified surface retarder.</i>	Bedding: laid above a dpm Edging: formwork removed, no edging necessary Movement joints: located approximately every 6m or less
P05	Paving Type 05 In situ reinforced Concrete	Depth: 190mm Plan sizes vary	In-Situ Concrete with Combed Finish <u>Concrete Surface with Combed finish</u> <i>Create Combed Finish by either A.Steel Comb or B.Concrete Planing</i> A/ Steel Combed Surface Finish <i>Place, compact and level concrete as for 'seeded stone carpet.' Comb the surface by running a concrete metal comb perpendicular to the slope. On concrete surfaces intended to drain, comb marks should run towards the drain.</i> B/ Concrete Planing with Grooving Drum <i>Place compact and level the fresh concrete slab using a Roller, then cover cure and protect for 7 days. When concrete 2- 3 weeks old use the SPE BEF 320mm, self-propelled, concrete planing machine to abrade the concrete surface with one pass of the machine's heavy-duty rotating cutter wheels.</i>	Bedding: laid above a dpm Edging: formwork removed, no edging necessary Movement joints: located approximately every 6m or less

Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding
P06	Paving Type 06 In situ reinforced Concrete	Depth: 190mm Plan sizes vary	In-Situ Concrete with Combed Finish <u>Concrete Surface with Combed finish</u> <i>Create Combed Finish by either A.Steel Comb or B.Concrete Planing</i> As set out in Paving Type 05	As described in Paving Type 05

Hard Surfaces - Concrete Finishes



On site inspiration of In-Situ Concrete with seeded exposed aggregate



On site example of combed finish



In-Situ Concrete with seeded exposed aggregate

Circularity – Concrete Paving

Concrete has a long relationship with industrial sites and is still very apparent across Mayfield representing an historic continuity. Its simple form and texture alongside its durability makes for a perfect material within post-industrial site. This relevance to Mayfield means that concrete alongside bricks and aggregate form a palette of materials that sit comfortably within the Mayfield Industrial surroundings.

Circular economy and industrial ecology principals have been applied by the cement and concrete industry for decades, utilising the by-products of other industries and various other secondary materials, including municipal refuse and concrete demolition waste.

It is commonplace to use supplementary cementitious materials (SCMs), often by-products from other industries, such as fly ash from coal fired power stations and ground granulated blast furnace slag (GGBS) from iron ore production, to partially replace clinker in cement or directly in concrete. Typical replacement rates are 30% to 50%. For some applications, the properties of the concrete are usefully enhanced by these by-products, which are otherwise often end up in landfill.

Concrete is very durable, it can be reused and repurposed long after original design life has expired, maximising its use of resources and integrating in the circular economy loop. Concrete's durability also makes it ideal for design for disassembly, concrete paving can be designed for recovery and reused in new projects. At end of life, if reuse, repurposing or disassembly are not feasible, concrete can be demolition and its waste can be recycled as an aggregate, reducing both the extraction of new raw materials and the amount of waste sent to landfill.

Similarly, alternative fuels derived from industrial by-products and waste materials, including municipal refuse, can be used as a partial substitute for traditional fossil fuels, such as coal and petcoke, in the cement kiln. Co-processing reduces the use of more carbon-intensive fuels, as well as contributes to the circular economy, making use of materials otherwise destined for landfill. In addition, some alternative fuels, such as used tyres, contain elements required in clinker production, helping to reduce raw material consumption.

Concrete to be used at Mayfield Park will be produced locally to the site, to reduce the transportation cost and for simple easy of construction. Concretes natural durability will allow the footpaths to remain on site for many years and unlike traditional paving will requires little maintenance. This longevity is critical to it's their sustainability, in that the embodied energy in its production can be divided by its useful long-term life. The high initial energy cost is offset by a very long useful life.

As part of Insitu Concrete with exposed aggregate, the aggregate within the concrete is specified as Staffordshire Pink (10-14mm) supplied by Long Rake Spar, an Aggregate Supplier. Long Rake Spar is based in Staffordshire, West Midlands with its main depot within 40 miles from the Mayfield site. Long Rake Spar seek minimise waste and reuse or recycle materials as much of it as possible and transport their products the most efficiently using their own company vehicles.

Hard Surfaces - Self-Binding Gravel					
Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P07	Paving Type 07 Self-binding gravel	50mm compacted depth	CEDEC® Silver Footpath Gravel	Laid to falls Bedding: laid over a membrane	CEDEC 728 London Road West Thurrock, Grays, Essex



CEDEC® Silver Footpath Gravel (detail)



CEDEC® Silver Footpath Gravel (distant view)

Installation & Quality Control

Because CEDEC® relies on its own binding qualities for stability, it is best as a level surface. It should not normally be laid on a slope greater than 1 in 25.

After initial compaction, which should be sufficient to prevent fines being washed through the surface, thorough saturation with water is necessary, using a hose fitted with a rose sprayer or similar method, taking care to prevent heavy disturbance of the top surface.

Final compaction of the saturated surface will be required following the watering, however a short delay (up to 30 minutes depending on circumstances) may be necessary to allow the mass of water to drain away. Further cycles of watering and compacting may be required within one week of laying.

Circularity – Self-Binding Gravel

CED are a UK based company. All CED's aggregates and dimension stones are from reputable sources. The very great majority of its aggregates are British as there is a good variety of these available. The aggregates and stones used will have as long a useful life as possible in order to use the minimum amount of the earth's resources. Some of the aggregates are particularly important in providing a porous yet walkable, even lightly trafficable, surface. Being free-draining is vital to SUDS.

Self-Binding Gravel is a naturally binding material using fines and clays inherent in the material to form a bound surface. This is a more sustainable approach than the use of chemical binders such as in asphalt which artificially bind stone aggregates into a bound paving. The lack of these chemical binders and the use of natural materials inherent in the gravel allow for the gravel to be reused both as a paving and as other landscape uses.

The use of gravels and fines and clay inherent in such a material is broadly in sympathy with a river environment. These materials are part of the natural processes of a river, which wash down gravels, sands and deposit alluviums and clays along their length. All materials are selected using whole-life values and accounting, rather than lowest cost.

Hard Surfaces - Play Safety Surfaces					
Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P09 A	Paving Type 09A Play Safety Surface 01	Depth: 50mm Suitable for up to 1.5m fall height. Critical fall height under BSEN1177	Product: TigerMulch (Rubber playground mulch system) Colour: Grey	Free draining, sustainable and bound synthetic surface developed from 100% recycled truck tyres combined with a high performance resin.	Star Rubber Environmental Ltd Belmont House Aller Langport Somerset TA10 0QN
P09 B	Paving Type 09B Play Safety Surface 02	Depth: 140mm (two layer system) Suitable for over 3m fall height. Critical fall height under BSEN1177	Product: TigerMulch (Rubber playground mulch system) Colour: Grey	Free draining, sustainable and bound synthetic surface developed from 100% recycled truck tyres combined with a high performance resin.	Star Rubber Environmental Ltd Belmont House Aller Langport Somerset TA10 0QN

Circularity – Play Safety Surfaces

TigerMulch, made by Star Rubber Environmental Ltd is a recycled product. The Mulch is made from recycled lorry tyres that have previously had a full working life and then been cut up and shredded to form the basis of a safety play surface. The surface is made from 100% recycled truck tyres combined with a high performance resin to form a bound synthetic surface that is free draining and sustainable. TigerMulch is tested and certified to playground area safety surfacing standards - BSEN 1177, BS7188 and EN12616. This resin bound rubber mulch is easy to install and requires little maintenance. It does not require an edge restraint when laid and has good slip resistance. TigerMulch, is manufactured in the UK, and installed by the manufacturer.

Playground safety surfacing is intended to minimise the risk of serious injury to children whilst playing. The cost of such injuries, personally to the child, as an emotion toll to them and their parents, and to the wider economy are considerable. Playground safety surfacing made from a recycled material can easily be argued to be a very important and beneficial use of a recycled material, helping to minimise such injuries and their attendant costs.

Hard Surfaces - Asphalt Surfaces (for temporary surface treatments)					
Ref	Material Description	Size/Dimensions	Finish	Subbase	Supplier
P10a	Paving Type 10a Temporary asphalt footpath surface with occasional vehicular traffic	-	Surface course: 40mm of HRA 30/14 SURF 40/60 PEN surface course with precoated stone aggregate chippings as used in Paving types 2-6.	Surface course laid above: - Binder course: 60mm of 20mm N/S Asphaltic concrete binder course 100/150REC.	Local Contractor
P10b	Paving Type 10b Temporary asphalt footpath surface with occasional vehicular traffic and graphical road markings	Dimensions of running track identified on Landscape drawings	Surface course: 40mm of HRA 30/14 SURF 40/60 PEN surface course With Running track line markings: Epoxy-based pavement coating. Colours: - White for lining - Yellow numbers	Surface course laid above: - Binder course: 60mm of 20mm N/S Asphaltic concrete binder course 100/150REC.	Local Contractor

Hard Surfaces - Gravel Surface					
Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P12	Paving Type 12 Gravel Layer	Depth: 50mm	Product: Staffordshire Pink 10mm aggregate,	Laid over an MOT type 3 subbase	Long Rake Spar Co. Ltd Youlgrave,Nr. Bakewell Derbyshire

Hard Surfaces – Play Safety, Asphalt and Gravel Surfaces



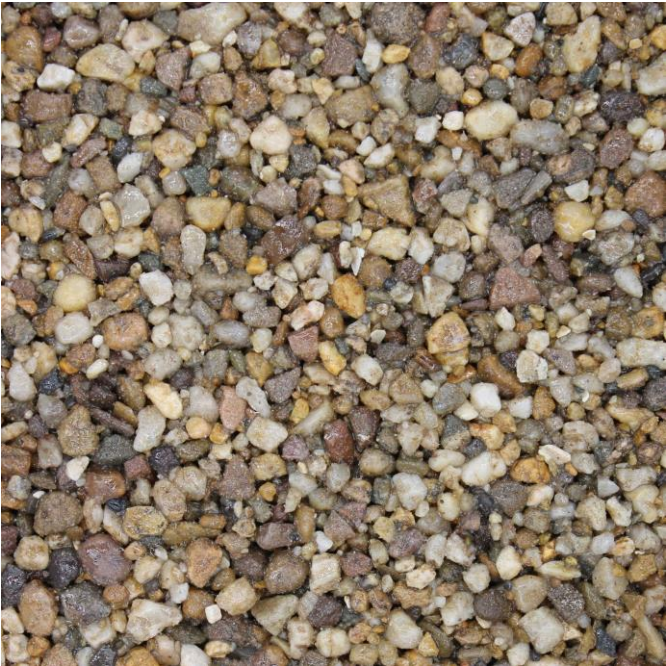
TigerMulch Rubber playground mulch (detail view)



Temporary asphalt with precoated aggregate (detail view)



Staffordshire Pink 10mm aggregate (detail view)

Hard Materials - Resin Bound Gravel					
Ref	Material Description	Size/Dimensions	Finish	Laying Pattern/Bedding	Supplier
P13a	Paving Type 13a Vehicular Loaded Resin bound gravel	Depth: 22mm 6mm aggregate,	Product: Addaset by Addagrip Colour: Hazel	Surface course - 6mm aggregate formulation min.18mm 10mm aggregate formulation min. 24mm (3mm aggregate formulation min.16mm is semi-porous)	Addagrip Terraco Ltd Addagrip House Bell Lane Industrial Estate Uckfield, East Sussex
  Addaset Resin Bound Gravel – Hazel (detail) Addaset Resin Bound Gravel – Hazel (distant view)					

Installation & Quality Control

Areas that may be trafficked by heavy vehicles should have structural layers designed according to the Highways Agency. A suitable steel, wood, brick, stone or aluminium edging should be provided to ensure a neat edge detail. The maximum tolerance of the base should not exceed 3mm under a 1m straight edge. Total sub-base thickness will be dictated by loading and attenuation requirements.

Circularity – Resin Bound Gravel

Resin Bound Gravel is natural gravel bound with a clear commercial Resin. Addaset Resin Bound Paving uses a minimum of 25% recycled material as part of its gravel content. New gravel is sourced from well-managed quarries and are efficiently used to minimise the waste of resources. Bound Gravel uses a cold mix with recycled and new gravels mixed with a high-quality clear resin.

The binding of Resin Bound Gravel forms a 3D matrix, similar to a natural structure, that is porous which contributes to the sites overall SuDS strategy. This can also alleviate heavy rain and localised flooding which Mayfield is susceptible to. Bound Gravel is hard wearing and with low maintenance, surface that uses a range of natural and recycled aggregates. Resin Bound Gravels can be recycled and there is a market for these forms of aggregates.

Condition 74(b), 79(b) and 83(b)

Details of all soft landscaping works (excluding tree planting) with species choice to be agreed in consultation with Greater Manchester Ecology Unit. The proposed choice of planting shall be informed through input from a qualified ecologist and horticulturalist to ensure that the planting is suitable for its proposed microclimate (including the impact of the massing, height and materials on adjacent buildings) and ground conditions and evidence that species choice will create seasonal interest and be adaptable to disease and future climate change scenarios;

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102, PL7121, PL7122, PL7123, PL7126, PL7151 to PL7161
Plant Schedules, refer to Drwg. No: 0345-SEW-ZZ-ZZ-SH-L-PL1007

The layout of the Wildscape Area is now being reconsidered because of the recent Archaeological finds of an historic industrial works. This area is currently the subject of redesign which will be resubmitted once a design has been completed.

Proposed Planting and Response to Consultation

The Design and Access Statement (DAS) submitted earlier as part this application, was based on letting 'Nature find its Way' celebrating the way that plants had recolonised the old Mayfield industrial area. The DAS also proposed restoration and naturalisation of the River Medlock as part of creating a rich urban ecology based creating planting communities similar to that found in nature. We are proposing 'designed ecology', where art and science creates richly vegetated and floral landscapes that boost ecosystem services and seasonal interest. Early public consultation (reported in the DAS), supported this more natural, informal and less structured approach to the planting.

The soft landscape proposals have gone through a series of iterations from our initial proposals envisaged by the DAS, and have been commented on by Greater Manchester Ecology Unit (GMEU), ecologists within the Design Team from Buro Happold and in terms of soil specification from Tim O'Hare Associates.

Comments by GMEU showed a clear preference for native species against a mix of native and non-natives species as originally proposed. GMEU provided advice on species found in Manchester and particularly along the River Medlock. GMEU comments are set out below with SEW response.

Comments by Ecologist at Buro Happold, focused on improving Biodiversity particularly along the River Medlock and in the wetter areas adjacent the river. Buro Happold also commented that they would prefer to see more native species and less non-native, though they accepted that in a Park context, some ornamental species could be acceptable. SEW have modified the proposed plant mixes to take this advice and that of GMEU on board.

Tim O'Hare Associates (TOHA) were initially asked to provide advice on the suitability of on-site material for reuse as a planting medium or as part of a mix used in imported soils. Initially this was thought that it could be important contribution to a more sustainable approach to the development of the Park. TOHA reviewed site investigation data, prepared a report which was later discussed at a workshop with SEW as landscape architects and RoC Consulting who prepared the remediation strategy. The conclusion of this workshop and the basis of how the project proceeded was that the site material was too inherently variable, with unpredictable hotspots and that it would be difficult to abstract much useful material for reuse. It was therefore concluded that all the planting medium will have be imported mix of manufactured topsoil and subsoil. The amount of effort and energy needed to reuse site material would not have been sustainable.

Following this decision, there was a series of iterations balancing plant mixes against the appropriate soil specifications, covering areas of shrub and herbaceous planting, wildflower mixes and turf, lawn grass and tree planting. The results of these iterations forms the final proposed plant mixes and growing mediums.

Comments from Greater Manchester Ecology Unit

As an ecologist I prefer native species but accept given the location particularly away from the river non-native species have a place and many such species will be beneficial for invertebrates.

There are a lot of species in these mixes so undoubtedly some will succeed and others (will) fail.

PC01 – Railway embankment

I note that all the plants are sited as pot plants, even the grasses such as Festuca ovina (sheeps fescue) and Festuca rubra (red fescue). Maybe also try Deschampsia flexuosa (wavy hair-grass) a common associate of sheeps fescue and a more attractive panicle. I would have thought that it would be better to sow a drought tolerant grass mix of these species in which to plant the perennials.

In terms of species that reflect railway lines around Greater Manchester, lupins I have noticed as having naturalised in certain area another option would be broom.

SEW response:

We have not specified Deschampsia. flexuosa on the railway embankment however we have D. cespitosa elsewhere in the park. We have chosen not to sow a seed mix due to the nature of the site and the tight time constraints so we have proposed small pots instead for more instant impact and to maintain greater flexibility in terms of programme and timing of installation. We are proposing a perennial of Liatris spicata 'Alba' on the railway bank that has a similar form to Lupins and while we are not using broom specifically on the bank, we are using it in other areas of the park and have introduced species of gorse and buddleia that contribute to the railway aesthetic.

PC04 – Wildflower grassland

Again not sure why no base seed grass mix. I would recommend sweet vernal-grass as an early flowering grass too as well as meadow foxtail. I am also not sure why shrubs are included unless the intention is along the boundaries as likely to make maintenance more difficult when cutting. The mix of species is also such that some are likely to fail as mixing dry and wet preferring species along with lime and acid loving. However this is sometimes the best approach when not sure what will thrive

SEW response:

We are not using a seed mix due to time constraints of construction, greater flexibility of installation timing and the desire for more instant impact. We are using a variety of different shrubs for prolonged seasonal interest and structure within the planting beds.

PC05 – River Fringe

Includes some species that I would not regard as river edge or tolerant of wet conditions, for instance Lotus corniculatus is replaced in this sort of habitat by Lotus pedunculatus and wild marjoram is associated with dry habitats. It would also be good within the perennials to include more native species, in particular the native yellow flag-iris (Iris pseudacorus).

SEW response:

The nature of the river fringe is that it could have periods of both flood and drought and therefore the species chosen reflect this. In response to this suggestion we have introduced a variant of Iris pseudacorus (Iris pseudacorus var. bastardii) which has a longer flowering period than the standard species and more native species including Filipendula ulmaria and Lychinis flo-cuculi. The nature of the character area is on a slope and therefore water runoff will travel to the base where we have appropriate wet conditions perennials.

PC06 – Coir rolls

A good range of native species many of which are present elsewhere along riverbanks in GM and therefore a useful experiment to see what survives. There are however a few species present along rivers in GM not present, that would be worth including in the mix to determine suitability. These include Angelica sylvestris; Sparganium erectum and Phragmites australis.

I was also wondering whether as an alternative to coir rolls, FlexMSE Vegetation Wall System had been considered. I have no experience but they have been recommend on another watercourse on a development site.

SEW response:

Following the riverside planting workshop with the EA and GMEU we have updated the pre grown planting list and drawings incorporating the comments received from the EA and GMEU.

Species recommended by either or both EA and GMEW and now included are: Phalaris arundinacea, Iris pseudacorus, Veronica beccabunga, Filipendula ulmaria, Juncus effuses.

Both EA and GMEW recommended a particular species of Carex (type of sedge grass) which our supplier could not source and to compensate for this, we have proposed the following species of Carex: C. acutiformis, C. flacca, C. pseudocyperus.

PO9 – Southern Walkway

This is referred to as a drought tolerant mix, but includes several species that are wetland/wet woodland species including Allium ursinum (wild garlic) which grows best in wet parts of woodland, Eupatorium cannabinum (riparian species and wet areas); Filipendula ulmaria (wetlands and wet woodland). A good species of dry shade not on the list that I have successfully introduced is Greater stitchwort (Stellaria graminea).

SEW response:

The southern walkway character area receives surface water runoff and is located on a bank therefore a range of woodland habitat species were chosen.

Plant choice informed through input from other Consultants

Buro Happold Ecologist Comments:

SEW has consulted with Buro Happold Ecology through the development of the park soft landscaping design. Comment has been provided over a number of iterations of the proposed character areas, landscape plans and associated proposed planting mixes for the various beds across the park. Consideration was taken for the requirement of the park to deliver a net gain in biodiversity as requested by Greater Manchester Ecology Unit in the original planning application. Therefore, advice from Buro Happold Ecology was centred on assisting SEW to create ecologically valuable habitats within the park.

Key consideration was given to the river corridor. Following the low-flow modelling which indicated which areas would get wet on an annual cycle of projected summer, winter and mean water levels, indications of areas suitable for emergent, fringe planting were given. Proposed planting species were subsequently reviewed. Areas above the projected winter water level were further developed as a fringe mix which could survive with wetter ground conditions associated with proximity to the river corridor and in times of flood events, where more extensive areas of the landscaping will become inundated. Proposed planting mixes were again reviewed and suggestions of increasing native shrub, opposed to non-native species, in the matrix to increase ecological value for native wildlife were made with a selection of species suitable for riparian edge in the north west of England provided.

Where certain planting areas may have been improved for wildlife value by, for example, changing a couple of species included within proposed native species-rich grassland mixes, these were highlighted to SEW. Areas outside of the immediate river corridor, but which were targeted for native wildlife value in the original application documents were indicated by Buro Happold Ecology, to assist SEW in targeting areas for additional native habitat types, whilst maintain a balance of further ornamental planting types elsewhere.

Tim O'Hare Associates Comments:

SEW has taken advice soils make-up and cultivation from Tim O'Hare Associates. Tim O'Hare Associates (TOHA) is a leading independent Soil Science and Landscape Engineering consultancy.

1 - Advice on Existing Site Materials

Initially, TOHA advised on the make-up of the topsoil and subsoil:

'The topsoil and subsoil requirements for each of these character areas have been considered when reviewing the data provided. Each of the landscape planting types proposed requires different soil characteristics; for example pit planted trees require significantly different soil conditions to wetland planting. Likewise, the soil conditions required for an intensively used amenity grass lawn vary from those of species rich meadows.'

TOHA were also asked to consider the utilisation of site-won materials as part of manufactured soil and as part of a surface 'mulch' in other areas.

'Based on our review of information, it may be possible to re-use some of the site-won materials within soft landscape areas, either as topsoil or subsoil. Further testing must be carried out to confirm the horticultural quality and suitability in each scenario where re-use potential has been identified. In addition, it is likely that the materials will require screening to remove/reduce the proportion of rubble and stone. Care will need to be taken to ensure only the 'suitable' material is recovered, without the inclusion of surrounding poorer quality materials'

Following further discussions on the utilisation of site-won materials, the Design Team came to the following conclusions:

Existing Site Topsoil *There is a relatively limited amount of this material. It is likely to be physically contaminated with other adjacent site materials which would make it difficult to separate out. The Remediation Engineers confirmed this material would need to be moved within the site which may pose further practical complications. It was not considered a viable option for reuse.*

Fines Made Ground – Waste Soil Stockpile. *Whilst there is more of this material, there are not large quantities. Remediation Engineers / TOHA pointed out that from site data, the material is variable and likely to include 'hotspots' of chemical contamination which could affect its use in a public space and elevated pH values which are detrimental to plant growth. The Remediation Engineers also commented that there are limited storage areas on site and the capacity to grade materials for reuse. TOHA also pointed out that any site material would still have to be subject to further tests for organic matter and soil fertility before reuse. Overall it was felt that it would require a lot of effort to win any reasonable amount of material and judged against the import of topsoil and subsoil, would not be economic or practical. It was described in the workshop as being a 'token' effort and again not considered a viable option for reuse.*

2 - Advice on Soil Specification

Following the decision not to use site won material either as constituent of Topsoil or Subsoil, TOHA provided a series of detail specifications for imported Topsoil and Subsoil. These soil specifications were based on a list of plant species for each plant character zone provided by SEW. Following further discussions and iterations between TOHA and the planting designers, a list of appropriate plants and a series of detail specifications for imported Topsoil and Subsoil was finalised. TOHA additionally provided advice on soil layers and depths, drainage and the interface between the engineering formation layer and the planting soils above.

TOHA advised on the soils that

'Imported soils of varying composition will be necessary for use within the scheme. The soil characteristics of pit planted trees vary from those of wetland planting. Likewise the requirements of an intensively used amenity lawn vary from those of wildflower meadow establishment. As such a number of imported 'soil types' will be required.

We recommend that the preferred source of imported topsoil for most landscape types (except wetland areas) would be 'Manufactured Topsoil', produced by blending appropriate (and widely available) mineral and organic substrates into a growing medium that will function as a topsoil. Mineral deposits may include quarried overburden or processed sand materials, whilst a commonly used organic ameliorant is green compost derived from municipal green waste streams. Imported subsoil meanwhile should be derived from suitable quarried deposits.

By their nature, manufactured soils will be granular in nature to enable an evenly mixed blend of the components. This cannot be achieved with cohesive base components and therefore, soil used in wetland environments is most like to comprise as-dug natural soils. It is important to note that Manufactured Topsoil can often display 'alkaline' pH values. In such soils, the main source of the alkalinity is likely to be potassium ions from the compost used in the blend, rather than calcium carbonate (lime).'

The types of Soil agreed with TOHA are (See Landscape Drawings):

Landscape Topsoil:	Rootballed Tree Planting; Gateway Gardens; The Play Yard; Southern Woodland Walk; Flower Rich Neutral Grassland
Landscape Subsoil:	Rootball Tree Planting (<30cm girth); Gateway Gardens; The Play Yard; Southern Woodland Walk
Lawn Topsoil:	Mayfield Lawn
Rain Garden Topsoil:	Rain Garden
Washed Sand:	To be used as 'subsoil' for rootballed trees >30cm girth
Wetland Topsoil:	River Fringe; River Wetland
Wetland Subsoil:	River Fringe; River Wetland

Condition 74(c), 79(c) and 83(c)

Details of the proposed tree species within the public realm including proposed size, species and planting specification including tree pits and design and details of on-going maintenance; The proposed choice of planting shall be informed through input from a qualified ecologist and arboriculturalist to ensure that the planting is suitable for its proposed microclimate (including the impact of the massing, height and materials on adjacent buildings) and ground conditions and evidence that species choice will create seasonal interest and be adaptable to disease and future climate change scenarios;

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L- PL7102 and PL7119.

Tree Schedules for Species, Size - Refer to Drwg. No: 0345-SEW-ZZ-ZZ-SH-L-PL1003

Typical Tree Pit Details - Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL3701 to PL3704

Proposed Tree Planting and Response to Consultation

The Design and Access Statement (DAS) submitted earlier as part this application, proposed that Mayfield Park should providing a unique, world class statement park that celebrates the site's post-industrial character and locality with a mix of public realm and connections to the locality. The Park is intended to be large and green, soft open space, rather than a more formal hard area and support a sequence of spaces with different character areas and curated programmed uses. Trees planting is intended to argument the other planting and grass areas (Sub-Condition b) and to create framed views across the park. Tree planting will is based on prominent trees along the Northern and Southern boundaries, Parkland and Tall Canopy Trees, and Riverside and Pollarded Trees along the River Medlock.

Early public consultation (reported in the DAS), supported this more natural, more informal and less structured approach to the Park.

Consultation has also taken place with Manchester City Council Tree officers, Cheshire Woodlands (a specialist advisor and contractor) and Tim O'Hare Associates (TOHA).

Manchester City Council Tree officer provided invaluable advice on alternative species that would be better suited to the conditions in Manchester or had better characteristics. The Tree officer also suggested a more adventurous approach to tree selection and the addition of a 'few more exotic' species, either in term of more interesting form, flowering, coloured bark or attraction to bees or other insects. The officer's recommendation were largely taken on board, though some were not and deferred to comments made by Greater Manchester Ecology Unit and Buro Happold ecologists.

Cheshire Woodland supported the comments of the City's Tree officer, with the remainder of their comments being focused around advice on the initial planting, establishment and successful growth of the trees. They particularly recommended that trees should not be planted in individual pits, but joint trenches and that soils should be sandy gravelly soil and well-draining.

Tim O'Hare Associates augmented the advice of Cheshire Woodlands, and provided detail specification on all growing mediums, advice on drainage and tree pit detailing, all of which has been incorporated into the proposals.

Tree Species Selection advice from Manchester City Council officers

A preliminary List of Trees was discussed Manchester CC Tree Officer who had a number of comments in relation to the suitability of certain species for Mayfield Park.

The following comments were received:

"... I think you could be perhaps be a bit more adventurous and go with the heat island effect of the city centre location and go for a few more exotic looking trees such as Phenix caneriensis, tree magnolias, Catalpas, Paulownias etc. Surely there is room for at least one Giant Sequoia and a group of three or more Sequoias? Eucalyptus and Euodia (now Tetradium) danielii are the best trees for nectar to attract bees and butterflies. Davidia. It's only going to get warmer and all of these trees will benefit from it."

".....You haven't chosen many flowering trees - no Prunus, Malus, Syringa etc. You could end up with a great arboretum but one that doesn't look like a garden (this of course may be your intention). Have since added a larger variety of trees with high impact flowering. Including; A. arborea, K. paniculata, C. x persimilis 'Splendens', P. calleryana."

"Groupings of some of the Himalayan Betula with different coloured bark are going to be very popular in the next few years. Not just the pure white ones".

"Acer negundo - other than they are a bit unusual these never make a good looking tree at maturity".

"A. saccharinum - can get a bit too big - we like the very similar A. x freemanii hybrids. Much better autumn colour".

"Betula pubescens - never makes as attractive a tree at maturity as B. pendula. B. pubescens will seed into this site for nothing".
(SEW comment: B. pubescens was kept based on input from the ecologist).

"Prunus padus - go for one of the cultivars like 'Albertii' of 'Watererii', these trees look the same but with better flowers".

"Salix alba - grows too big too quickly for most urban areas and starts to fall apart at no great age. Not so with the cultivar S.a. 'Chermesina' aka 'Britzensis' which never gets too big and great winter colour on the new twigs".

"S. caprea - a bit dull but exactly the type of tree that will freely seed into this type of area whether you want them to or not".

The following alternatives were recommended by Manchester city Council officer subject to nursery availability:

Catalpa.x erubescens 'Purpurea', Catapa.speciosa *substituted for* Catalpa bignonioides

Paulownia tomentosa *substituted for* Paulownia fortunei 'Fast Blue'

Populus 'Balsam Spire' *substituted for* Populus nigra 'Brandaris' and Populus nigra 'Vereecken'

Quercus.bicolor, Quercus cerris, Quercus.coccinea, Quercus.frainetto, Quercus.x hispanica *substituted for* Quercus robur

Tilia henryana, Tilia oliveri *substituted for* Tilia cordata

Based on discussions and advice received above an updated tree species list was circulated to the Manchester City Council Tree officer who responded positively:
'Thanks for keeping me informed, I'm looking forward to seeing this in the flesh'

Advice on the conditions needed for tree growth from Cheshire Woodlands

Some of the larger trees will require optimal conditions from nursery to the first few years of establishment, if they are to establish well and not simply be a short-term display. Equally important will be the site conditions, including soil type and structure, drainage and from the planting areas, whether de-icing salt will be applied to the hard surfaces in the winter, and what will be the maintenance regime.

The compartmentalisation of the park, with the designed views and vistas will depend not only on the location of trees and shrubs, but their species grouping and maintenance. I would look more closely at this in relation to soil types and compatibility of the different species. Most of the species in the current list will tolerate most soils, some being more tolerant of dry or wet conditions than others, and some preferring clay or more fertile soils.

I found the comments from the council's tree officer to be well considered, and I see that SEW have taken some of them on board. His suggestion to include giant redwood is interesting, and one or perhaps a group of perhaps 3 of these evergreen trees might provide a strong vertical focal point

From the documents that I have seen, it appears that, under the current scheme, each tree will be allocated a volume of soil or planting pit. It is my opinion that this approach could be fraught with problems for the future management of the rooting environment, with each tree pit requiring irrigation and individual drainage connection. At this stage of the proposal, I suggest that once the design has been agreed, the most important element for the successful establishment and survival of trees is the design of soil importation and hydrology.

I suggest the widespread use of clay soil should be avoided, and instead, sandy gravelly soil that remains permeable and cannot be compacted to the extent that it becomes impermeable. With a sandy soil at a depth of around 750mm, overlain by 300mm suitable topsoil, the sub-base might be variable to create different drainage patterns depending on the underlying material and contours. In some areas, vegetation type V4 for example, it might be appropriate to use a compacted clay as a sub-base, overlain by a cohesive, clayey sand to develop areas with higher water retention properties.

Programming of works will be important in the management of soil conditions and I suggest that once the site has been cleared, and before any hard landscaping, the sub-base should be laid across the site and levels should be built up to 300mm below finished levels using a sandy, gravelly imported soil to all but the proposed wetland areas. The hard works would then take place before importing topsoil and plants. Of course, this approach would be putting the success of tree establishment as the highest priority and might conflict with other objectives.

Advice on Soils and Tree Species Selection from Tim O'Hare Associates

Tim O'Hare Associates (TOHA) also carried out a review of an updated tree species list supplied by SEW. Tim O'Hare Associates (TOHA) is a leading independent Soil Science and Landscape Engineering consultancy.

TOHA commented:

“Rootballed trees are the most demanding planting environment to construct. Trees of this size and age have grown accustomed to optimum growing conditions in the nursery, and these need to be replicated when the rootballed or containerised tree is planted in the pit. In particular, aeration and drainage around the rootball as well as moderate to high fertility status are critical. Given their demanding nature all rootballed trees should be planted with well-aerated and free-draining soils to the full rooting depth.

Much of TOHA review focused on the suitability of species to the soil pH, particularly as the existing site is mostly alkaline, and occasionally very alkaline and of the drainage, with the concern that some parts of the existing site may be poorly draining. In terms of pH, TOHA commented that:

"Most of the selected tree species are considered to have a wide pH tolerance (typically ranging from mildly acid to alkaline with occasional species tolerant of calcareous (chalky) soils".

Whilst for drainage TOHA commented:

"With reference to the supplied schedule, the majority of planting species appear to be tolerant of a range of soil texture types and soil moisture characteristics. And again' All rootballed, pit planted trees will require light free draining soil conditions, unless they have been specifically selected to tolerate the moisture zones".

After reviewing the site investigation and bore hole data, and holding a Workshop with the Design Team Landscape Architects and Earth Scientists, it was agreed with TOHA, that it was not practical to reuse site won material and Soils would need to be manufactured from off-site material. (See also response to Condition 74(b), 79(b) and 83(b))

"It is important to note that Manufactured Topsoil can often display 'alkaline' pH values. In such soils, the main source of the alkalinity is likely to be potassium ions from the compost used in the bend, rather than calcium carbonate (lime). Therefore, whilst alkaline in reaction these soils should be suited to species which prefer neutral to acidic soils, including Liquidambar and Metasequoia".

Ongoing Tree Maintenance Specification (See Also the Response to Condition No: 67: Landscape and Ecological Management Plan)**MAINTENANCE OF TREES WITHIN SHRUB PLANTING BEDS:**

Weed Control:	Keep immediate area around trees and shrubs clear of weeds
Weeding Method:	Generally remove by hand or hoe. Invasive or pernicious, apply suitable selective herbicide.
Mulch:	Retain Gravel Mulch around Trees and Shrubs Make Up levels of Mulch as necessary.
Soil condition:	Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
Watering:	As necessary for the continued thriving of all planting
Fertiliser Type:	Slow Release in March or April to Manufacturers recommended application rate.

PRUNING OF TREES GENERALLY:

Pruning:	In accordance with good horticultural and arboricultural practice.
Removing branches:	Do not damage or tear the stem or bark.
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 bud, 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.
Appearance:	Thin, trim and shape each specimen appropriately, location, and stage of growth, leaving a well balanced natural appearance.
Tools:	Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
Nesting Birds:	If Nesting Wild Birds seen or suspected, do not prune or undertake any maintenance work near them. Report findings to Landscape Architect and seek instruction. Accidental disturbance: Report immediately.

FORMATIVE PRUNING OF TREES:

Standard:	Type and timing of pruning operations to suit the plant species.
Time of year:	Do not prune during the late winter/ early spring sap flow period.
Tree Size:	Young trees up to 4 m high: Crown prune by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader. Remove duplicated branches and potentially weak or tight forks. In each case cut back to live wood.
Operatives:	Approved specialist contractor

Condition 74(d), 79(d) and 83(d)

Details of measures to create potential opportunities to enhance and create new biodiversity within the development to include, the choice of planting species within the public realm, bat boxes and brick, bird boxes to include input from a qualified ecologist and any necessary monitoring to be agreed in consultation with Greater Manchester Ecology Unit which demonstrates achievement of the Recommendations and Targets set out within Buro Happolds Mayfield Ecology Strategy with Biodiversity Net Gain calculations - Phase 1 Dated 26 September 2019;

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102, PL7123 and PL7125.

Proposed Improvements in Biodiversity and Response to Consultation

The Design and Access Statement (DAS) submitted earlier as part this application, refers to the Mayfield Strategic Regeneration Framework (SRF), which was endorsed in 2018 by Manchester City Council's Executive Committee. The SRF proposed that the Park be ...'a mix of informal urban green spaces through to more natural and wild spaces should be provided to create a multi-layered open space'. The DAS identifies both the Wildscape Area and the Medlock River corridor as being particularly important for natural habitats and improving biodiversity.

Within the Design Team, Buro Happold have provided an Ecology Strategy and advice to SEW on planting design and specific biodiversity proposals, such as nesting boxes and king fisher tunnels that will support various wildlife. The Ecology Strategy included Biodiversity Net Gain calculations (Phase 1 Dated 26 September 2019).

Consultation has also taken place with Greater Manchester Ecology Unit (GMEU) and the Environment Agency, both of whom provided feedback and recommendation. GMEU have specifically requested any necessary monitoring as part of the Ecology Strategy to be agreed in consultation with them.

The proposals to improve Biodiversity are described both in this Sub-Condition, but also in Sub-Condition B) relating to soft landscape proposals, Sub-Condition C) relating to tree planting and Condition 67 relating to Landscape and Ecological Management Plan.

Buro Happold development of the Ecology Strategy and how the Strategy is incorporated in the Park design

In support of the planning application, Buro Happold Ecology produced the Ecology Strategy document for the Mayfield development. This included an outline of several measures that were part of the aim of creating the new urban Mayfield Park with a benefit for both wildlife and people.

These measures are provided below, with accompanying text of how these have been incorporated into the design.

1. Enhancement of the river corridor for both people and wildlife and the emerging park design by incorporating a variety of features to naturalise and 'daylight' the River Medlock, a UK and Manchester priority habitat:

- *Maximise the use of soft and bioengineering solutions where possible in combination with hard engineering solutions and setbacks for the river corridor. This will enable a variety of wetland habitats including marginal and emergent planting to be created to provide biodiversity benefits, reduce flood risk and improve access to the river.*
- *Creation of riffles and associated pools in the riverbed to increase oxygenation and provide habitat for fish such as brown trout and aquatic invertebrates.*
- *Incorporation of artificial nest boxes for nesting habitat for kingfisher, dipper and wagtail in the riverbank design where possible.*
- *Retention of a sufficiently dark river corridor to ensure continued use by bats. A sensitive lighting plan will ensure that light spill on to the river corridor is minimised while still maintaining health and safety requirements for public realm areas.*

The river corridor has been enhanced by increasing the amount of open river by removing the Baring Street culvert. Several walls are proposed to be removed to be replaced by bio-engineered backs with native vegetation mixes to enhance the character of the river and provide a soft, more naturalised edge. Low flow modelling was conducted to identify where areas of the new natural banks would get wet through the annual rainfall cycle, and marginal and emergent planting was proposed in these areas accordingly. The large wildscape area will be lowered from existing levels and will provide a flood area in times of high water levels. Planting here is native-dominant with some non-natives for colour interest outside of UK native plant flowering season. Plants have been chosen that should survive infrequent inundation in flood events.

Where debris removal is proposed within the river channel itself, replacement materials is proposed to incorporate riffles and the oxygenation of the water where the river is shallower.

Artificial nest boxes suitable for wagtails and dippers are proposed on the retained north facing river walls, with some incorporated beneath foot bridges to provide a variety of nesting habitat choices. Kingfisher nest boxes have also been incorporated into the proposed gabion retaining wall adjacent to the river on the eastern

extent. Two boxes have been placed to allow for multiple broods in a year. Additionally, kingfisher posts have been added adjacent to the river where it flows more slowly and is typically deeper. These are intended to support kingfishers whilst adjacent vegetation, such as trees, mature and more branches over the water course become available overtime.

Buro Happold Ecology have reviewed the lighting plans for the park and can confirm that it is sympathetic to the river and will retain a dark wildlife corridor through the park which can continue to be used by bats and other wildlife. One area close to the depot indicates high levels of light spill on to the river, however, as the river wall is raised in this area, it is considered that there will likely be a substantial shadow cast in this area, reducing the potential for impact from that lighting unit.

- 2. Removal of Japanese knotweed, undertaken by specialist contractors with a long-term strategy for management of invasive plant species, will further improve the ecology of the river corridor.*

Specialist contractors will remove existing stands of Japanese knotweed in accordance with best practice to remove it from the site without causing further spread of the Schedule 9 plant species. Ongoing monitoring of the river bank vegetation for the presence of encroaching Japanese knotweed will be undertaken, as outlined in the Landscape and Ecology Management Plan (LEMP).

- 3. Provision of replacement brownfield/open mosaic habitat, a UK priority habitat, as compensation, mimicking brownfields with specific features for black redstart and benefiting generalist birds and invertebrates.*

The wildscape area within the centre of the park and the adjacent southern boundary to the river provides a mosaic of emergent, neutral grassland and scrub habitats, with a diverse mix of species to provide suitable invertebrate interest for both foraging and shelter. Additionally the wildscape areas includes further habitat features, including scrapes, log piles and partially sunken hibernacula which is intended to provide further bare ground and damp habitat types to support a wider invertebrate assemblage and to mimic some of the properties of open mosaic habitat.

- 4. Urban green space is a priority habitat within the Manchester BAP and there are a number of priority and protected species strongly associated with urban green space and the built environment including pipistrelle bats, peregrine falcon and swifts. Soft landscaping and provision of habitat features targeted at urban-adapted priority species will mitigate the impact of the development on these species and provide biodiversity enhancement.*

It is considered that the opening up of the river, creation of soft riverside banks, provision of native habitat and species of interest for UK wildlife, habitat features within the wildscape area and additional bird nesting and bat roosting features provide a biodiversity enhancement for species within the Mayfield Park. In particular, the dark river corridor will maintain a connecting link through the site for a variety of urban adapted fauna including pipistrelle bats and generalist bird species.

5. *Demolition/conversion works to buildings and culverts which contain bat roosts will be carried out under licence from Natural England with provision of replacement roosting habitat.*

A bat licence has been obtained from Natural England for the demolition of the Baring Street culvert which was identified to contain a bat roost. Replacement roosting habitat will be provided in the form of Norfolk bat bricks incorporated into the repaired facing of the river wall in two locations across the river. In addition, where possible, gaps within the underside of the retained section of culvert will be left where safe to do so.

6. *As development of the site will result in loss of potential habitat for black redstart, replacement brownfield habitat will be provided in the form of biodiverse/brown roofs, living walls, perching posts and nest boxes close to the river.*

Boxes suitable for black redstart are incorporated across the site, as detailed within the bird nesting strategy. Features incorporated in the soft landscaping of the park, as detailed under item 3) are considered to provide habitat mosaics that can support black redstart foraging.

7. *Provision of replacement nesting habitat for generalist bird species to replace lost nesting opportunities following vegetation removal.*

As outlined within the Bird Besting Strategy (Buro Happold, 2021) produced to support the discharge of Condition 72, the habitat features incorporated into the park design include several different types of bird boxes which will support generalist birds. Those suited to supported larger and smaller urban adapted bird species that are considered likely to be found within an urban park environment have been included. Additionally, the park design includes a number of trees and shrubs which will provide more natural nesting habitat choices for birds once the planting has matured after installation.

8. *Incorporation of plant species which are native and/or of known benefit for pollinators and other invertebrates in combination with provision of habitat features to support resting/hibernating invertebrates will contribute to meeting the targets of the National Pollinator Strategy as well as deliver biodiversity net gain.*

As discussed under items 1) and 3) above, the soft landscaping design has incorporated a number of areas of native species-rich grassland which include an abundance of forbs which are considered to provide a variety of nectar opportunities for native invertebrate species. Additionally, some of the ornamental, non-native species within the park are recognised by the Royal Horticultural Society as being 'Plants for Pollinators', and so are considered to provide some benefit to native invertebrates also. Habitat features within the wildscape area including log piles, sunken hibernacula and open scrapes are considered to offer resting and hibernating habitat opportunities. Additionally, a number of the shrubs planted across the site should also provide sheltering opportunities, particularly as they mature.

Condition 71(a), 77(a) and 82(a)

Prior to commencement of Phase H (as detailed in condition 3 above) a Strategy for the how the circularity in all features of material sourcing, design, construction and stewardship will be secured and monitored shall be submitted to an approved in writing by the City Council as Local Planning Authority, with reference to the Phase 1 Sustainability Statement (Application 1) 27 September 2019.

Condition 74(e), 79(e) and 83(e)

Location and design of all street furniture including seating, *lighting*, bins, bollards, handrails, recycling bins, play and exercise equipment, boundary treatments, planters and cycle parking provision: all to include features which fully consider and promote inclusive access;

Refer to Drwg. No: 0345-SEW-00-DR-L-PL7102, PL7105, PL7114 and PL7116.

Proposals for the Play Area are still being developed in consultation with Manchester City Council officers to maximise the diversity and quality of play experience. The proposals described below have therefore have not been finalised and are indicative only. Final details will be submitted in the future.

All other Street Furniture has been finalised and is now being submitted for approval. Lighting is being consider separately as part of Sub-Condition (f).

Proposed Materials and Response to Consultation

The Design and Access Statement (DAS) submitted earlier as part this application, proposed that the street furniture within the park will reflect Mayfield's industrial past and apply a simple palette of materials. As described in Sub-Condition (a), materials will be a mix of Concrete and Stone supplemented by the use of Timber and Steel.

The strategy for the street furniture is to provide a variety of seating opportunities for groups and individuals across the park, from standalone benches to integrated benches as part of low walls. Smaller seating will be found along the quieter secondary routes whilst larger, integrated seating will form part of the main focal areas of the park, such as the seating steps facing onto the May'field' Lawn. Other furniture within the Park such as litter, recycling and dog bins, bollards and water fountains will be evenly distributed throughout the Park.

No specific comments have been elicited from the City or other consultees. Buro Happold have provided guidance as part of Design for Inclusive Access (Sub-Condition (g))_on dimensions, slopes and step dimensions that has into fed into the design and location of the street furniture and play equipment.

Currently there is an on-going series of discussions with SEW and Manchester City Council officers responsible for Play, as to the provision that needs to be made. These discussions have not been completed.

Site Furniture - Seating					
Ref	Description	Size/Dimensions	Product/Finish	Installation	Supplier
SF01	Street Furniture Type 01 Large timber bench	Seating Depth: 1000mm with double backrest Length: Up to 3000mm (longer available)	Product: Solid 12 Bench Finish: FSC Hardwood II - Virgin and galvanised metal fixings and untreated CorTen base Features: Armrests and Quatro 1800mm backrest required	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
SF02	Street Furniture Type 02 Small rustic timber bench	Dimensions: 2 beams (620mm) Length: 2000mm	Product: Drifter Bench Finish: Treated upcycled hardwood timber, galvanised metal fixings and CorTen base Features: Armrest and 1200mm backrest required	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
SF03	Street Furniture Type 03 Wave Bench	Length: 2700mm (3x standard lengths) Form: Crosswise slats with custom radii	Product: Olympic Wave Bench Finish: FSC Hardwood II- Virgin and galvanised metal fixings Features: Integrated full length backrest and arm rests	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
SF04	Street Furniture Type 04 Hardwood seating top with back rest	Length: 2000mm	Product: Solid Top Seats Finish: FSC Hardwood II- Virgin and stainless steel metal fixings Features: Crosswise slat formation with back and armrest	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands

Ref	Description	Size/Dimensions	Product/Finish	Installation	Supplier
SF04	Street Furniture Type 04 Hardwood seating top with back rest	Length: 2000mm	Product: Solid Top Seats Finish: FSC Hardwood II- Virgin and stainless steel metal fixings Features: Crosswise slat formation with back and armrest	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
SF05	Street Furniture Type 05a Small drifter picnic table set	Dimensions: 5000mm length 620mm depth (2 beams)	Product: Drifter Picnic Table Finish: Treated upcycled hardwood timber, galvanised metal fixings and weathered steel base Features: 2 x 5000mm length 1 beam width Drifter benches	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
SF06	Street Furniture Type 06 Multilevel seating	Dimensions: 3000mm length. 1400mm height	Product: Heavy-heavy malaparte Finish: Treated upcycled hardwood timber, galvanised metal fixings and CorTen base	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands
C01	Cycle Stand Type 01 Cycle Stands	Dimensions: 87 x 700mm (inc. anti-damage strip)	Product: CorTen Bicycle Racks Finish: Untreated weathering steel with plastic anti-damage strip	Foundations and fixing to manufacturers details	STREETLIFE BV Head Office streetlife@streetlife.nl Herengracht 36 2312 LD Leiden, The Netherlands



Solid 12 Bench



Drifter Bench



Heavy Heavy Malaparte



Solid Top Seats



Drifter Picnic Table



Olympic Wave Bench

Circularity – STREETLIFE Street Furniture

STREETLIFE BV are a Dutch company with a strong record of manufacturing sustainable street products.

STREETLIFE use FSC (Forest Stewardship Council) timber products. FSC is a global forest certification system which promotes well-managed forests and/or recycled sources. The FSC works with landowners, timber harvesters and hardwood manufacturers to certify that certain timber products originate from FSC certified forests, that are managed to provide environmental and social benefits. STREETLIFE uses FSC Hardwood harvested from sustainably managed forests or recycled sources.

STREETLIFE design their products to be sustainable, by selecting the right designs and materials, that reduces the amount of maintenance required while extending the lifespan of products. They use modularity and smart disassembly so that parts can easily be replaced and natural materials that can be reused or recycled. By standardising applied beam sizes production processes can be optimised and residual waste reduced.

Street Furniture - Other

Ref	Material Description	Size/Dimensions	Finish	Installation	Supplier
W01	Waste Type 01 Waste and Recycling Bin	Dimensions: 1003mm x 505mm x 1320mm	Product: Acceptor 160 Quantity: 2 x 160l Finish: Hot dip galvanised and powder coated. RAL 7021	Foundations and fixing to manufacturers details Integral cigarette bins	Vestre AS Drammensveien 44A, 0271 Oslo, Norway
W02	Waste Type 02 Dog Waste Bin	Dimensions: 504mm x 344mm x 234mm fixed onto in ground post: 895mm height above ground	Product - Metal FIDO 35 Dog Waste Bin, Capacity: 35 litres Finish: Armortec coated steel, Colour: Body - 'Deep Green' Lid - Black	Foundations and fixing to manufacturers details	Glasdon UK Limited Preston New Rd, Blackpool FY4 4UL
F01	Fountain Type 02 Water Fountain	Dimensions: 990mm x 296mm x 100mm	Product: Fuente Drinking Fountain Finish: CorTen steel	Foundations and fixing to manufacturers details	Artform Urban Furniture Adlington Business Park London Road, Adlington, SK10 4NL



Fuente Drinking Fountain



Vestre AS Acceptor 160



Metal FIDO 35 Dog Waste Bin,

Play Equipment

Ref	Material Description	Size/Dimensions	Finish	Installation	Supplier
PL01	Play Equipment 01 Large climbing frame	Clear space: 19.4m x 14.4m	Description: Climbing Frame No.31 Product Code: CF.1.31	Foundations and fixing to manufacturers details	Duncan & Grove 34 Stephenson Way Three Bridges West Sussex RH10 1TN

PL02a	Play Equipment 02a Full length circular concrete tunnel	Internal diameter of tube: 900mm Internal length: 2500mm Overall length: 2608mm	Description: Full length Circular Pipes Product Code: DN 900	Foundations and fixing to structural engineer's details. Refer to drawing 0345-SEW-ZZ-00-DR-L-003602 for design intent.	Stanton Bonna Concrete Ltd Littlewell Lane Stanton-by-Dale Ilkeston Derbyshire DE7 4QW
PL02b	Play Equipment 02b Full length circular concrete tunnel	Internal diameter of tube: 1500mm Internal length: 2500mm Overall length: 2626mm	Description: Full length Circular Pipes Product Code: DN 1500	Foundations and fixing to structural engineer's details. Refer to drawing 0345-SEW-ZZ-00-DR-L-003603 for design intent.	Stanton Bonna Concrete Ltd Littlewell Lane Stanton-by-Dale Ilkeston Derbyshire DE7 4QW
PL03	Play Equipment 03 Telescope	As manufactured	Product: Playarea Telescope With Shatter Proof Viewing Windows Finish: Sand blasted stainless steel construction. Non-coin operated	Telescope to be fixed to a jetty close to the river and Play Area. Foundations and fixing to manufacturers details	Online Playgrounds, Fenland House, Padgetts Road, Christchurch, Wisbech, Cambridgeshire, PE14 9PJ
Ref	Material Description	Size/Dimensions	Finish	Installation	Supplier
PL04	Play Equipment 04 Accessible Swing	Clear space requirement: 8.2m x 3.0m	Description: Swing no.5 accessible Product Code: SW.1.05A	Foundations and fixing to manufacturers details	Duncan & Grove 34 Stephenson Way Three Bridges, West Sussex
PL05	Play Equipment 05 Phones	Dimensions: 350mm x 400mm x 1600mm	Description: Phones Product Code: 9.02700 Phones Material: Concrete	Foundations and fixing to manufacturers details	Timberplay Aizlewood's Mill Nursery Street Sheffield, S3 8GG

PL06	Play Equipment 06 Climbing Lgs	Dimensions: Length range from 2500mm – 3000mm	Description: Climbing Logs Material: Recycled Timber	Positioned within the landscape to enable children to climb on the structures.	Ruskins Trees & Landscapes Ltd The Rose Garden, Warley Street, Great Warley, CM13 3JH
W01	Workout Equipment 01 Running Track	Refer to Hard Landscape Drawings	Description: Running track		
W02	Workout Equipment 02 Pull up station	Clear Space: 3170mm x 2760mm x 2400mm Height Pull up bar: 1500mm	Description: Hexagon Pull Up Station Pro Product: FSW21701-CUSTOM Colour: Black Grey RAL 7021 Features: Alu Cap	Foundations and fixing in ground to manufacturers details	Kompan 21 Roebuck Way, Knowlhill, Milton Keynes, MK5 8HL
W03	Workout Equipment 03 Street workout equipment	Clear Space: 7260mm x 4340mm x 2400mm Height	Description: Street Workout Product: Combi 3 FSW10301 - CUSTOM Colour: Black Grey RAL 7021 Features: Alu Cap	Foundations and fixing in ground to manufacturers details	Kompan 21 Roebuck Way, Knowlhill, Milton Keynes, MK5 8HL

--



Duncan & Grove – Large Climbing Frame



Duncan & Grove – Swing No.5



Stanton Bonna – Concrete Pipes



Play Area – Telescope



TimberPlay Phones



Ruskins Climbing Logs



Kompan – Hexagonal Pull-Up



Kompan Street Workout

Circularity – Play and Exercise Equipment

The Play Area has been designed to focus on both Inclusivity and Circularity as key design principles. The Play Area focuses on 'wild' natural planting, encouraging both sensory stimulation from the children playing, and a demonstration of the process of natural regrowth as part of the reclamation of the Park. The reclamation of the Park has been based on the planting and encouraging the regrowth of native and other wild plants. This is the process of reclamation through natural regenerative process. One of the key concepts for Mayfield Park is 'nature finding its way'. In a sense nature completing the process of regeneration.

Much of the Play Area equipment utilizes Hardwood timbers which has been sourced from sustainably managed forest, covered by the FSC scheme. These include non-native hardwoods, but also Robinia, which is native to Europe. Other Play feature are based on recycled timber logs that have been recycled from a previous use and now become part of the Play Area. Play and Workout Equipment also incorporates metal, rope and other materials that can either be directly reused or recycled in some form. Very little of the materials have a high embodied energy content. Only the concrete used in the footings and the steel fixings would have a higher embodied energy content, and both of these are easily recycled.

The current trend towards more natural feel and the use of simpler, natural materials is much more in line with a circular economy. This trend encourages Play Equipment that is designed with a minimum number of components, often in a modular form, that can be simply assembled and therefore easily broken down for reuse.

The natural feel is also in line with current educational trends towards more creative play. These encourage children to explore, to invent and helps build social skills. Play in this form of Area is designed to develop children's capacity and wellbeing, and will hopefully develop children who in the future will provide a greater input to society and reduce anti-social or destructive behaviour. The Play Area is designed to allow the uses and layout to evolve with time as theories of Play develop. Play features are all provided with simple shallow foundations or connections which allow them to be moved and repositioned or changed as children's play ideas develop. It will also allow for the local community to more readily have an input into the future of the Play Area and the rest of the Park. The use of simple natural or recycled materials, modular design and simple connections and fixings, all facilitates this circularity.

Circularity is also encouraged as part of Mayfield Park site furniture by the inclusion of recycling bins. Three bins each clearly marked, each for a different type of waste. These bins will be emptied as part of the regular Park management operations. Additional to these are Dog waste bins which will be emptied as part of the same management operation.

Site Furniture - Seating

Ref	Material Description	Size/Dimensions	Finish	Installation	Supplier
B01	Bollard Type 01 Static Bollard	Dimensions: Height above ground: 980mm. Sectional size: 219mm	Product: SP400 Shallow Mount Bollard Finish: Black Grey RAL 7021 PAS 68: PAS 68: V/7500(N2)/48/90:0/0	Foundations and fixing to manufacturers details PAS68 rating and following advice from Manchester Counter Terrorism Security Advisor.	ATG Access Ltd CoBaCo House North Florida Road Haydock Industrial Estate Haydock WA11 9TP
B02	Bollard Type 02 Retractable Bollard	Dimensions: Height above ground: 998mm Sectional size: 209mm	Product: SP400 Manually Retractable Bollard with Powder Coated Sleeve. Finish: Black Grey RAL 7021 PAS 68: V/7500(N2)/48/90:0/0 and V/7500(N2)/64/90:2.3/2.7	Foundations and fixing to manufacturers details PAS68 rating and following advice from Manchester Counter Terrorism Security Advisor.	ATG Access Ltd CoBaCo House North Florida Road Haydock Industrial Estate Haydock, WA11 9TP
	Temporary Weld Mesh Boundary Fencing	Height: 1430mm Panel Width: 2506mm Mesh: 200mm x 50mm	Description: Weld Mesh Fencing Product: DULOK - LITE, Double Wire Panel System Colour: Black Grey RAL 7021 Features: Post Caps	Foundations and fixing in ground to manufacturers details	CLD Fencing Systems, Unit 11, Springvale Business Centre, Millbuck Way, Sandbach, Cheshire, CW11 3HY

Circularity – Bollards and Wire Mesh Fence

Both Bollards, the Weld Mesh Fencing and the concrete footings that support both are easily recyclable. The bollards and weld mesh fencing are made of steel which is widely commercially recyclable. The bollards include substantial concrete footings that would restrict their reuse as PAS rated bollards, however there would be much less restriction reusing it as a fixed bollard or possibly incorporating into the Play Area as some form of play feature. The concrete from the footings is now regularly recycled by crushing to produce aggregates for future construction.



ATG Access - SP400 Shallow Mount Bollard



CLD Fencing Systems - DULOK – LITE Weld Mesh Fencing (note height proposed is lower)

Condition 74(f), 79(f) and 83(f)

Lighting around the site;

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102 and Lighting Drwg. No: 4266-05-001 to 021

Proposed Materials and Response to Consultation

The Design and Access Statement (DAS) submitted earlier as part this application, set out that lighting proposals should provide good visual guidance, support visibility for pedestrians and be part of the wider site security which will also include CCTV and Park staff.

The detail proposals for lighting were developed subsequent to the DAS and now described in this Sub-Condition.

Buro Happold ecologist have had an input to the lighting proposals particularly in relation to bats and the need to reduce lights in certain circumstances.



Lighting Levels on Pedestrian Routes

Relevant Lighting Codes and Guidelines:

BS5489 - BSEN13201-02

BS 5489-1-2003: Road and Public Amenity Lighting

ILE Guidance for the Reduction of Light Pollution (2015)

ILE The Outdoor Lighting Guide (2005)

ILP Guidance, Bats and Artificial Lighting in the UK

CIBSE Fact File 7: Environmental Considerations for Exterior Lighting (2003)

SLL LG6 :The Exterior Environment (1992)

CIE136: Guide to the lighting of Urban Areas (2000)

Horizontal illuminance 200 lux min. maintained at working level, Uniformity of 0.4.

Condition 71(g), 77(g) and 82(g)

Details of how the design has minimised any potential hazards to the use of the public realm for the safe use of disabled people to include details of: designated routes for pedestrians; cyclists and vehicles; management of cyclists ; kerb edges; crossing and controlled crossing design and location; location of drop kerbs (including level areas between grass and hardstanding); location of rumble strips; location of raised crossings; design and location of any pop up power supplies; location of on site vehicle parking and drop off points; management of mortar cycle parking; provision of clear routes to ensure unrestricted access for all;

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102 and PL7109
Pop-Up Power Supplies – Refer to Drwg. No: PL7118.

Reference is made in this Section to a Security Office that will be used initially as a base for the management of Park. This is a temporary facility until a permanent solution can be found. Revised proposals will be submitted in the future.

Proposed Access and Response to Consultation

The Design Access Statement (DAS), proposes that Mayfield Park should be used and accessed by all members of the local community as well as workers and residents in adjacent plot developments. The public and highway spaces should support the movement of pedestrians and cyclists whilst minimising the impacts of motorised vehicles.

A key Design Criteria is that the Park should be Inclusive and be able to be used safely, easily and with dignity by all regardless of disability, age, gender, culture or ethnicity. The Park is intended to create inclusive spaces for all age groups and people whether this is through inclusive level access points, play, access to nature, by removing barriers and by being realistic, offering more than one solution to help balance everyone's needs.

This section sets out how Inclusive Access should be considered and promoted, and specifically how design for Inclusive Access can be achieved in general areas within the Park and in the Play Area. It also describes Designated Routes for Pedestrians and Cyclists, and how Pedestrian and Cycle movement will be managed.

At the time of the DAS, Manchester City Council Access officer was initially consulted. The officer commented on Parking provision, Signage and Wayfinding, the provision of Toilets and the layout of the Wildscape Area for disabled people. These comments have been considered and either incorporated, such as with parking provision, toilets and the layout of the Wildscape or are subject to future proposals with Signage and Wayfinding

Consideration and promotion of Inclusive access

The aspiration for Mayfield is to create one unique piece of public realm offering a multi-layered open space. Mayfield Park is the core of the scheme and provides the designated 6 acre area of publicly accessible greenspace. The framework's aspiration is to create an Inclusive public park providing access to nature for all kinds of age groups and people. It will be accessible to all for a variety of uses.

Creating inclusive and accessible environments starts with the simple premise that inclusion is embedded in the design process to remove barriers and continuously challenge and interrogate the design. Our strategic approach to access, inclusion and delivering a scheme that exceeds minimum requirements, means that in developing Mayfield, people will be able to use the scheme safely, with dignity, comfort, convenience and confidence.

The goal of Mayfield Park is to ensure that everyone has access to the benefits of the Park and its recreation, especially marginalized groups, including those with physical and cognitive disabilities, racial and ethnic minorities, the LGBTQ+ community, and BAME communities. Inclusive Parks and Public Spaces are one of the core features of a vibrant community, are typically well used and perceived as being for everyone in that community. An inclusive Park, meets not only the physical requirements of those using the Park, whether they are able bodied or disabled, but is attractive to a wide age group, responsive to the diverse cultural interests of the varied communities and is safe and welcoming to those who might feel threatened in other public spaces.

Consultation with the local communities revealed a desire for a new Park, that was a 'bit more wild', less restrictive in its uses and not just 'lawns'. Concerns were also raised about connectivity of the site to the rest of the City and the effects of flooding. The Park has been designed to have of being 'more wild' and natural, less restrictive in its uses and as a place for a diverse range of public events. As with all good Parks, the plan is flexible enough to allow the uses and preferences of the local community to evolve.

Design for Inclusive Access

Mayfield Park is to provide step-free access to all parts of the park, allowing users of all ages and ability to gain independent access to use the park and its facilities. Access routes provided throughout the park exceed widths of 2m or greater, meeting the DFA 2. Where there are localised reductions in circulation widths these are a minimum of 1.8m wide and over a short distance. There is one location, the Steel pipe bridge which provides an access width of 1200mm over a distance of 14m. The bridge is to be a feature within the landscape and does not form a primary circulation route around the park. Clear sight lines are provided at both sides of the reused structure.

Where gently grading routes are provided they are to be between 1:60 -1:21 and provide level landings for every 500mm of rise, meeting and DFA 2 and BS 8300-1. Where crossfalls are provided throughout the park they are 1:50 or less steep, meeting the requirements of the DFA 2 and BS 8300-1.

Careful consideration has been made to ensure street furniture and other elements are located outside of access routes to avoid creating an obstruction for users. For example, waste bins have been positioned clear of circulation routes. Where bollards are provided at the south western edge of the site, bollards will be designed to meet DFA 2 and be at least 1000mm high and contrast visually with their surroundings. A minimum access route between columns of 1200mm is to be provided as set out within BS 8300-1. Throughout Mayfield Park the seating strategy has been designed to provide frequent resting places at intervals of no more than 50m, through the incorporation of seating and rest areas meeting DFA 2 and BS 8300-1.

Due to the change in level across the site, three stepped routes have been incorporated into the landscape. Where stepped routes are located they have step-free routes located directly adjacent to them. External steps have been designed to meet DFA 2 with stair widths a minimum of 1800mm and with risers of 150mm and

tread depths of 280mm. The step nosing's are to be distinguishable by visual contrast using a nickel bronze finish. All stair nosing's will provide a contrasting nosing 55mm deep on the tread and 55mm deep of the riser, meeting DFA 2 and BS 8300-1. Where stairs are provided they are to have a continuous handrail to both sides of the stair and where the stair is greater than 1800mm in width an additional handrail/handrails is to be provided dividing the stair into channels, with no channel providing an unobstructed width less than 1000mm, meeting the requirements of DFA 2. The handrails are to extend a 450mm at the top and bottom of flights. The design of handrails is to meet diagram 9 of the DFA 2.

Inclusivity and the Play Area

The Play Area is being designed to be inclusive and accessible, providing opportunities for people with a variety of impairments and designed with the aspiration to avoid segregation and separation. The play area has been designed to meet DFA 2 section 28 and BS 8300-1 Section 12.6.

The Play Area have been designed with play features, planting and paths to encourage inclusive play. Inclusive Play typically involves a design approach based on 5 principles – the inclusion of multi-sensory elements; good access; play for all; the opportunity for calm and a variety of social environments. The multi-sensory elements includes sensory experience of colour, texture and smell in the planting scheme as well as in play features that encourage Auditory experience (Play Equipment 05 – Phones); Proprioceptive experience (Play Equipment 01 and 06 – Climbing features), Tactile experience (Planting, Rocks and Large Climbing Frame), Vestibular experience (Play Equipment 04 and 06 – Swings and Balancing) and Visual (Planting and the Telescope). Good access is encouraged by direct paths and clear open access for wheelchairs and for those with movement difficulty.

The Play Area provides play for a wide variety of abilities and ages, features include Play Equipment 02 - Tunnels, Equipment 04 – Accessible Swings and the Workout Equipment 03 - Street workout. To meet the DFA 2 where tunnels are provided they are required to be wide enough to accommodate a wheelchair user.

The opportunity for calm, a place for a child to play by themselves or simply be quiet, are included in the Tunnels and seats around the play area. Social environments are provided in Large Climbing Feature and in the planting and mounds that encourages exploration and imaginative play.

Designated routes for Pedestrians and Cyclists

A clear axial route around the Park will create a clearly logical route to the different elements and off this route there will be smaller, more winding, routes branching off this where people meander, rest and enjoy the Park. These will also be generous and exceed the width of 1.8m recommended as a minimum in BS 8300-1:2018. The main perimeter footpaths will all be very generous and often exceed 4m in width providing space for multiple users and exceeding the requirements of DfA2 and BS 8300-1:2018. This route will have a direct sightline into the heart of the Park. The terracing of the level changes will incorporate plenty of seating opportunities.

The provision of cycle infrastructure within the Park will support inclusive cycling, within short-stay parking within the public realm providing options for non-standard cycles such as trike or adapted bikes through the use of suitably spaced Sheffield type stands along the southern edge of the park.

Management of Pedestrian and Cycle Movement

The success of the Park will hinge upon the success of the public realm and the ability to 'stitch' the levels of the site together in an inclusive manner. All of the routes have been designed to will comply with Manchester's City Council's 'Design for Access 2' as well as the British Standard BS 8300-1:2018 'Design of an accessible and inclusive environment Part 1: External Environments – Code of Practice'.

Cycle permeability through the site will be via an internal cycle routes to the South of Mayfield Park, creating an off-street cycle route along the edge of the Park, this is not intended to be a commuter cycle route. To discourage commuter cycling within the park cycle parking for visitors has been located around the edges of the Park.

Currently the Management of the Park will be the responsibility of a Management Company who will provide both a management role and supervise various activities on site such as security, Pedestrian and Cycle movement, how the Park is used to avoid the misuse of the Park, and general and landscape maintenance. The full role and duties of this management company will be finalised at its conception. A Security office with maintenance yard and toilets will be constructed at the north east corner of the Play Area with vehicle access of Hoyle Street. The office is equipped with CCTV monitors allowing continual monitoring of the Park whilst it is open. It is currently envisaged that a Park Manager will be appointed to oversee the day to day operations of the Park.

Designated routes for Vehicles

A. Maintenance and Utility Vehicle

The routes shown indicate the vehicle route for a ClubCar Utility CarryAll 700. This is a type of electric vehicle that will be used for maintenance and other Management operations around the Park. It is intended to be part of the Management Companies resources.

The vehicle has a speed range of 5–17 mph. The vehicle will only be used during the day, though it is equipped with lights, horn and other safety equipment. The vehicle is not intended to be road legal and will not leave the site. As an electric powered vehicle, it will produce zero emissions, be substantially cheaper to operate and easier, to maintain, with fewer moving parts.

The vehicle will be parked by the Security offices in the small compound off Hoyle Street. The compound is provided with an electric charging point. Maintenance of the vehicle is currently intended to be part of the manufacturer's sale or rent package.

B. Maintenance and Emergency Access for the Environment Agency

The River Medlock runs through Mayfield Park. The river has a history of flooding and affecting adjacent land. The Park has been designed with a 'Wildscape' area that will be allowed to flood, providing important flood storage capacity.

The River has a designated Risk Management Authority that have a statutory right to gain access to the edge of the River to carry out flood risk management work and maintenance. The Southern Walkway will be used as an access route to the River Medlock.

Condition 71(h), 77(h) and 82(h)

Details of temporary landscaping and boundaries to adjacent plots in line with the phasing within Temporary Treatment Plans within section 6.12 of the Masterplan Design and Access Statement by Studio Egret West.

The development of the different phases of this Application will require a number of temporary boundary and area treatments. The drawing below, illustrates location of temporary boundaries and the areas where temporary finishes are required. All areas in use outside the Application boundary will be accessed via existing entrances, public roads and pathways.

Refer to Drwg. No: 0345-SEW-ZZ-ZZ-00-DR-L-PL7102 and PL7108

Condition 71(i), 77(i) and 82(i)

The detailed scheme shall demonstrate adherence to the relevant sections of DFA2 and MCC-recommended guidance in relation to Age Friendly Public Realm including Age-Friendly Seating and Sense of Place and the Alternative Age-Friendly Handbook, and shall then be submitted and approved in writing by the City Council as local planning authority in accordance with the programme as agreed above.

Refer to Drwg. No: 0345-SEW-ZZ-ZZ-00-DR-L-PL7102, PL7110, PL7111, PL7112, PL7113

Proposed Age Friendly Public Realm and Response to Consultation

The Design Access Statement (DAS), proposes that Mayfield Park should be inclusive and be able to be used safely, easily and with dignity by all regardless of disability, age, gender, culture or ethnicity. The Park is intended to create inclusive spaces for all age groups and levels of mobility or disability.

Consultation has taken place with Manchester City Councils Access officer, resulting in a number of changes and modifications to the design. The Access officers comments are below with SEW response.

Comments by Manchester City Council Access officer with Response from SEW, Buro Happold & Studio Fractal

No.	Access Officer Questions	SEW Response
1.0	Hard Materials	
1.1	1. Self-binding gravel – will this create a smooth surface? 2. Galvanised Steel Mesh Deck – will this have a slip resistant surface? 3. Play Safety Surface- will this be a loose material that can spill out of the play area or needs to be replenished regularly? 4. Expanded Mesh – will this have a slip resistance surface? 5. Resin bound gravel – will this create a smooth surface? 6. Exposed aggregate in situ reinforced concrete surface – will the aggregate create a relatively smooth surface for wheelchairs and that will not create a trip/fall hazard for disabled and older people?	1. Yes a smooth stable surface will be created. Particle size 6mm-0mm-Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge 2. Proposed Slip/ Skid resistance: PTV to BS 7976-2 of 45 wet/ dry 3. Play surface to be a solid bound rubber playground mulch system called TigerMulch 4. Proposed Slip/ Skid resistance: PTV to BS 7976-2 of 45 wet/ dry 5. Yes a smooth stable surface will be created. Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge 6. Concrete paving is subject to test sample panels to be created. Slip/Skid resistance and smoothness will be checked as well as overall aesthetic appearance. Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge

2.0	Furniture	
2.1	Cycle Hoops 1. Tactile warning around cycle hoops 2. The location of cycle hoops near to Baring Street are very close to the proposed seating area, lighting column, security bollards, recycling and dog waste bins. Will they be located far enough away not to cause congestion/congestion and a hazard for disabled people; this could be an issue for disabled people with a visual impairment? 3. Will the cycle hoops be large enough to accommodate the larger cycles used by disabled people? 4. Will the cycle hoops be suitable for use by motorcycles?	1. No tactile paving around cycle stands 2. There is adequate distance between each piece of street furniture and these have been located away from any direct routes or footpaths. Please refer to drawing latest General Arrangements and Street Furniture GA 0345-SEW-ZZ-00-DR-L-PL7102, PL7105 3. Cycle stands at both Baring Street and Hoyle Street have a clear 1000mm+ distance at either end to accommodate larger bicycles used by disabled people 4. Motorcycles will not be encouraged to use cycle stands. This will be monitored as part of the site security and management
2.2	Design of drinking fountain 1. More information on the design of drinking fountain; which should also be accessible for disabled people and children to use 2. Tactile warning around drinking fountain 3. How will hygiene be maintained to avoid public health issues?	1. Please refer to street furniture Schedule for further information. Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge 2. Water foundations are set back from main footpath routes so no tactile paving has been proposed 3. Hygiene will be maintained through the management strategy within the park.
2.3	Seating 1. Required seating of various heights – more detailed design information required? 2. Seating distribution – it would be beneficial to have picnic table areas to the south side of the site for disabled people with neuro-diverse impairments that are better in quieter areas. 3. Bleachers type seating – more information is required regarding design, height and protection from falling measures including a handrail. 4. More detail would be required regarding the design of armrests to bench seating.	1. Please refer to General Arrangements level information – Drawing 0345-SEW-ZZ-00-DR-L-PL7105, PL7110, PL7111, PL7112, PL7113 & 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge 2. Picnic tables have been located around the Play Yard space. Variety of seating opportunities have been created throughout the park in a range of spaces including quieter areas. 3. Please refer to General Arrangements level information – Drawing 0345-SEW-ZZ-00-DR-L-P7L110, PL7111, PL7112, PL7113 4. Please refer to Planning discharge document for further information on arm and back rests. Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge

	5. Limited information is provided regarding the seating steps adjacent to The Depot. 6. Dual-aspect seating around Mayfield lawn would allow for views to the river and the lawn.	5. There is no seating steps proposed next to the Depot within this Phase of works. A terraced lawn space is proposed. Please refer to General Arrangements level information – Drawing 0345-SEW-ZZ-00-DR-L-PL7110, PL7111, PL7112, PL7113 6. Variety of seating opportunities have been created around the Mayfield lawn space. Please refer to Street Furniture GA – Drawing 0345-SEW-ZZ-00-DR-L-PL7105
2.4	Recycling and dog waste bins 1. More detail required for alternative options for recycling and dog waste bins to ensure they are usable by disabled people. 2. Additional bins should be added to the northern aspect of the Wildspace as there is seating; but a long distance to get to the nearest recycling and dog waste bins	1. Please refer to Planning discharge document for further information. Refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge 2. We wanted to limit the street furniture in this area and whichever way you leave this space you will pass a number of bins
3.0	Play Area	
3.1	1. More telescopes required to view roosts and habitat boxes from various vantage points. 2. Wheelchair Accessible play equipment a. Concrete phones should have dual height to allow for children in wheelchairs to use it. b. Stepping slabs - could an additional route be provided of continuous slabs with alternating colours? This would allow disabled children to participate without the risk of falling on uneven surfaces. c. Circular pipes should be large enough to allow a wheelchair through it. d. Options for a wheelchair sprinting track should be included. e. Query the location of sprinting track? It bi-sects level access routes to the Play Yard and could be hazard for disabled people with a visual impairment.	1. We feel there is the right balance of play and activation within this area of the park 2. Wheelchair Accessible play equipment a. Phones are limited to 1 height. There could be a step introduced if this was deemed suitable b. Stepping slabs and paving between them is all level. Stepping slabs are just made of a different material to give the effect c. 1 circular pipe is large enough to provide wheelchair access d. Sprinting track can be used by all and is just a painted track on the temporary asphalt surface e. Sprinting track is informal and will only be suitable when the area is clear or a limited area will be used

4.0	Access and Circulation	
4.1	1. There are only two smooth routes to the play area (Hoyle Street entrance) but it is not wheelchair accessible. 2. The other route requires crossing the sprinting track; which could be hazardous particularly for disabled people with a visual impairment or those unable to move quickly. 3. The alternative route would be over the rubber play safety surface; which would cause traction with wheelchairs.	1. Hoyle Street entrance provides both an accessible and stepped route into the play yard. Please refer to General Arrangements level information - Drawing 0345-SEW-ZZ-00-DR-L-PL7110, PL7111, PL7112, PL7113 2. Running track is an informal feature and will not provide a barrier to access the pay area from the main park 3. All routes round the play area are smooth and compliant. Routes within the play area are over Rubber Mulch that is a solid bound smooth surface. Please refer to General Arrangements level information – Drawing 0345-SEW-ZZ-00-DR-L-PL7110, PL7111, PL7112, PL7113
5.0	Park Gates	
5.1	1. I am very concerned that access to the park is via automated gates as there is potential for mechanical failure that could leave the gates heavy to open and close; which would be difficult for many disabled people. 2. Have manual gates that are held open during the park operation times and closed at the end of the day been considered? Or will the park be open 24/7? 3. I would expect to see a clear width of 1800mm for the pedestrian gate. 4. Will Gate types 01 and 03 have an audible sounder to alert disabled people with a visual impairment that there is a moving gate and vehicles in their vicinity?	1. Park gate strategy to be confirmed. Note your concerns around automated systems 2. Park is to be opened dawn to dusk during the first Phase 3. Gates have clear 1800mm opening. 4. Noted that pedestrian gates should have an audible sounder if they are to be used during opening hours
6.0	Please confirm that Wildscape Walk and Play Island have now become Wildscape and Play Yard?	Confirmed
7.0	Bollards	
7.1	1. The bollards should have a contrast banding 50mm deep at	1. Please refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning

	the top - The mount of the removable bollard should be flush with the ground and not create a trip or fall hazard for disabled people when exposed. - Spacing between bollards should allow access for larger (outdoor) mobility scooters and electric wheelchairs - The spacing should not cause a hazard for disabled people with a visual impairment.	Condition Discharge - Please refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge - Space between bollards is limited by the Counter Terrorism Unit guidance of 1200mm - Noted
8.0	Lighting	
8.1	Lighting Columns - The Lighting plan appears to indicate that there will be more lighting on the Depot side of the site (Northern Primary path), despite the fact the Poulton side (Southern primary path) will also be a primary route for crossing the park, and could be a slightly shorter route between Baring Street and Hoyle Street; therefore it would be easier for disabled people to move through the park on this route. Having lower lighting levels will increase the feeling of vulnerability. - The single head lighting columns appear to create pools of light and dark; which would be problematic for some disabled people particularly people with a visual impairment. Would the be bright enough for CCTV coverage?	Lighting Consultant Response: - I believe the additional lighting being are referring to is façade lighting to the depot building, not to the public realm. - The pathways are illuminated to the same levels along the northern and southern primary routes, both good level of uniformity. Please also note there will be 'borrowed light from the Mancunian Way on the southern side which will increase the perception of light in this area. - The single headed luminaire will provide good levels of light and lit uniformity and not the light and dark pools, this maybe a reaction to the lighting plan. - The lighting has been developed to meet all CCTV requirements along the routes.
8.2	Bollards The lighting bollards should have a contrasting band at the top and the light should be visible from all sides.	Lighting Consultant Response: The proposal is for the lighting bollards to have a 180deg distribution so as to light the pathways and reduce the quantity of spill light into the wildlife and water conservation areas. The bollards have been positioned to provide a consistent lit route and are primarily positioned along onside of the pathway to aid wayfinding.

8.3	Handrails Some concerns have been expressed by disabled people's groups that handrails with integrated lighting can create glare or that there is not enough lighting to stepped areas. More details would be required.	Lighting Consultant Response: The handrail is both positioned within the channel of the handrail to help mask / cut off unwanted glare and the luminaires are specified with a diffuser to reduce glare. The steps have been calculated to ensure the spread of light is projected onto the steps as required. In some location where this is not possible handrail lighting on both sides of the stairs have been allowed for. Details are included with Studio Fractal pack.
8.4	Façade Lighting There does not seem to be any façade lighting around the maintenance yard. Lighting would increase the natural surveillance and reduce the risks for disabled people working there.	Security lighting to be proposed as part of maintenance yard proposals
8.5	Bridges Lighting It is good that the bridges are illuminated, as it increases a sense of confidence and safety.	Lighting Consultant Response: Agreed
8.6	Northern Bridge Option 2 The low-level fittings wash the floor with light; but the illustrations appear to show a section in the centre that will remain unlit. This a potential hazard for disabled people with a visual impairment as this area could be misread as a hole or step causing trip and fall hazards. It would be advisable that the light sources met in the centre of the bridge.	Lighting Consultant Response: The light will project light across the space, and whilst the light will drop off in terms of intensity at floor level (brighter towards the outer edges) the lighting calculations demonstrate the horizontal and vertical illumination will successfully light a person in any position along the bridge.
8.7	Culvert Bridge - The illumination of the Corten fins and the base of the integrated bench does appear striking. However, it could become a hazard for disabled people with a visual impairment or those looking to use the handrail as support. As the illustration shows the bench becomes invisible and therefore creates a trip and fall hazard for those reaching for the handrail or misreading the space as a step or hole. - Additionally, the light does not spread to the centre of the bridge creating another dark potentially hazardous spot.	Lighting Consultant Response: - Please note the bounce of the light off the corten fins will throw light onto the bench surface, this will not be in darkness. Also the light from the opposite side of the bridge will be projecting across the bridge and lighting the bench / seat. - The light will project light across the space, and whilst the light will drop off in terms of intensity at floor level (brighter towards the outer edges) the lighting calculations demonstrate the horizontal and vertical illumination will successfully light a person in any position along the bridge, as well as the bench / corten fins opposite. - There is no handrail along the Culvert Bridge.

8.8	Steel Bridges 1. The layered lighting levels applied horizontally can create the impression that there are steps; which is hazardous for disabled people especially people with a visual impairment who may trip or fall trying to step over the illusion.	Lighting Consultant Response: 1. Lighting will clearly illustrate where the bridge surface is and then the spot lights will be purely decorative for emphasise the structure.
8.9	Walkway 1. The low-level skirt lighting creates a shadow down the centre of the walkway. This can be misread by disabled people with a visual impairment as a step/hole; and trying to avoid it could trip or fall. The lighting should meet in the centre to avoid hazards.	Lighting Consultant Response: 1. The light will project light across the space, and whilst the light will drop off in terms of intensity at floor level (brighter towards the outer edges) the lighting calculations demonstrate the horizontal and vertical illumination will successfully light the floor and importantly a person in any position along the bridge.
9.0	Event Power 1. It is good to note that event power supplies will be incorporated into lighting columns, designated bollards and low-level power outlet (located within planting). 1. During events any additional cables should be carefully covered in order not to create a trip/fall hazard or preventing access by wheelchair users.	1. Additional cabling covering will be picked up within the Event Management Strategy
9.1	Technical Requirements 1. Fittings should not interrupt the line-of-walk, this is of importance to disabled people with a visual impairment and long cane users.	1. Noted

No.	Access Officer Questions	Buro Happold Response
10.0	Park Gates I would recommend the removal of push button automation on the gates, and they be held open manually opened and closed each day.	Noted. Strategy to be confirmed
11.0	External Steps - Please confirm that that proposed nickel bronze finished nosing will contrast with the concrete steps. - The design of handrails should ensure that the end turns onto itself or to the upright to prevent catching on garments or equipment used by disabled people. - Wrap-around handrails are a useful addition where a staircase is wide enough to need to be divided by a central handrail.	- Confirmed they will contrast. Please refer to 0345-SEW-ZZ-ZZ-SH-L-PL1100_Planning Condition Discharge - Please refer to Typical Stair Detail – Drawing 0345-SEW-ZZ-00-DR-L-PL3208 - Note
12.0	Sanitary Provision More information is required on the location and design of the toilet blocks; consideration should also be given to the needs of people with other protected characteristics.	Changing places to be added to the toilet block
13.0	Inclusive Play More information is required on how inclusive play will be achieved in the Play Yard.	See previous comments
14.0	Appendix A - In looking at the size ranges of children’s wheelchairs - They can vary from a width of 475-620 x length 830-1100mm. With young adolescents’ ranges can become the equivalent of dimensions used by adults.	See previous comments

15.0	Added value 1. Dual-aspect seating around Mayfield lawn would allow for views to the river and the lawn. 2. It would be beneficial to have an additional suite of bins in the Wildscape area; otherwise there is a long distance for disabled people to get to a bin. 3. Having the recycling bins and dog waste bins close to each other minimises the risk of cross-contamination. 4. Access to the future toilets should be located on a smooth surface. 5. Hoyle Street entrance should have handrails to both sides of the steps and should extend beyond the last step. 6. All light sources should consider how they aid the effectiveness of the CCTV equipment.	See previous comments
------	---	-----------------------

Consideration and Promotion of Inclusive access (including older and disabled people)

The design of Mayfield Park has put the consideration of Inclusive Access for all age groups and for those with a wide range of disabilities as a key design parameter. All areas of paving, whatever its function has been designed to requirements of Manchester City Council's Design for Access (DFA) 2 guidance and the latest good practice guidance of BS 8300-1:2018 'Design of an accessible and inclusive built environment' Part 1: External environment – Code of practice.

Mayfield Park is to provide step-free access to all parts of the park, allowing users of all ages and ability to gain independent access to use the park and its facilities. Access routes provided throughout the park exceed widths of 2m or greater, meeting the DFA 2. Where there are localised reductions in circulation widths these are a minimum of 1.8m wide and over a short distance. Where gently grading routes are provided they are to be between 1:60 -1:21 and provide level landings for every 500mm of rise, meeting DFA 2 and BS 8300-1. Where crossfalls are provided throughout the park they are 1:50 or less steep, meeting the requirements of the DFA 2 and BS 8300-1.

Due to the change in level across the site, four stepped routes have been incorporated into the landscape. Where stepped routes are located they have step-free routes located directly adjacent to them. External steps have been designed to meet DFA 2 with stair widths a minimum of 1800mm and with risers of 150mm and tread depths of 280mm. The step nosing's are to be distinguishable by visual contrast using a nickel bronze finish. All stair nosing's will provide a contrasting nosing 55mm deep on the tread and 55mm deep of the riser, meeting DFA 2 and BS 8300-1. Where stairs are provided they are to have a continuous handrail to both sides of the stair and where the stair is greater than 1800mm in width an additional handrail/handrails is to be provided dividing the stair into channels, with no channel providing an unobstructed width less than 1000mm, meeting the requirements of DFA 2. The handrails are to extend a 450mm at the top and bottom of flights.

Corduroy hazard warning paving is to be provided at the top and bottom of all stairs meeting the DFA 2. Corduroy paving is to be positioned 400mm from the nosing of the stairs and extend for 800mm, meeting BS 8300-1 Figure 11.

Access routes throughout the park are to have a firm, slip-resistant and reasonably smooth surface, meeting the requirements of DFA 2 and BS 8300-1. Joints between paving are to be designed to meet DFA 2 section 3.1 and are to be flush with the surface. If this is not feasible, the joints are to be no wider than 10mm (completely filled) or no wider than 5mm if recessed.

Drainage channels are to be set flush with the surrounding surface and slots in gratings are to not be greater than 13mm and set at right angles to the dominant line of travel. Where circular holes are proposed these are to not have a diameter more than 18mm, meeting DFA 2 and BS 8300-1.

Condition 67

Prior to commencement of Phase F (as detailed in condition 3 above) a landscape and ecological management plan, including long-term design objectives, management responsibilities and maintenance schedules for all landscaped areas (except privately owned domestic gardens), shall be submitted to, and approved in writing by, the local planning authority. The landscape and ecological management plan shall be carried out as approved and any subsequent variations shall be agreed in writing by the local planning authority. The scheme shall include the following elements:- details of maintenance regimes details of new grassland and woodland habitats created in riparian park, including planting schedules.- details of treatment of restored River Medlock channel and corridor.- details of management responsibilities.

Refer to Drwg. No: 0345-SEW-ZZ-00-DR-L-PL7102, PL7123 and PL7125.

Reference is made in this Section to a Security Office that will be used initially as a base for the management of Park. This is a temporary facility until a permanent solution can be found. Revised proposals will be submitted in the future.

Landscape and Ecological Management Plan - Long-term Design Objectives

Mayfield Park should provide a unique, world class statement park that celebrates the site's post-industrial character and locality with supporting public realm and strong infrastructure connections.

The Park should be large and green, soft rather than hard and support a sequence of spaces with different character areas and curated programmed uses that invite visitors on a journey of discovery. This Phase of development should deliver 6 acres of park space which can be used and accessed by all members of the local community as well as workers and residents in adjacent plot developments.

Management Responsibilities

The park is proposed to be controlled by a management company, funded by a service charge levied on the entire scheme. The company will control, service and maintain the park and public realm. This is to ensure that the entire scheme is maintained to a high standard, function as a public space and considerate to the priorities of habitat creation and biodiversity. Currently it is envisaged that a Park Manager will be appointed to oversee the overall management of the Park and supervising the day to day maintenance activities. The Park maintenance is currently to be based in the Security Office and adjacent compound.

Management Objectives

Key objectives for maintenance and management are:

- To facilitate an efficient and sustainable landscape management and maintenance regime through the lifetime of the development;
- To provide a safe, high quality external environment for all site users;
- To maintain a robust and visually appealing landscape setting;
- To ensure that the landscape develops in a manner commensurate with the original design intentions;
- To ensure the successful establishment and continued growth through to maturity of the trees and other planting identified in the Landscape Proposals;
- To function and operate as fully accessible public park

Maintenance Schedules for all Landscaped Areas

A successful maintenance plan is comprised of two components; an establishment phase for the first 5 years, followed by long term, ongoing maintenance.

1 Tree Planting Maintenance: All Areas

Establishment Maintenance

To ensure the successful establishment of trees and planting, operations stated on the following pages are necessary for a minimum of 24 months after Practical Completion of each phase of the Park. After Final Completion has been certified, the appointed Landscape Contractor /Estate Management Company will be required to carry out these operations for a minimum period of 5 years.

- Maintenance of a weed free area, 1.5m out from the base of semi-mature each tree;
- Watering to ensure moisture levels are maintained appropriately for optimum growth;
- Application of a slow release fertiliser around the base of all trees to ensure soil fertility is maintained;
- The removal of any vandalised, unhealthy or dead specimens as soon as possible and replacement with trees of the same size to those adjacent, during the next available planting season;
- Inspection, adjustment and maintenance of anchors, stakes and ties;
- Removal of any items that have been attached to trees
- Re-firming of trees after strong winds, frost heave or other disturbances;
- Pruning to remove dead, dying or diseased wood during dormant season;
- Pollarding Willows once reached desired height and maturity and to standard horticultural standards;
- Remove suckers and formatively prune if necessary to achieve natural shape, healthy growth and to favour a single leader; and
- Topping up mulch at the end of the rectification period to achieve a either 50 or 75mm layer.

Ongoing Maintenance

Following the establishment maintenance period, it is recommended that the Estate Management Company undertake the relevant operations listed in the establishment period. Mulching and fertilising are not necessary. With suitably drought tolerant species, watering is only required in periods of extreme drought.

Maintenance Operation	Frequency	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1.5m weed control around base of tree	4xAnnually												
Re-firming of trees	As required												
Apply slow release fertiliser around base of tree	Annually												
Removal of items attached to trees	As required												
Pruning to remove dead, dying or diseased wood	As required												
Replace damaged/ vandalised/unhealthy stock	Annually												
Water to ensure moisture levels are appropriate	As required												
Pollarding Willows (once reached desired height and maturity)													
Top up mulch	1xAnnually												

2 Shrub and Herbaceous Maintenance: Planting Type: PC01, PC03, PC08, PC09, PC10, PC11, PC12 and PC12.

Establishment Maintenance

To ensure the successful establishment of Shrub and Herbaceous, the operations stated on the following pages are necessary for a minimum of 24 months after Practical Completion of each phase of the Park. After Final Completion has been certified, the appointed Landscape Contractor /Estate Management Company will be required to carry out these operations for a minimum period of 5 years.

- Control and removal of weeds;
- Pruning of shrubs for floral, foliage and stem colour effect and to remove weak, dead and diseased branches
- Pruning of species to ensure naturalistic form; plus to promote flowering/berry production/retention (where appropriate);
- Remove dead growth and trim herbaceous perennial and ornamental grass plants in spring, avoiding damage to any new shoots that have emerged;
- The removal of any failed, vandalised, unhealthy or dead specimens as soon as possible and provide replacements of the same size to those adjacent, during the next available planting season;
- Watering of plants to ensure moisture levels are maintained appropriate for optimum growth;
- Removal of litter from all planting beds to maintain the Site in a tidy condition; and
- Top up mulch annually to achieve a 50mm layer.

Ongoing Maintenance

Following the establishment maintenance period it is recommended that the Estate Management Company will undertake the relevant operations listed in the establishment maintenance. Watering is no longer required unless in extreme drought.

Maintenance Operation	Frequency	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Weed control and removal	4xAnnually												
Assess growth and consider slow release fertiliser	Annually												
Pruning to remove dead, dying or diseased growth	Annually												
Trimming of herbaceous & ornamental grass and perennial species	As required												
Replace damaged/ vandalised/unhealthy stock	As required												
Watering of areas to ensure moisture levels are appropriate	As required												
Removal of litter from planting beds	Prior to all other tasks												
Top up mulch	1xAnnually												

3 Species Rich Grassland: Planting Type: PC04 and PC07.

Establishment Maintenance

To ensure the successful establishment of Species Rich Grassland, the operations stated on the following pages are necessary for a minimum of 24 months after Practical Completion of each phase of the Park. After Final Completion has been certified, the appointed Landscape Contractor /Estate Management Company will be required to carry out these operations for a minimum period of 5 years.

- Cutting 3 times in the first 2 growing seasons, in June, Mid August and in winter;
- To protect reptiles, only cut grassland during conditions when reptiles are active and able to move away from machinery (air temperatures above 8 °C). Cut in one direction to encourage movement of reptiles into adjacent suitable habitat and avoid trapping reptiles in the path of machinery. Do not cut grassland below 100mm in height;
- Strim edges to hard standing and tree pit mulch circles;
- Arisings to be removed from the grassland areas and used on site to create compost heaps and hibernacula;
- Watering every 3 days without rain until plants are established. Sprinklers are preferred over a hose pipe and are to be used morning or evening;
- Repair damaged or failed areas of planting by replacing with new plants; and
- Removal of litter to maintain the Site in a tidy condition.

Ongoing Maintenance

Following the establishment maintenance period it is recommended that the Estate Management Company will undertake the relevant operations listed in the establishment maintenance. Irrigation is no longer needed, unless in extreme drought.

The Cutting regime should vary in different areas by varying time and height of cut to help with habitat creation and encourage species diversity e.g. 1-4 cuts per year with timing to allow seeding of most species to occur before first cut (late summer cut to allow for species to set seed. Further cuts can be taken through the winter up to early spring, as required).

The Estate Management Company and landscape architect should review the planting evolution every 3 to 5 years, to assess the distribution of species and level of weed invasion. Where certain species, or areas appear to be failing a review of species types, and their requirements should be undertaken before replacing them. Soil type, condition and/or moisture levels may lead to some desired species not persisting within the target landscaping areas. Where this occurs, suitable alternative species should be identified and used to replace to maintain the target planting/ habitat type within the park. Failing native species should only be replaced by other native species. There should not be a preference to increase non-native or ornamental species within the sward where they are not indicated within the proposed planting plan.

Weeds and undesirable species should be pulled, or dug out, by hand in the biodiverse grassland areas to reduce the risk of pesticide/herbicide leaching and affecting desirable species.

Monitoring of plant success along the river corridor should include the search for invasive non-native species including, but not limited to, Japanese knotweed and Himalayan balsam. Where these are identified, a specialist contractor should be contacted and provisions for removal of the plant(s) in accordance with guidance and legislation should be made.

No pesticides should be used to encourage and maintain a good invertebrate assemblage on the site.

Maintenance Operation	Frequency	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Cutting during first two seasons	3xAnnually												
Cutting after first two seasons	1-4xAnnually in a mosaic fashion												
Repairing damaged or worn areas of lawn by seeding	As required												
Assess growth and consider nitrogen based fertiliser	As required												
Weed removal by hand	As required												
Water to ensure moisture levels are appropriate	As required												
Removal of litter	Prior to all other tasks												

4 Riverside Planting: Planting Type: PC05 and PC06.

Establishment Maintenance

To ensure the successful establishment of Riverside Planting, the operations stated on the following pages are necessary for a minimum of 24 months after Practical Completion of each phase of the Park. After Final Completion has been certified, the appointed Landscape Contractor /Estate Management Company will be required to carry out these operations for a minimum period of 5 years.

- Clearing of any large elements of debris following a flood event;
- Maintaining plant vigour and the structural stability of the bank;
- Manage species diversity for conservation and wildlife (to encourage target species);
- Annual vegetation control to help establish a range of plant species and reduce sediment build up around plant roots;
- Control of invasive or alien species or to suppress dominant rank species;
- Cutting of marginal planting by hand in a mosaic fashion and in an upstream direction
- Retain clear riparian zone between waters edge and main park area;
- Repair damaged or failed areas by re-turfing; and
- Removal of litter to maintain the Site in a tidy condition.

Ongoing Maintenance

Following the establishment maintenance period it is recommended that the Estate Management Company will undertake the relevant operations listed in the establishment maintenance.

The Cutting regime should vary in different areas by varying time and height of cut to help with habitat creation and encourage species diversity e.g. 1-3 cuts per year with some patches retained and some rotated on successive visits.

Ongoing management of invasive species should be carried out in consultation with a specialist contractor to reduce the potential further spread of non-native invasive species either along the river corridor or across the park.

The Estate Management Company and landscape architect should review the planting evolution every 3 to 5 years, to assess the distribution of species and level of weed invasion. Where certain species, or areas appear to be failing a review of species types, and their requirements should be undertaken before replacing them. Soil type, condition and/or moisture levels may lead to some desired species not persisting within the target landscaping areas. Where this occurs, suitable alternative species should be identified and used to replace to maintain the target planting/ habitat type within the park. Failing native species should only be replaced by other native species. There should not be a preference to increase non-native or ornamental species within the sward where they are not indicated within the proposed planting plan.

Weeds and undesirable species should be pulled, or dug out, by hand in the riverside planting areas to reduce the risk of pesticide/herbicide leaching and affecting desirable specie or entering the adjacent water course and causing damage outside of the site.

No pesticides should be used to encourage and maintain a good invertebrate assemblage on the site and prevent it from potentially leaching into the adjacent water course and causing damage outside of the site.

Maintenance Operation	Frequency	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Clear large elements of debris following flood event	As required												
Monitor plant vigor and bank stabilisation	Annually												
Vegetation control (cutting back patches)	3xAnnually												
Control of invasive species	As required												
Cutting of marginal planting (Submerged)	Annually												
Cutting of marginal planting (Emergents)	Annually												
Removal of litter	Prior to all other tasks												

5 Hard Surfaces, Street Furniture and Play Area: All Areas

Establishment Maintenance

To ensure the successful establishment of Hard Surfaces, Street Furniture and Play Area, the operations stated on the following pages are necessary for a minimum 5 Years after Practical Completion of each phase of the Park. After Final Completion has been certified, the appointed Landscape Contractor /Estate Management Company will be required to carry out these operations for a minimum period of 5 years.

- Seasonal maintenance, (litter, leaf and snow clearance, de-icing), repairs and weed control as necessary, except for adoptable roads and footpaths, which will be maintained by the Local Authority;
- Overhanging or adjacent branches are to be trimmed back to allow free pedestrian movement;
- Inspect and maintain lighting columns and replace light fittings when necessary;
- Repair damaged or uneven surfaces immediately;
- Repair damaged or vandalised street furniture immediately;
- Repair damaged or vandalised railings; and
- Cleaning and removal of debris following flood event.
- Inspect all play equipment on a weekly basis including, play equipment, gates, seats and benches and maintain in accordance with BSEN 1176 and BSEN 1177;
- Ensure annual ROSPA Play Safety inspection carried out in accordance with BS EN1176 (European Playground Standard) and copies of all inspections shall be recorded and copies given to the client;
- Repair damaged and vandalised play equipment immediately, rendering the pieces inoperable until repair works are complete;
- Seasonal maintenance of safety surfacing as for hard surfaces.

Ongoing Maintenance

Following the establishment maintenance period it is recommended that the Estate Management Company will undertake the relevant operations listed in the establishment maintenance.

Maintenance Operation	Frequency	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Litter collection and removal from site	As required												
Sweep mulch from hard standing	As required												
Treat or eradicate weeds in paving (use vinegar based herbicide where appropriate)	As required												
Inspect and maintain lighting and replace light fittings	As required												
Repair damaged or uneven surfaces	As required												
Repair damaged or vandalised street furniture	As required												
Repair damaged or vandalised railings	As required												
Clean surfaces and remove deris following flood event	As required												
Repair damaged or vandalised play equipment	As required												
Clean surfaces and remove deris following flood event	As required												