



Highgate School MSC 4Phase

LONDON N6

Landscape strategy report

733.01(RP)001 REV D

21/11/2022



Robert Myers Associates

LANDSCAPE ARCHITECTURE

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HIGHGATE MSC AERIAL VIEW



01 Landscape design strategy

INTRODUCTION

This Landscape Strategy supports a full planning application for the refurbishment, alteration and extension of the Mallinson Sports Centre (MSC) and Orchard site for Highgate School.

The scheme involves two main areas. The first is around the new building and involves the implementation of new hard landscape, including connecting paths and courtyard areas around the main entrances; and soft landscape around the perimeter of the site which will involve replacing three existing trees with new, semi-mature trees. The second area is a sports pitch flood basin on the existing orchard site, to the east of the new building. The design of this area has emerged as a result of a flood risk assessment exercise, and is intended to serve double duty as a basin for rainwater storage as well as a space for sports and other events and activities.



The new, improved landscape areas will provide a number of benefits for both the School and the surrounding neighbourhood by:

- o Creating external areas with seating for gathering and spill-out for students and visitors, and extended planted areas that will enhance the biodiversity of the site;
- o Creating an appropriate setting for the buildings;
- o Accommodating changes in levels and connecting the entrances to the new buildings through accessible routes;
- o Enhancing the streetscape by infilling gaps in the line of trees along Bishopswood Road and introducing generous areas of low planting between the pavement and the building;
- o Providing visual amenity for both the school and the public, as all the planted areas will be viewed from Broadlands and Bishopswood Road.
- o Regenerating the Orchard site with a new sports area and introducing more diverse woodland structure through replanting and management.

01 Landscape design strategy

EXISTING SITE

The site is part of the wider Highgate School campus and is located to the east of Bishopwood Road opposite Highgate Pre-preparatory school and Highgate Field House, in north London. The site includes the existing Mallinson Sports Centre buildings and the Orchard site. The buildings are currently surrounded by turfed areas to the north, south and west; an existing ditch to the east planted with a mix of shrubs and trees; and a neighbouring brick wall to the north-east boundary.

TREES & PLANTING

The site supports a range of tree species including mature sycamores, limes and a cherry tree along Bishopwood and Broadlands Road; and oak, ash and sycamore along the existing ditch.

Planted areas are comprised of poor, semi-improved neutral grassland, introduced ornamental shrubs and a poor hedgerow which includes hawthorn and ivy.

The Orchard site it is formed of a central amenity grassland playing field surrounded by broad-leaved plantation woodland including oak, sycamore, yew, ash, willow and Leyland cypress.



View looking East from MSC building towards Orchard and sports fields

ECOLOGY- (SEE AEL ECOLOGY REPORT)

The Mallinson Sports Centre site is dominated by amenity grassland, as well as buildings, hard standing and an artificial grass sports pitch, all habitats of negligible ecological and biodiversity value that do not represent a significant development constraint. On the other hand the hedgerows and mature and semi-mature trees are of elevated ecological value and should be retained and protected where possible.

In terms of fauna the site is likely to support a breeding population of mostly common garden and woodland birds, primarily in the areas of plantation woodland, but none of the buildings within the site were assessed as being of value to roosting bats, and the site is of negligible value to commuting or foraging bats. The presence of hedgehog and stag beetle could not be discounted so consideration will need to be given to avoid impacts on these species by adopting reasonable measures during clearance and construction.



View of veteran oak and Orchard site



02 Landscape Masterplan

WIDER CONTEXT PLAN



02 Landscape Masterplan

PROPOSED LAYOUT

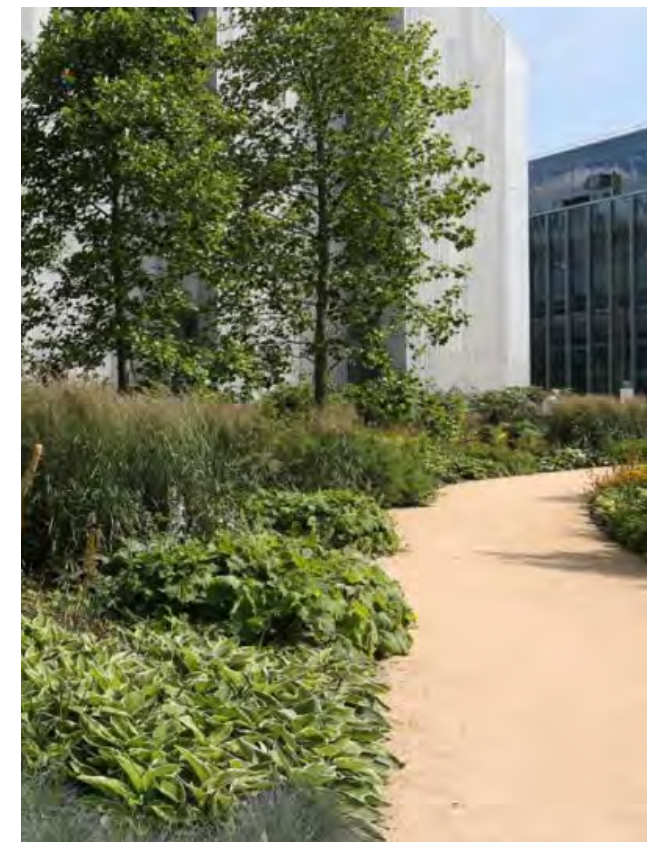
The design strategy for the new sports centre is to:

- o Create new landscape areas which maximise the amount of planting so that the new building becomes a recognisable and embedded part of the School's landscape and estate;
- o Introduce new tree planting;
- o Enhance biodiversity through planting at ground and roof levels;
- o Provide low-level, safe and efficient lighting for students and visitors;
- o Surface the paths with permeable paving as part of a sustainable drainage system;
- o Utilise a no-dig construction methodology to prevent damage to tree roots where necessary.

The design strategy for the Orchard site is to:

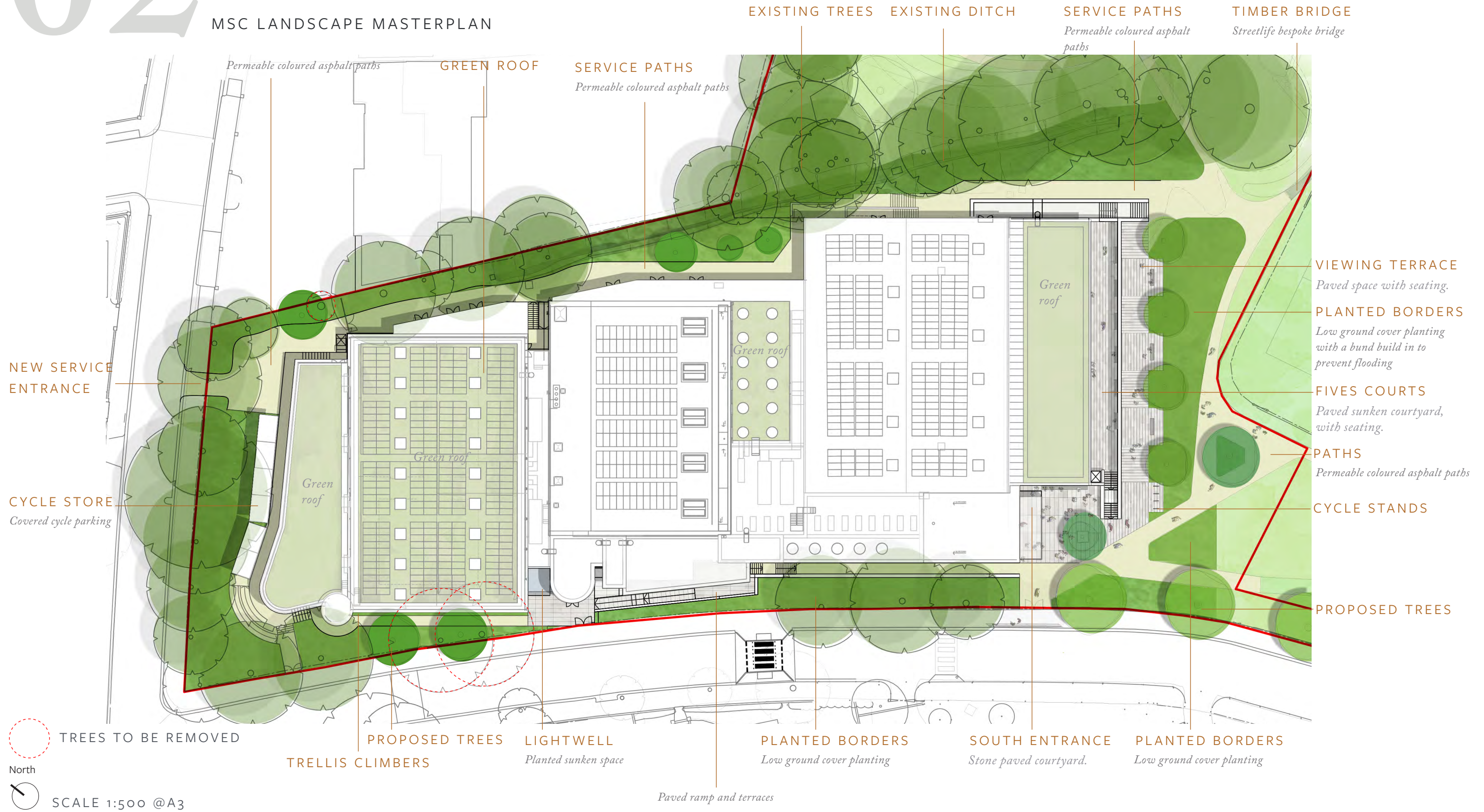
- o Create a new outdoor sports area with an unique and elegant oval-shaped sports pitch flood basin that will not only provide seating around the pitch, but also acts a barrier and flood water storage device to prevent future flooding events;
- o Introduce new tree planting and enhance the ecological value of the orchard woodland area;
- o Provide accessible and safe access to the sports pitches for students and visitors, and connect with other areas of the School;
- o Utilise a no-dig construction methodology to prevent damage to tree roots where possible;
- o Minimise any impacts on the most valuable, existing trees around the site.

The proposed landscape around the MSC will provide paths that will connect all the new main entrances, as well as service entrances to the north-east of the buildings. Existing paths around the all-weather pitches will be linked into the proposal, to create intuitive routes around the site. Generous planting beds along paths and around the new building will soften the space and enhance its gardenesque qualities. A new paved courtyard will be created at the building entrance at the southern corner, with a cantilevered timber seat for waiting and an ornamental tree as a focal point, creating informal enclosure from the street. A paved viewing terrace above the new fives courts will be backed by a line of new trees to create shelter and frame views of the building, with planting and seating beneath. A terrace with seating in front of the fives courts has also been designed to host viewers at the lower court level. A new covered cycle parking area is also provided near the north-west entrance of the building.



Landscape Masterplan

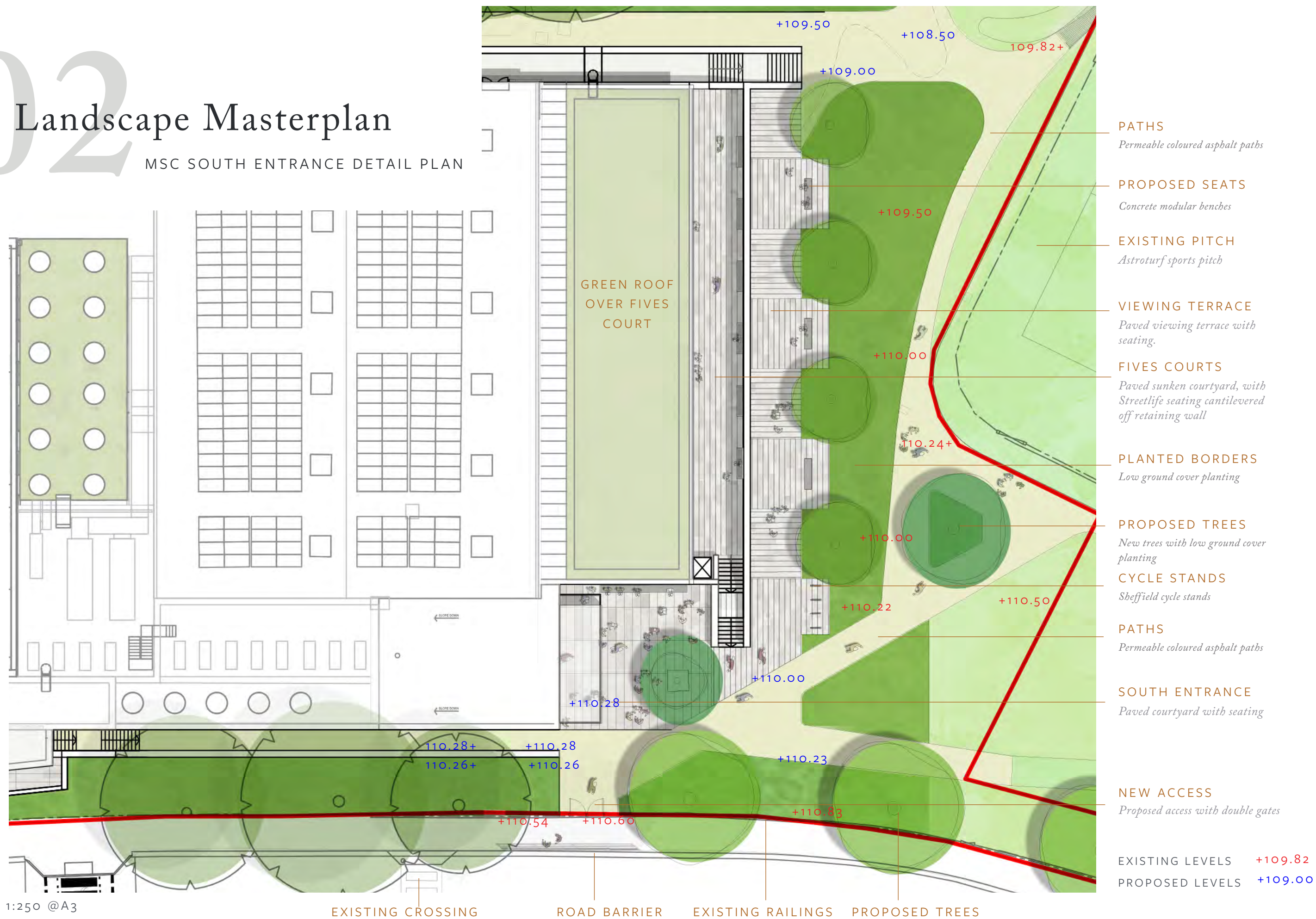
MSC LANDSCAPE MASTERPLAN



02

Landscape Masterplan

MSC SOUTH ENTRANCE DETAIL PLAN



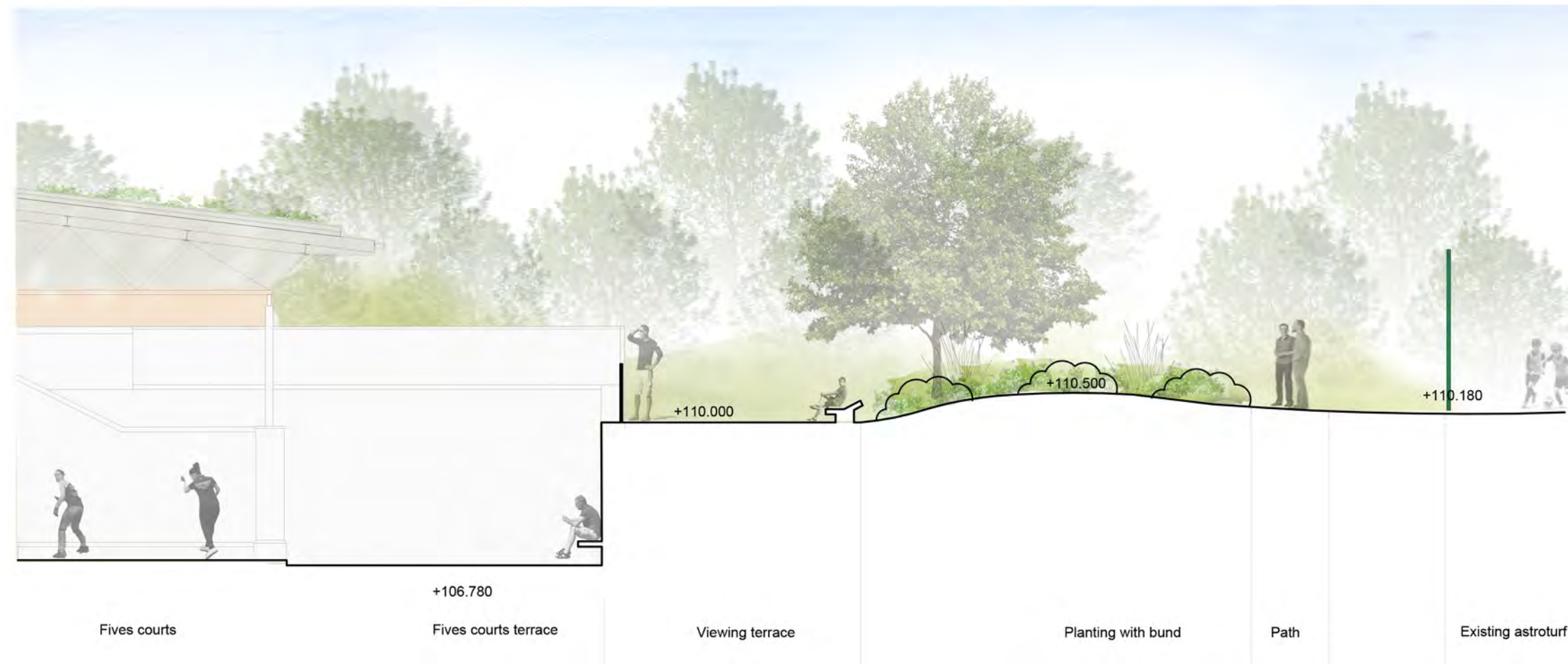
SCALE 1:250 @A3



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02 Landscape Masterplan

MSC SOUTH TERRACE SECTION



SECTION A - SCALE 1:100

02 Landscape Masterplan

MSC ILLUSTRATIVE VIEWS



A View to south elevation (Ed Toovey Architects)



B View to north-west elevation (Ed Toovey Architects)



C Aerial view (Ed Toovey Architects)



D Aerial view (Ed Toovey Architects)

Please note these are only for illustrative purposes. For details refer to plans



02 Landscape Masterplan

SPORTS PITCH FLOOD BASIN DETAIL PLAN

The new sports pitch flood basin will provide space for practicing sports, hosting events and other activities, but more importantly will serve as a sunken basin to provide flood mitigation and temporarily store surface water after extreme rainfall events. The design combines grass banks to the West of the oval, approximately 2-2.5m high, that become seating steps on the East area of the oval that are to be used for spectator and pupils. The oval is accessed by steps to the East and West and an accessible route through a ramp to the West. Some existing trees will be lost to implement the proposal but these are mainly self-seeded sycamores and ash in the existing woodland and the existing mature oak trees will all be retained. New tree planting will provide a better age structure for the long term and introduce more 'forest' sized trees (oak, lime, sweet chestnut etc) into the woodland and a mixture of woodland wild flowers and grasses seed mix will be sown into the woodland to enhance its ecological value.

North



SCALE 1:500 @A3



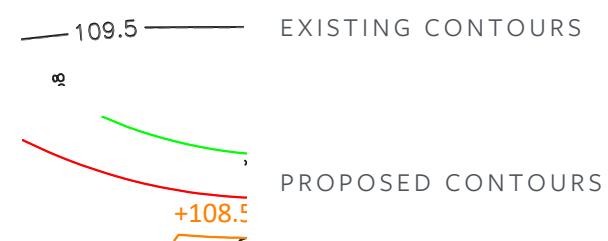
TREES TO BE REMOVED



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02 Landscape Masterplan

SPORTS PITCH FLOOD BASIN LEVELS PLAN



SCALE 1:500 @A3



Sections and views

ILLUSTRATIVE SECTIONS THROUGH SPORTS PITCH FLOOD BASIN



SECTION A - SCALE 1:200



SECTION B - SCALE 1:200

03

Sections and views

ILLUSTRATIVE VIEWS



A Aerial view looking North-west into the proposed sports pitch flood basin



B View looking North into the proposed sports pitch flood basin



C View looking South into the proposed sports pitch flood basin



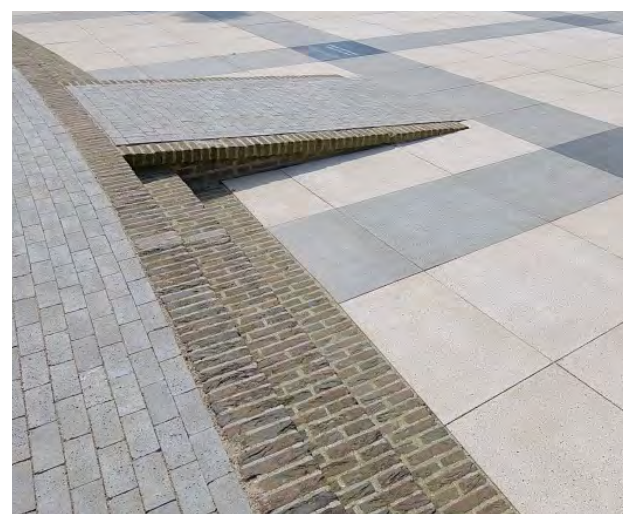
04 Materials strategy

INDICATIVE MATERIALS PALETTE

Entrances and more heavily used spaces will be paved with slabs, while routes and access paths will be surfaced with a clear coloured macadam. A simple palette of robust but elegant and visually compatible materials is proposed for the terraces, steps and footpaths, as follows:

- Terraces and steps to be paved with textured concrete slabs with a distinctive look and feel;
- Paths and ramps to be *Ulticolour* permeable coloured asphalt, colour: buff gravel, with a 'Conservation' pin kerb edging';
- Square, hardwood timber setts to be used for the sports pitch flood basin seats and steps;
- Corten steel to be used for the edge restraint on the sports pitch flood basin seats and steps.

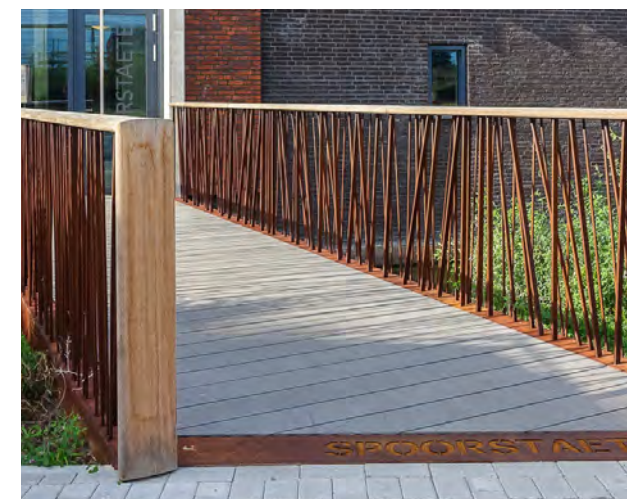
We have proposed modular, concrete benches for the upper terrace overlooking the fives courts, and cantilevered concrete benches for the south entrance courtyard and the fives courts courtyard. A contemporary steel and timber bridge is proposed for the western edge of the existing astro pitch, connecting the new building with the sports pitch flood basin and eastern sports areas. Simple handrails will be included on all steps.



PAVING
Textured concrete paving for terraces



PATHS
'Ulticolour' Permeable coloured asphalt paths. Colour: Buff gravel



BRIDGE
Streetlife timber & corten steel bridge to connect paths besides ancient oak



SEATS - FIVES COURTS
Cantilever concrete seat



SEATS - UPPER TERRACE
'Barrera' concrete bench



STEPS - MSC
Textured concrete steps including contrasting visibility strip inset



STEPS&SEATS - SPORTS PITCH FLOOD BASIN
Corten steel edge restraint for sports pitch flood basin seats and steps

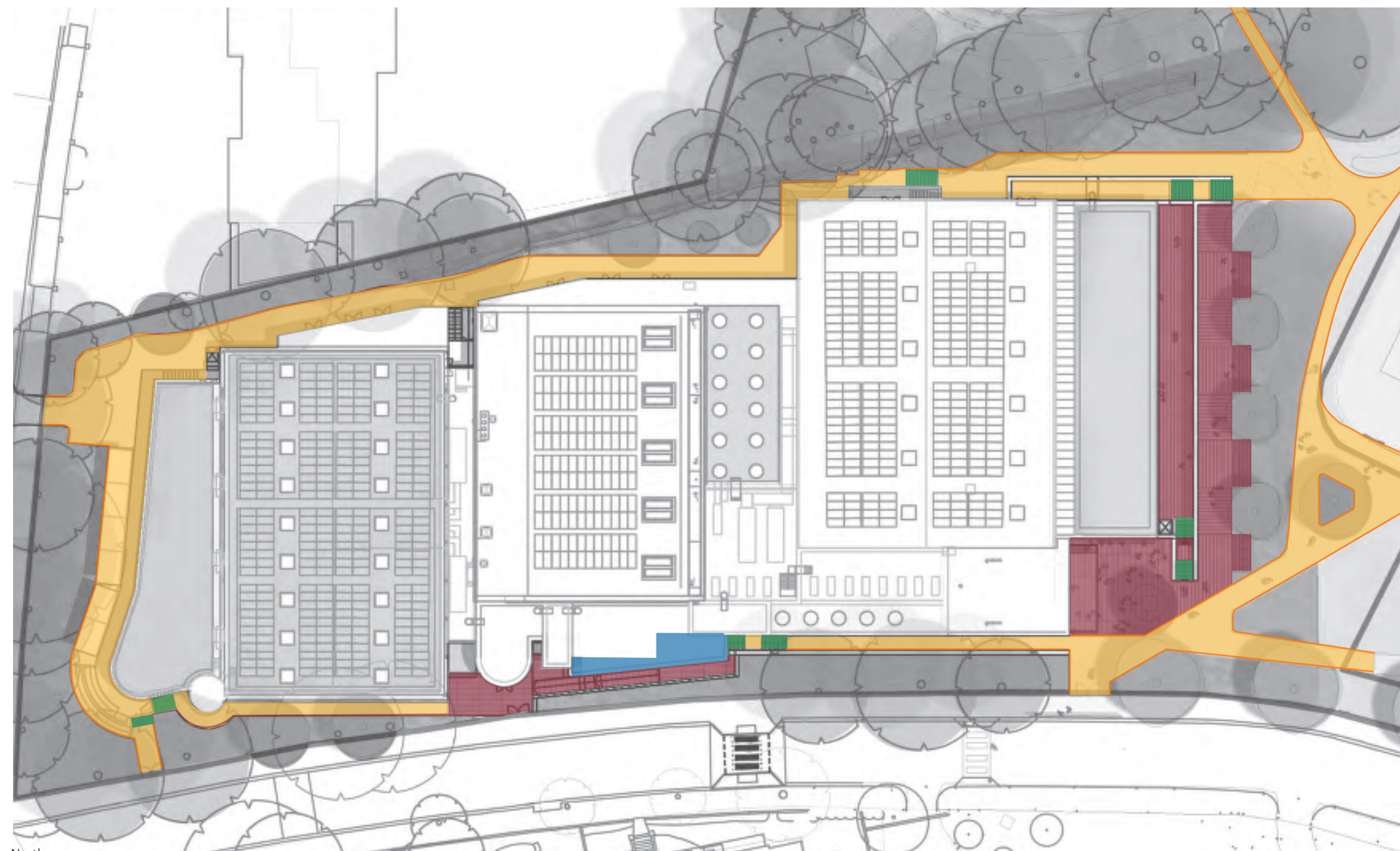


STEPS&SEATS - SPORTS PITCH FLOOD BASIN
Timber setts for sports pitch flood basin seats and steps



04 Materials strategy

INDICATIVE MATERIALS PLAN



North



SCALE 1:500 @A3

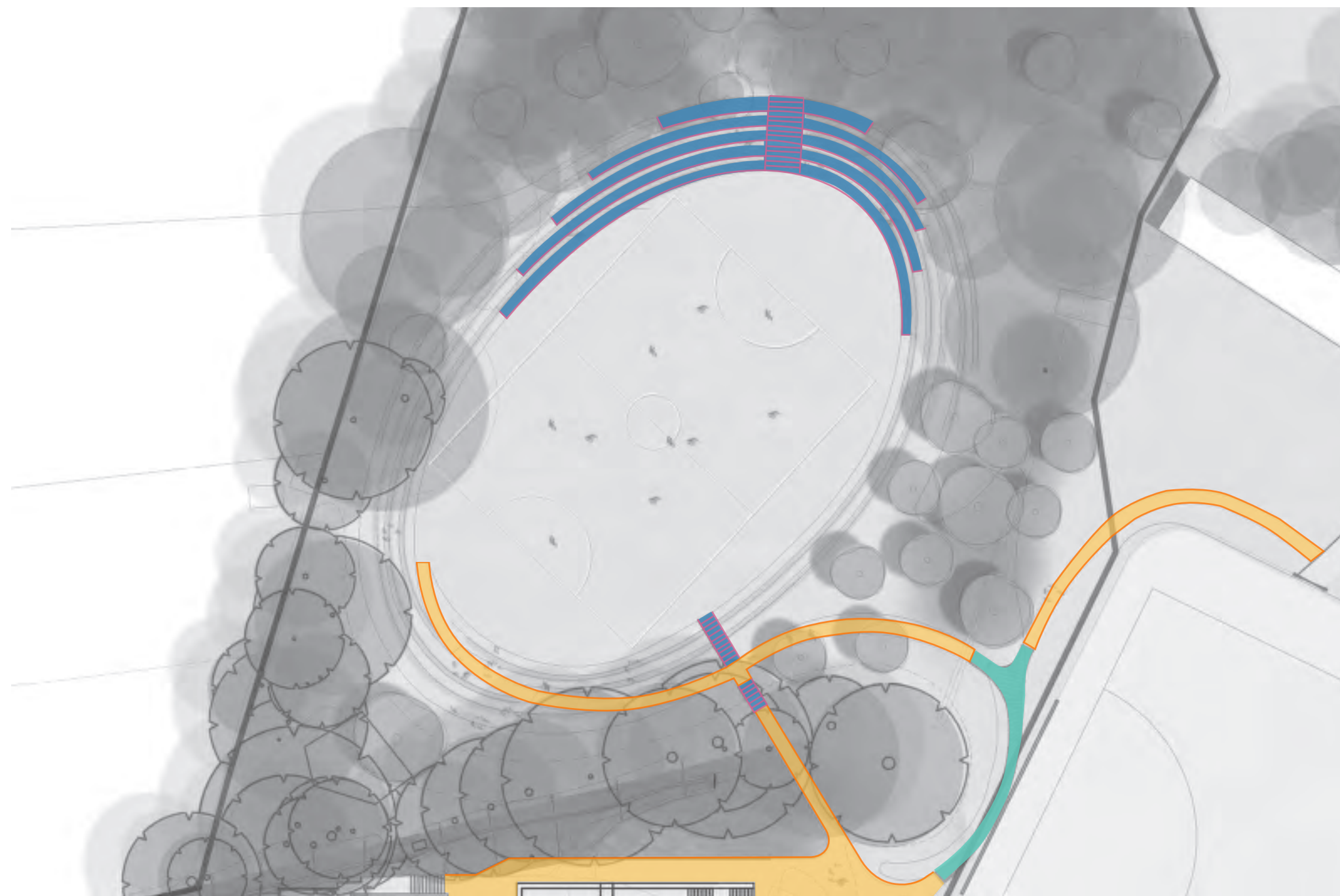
LEGEND

	PERMEABLE PATHS <i>'Ulticolour' permeable coloured asphalt paths. Colour: Buff gravel</i>
	ENTRANCES PAVING <i>Textured concrete paving, various sizes and colours</i>
	ENTRANCES PAVING UNDER ROOF <i>Textured concrete paving, various sizes and colours</i>
	STEPS <i>Textured concrete steps including contrasting visibility strip inset</i>
	PIN KERB <i>Concrete pin kerb for path edging.</i>



04 Materials strategy

INDICATIVE MATERIALS PLAN - SPORTS PITCH FLOOD BASIN

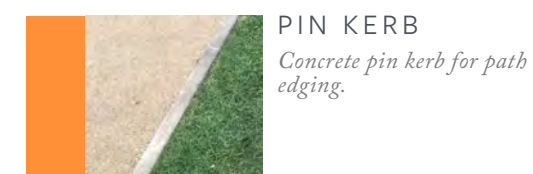


North



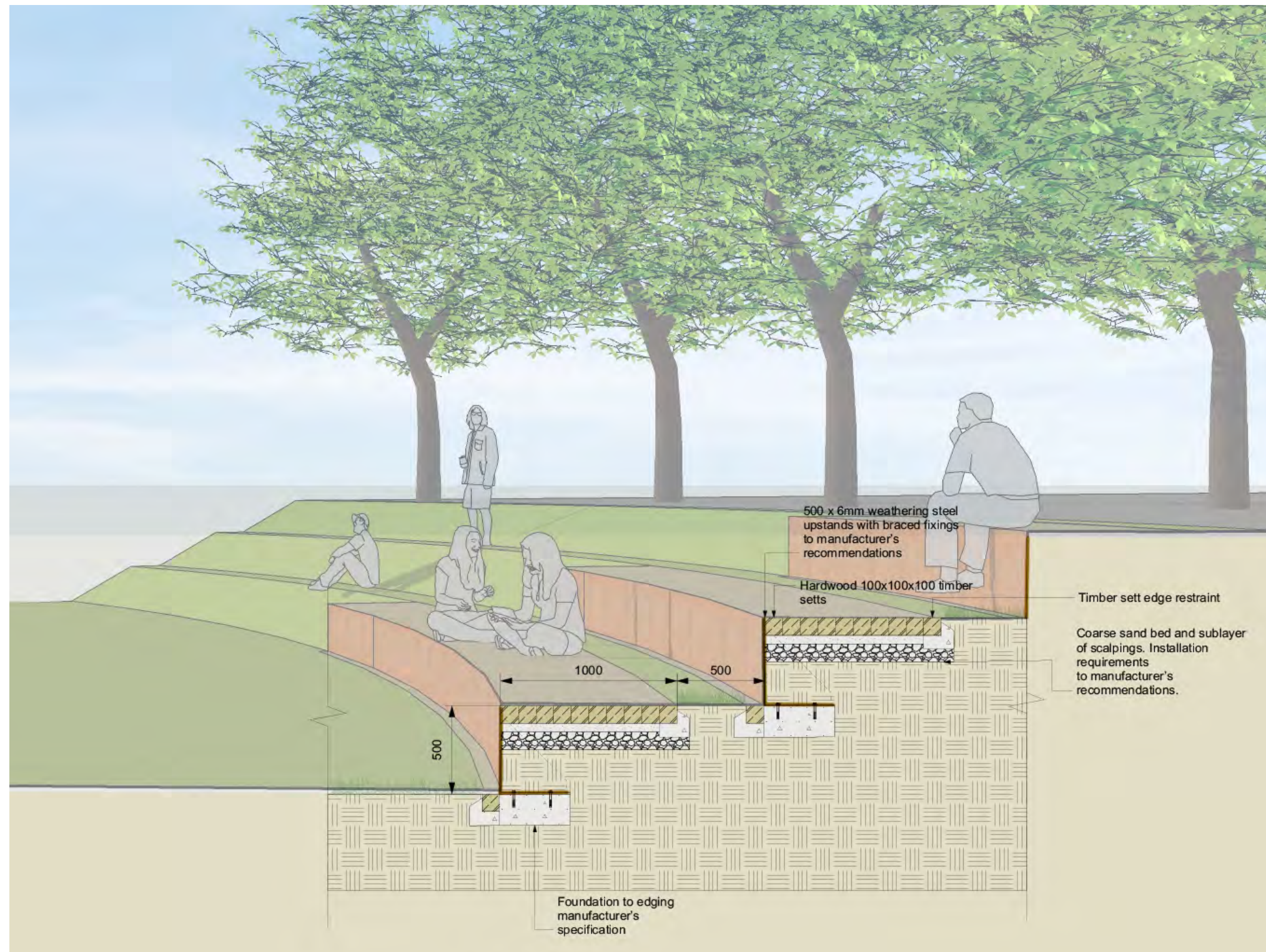
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LEGEND



04 Materials strategy

ILLUSTRATIVE DETAILS

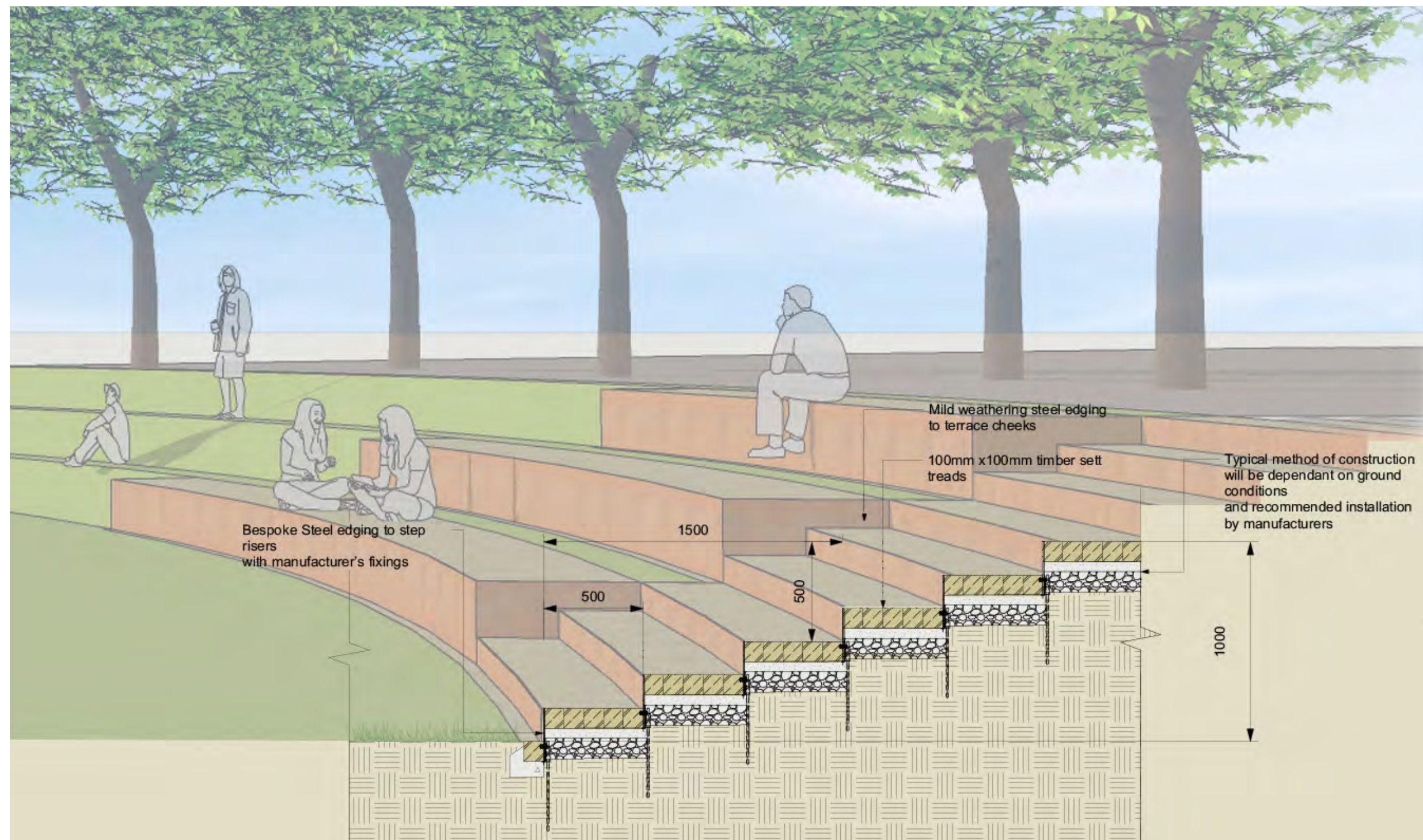


SECTION THROUGH SPORTS PITCH FLOOD BASIN SEATING



04 Materials strategy

ILLUSTRATIVE DETAILS

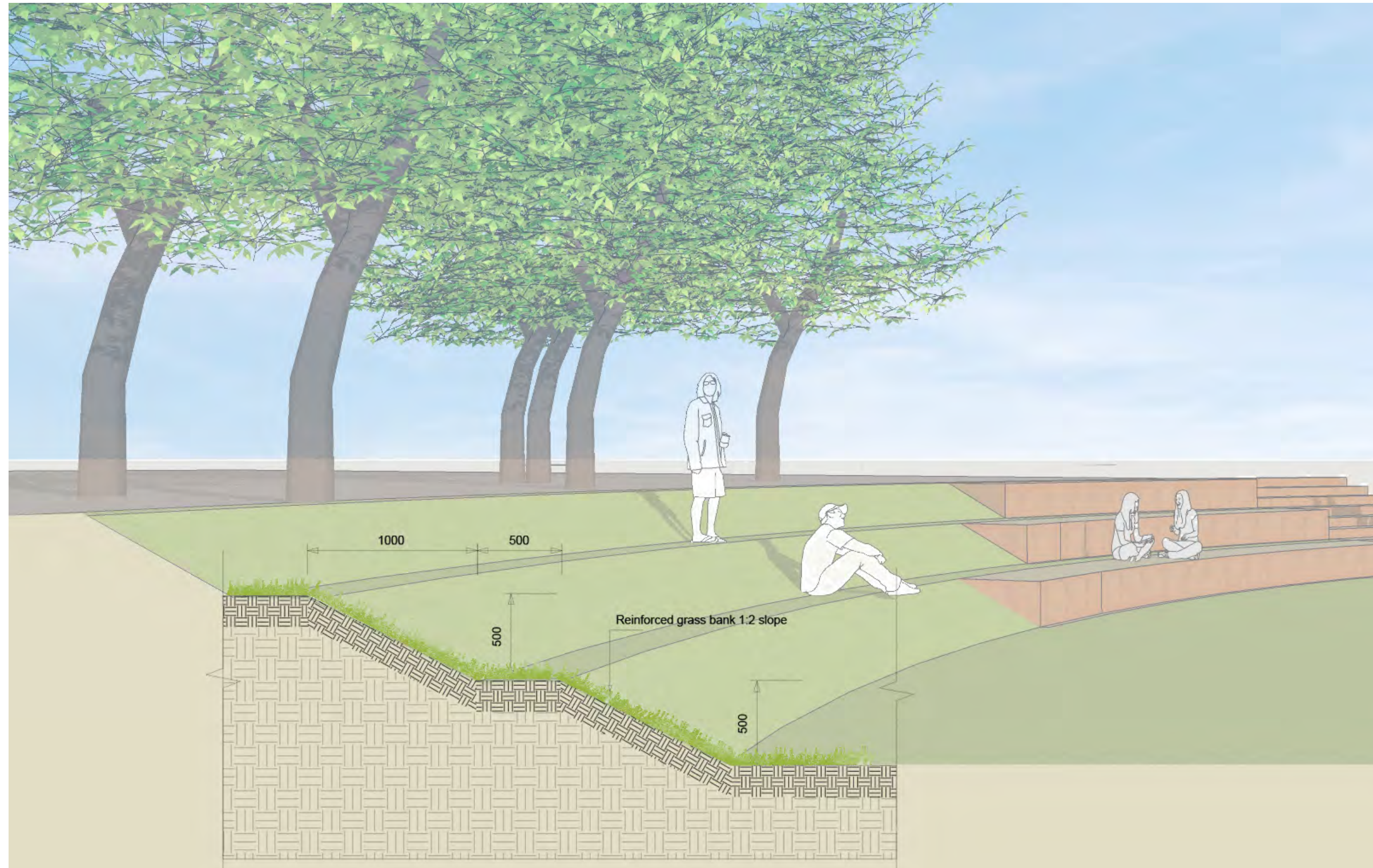


SECTION THROUGH SPORTS PITCH FLOOD BASIN SEATING



04 Materials strategy

ILLUSTRATIVE DETAILS



SECTION THROUGH SPORTS PITCH FLOOD BASIN GRASS BANKS



05 Lighting strategy

Lighting will be integrated into ramp walls, steps and the building façade to minimise clutter. Lighting around the building and along paths is proposed to provide safety and security for all routes around the new building. The paths will be lit with a combination of low-level bollard lights and wall lights on the building facades. Recessed light fittings on walls will be used to light the ramps and steps that connect the terraces around the site.



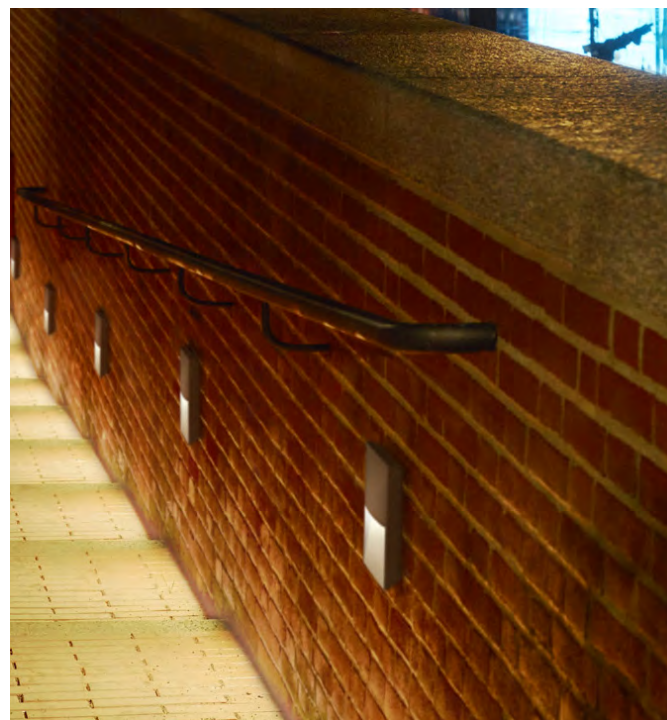
LIGHT BOLLARD AND WALL LIGHT

Iguzzini 'Walky' mounted light on timber bollard, same fitting for wall lights



LAMP COLUMN

Simes - Minislot



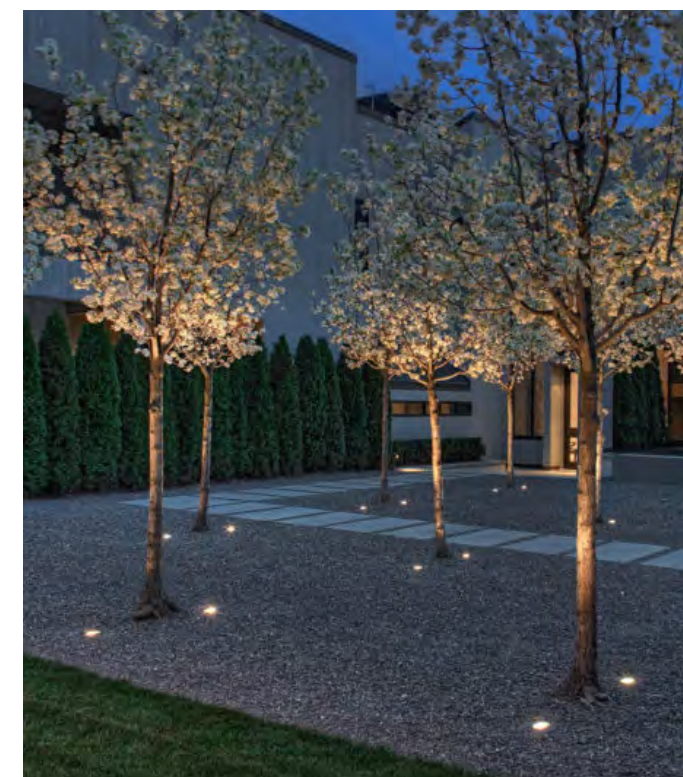
WALL LIGHT

Iguzzini 'Walky'



RAMP AND STEP LIGHT

Simes - Miniblinker wall recessed light for ramps. 100x230mm



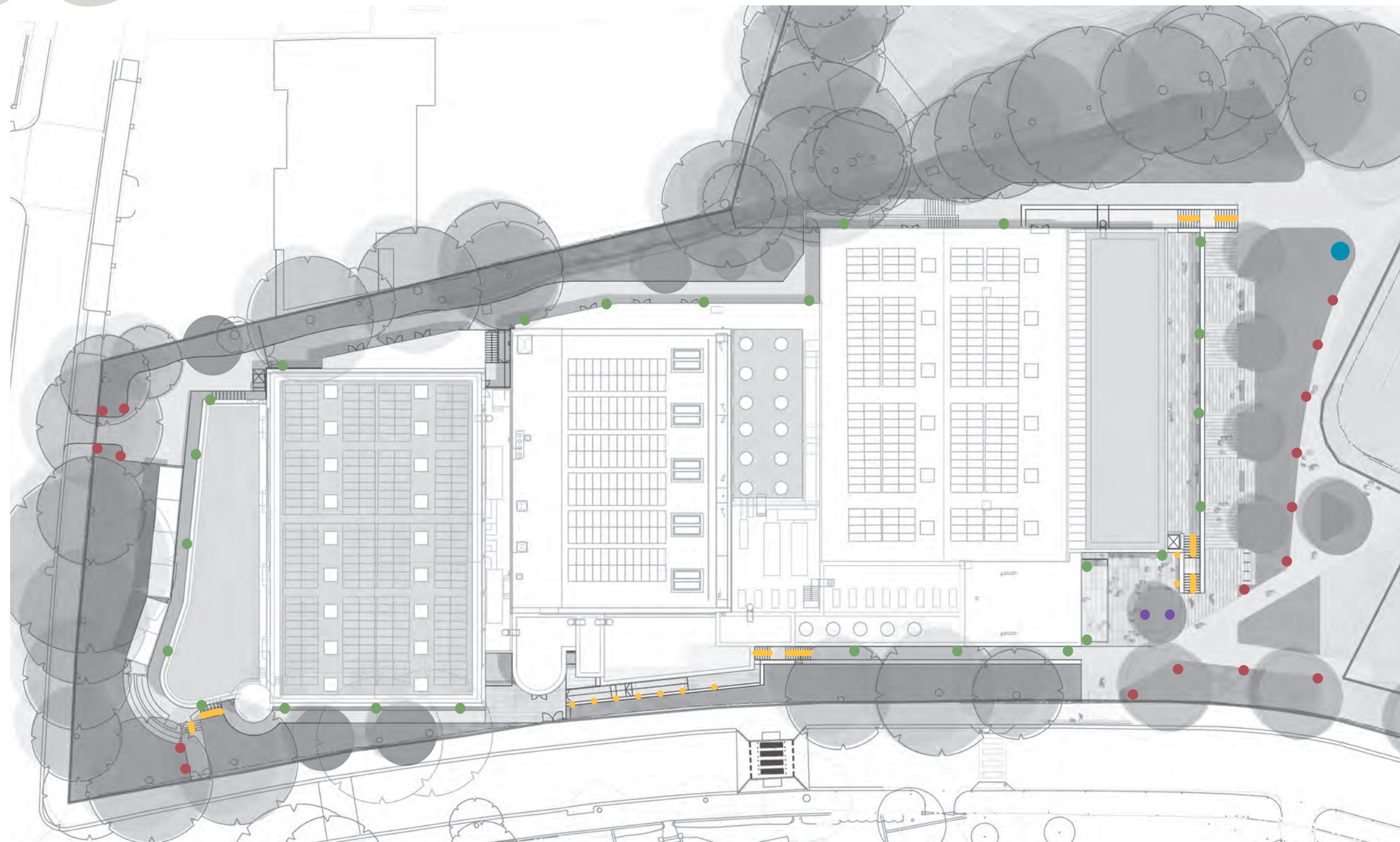
TREE LIGHT

Iguzzini 'Light Up earth' in-ground light for tree



05 Lighting strategy

INDICATIVE LIGHTING STRATEGY



North



SCALE 1:500 @A3

LEGEND



LAMP COLUMN

Simes - Miniblinker wall recessed light for steps. 100x230mm



LIGHT BOLLARD

Iguzzini 'Walky' mounted light on timber bollard



RAMP AND STEP LIGHT

Simes - Miniblinker wall recessed light for ramps. 100x230mm



WALL LIGHT

Iguzzini 'Walky' wall recessed light



TREE LIGHT

Iguzzini 'Light Up earth' in-ground light for tree



06 Planting strategy

The planting has been designed for year-round visual interest, ease of maintenance, and wildlife value, and parts of the building will be topped by green roofs. The planting has been designed to create distinctive areas around the site, taking into account their usage and their orientation.

To compensate for the loss of two trees on Bishopswood Road, seven Caucasian limes (*Tilia euchlora*) will be planted along the south boundary, creating an avenue together with those that already exist on the north-east side of the road. A line of field maples (*Acer campestre* 'Elsrijk') will be planted along the fives court viewing terraces, with winter-flowering cherries (*Prunus x subhirtella* 'Autumnalis' and *Prunus x schmittii*) on the neighbouring paths and at the south entrance courtyard respectively.

The planting along the fives court upper viewing terrace and by the south entrance will include colourful, sun-loving shrubs and perennials, with larger drifts of grasses.

For the areas to the north-west, which are dominated by large trees, the selection of plants combines architectural shrubs with softer perennials that will bring more of a woodland atmosphere to these shadier areas. To the north, along the existing ditch and the service entrances of the new building, a simpler palette has been selected including some native shrubs to complete the existing planting, utilising plants that will thrive in both wet and dry conditions.

The strategy for the orchard site is to minimise the impact to existing trees and habitats of value, by removing a small number of self-seeded trees on the west edge of the woodland to implement the sports pitch flood basin, and selectively thin the existing self-seeded trees within the woodland to then replant the cleared areas with a variety of new trees including oak, sweet chestnut, lime, birch, apple, pears and walnuts, to enhance the existing diversity. A woodland wildflower seed mix will be sown in the glades and woodland edge to create a biodiverse herb layer.

On the various green roofs, a mixture of sedum and wildflower plug plants will create a low-maintenance, biodiverse sward.

Across the site as a whole, 47 new trees will be planted to more than compensate for those removed. Overall the project achieves an *Urban Greening Factor* score of 0.6, which is double the target score for predominantly commercial developments set out in The London Plan. (See calculations on page 34.)



PRECEDENT IMAGES



06 Planting strategy

INDICATIVE TREE PLANTING PALETTE



Prunus x subhirtella 'Autumnalis'



Acer campestre 'Elsrijk'



Tilia euchlora



Prunus x schmittii



Quercus robur

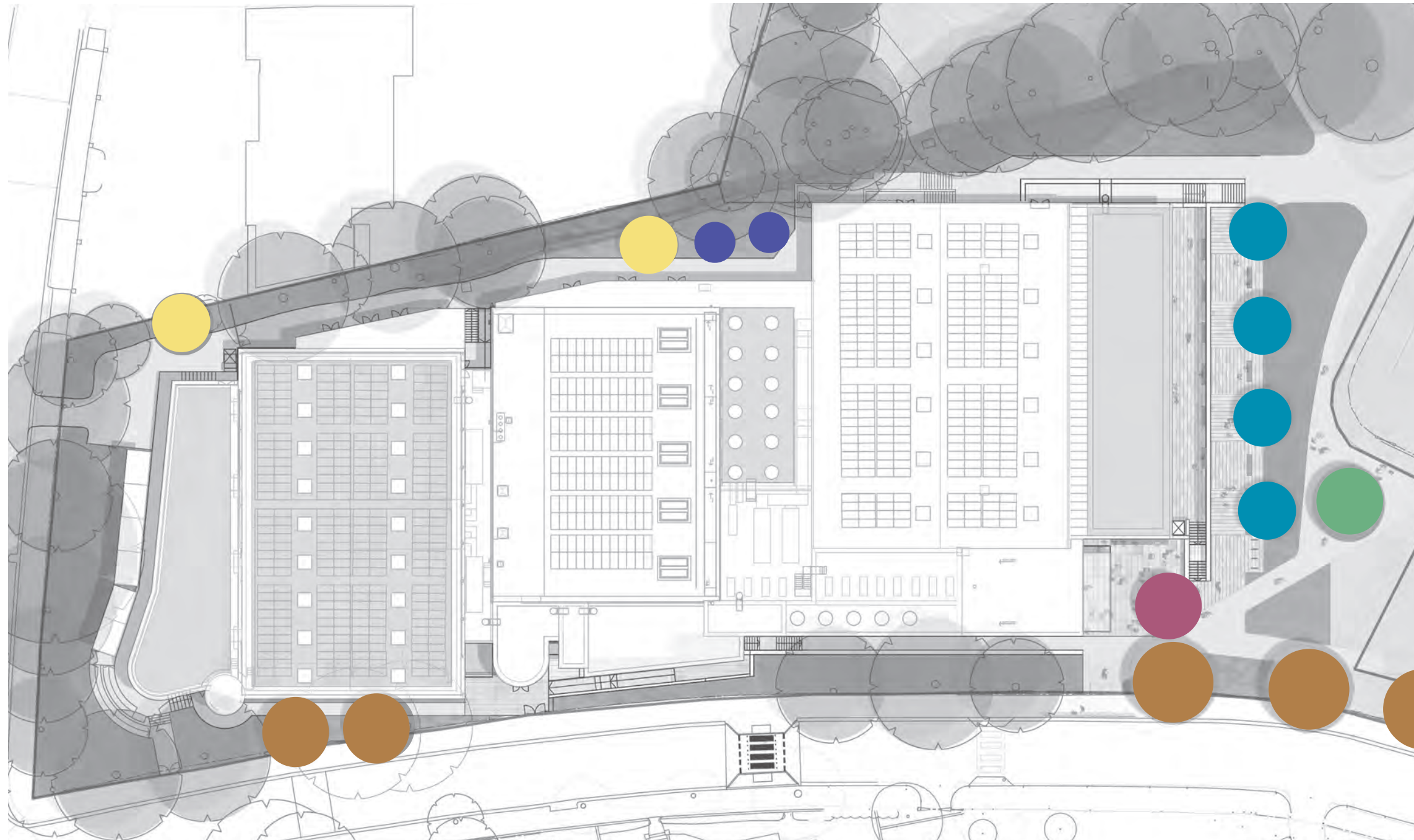


Crataegus x lavalleyi 'Carrierei'



06 Planting strategy

TREE PLANTING STRATEGY



North

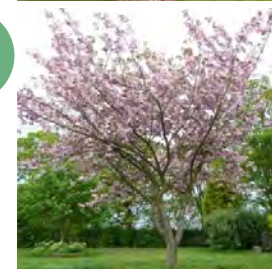


SCALE 1:500 @A3

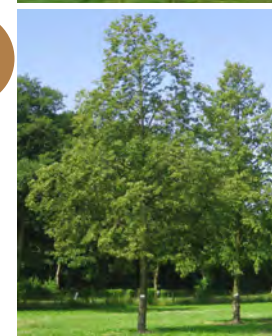
TREES



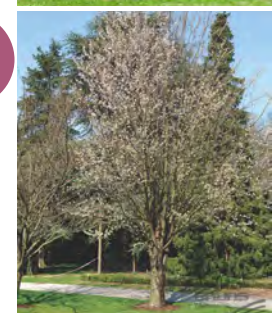
Acer campestre 'Elsrijk'



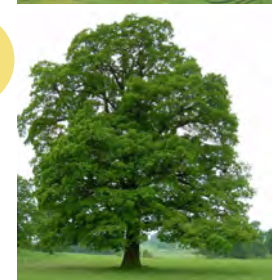
Prunus x subhirtella 'Autumnalis'



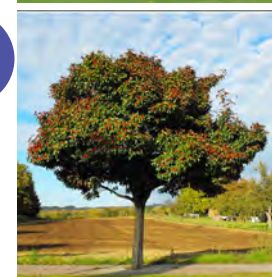
Tilia euchlora



Prunus x schmittii



Quercus robur



Crataegus x lavalleei 'Carrierei'

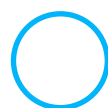


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06 Planting strategy

SPORTS PITCH FLOOD BASIN TREE PLANTING STRATEGY

TREES



Proposed new trees within existing woodland, and around pitch:

Quercus robur
Castanea sativa
Tilia sp.
Betula pendula
Juglans regia
Malus domestica
Pyrus communis



Areas of broad-leaved plantation woodland to be selectively thinned of existing self seeded trees to allow re-planting

WOODLAND WILDFLOWERS AND GRASSES



Emorsgate 'Woodland Mixture EW1' to be sown to woodland and open glades.

Wildflowers 20%

Alliaria petiolata
Allium ursinum
Arctium minus
Campanula trachelium
Chaerophyllum temulum
Digitalis purpurea
Filipendula ulmaria
Galium album
Geum urbanum
Hyacinthoides non-scripta
Iris foetidissima
Prunella vulgaris
Silene dioica
Torilis japonica

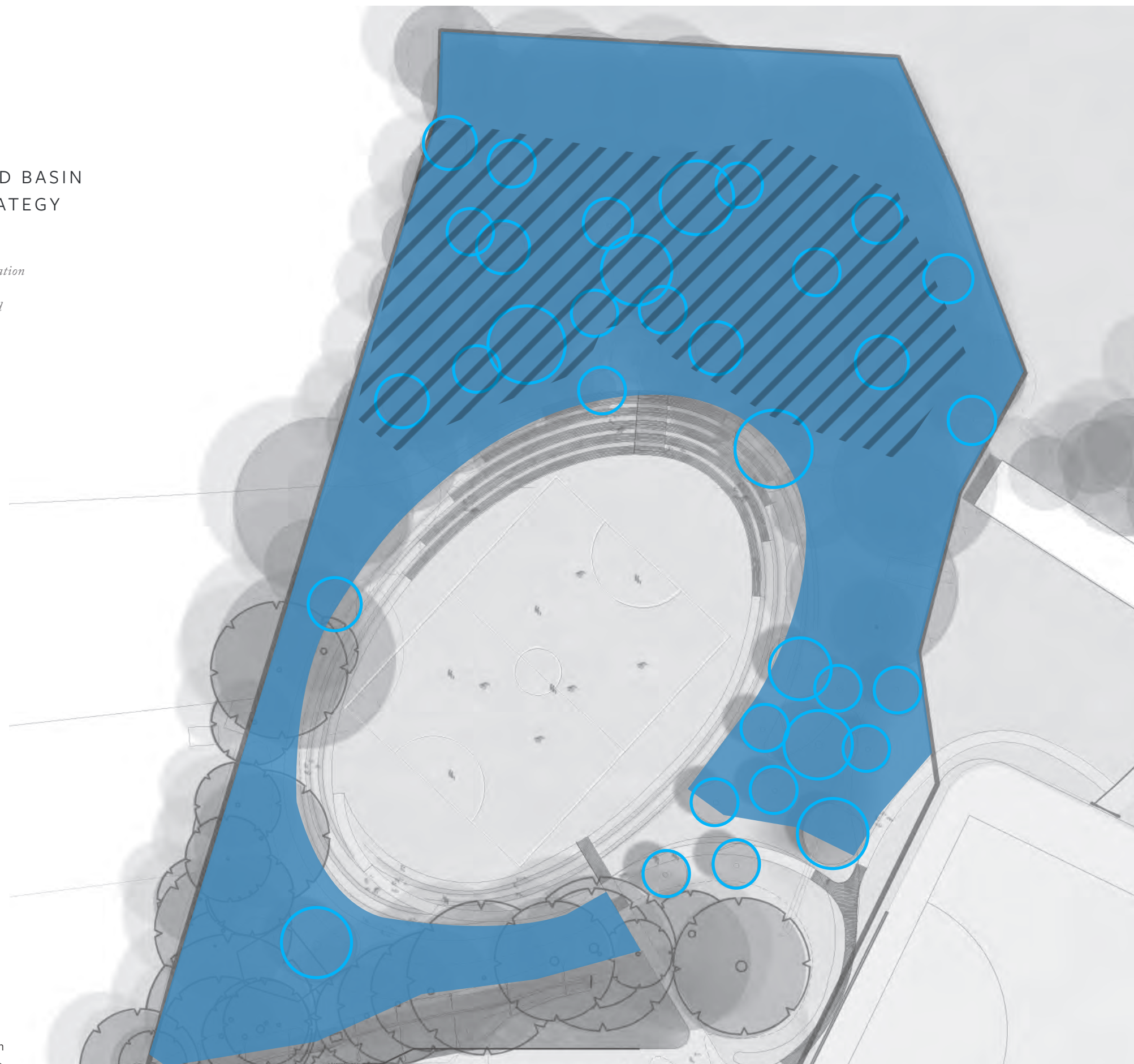
Grasses 80%

Agrostis capillaris
Anthoxanthum odoratum
Brachypodium sylvaticum
Cynosurus cristatus
Deschampia cespitosa
Festuca rubra
Poa nemoralis

North

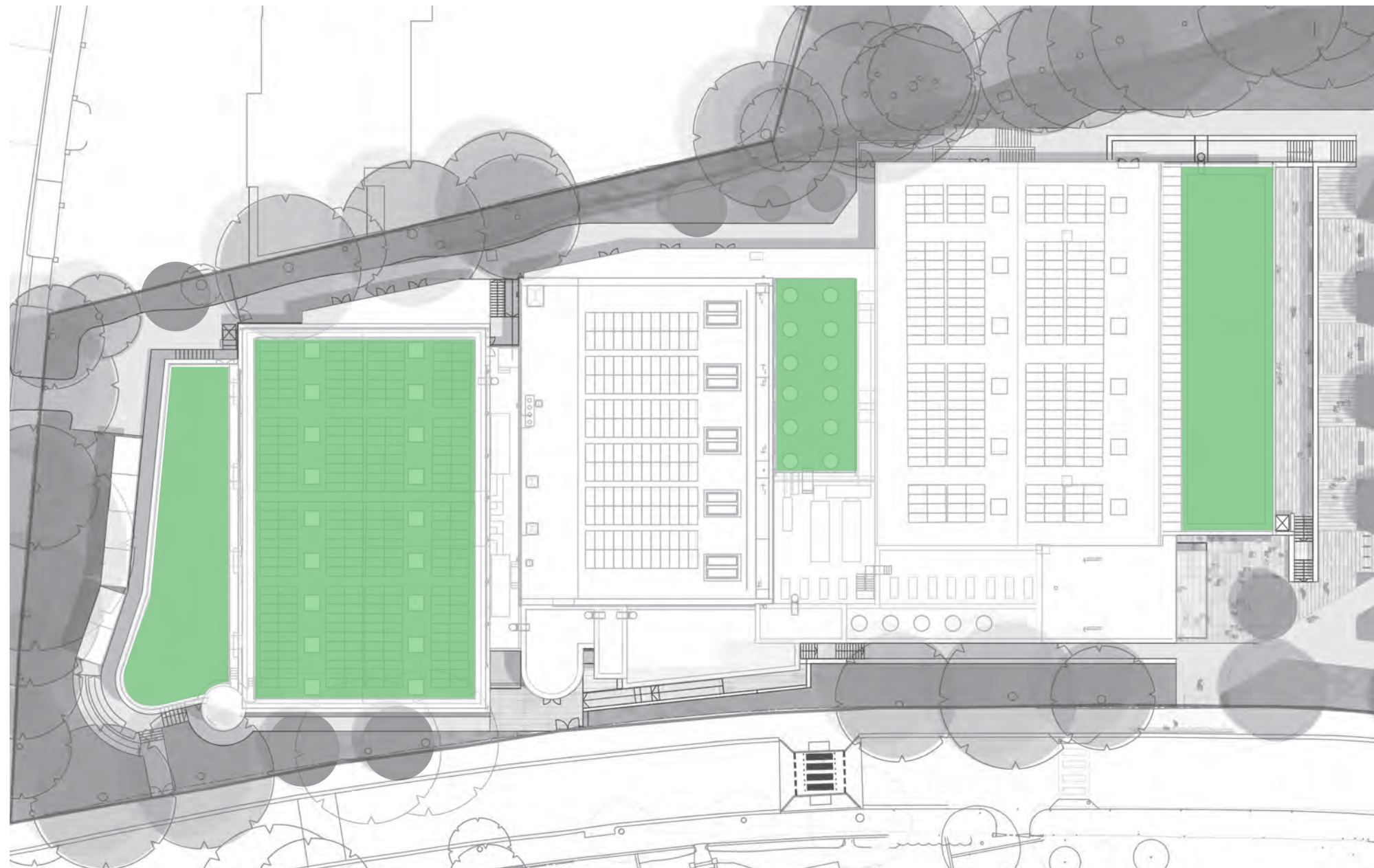


SCALE 1:500 @A3



06 Planting strategy

MSC GREEN ROOFS



North
SCALE 1:500 @A3



Proposed biodiverse green roofs
Wildflower and sedum mixes including low native wildflower plugs.

Agrimonia eupatoria
Bellis perennis
Campanula glomerata
Campanula rotundifolia
Centaurea scabiosa
Dianthus deltoides
Dianthus gratianopolitanus
Echium vulgare
Fragaria vesca
Knautia arvensis
Linaria vulgaris
Lotus corniculatus
Malva sylvestris
Primula veris
Stachys officinalis
Silene dioica
Taraxacum officinale
Veronica chamaedrys

06 Planting strategy

INDICATIVE PLANTING PALETTE - SOUTH TERRACES



Stipa lessingiana



Libertia grandiflora



Pittosporum tobira 'Nanum'



Verbascum 'Helen Johnson'



Potentilla thurberi 'Monarch's Velvet'



Santolina rosmarinifolia 'Primrose Gem'



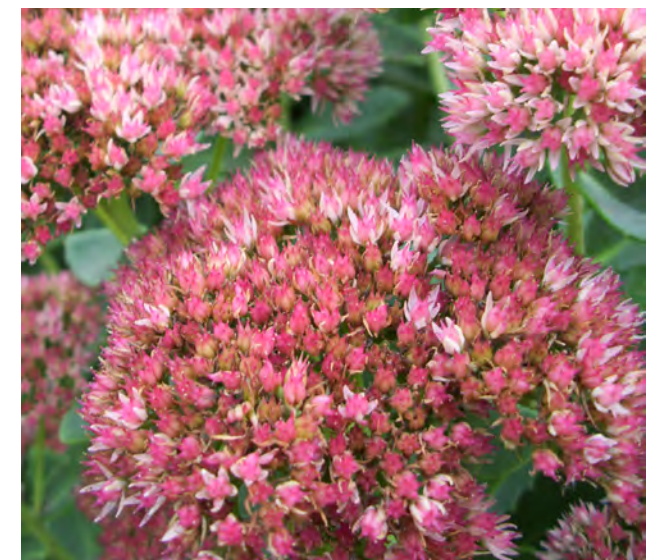
Nepeta racemosa 'Walker's Low'



Anemone sylvestris



Geranium x magnificum 'Rosemoor'



Hylotelephium 'Herbstfreude'



06 Planting strategy

INDICATIVE PLANTING PLAN - SOUTH TERRACES



North



SCALE 1:500 @A3



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SHRUBS

- Ballota pseudodictamnus*
- Hydrangea paniculata* 'Little Lime'
- Lavatera x clementii* 'Barnsley'
- Pittosporum tobira* 'Nanum'
- Spiraea japonica* 'Dart's Red'

HERBACEOUS

- Anemone sylvestris*
- Diascia* 'Salmon Supreme'
- Geranium x magnificum* 'Rosemoor'
- Libertia grandiflora*
- Miscanthus sinensis* 'Adagio'
- Nepeta racemosa* 'Walker's Low'
- Penstemon raven*
- Potentilla thurberi* 'Monarch's Velvet'
- Salvia officinalis* 'Purpurascens'
- Santolina rosmarinifolia* 'Primrose Gem'
- Stipa lessingiana*
- Tellima grandiflora*
- Verbascum* 'Helen Johnson'
- Vinca minor* f. *alba* 'Gertrude Jekyll'

BULBS

- Allium sphaerocephalon*
- Camassia leichtlinii* 'Semiplena'

06 Planting strategy

INDICATIVE PLANTING PALETTE - W & N ELEVATIONS



Juniperus sabina 'Tamariscifolia'



Bergenia 'Autumn Magic'



Rubus tricolor 'Betty Ashburner'



Alchemilla mollis



Helleborus orientalis



Athyrium niponicum var 'Pictum'



Polystichum setiferum 'Herrenhausen'



Astrantia major 'Claret'



Sarcococca hookeriana 'Winter Gem'

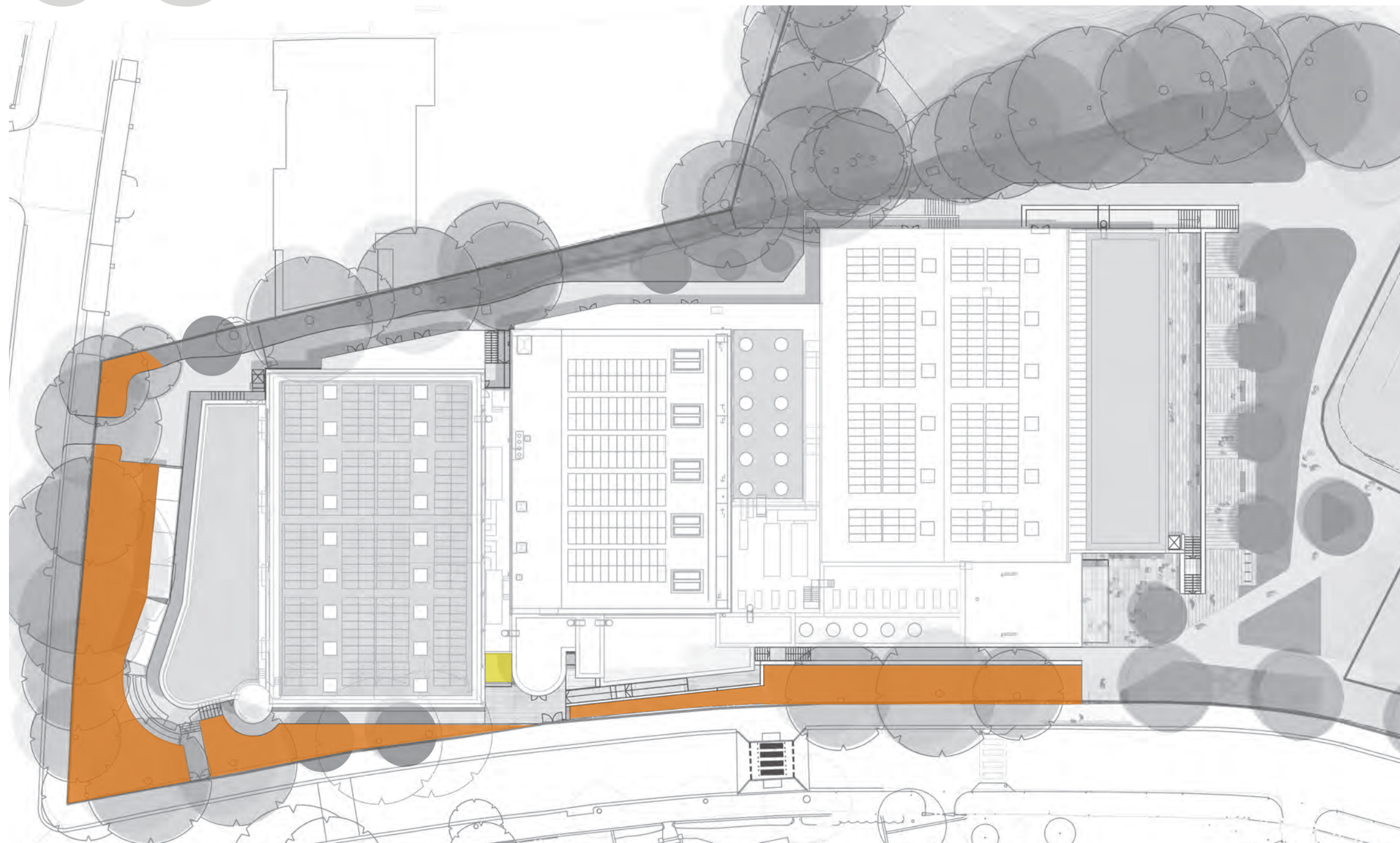


Mahonia eurybracteata 'Soft Caress'



06 Planting strategy

INDICATIVE PLANTING PALETTE WEST/NORTH ELEVATIONS



North



SCALE 1:500 @A3



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SHRUBS

Amelanchier lamarkii
Arbutus unedo compacta
Cornus canadensis
Daphne cneorum 'Eximia'
Daphne x transatlantica 'Eternal Fragrance'
Deutzia longifolia 'Veitchii'
Juniperus sabina 'Tamariscifolia'
Mahonia eurybracteata 'Soft Caress'
Rubus tricolor 'Betty Ashburner'
Sarcococca hookeriana 'Winter Gem'

HERBACEOUS

Acanthus hungaricus
Alchemilla mollis
Astrantia major 'Claret'
Athyrium niponicum var 'Pictum'
Bergenia 'Autumn Magic'
Dryopteris wallichiana
Geranium phaeum 'Album'
Helleborus orientalis
Liriope muscari
Panicum virgatum 'Shenandoah'
Pachysandra terminalis
Polystichum setiferum 'Herrenhausen'

CLIMBERS

Clematis armandii
Trachelospermum jasminoides

BULBS

Galanthus nivalis
Hyacinthus orientalis var. albulus
Ornithogalu pyramidale
Nerine bowdenii

Betula utilis var Jacquemontii multi stem
Pleioblastus pygmaeus 'Distichus'

06 Planting strategy

INDICATIVE PLANTING PALETTE - N-E ELEVATION



Viburnum opulus



Cornus alba



Ajuga reptans



Filipendula ulmaria



Iris pseudacorus



Lythrum salicaria



Prunus spinosa



Dryopteris filix-mas



Allium ursinum

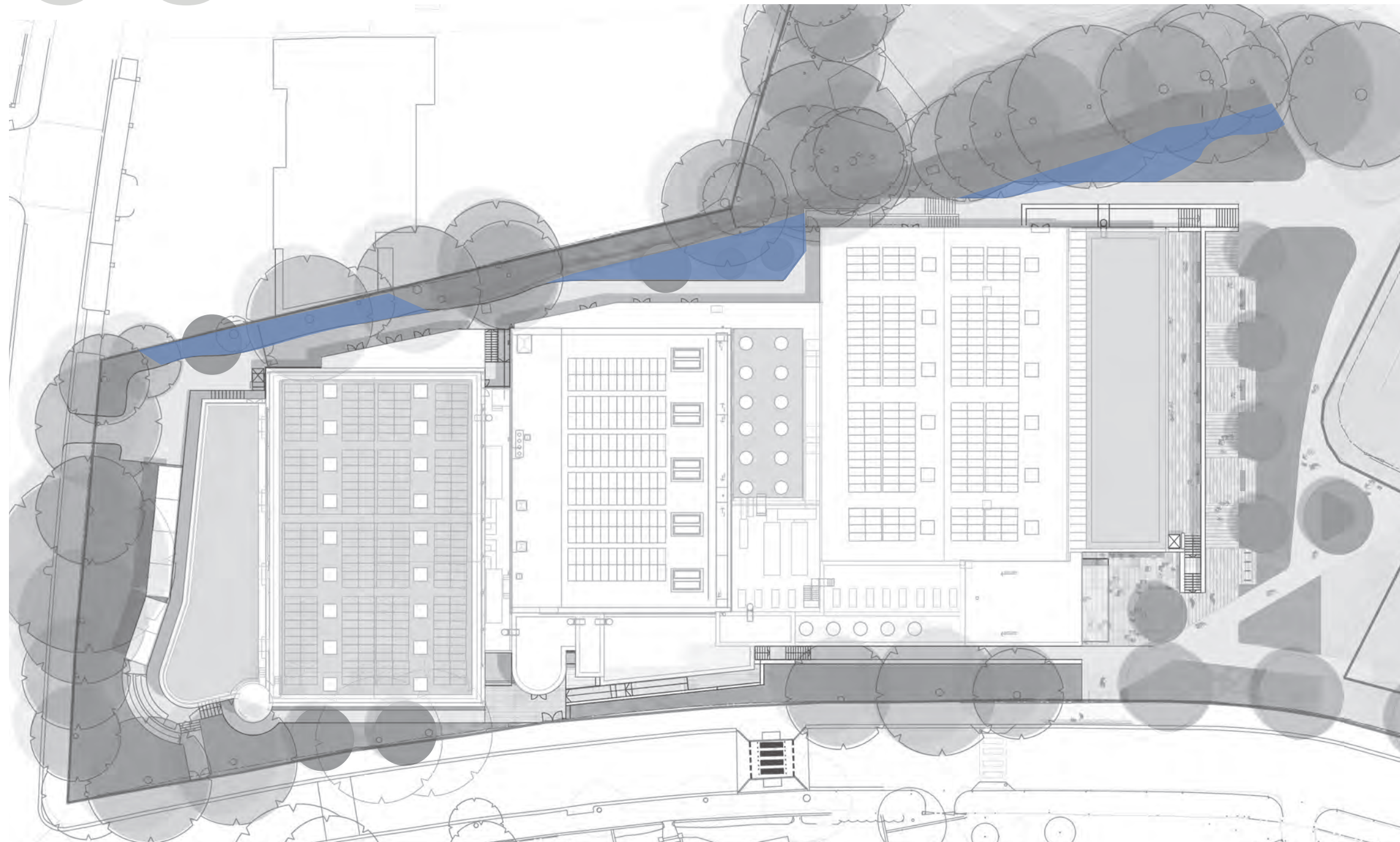


Hyacinthoides non-scripta



06 Planting strategy

INDICATIVE PLANTING PALETTE - NORTH-EAST ELEVATION



North



SCALE 1:500 @A3



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SHRUBS

Cornus alba
Craetagus laevigata
Hippophae rhamnoides
Prunus spinosa
Rubus arcticus
Salix repens
Viburnum opulus

HERBACEOUS

Ajuga reptans 'Purple Torch'
Acorus gramineus 'Ogon'
Filipendula ulmaria
Iris pseudacorus
Lythrum salicaria

FERNS

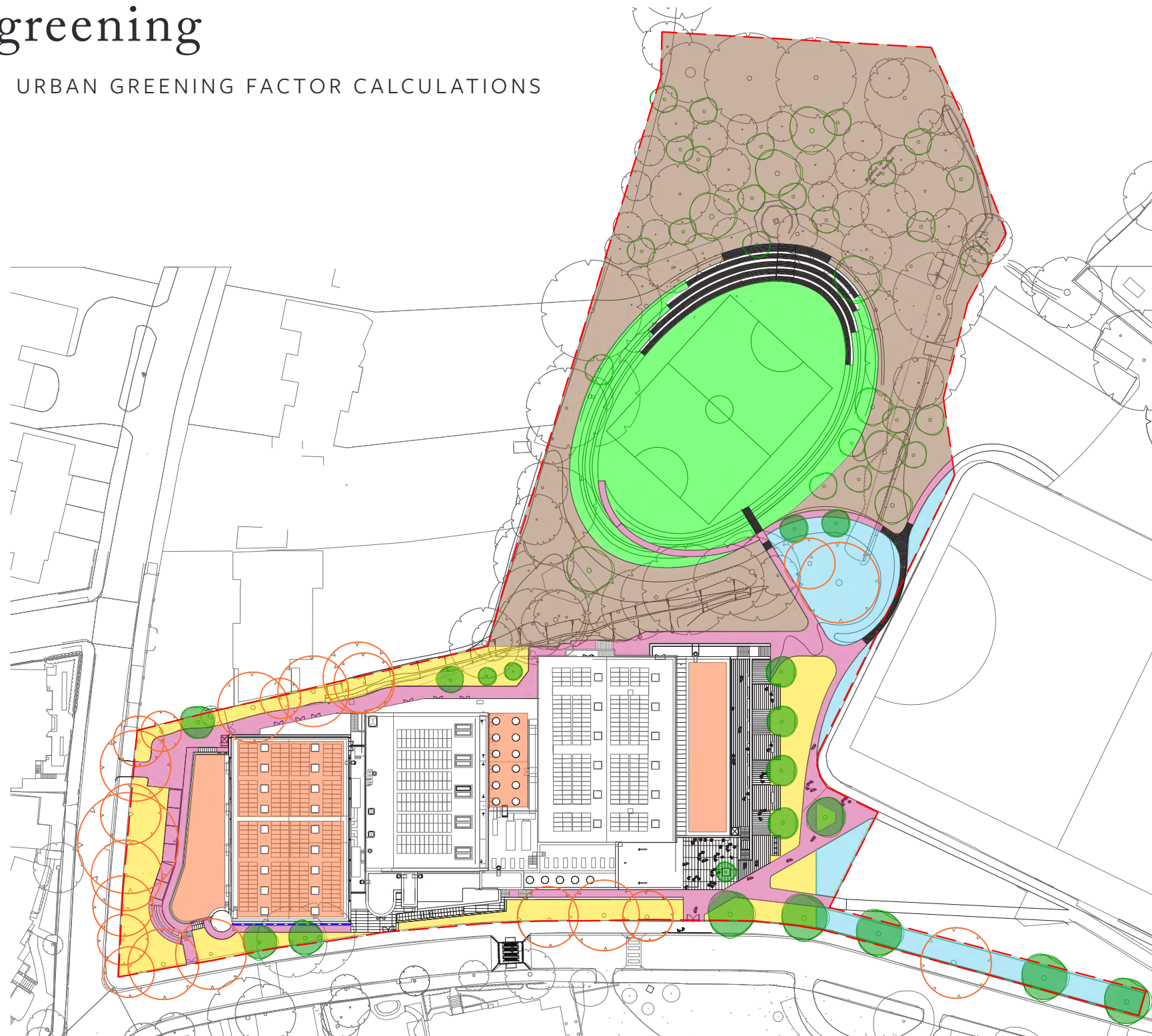
Asplenium scolopendrium
Dryopteris filix-mas
Pteridium aquilinum

BULBS

Allium ursinum
Hyacinthoides non-scripta

07 Urban greening

URBAN GREENING FACTOR CALCULATIONS



Urban Greening Factor

Surface Cover Type	Score	Area proposed	Contribution
Semi-natural vegetation (woodland, species-rich grassland) maintained or established on site	1	5282.0m ²	5282.0m ²
Standard trees planted in connected tree pits with a minimum soil volume equivalent to at least two thirds of the projected canopy area of the mature tree	0.8	2781.8m ²	2225.4m ²
Extensive green roof with substrate of minimum settled depth of 80mm (or 60mm beneath vegetation blanket) – meets the requirements of GRO Code 2014	0.7	1286.3m ²	900.4m ²
Green wall –modular system or climbers rooted in soil	0.6	32.8m ²	19.7m ²
Groundcover planting	0.5	1335.3m ²	667.7m ²
Amenity grassland (species-poor, regularly mown lawn)	0.4	939.4m ²	375.8m ²
Unplanted detention basins	0.2	2473.6m ²	494.7m ²
Permeable paving	0.1	1173.0m ²	117.3m ²
Total Contribution			10083m ²
Total Site Area			16720m ²
Urban Greening Factor			0.60



Robert Myers Associates

LANDSCAPE ARCHITECTURE

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