

**LANDSCAPE MATERIALS, EQUIPMENT
AND PLANTING REPORT**
Cherry Orchard Point
July 2023

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MATERIALS AND EQUIPMENT

The selection of materials is determined by several factors, so as well as complying with appropriate BS and EN standards, the selection of families of materials and furniture will give visual cohesion as well as ease in the repair and replacement of elements that become damaged. In a new-build situation, the textures and colours are selected to give visual and sensory interest to the scheme, as well as creating a new sense of place and identity.

1. SURFACING



Permeable pre-cast concrete paving with granite finish for woonerf streets with pre-cast concrete kerb with granite finish.
Permeable paving chosen to benefit sustainable drainage in line with Dublin City Development plan and national guidelines.
Mid grey and graphite colours are proposed, creating a simple pattern for the woonerfs as indicated on the landscape plan



Feature PC concrete paving to Park West avenue colour: mid grey and silver.



Permeable pre-cast concrete textured tiles for ground floor patios with double row of PC concrete setts as edging detail.
Permeable paving chosen to benefit sustainable drainage in line with Dublin City Development plan and national guidelines.



Compacted gravel path for park paths



Resin bonded recycled rubber mulch safety surfacing



Sand safety surfacing



Wet pour safety surfacing mounds and for safety surfacing to fitness equipment

2. PLAY EQUIPMENT

Play in natural environment - inclusive woodland, meadow planting

Playful landscape - mounding

Equipment for smaller children: willow tunnel, springers, stepping logs, boat, slide

Equipment for older children: Agility trail, woodland rope bridge, slide

Incidental play -Hammocks



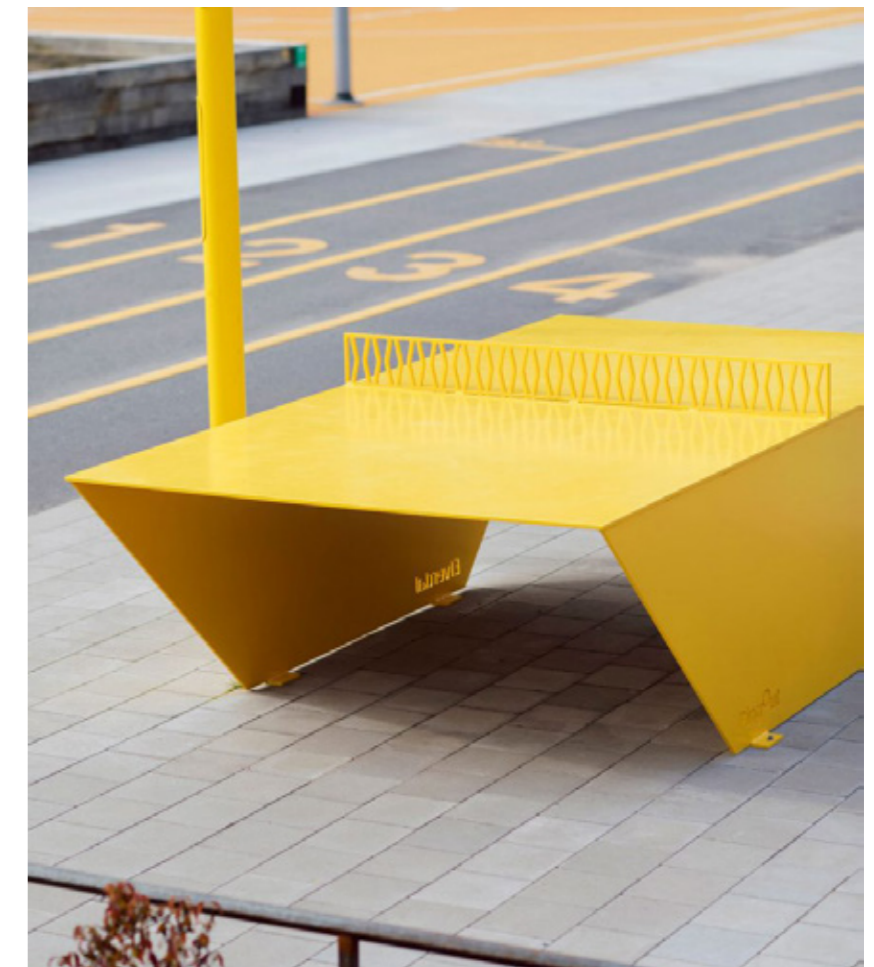
3. SPORTS AND FITNESS EQUIPMENT

Outdoor gym: bicycle, and accessible arm bicycle, Callisthenics combination station including accessible equipment such as push up and pull up bars and stretch station,

Table tennis

Multi-use games area

Trim trail is proposed as part of the overall scheme, not part of this planning application: Overhead ladder, hurdles, over and under, balance beam,



LCHE014 LDA Cherry Orchard
Landscape Presentation May 2023

4. BICYCLE PARKING



Picture on the top
Visitors bike parking - Sheffield type bike stands integrated in the landscaping in woonerf streets near main entrances.



Pictures on the left:
Staking system for permanent bike resident's bike parking - two-tier bike racks with gas strut
Covered - cage in communal courtyards

5. FURNITURE



Playful sculptural concrete seats



Age friendly seats with armrests and backrests



Stainless steel bollards and removable bollards

PLANTING

6. NATURAL EDGE - NATIVE PLANTING

Natural edge planting to the M50 and northern site boundary

NATIVE WILDFLOWER MEADOW SEED MIX

from Irish provenance, mixed with grass seed

Species: Annual Mayweed, Birdsfoot Trefoil, Black Meddock, Bladder Campion, Bluebell, Burdock, Cat's Ear, Common Sorrel, Corn Marigold, Corn Poppy, Corn Spurry, Corncockle, Cornflower, Cowslip, Devil's-bit Scabious, Eyebright, Field Scabious, Flag Iris, Fleabane, Foxglove, Garlic Hedge Mustard, Hemp Agrimony, Hoary Plantain, Kidney Vetch, Ladies Ann Lace, Lady's Bedstraw, Common Centaury, Lesser Knapweed, Musk Mallow, Marjoram, Meadow Buttercup, Meadowsweet, Mullein, Ox-Eye Daisy, Pineapple Mayweed, Purple Loosestrife, Ragged Robin, Red Bartsia, Red Campion, Red Clover, Ribwort Plantain, Rough Hawksbit, Selfheal, Shepherd's Purse, Smooth Hawksbit, St. Johnswort, Teasel, Vetch Common, Weld, White Campion, Wild Angelica, Wild Carrot, Wild Valerian, Woundwort, Yarrow, Yellow Agrimony, Yellow Rattle

NATIVE MICRO-FOREST PLANTING

To reinforce existing woodland buffer along M50

Inspired by the Miyawaki method. 17 species of native trees and shrubs to develop in time the forest multi-storey structure - with emerging tree layer, tree layer, sub-tree layer and shrub layer. By combining this large variety of plants, a complex habitat will develop attracting much biodiversity. Whip planting (seedlings) in planting density 4 plants/sqm.

Additional groundcover native planting of ivy, ferns and native bulb planting for seasonal interest.

Emerging tree layer. (15% of mix)

5% Pedunculate oak *Quercus robur*, Irish provenance
 5% Sessile oak *Quercus petraea*, Irish provenance
 5% Scots pine *Pinus sylvestris*, Irish provenance

Tree layer (40% of mix)

20% Alder *Alnus glutinosa*
 10% Cherry* *Prunus avium*
 5% Downy birch *Betula pubescens*
 5% Silver birch *Betula pendula*

Sub-tree layer (25% of mix)

5% Forest apple* *Malus sylvestris*
 10% Hawthorn* *Crataegus monogyna*
 5% Hazel *Corylus avellana*
 5% Holly* *Ilex aquifolium*

Shrub layer (15% of mix)

Blackthorn* *Prunus spinosa*
 Blackberry* *Rubus fruticosus*
 Doge rose* *Rosa canina*
 Elderberry* *Sambucus nigra*
 Guelder rose* *Viburnum opulus*

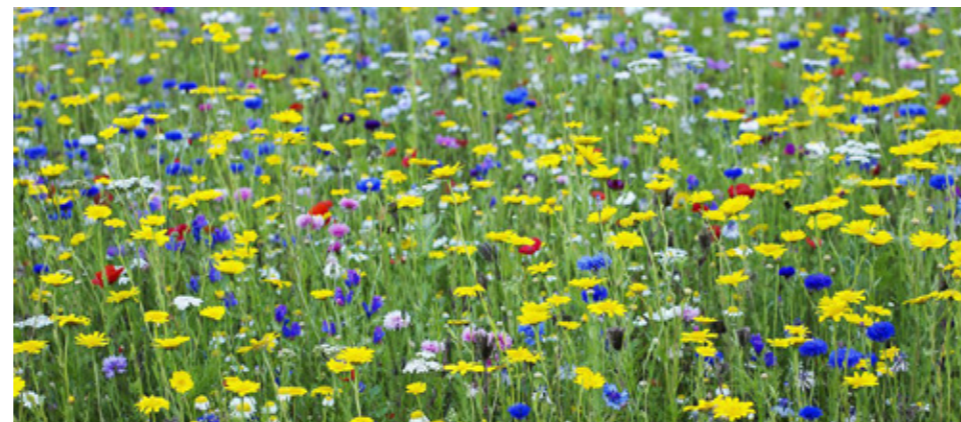
Spindle *Euonymus europaeus*
Climbers and groundcover:
 Honeysuckle* *Lonicera periclymenum*, climber
 Ivy* *Hedera hibernica*, main groundcover
 Hard fern *Blechnum spicant* - in groups locally for additional interest
 Lady fern *Athyrium filix femina* - in groups locally for interest
 with bulbs:
 Snowdrops* (*Galanthus nivalis*), Bluebells* (*Hyacinthoides non-scripta*)

SWALES - NATIVE PLANTING

Flowering rush* *Butomus umbellatus*
 Greater pond sedge *Carex riparia*
 Large sedge *Carex pendula*
 Marsh marigold* *Caltha palustris*
 Meadowsweet* *Filipendula ulmaria*
 Oxeye Daisy* *Leucanthemum vulgare*
 Purple loosestrife* *Lythrum salicaria*
 Reed sweet grass *Glyceria maxima*
 Soft rush *Juncus effusus*
 Tufted hair grass *Deschampsia caespitosa*
 Water mint* *Mentha aquatica*
 Yellow iris* *Iris pseudacorus*



Natural swale planting, reference: Quirijn park, Tilburg



Native wildflower meadow, illustrative picture



Native microforest planting

NATURAL EDGE - AIR PURIFICATION

WOODLAND REINFORCEMENT TO M50 WITH FOCUS ON APPROPRIATE NATIVE TREE SPECIES SUITABLE FOR AIR PURIFICATION:

- Alder (*Alnus glutinosa*)
- Oak (*Quercus petraea*, *Quercus robur*)
- Hawthorn (*Crataegus monogyna*)
- Pine (*Pinus sylvestris*)

CREATING A MULTI STOREY DENSE WOODLAND STRUCTURE
Using the Miyawaki method



LITERATURE:

EFFECTIVE TREE SPECIES FOR LOCAL AIR QUALITY MANAGEMENT

Beckett, K. P., Freer Smith, P. H., & Taylor, G. (2000). Effective tree species for local air quality management. *Arboricultural Journal*, 26(1), 12-19.

DESIGNING VEGETATION BARRIERS FOR URBAN AIR POLLUTION ABATEMENT: A PRACTICAL REVIEW FOR APPROPRIATE PLANT SPECIES SELECTION

Barwise, Y., & Kumar, P. (2020). Designing vegetation barriers for urban air pollution abatement: A practical review for appropriate plant species selection. *Npj Climate and Atmospheric Science*, 3(1), 1-19.

7. SEMI-NATURAL PLANTING TO PARK AND STREETS

NATIVE WILDFLOWER MEADOW SEED MIX

Native planting as per Natural edge

NATIVE MICRO-FOREST PLANTING

Native planting as per Natural edge

SWALES - NATIVE PLANTING

Native planting as per Natural edge

RAINGARDENS - NATIVE PLANTING

| | |
|-------------------------------|-------------------------------|
| Creeping Jenny* | <i>Lysimachia nummularia</i> |
| Cuckoo flower | <i>Cardamine pratensis</i> |
| Devil's bit scabious | <i>Succisa pratensis</i> |
| Hemp agrimony* | <i>Eupatorium cnaibinum</i> |
| Large sedge | <i>Carex pendula</i> |
| Marsh marigold* | <i>Caltha palustris</i> |
| Meadowsweet | <i>Filipendula ulmaria</i> |
| Oxeye Daisy* | <i>Leucanthemum vulgare</i> |
| Purple loosestrife* | <i>Lythrum salicaria</i> |
| Ragged robin* | <i>Silene flos-cuculi</i> |
| Red campion | <i>Silene dioica</i> |
| Sneezewort* | <i>Achillea ptarmica</i> |
| Soft rush | <i>Juncus effusus</i> |
| Square-stalked St John's wort | <i>Hypericum tetrapterum</i> |
| Tufted hair grass | <i>Deschampsia caespitosa</i> |
| Water avens* | <i>Geum rivale</i> |
| Water mint* | <i>Mentha aquatica</i> |
| Yellow iris* | <i>Iris pseudacorus</i> |

FOOD FOREST

Mix of native and cultural planting of edible and medicinal species of trees, shrubs and herbaceous perennials, includes many pollinator friendly plants

Canopy and tree layer:

| | |
|--------------------|--|
| Cherry tree | <i>Prunus avium*</i> , Irish varieties, native |
| Pears | <i>Pyrus communis</i> , Irish varieties |
| Service tree* | <i>Sorbus domestica</i> |
| Turkish hazel tree | <i>Corylus colurna</i> |

Sub-tree layer

| | |
|-------------------|---|
| Apple varieties* | <i>Malus sp.</i> , Irish varieties |
| Bullace* | <i>Prunus insititia</i> 'Shepherd's Bulace' |
| Cornelian cherry* | <i>Cornus mas</i> |
| Elderberry* | <i>Sambucus nigra</i> 'Laciniata', native |
| Hawthorn* | <i>Crataegus monogyna</i> , native |
| Hazelnut | <i>Corylus avellana</i> , native |
| Medlar* | <i>Mespilus germanica</i> |
| Quince* | <i>Cydonia oblonga</i> |

| | |
|-------------------|--|
| Serviceberry* | <i>Amelanchier alnifolia</i> 'Smokey' |
| Siberian pea tree | <i>Caragana arborescens</i> , evergreen, nitrogen fixing |

Shrub layer:

| | |
|----------------|---|
| Blackberry* | <i>Prunus spinosa</i> , native |
| Black currant* | <i>Ribes nigrum</i> |
| Dogrose* | <i>Rosa canina</i> , native |
| Gooseberry | <i>Ribes uva-crispa</i> |
| Guelder rose* | <i>Viburnum opulus</i> , native |
| Oregon grape* | <i>Mahonia aquifolium</i> |
| Raspberry | <i>Rubus idaeus</i> , native, to forest edges |

Climbers:

| | |
|--------------------|----------------------------|
| Five flavour berry | <i>Schizandra sinensis</i> |
|--------------------|----------------------------|

Undergrowth seed and bulb mix:

Camasia (bulbs, *Camasia quamash*), Chervil (*Anthriscus cerefolium*), Bellflower* (*Campanula*), Borage* (*Borago officinalis*, native), Comfrey (*Symphytum officinale*), Forget-me-not* (*Myosotis sylvatica*), Lungwort* (*Pulmonaria officinalis*), Mint* (*Mentha piperita*), Musk mallow (*Malva moschata*), Primerose (*Primula vulgaris*, native), St John's wort (*Hypericum perforatum*, native), Sorrel (*Rumex acetosa*, native), Sweet Cicely (*Myrrhis odorata*), Valerian (*Valeriana officinalis*, native), Violet (*Viola odorata*), Wild garlic* (*Allium ursinum*, native), Wild strawberry* (*Fragaria vesca*, native)



Food forest, reference from International Garden Festival in Chaumont sur Loire, France, by M+A

ADDITIONAL BULB PLANTING TO PARK

| | |
|--------------|---|
| Early crocus | <i>Crocus tommasianus</i> |
| Snowdrop* | <i>Galanthus nivalis</i> , native |
| Daffodils | <i>Narcissus</i> 'February Gold', 'Jetfire', 'Thalia', <i>N. poeticus var. recurvus</i> |

FRUIT TREES TO PARK

| | |
|----------------|---|
| Apples | <i>Malus sp.</i> , Irish varieties, in tree lines, orchard |
| Pears | <i>Pyrus sp.</i> , Irish varieties, in tree lines, orchard |
| Plums, damsons | <i>Prunus sp.</i> , Irish varieties, in tree lines, orchard |
| Walnut | <i>Juglans regia</i> , Irish varieties, as solitary tree |
| Mulberry | <i>Morus nigra</i> , as solitary tree |

STREET TREES

A combination of native street tree planting suitable for bioretention planting strip and pollinator friendly tree planting to hard surfacing has been selected.

Bioretention street tree planting:

| | |
|------------|--------------------------|
| Alder | <i>Alnus glutinosa</i> |
| Birch | <i>Betula pubescens</i> |
| Pin oak | <i>Quercus palustris</i> |
| Rowan | <i>Sorbus aucuparia</i> |
| Crab apple | <i>Malus toringo</i> |

Pollinator friendly street planting to hard surfacing

| | |
|--------------|------------------------------------|
| Linden tree | <i>Tilia x europaea</i> 'Euchlora' |
| Callery pear | <i>Pyrus c.</i> 'Chanticleer' |
| Crab apple | <i>Malus toringo</i> |



Fruit trees in park



Spring aspect - bulbs



Alder - suitable for bioretention



Callery pear - pollinator friendly street tree

8. CULTURAL PLANTING TO COURTYARDS AND PRIVACY STRIPS

Mix of edible herbs, edible flowers and berry bearing shrubs and trees. Cultural planting including pollinator friendly plants, evergreen and flowering plans for amenity, includes also native plants.

COURTYARDS AND PRIVACY PLANTING STRIPS

Edible hedging

Mix of more classic berry bearing deciduous shrubs with evergreen edible berry bearing shrubs for increased privacy screening.

| | |
|--------------|--|
| Currants * | <i>Ribes rubrum, ribes nigrum</i> |
| Gooseberries | <i>Ribes uva-crispa</i> |
| Raspberry | <i>Rubus idaeus</i> |
| Bay laurel | <i>Laurus nobilis</i> , evergreen |
| Checkerberry | <i>Gaultheria shallon</i> , evergreen |
| Silverberry* | <i>Eleagnus x ebbingei</i> , evergreen |
| Tea plant | <i>Camelia sinensis</i> , evergreen |

Feature solitary shrubs and small multi-stem trees - flowering and fruiting

| | |
|------------------|------------------------------|
| Serviceberry | <i>Amelanchier alnifolia</i> |
| Cornelian cherry | <i>Cornus mas</i> |
| Kousa dogwood | <i>Cornus kousa</i> |
| Hawthorn | <i>Crataegus pinnatifida</i> |

Perennial edible and medicinal herbs and edible flowers planting mix

| | |
|----------------------|--|
| Anise hyssop* | <i>Agastache officinalis</i> |
| Bellflowers* | <i>Campanula</i> , native, semi-evergreen |
| Cardoon* | <i>Cynara cardunculus</i> |
| Chamomile | <i>Chamaemelum nobile</i> , native |
| Chives* | <i>Allium schoenoprasum</i> |
| Fennel* | <i>Foeniculum vulgare</i> |
| Forget-me-not* | <i>Myosotis sylvatica</i> |
| Great yellow gentian | <i>Getiana lutea</i> |
| Hyssop* | <i>Hyssopus officinalis</i> , evergreen |
| Lavander* | <i>Lavandula angustifolia</i> , evergreen |
| Lemon balm | <i>Melissa officinalis</i> |
| Lemon verbena | <i>Aloyisia citriodora</i> |
| Mint* | <i>Mentha piperita</i> |
| Musk mallow | <i>Malva moschata</i> , native |
| Oregano* | <i>Origanum vulgare</i> , native |
| Oregon grape* | <i>Mahonia aquifolium</i> |
| Purple coneflower* | <i>Echinacea purpurea</i> |
| Roses* | <i>Rosa villosa, Rosa rugosa</i> 'Blanc Double de Coubert' |
| Rosemary* | <i>Rosmarinus officinalis</i> , evergreen |
| Sage* | <i>Salvia officinalis</i> , evergreen |
| Saffron* | <i>Crocus sativus</i> , bulbs |
| St John's wort | <i>Hypericum perforatum</i> , native |
| Valerian | <i>Valeriana officinalis</i> , native |
| Vervain | <i>Verbena officinalis</i> , native |
| Viola - mix | <i>Viola</i> , evergreen |

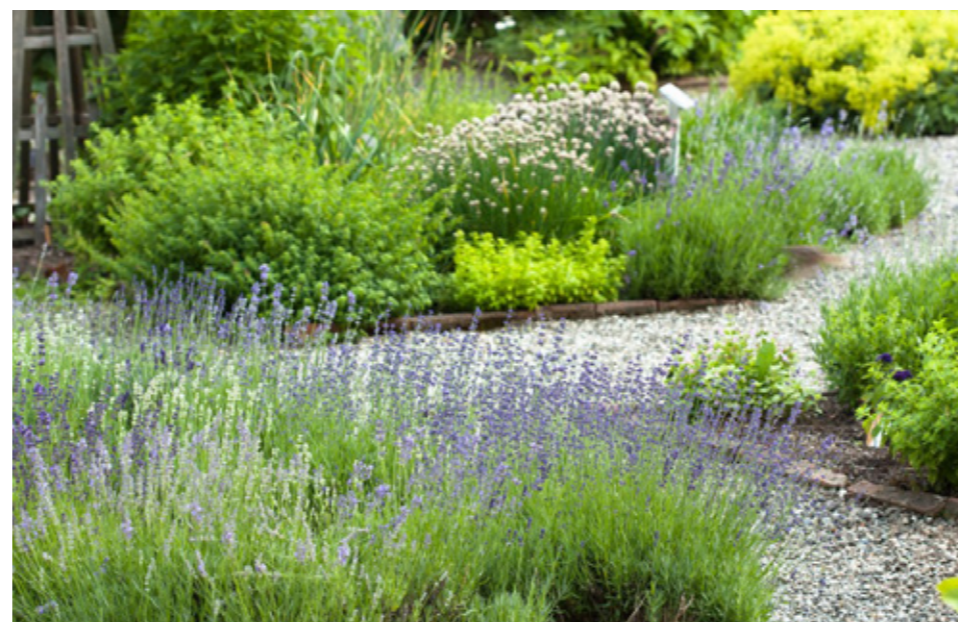
Yarrow

Achillea millefolium, native



Fruiting hedges, from the top: Gaultheria Shallon, Ribes rubrum, Eleagnus x ebbingei

Small multistem feature trees, examples above Amelanchier, Cornus kousa



Herb planting



Herb planting

Planting is following All Ireland Pollinator Plan
Pollinator friendly plants are marked with an asterisk *

MITCHELL + ASSOCIATES