

Materials and components

Designer

Peter Clare Garden Design
3 The Drive
Manchester
M20 6HZ

Environment and sustainability

Recycled Plastic benches and bench backs

Recycled Plastic Lumber (RPL) uses 100% recycled plastics from domestic and commercial waste, requiring only a third of the energy that new plastic uses in its production and is 100% recyclable after its original intended use. It needs no paint or treatment, is waterproof, resists all types of rot and mould and thus has a very long lifespan. Owing to the malleability of recycled plastic lumber with its ability to form strong and even bidirectional curves, it can be used for inclined backs of curved benches when suitably fixed in place

Paving

The primary building material is new cut Yorkstone from small, low impact quarries in the nearby Pennine hills.

Small strips of setts will be used, these will be Indian stone, selected for their slight colour difference to the Yorkstone and providing a flat pedestrian surface whilst still giving the effect of traditional cobbles

Gravel is a useful, cost effective and sustainable material with the ability to absorb large amounts of water. Thus for practical purposes the more stable underfoot variant, permeable resin bound gravel, which is still SuDs compliant, has been selected. Also included are local limestone gravel strips as the base for walk on planting giving fast drainage to the paved areas.

Stone

The stone seating and walling areas will be a mixture of trimmed boulder cut block and drystone with a minimal use of cement support. Local quarries and wallers/stonemasons to be used.

Planting material

All trees and plants sourced are sustainably grown here in the UK by local suppliers in Greater Manchester and surrounding areas

Species have been chosen for suitability for birds and pollinators, selecting for natural species and forms, suitability for local fauna, wide variety, deciduous and evergreen, and all seasons flowering.

There are some surprises – eg fatsia japonica is v good for pollinators in the autumn and winter months.

Plants selected are tolerant of a range of conditions in our changing climate where both heavy rainfall and heat and drought are factors. A number of plants have been picked for their ability to absorb pollution and noise eg. Camellia: others for their ability to absorb waterlogging or heat.

Other factors determining choice of plants are manageability and durability for a public area maintained by volunteers and also suitability for a part shaded site with good morning light.

Materials in detail

sub-grade:- existing earth, compacted.

Geotextile membrane: to BS EN 965, BS EN ISO 10319, BS EN ISO 10319, BS EN ISO 12236, BS EN ISO 12956, BS EN ISO 11058

Sub-base:- aggregate MOT type 1 to comply with BS 7533, BS EN 13242 minimum depth 100mm, trimmed and compacted, maximum tolerance +20 mm to -30 mm

Metal edging: –125-150mm + 100mm spikes 2.g mm galvanised slate grey powder coated steel edging. Eg Everedge Proedge. Cement haunched .

Cobbled Setts: – Indian stone tumbled Kandla Grey

Paving: York stone – proposed supplier Bingley Stone. Type: Richmond, machine sawn 38mm, mixed lengths. Hand cut on site to curved shapes as per plan

Retaining wall/seating/ Free standing boulder seating: York stone mixture of boulder, machine cut stone and walling - proposed suppliers: Bingley Stone BD13 5AB/ Earls Stone SK10 5AZ

Mortars

Stone seating retaining wall, stone edgings, metal edgings: general purpose mortar

Pointing for general paving and cobbled setts – Ultrascap Flowpoint-ECO Natural Grey

Seating (recycled plastic)

Recycled plastic lumber:75 X 50mm, recommended manufacturer: Plaswood /BerryGlobal

Recycled curved plastic benches (435x450 x1800 mm) – manufacturer: Plaswood /BerryGlobal

Manufacturing Technology: EM Extrusion Moulding

Material: PCR, PIR (Post Industrial Recycled resin)

Resin bound gravel

Lower substrates as above

Tarmac substrate: binder course 50-80mm thick, using 20mm material (DBM)

Resin bound gravel: 6- 10mm aggregate to minimum depth of 21-35mm @minimum x3.5 aggregate size. UVR resin to be used, minimum concentration 6% to 8%.

Soft landscaping

Soil inspection indicates slightly acid, moderate to free draining soil with low clay content.

Improvement via peat free compost and, if necessary, border soil. Soil quality and volumes to be checked after initial clearance to confirm.

Recommended supplier:- Greenvale BB11 5QB

‘Walk on’ planting strips to use above soil mixed 60:40 with 4-10mm horticultural grade gravel

Plants

To be drawn as available from the following shortlist

perennials

Acanthus mollis

Acanthus mollis 'Rue Ledan'

Acorus gramineus

Ageratina altissima 'Chocolate'

Anemone x Hybrda eg honore Jobert

Anthriscus sylvestris 'Ravenswing' (Cow Parsley)

Astilbe red baron or red sentinel

Astrantia major eg'Buckland' 'Gill Richardson Group'

Athyrium niponicum eg f. *metallicum*

Brunnera Alexanders great

Brunnera looking Glass

Campanula lactiflora 'loddon anna

Campanula pyramidalis

Campanula persicifolia Takion Blue/White

Carex everest

Centaurea montana (Perennial cornflower)

Cimicifuga Brunette

Deschampsia cespitosa

Dicentra spectabilis alba

Digitalis purpurea various subsp.

Dryopteris affinis (Golden shield fern)

Euphorbia amygdaloides 'Purpurea'

Ferns evergreen various eg. *Dryopteris affinis* 'Cristata The King'

Festuca glauca

Geranium hardy varieties

Geranium Phaeum

Geranium pratense eg 'Cloud Nine'

Gillenia trifoliata

Helleborus evergreen, various inc *foetidus*, *argutifolius*, cultivars eg Winter sunshine,

Helleborus orientalis various varieties

Heuchera various eg 'Palace Purple, Obsidian

Hosta slug resistant blue var. Eg *halcyon*, *Abiqua Drinking Gourd*', *Krossa Regal*

Libertia grandiflora

Lily of the valley - *Convallaria majalis*.

Liriope muscari

Miscanthus 'Morning light'

Primrose

Pulmonaria longifolia 'Diana Clare'

Pulmonaria officinalis

Salvia eg. Love & Wishes, Amistad

Scabiosa incisa 'Kudo'

Climbers – if 3rd party owner agrees to use of wall

Hydrangea Seemanii

Shade tolerant rose eg *Rosa Iceberg* or *Rosa Alberic Barbier*

Trachelospermum jasminoides

bulbs and corms

Allium karataviense

Allium schoenoprasum and similar

Allium siculum (syn. *Nectaroscordum*)

Anenome blanda varieties

Anenome nemorosa (wood anenome)

Camassia varieties

Chionodoxa forbesii

Crocus

Cyclamen coum

Erythronium dens-canis

fritillaria persica

Galanthus elwesii (Greater Snowdrop)

Hyacinthoides non-scripta (Native Bluebell)

Iris reticulata

Muscari armeniacum (Grape hyacinth)

Narcissus 'Actaea'

Narcissus poeticus

Snake's head fritillary (*Fritillaria meleagris*)

Tulipa turkestanica and similar

trees and shrubs

Acer palmatum varieties eg enkan

Amelanchier laevis Ballerina

Berberis spp.

Camellia.

Cercis canadensis Ruby Falls

Cornus alba sibirica variegata

Cornus Kousa var. *Chinensis*

Cotoneaster spp.

Daphne odora *Aureomarginata*

Euonymus alatus

Hebe topiaria or similar.

Hydrangea Annabel

Hydrangea Little Lime

Rhododendron - smaller cultivars

Rosmarinus officinalis

Sarcococca confusa (Sweet box)

Skimmia japonica

Viburnum opulus

groundcovers and subshrubs

Ajuga reptans eg. Colcolate Chip, Black Scallop

Campanula portenschlagiana

Cotoneaster species

Euonymus fortunei 'Silver queen'

Herniaria glabra

Ophiopogon planiscapus Nigrascens

Pratia Angulata or similar

Selinum wallichianum

Slow growing, small ivy eggivalace, starling, pixie dixie

Thymus serpyllum

Pratia angulata (White star creeper)

Phase 2 -Mosaics and boards

If funds available

Mosaics to be laid in the Christmas tree circle within the arcs defined by the paving laid in Phase 1. All designs to be created by selected members of the community in workshops run by the selected craftsperson with the assistance of the overall Contemplation Garden designer (Peter Clare). Colour scheme to be determined, all designs to be approved and final layouts to be refined for unity with each other and the garden as a whole by the Contemplation Garden designer (Peter Clare).

Mosaic themes: the people and events that have shaped and continue to shape the town and city

Materials: tiles, mortar and any additional substrate to be weatherproof and frost-proof and slip resistant to minimum R-10/PTV-25.

proposed mosaicist: Tracey Cartledge – Manchester based, (currently restoring Town Hall mosaics as part of the ongoing Manchester Town Hall restoration)

Interest boards tbc

Components in detail

Power and water supply - tbc

The continued stone wall to the library side of the arc seating will in due course house a water supply and 240V single phase mains electricity (from supply cable under the garden) - for use annually for the Christmas tree, for events and exhibitions throughout the year and for use of maintenance personnel both professional and voluntary – will be housed in a In Ground Box Unit (IGU) on the edge of the Christmas tree zone close the main access face of the cenotaph. .

Recycled plastic curved benches

Plaswood Edge Curved Bench in black and brown combination

Bench length 1800mm | Seat height 450mm | Seat width 355mm | Frame width 435mm

Bespoke stone and recycled plastic arc seating

The large curving stone bench and adjoining walls are to be made from locally sourced pennine stone, cut to shape at the quarry and assembled on site in conjunction with reinforced dry stone and machine cut walling by local craftsmen. The backs are recycled plastic lumber curved to fit, thanks to the material's bi-direction pliability, and anchored through recycled plastic lumber into the inclined cut yorkstone wall behind.

Seat back arc 8800mm long | Seat front arc 7380mm long | Seat height 450mm | Seat width 450mm | Seat back height 400mm | Seat back incline 15o

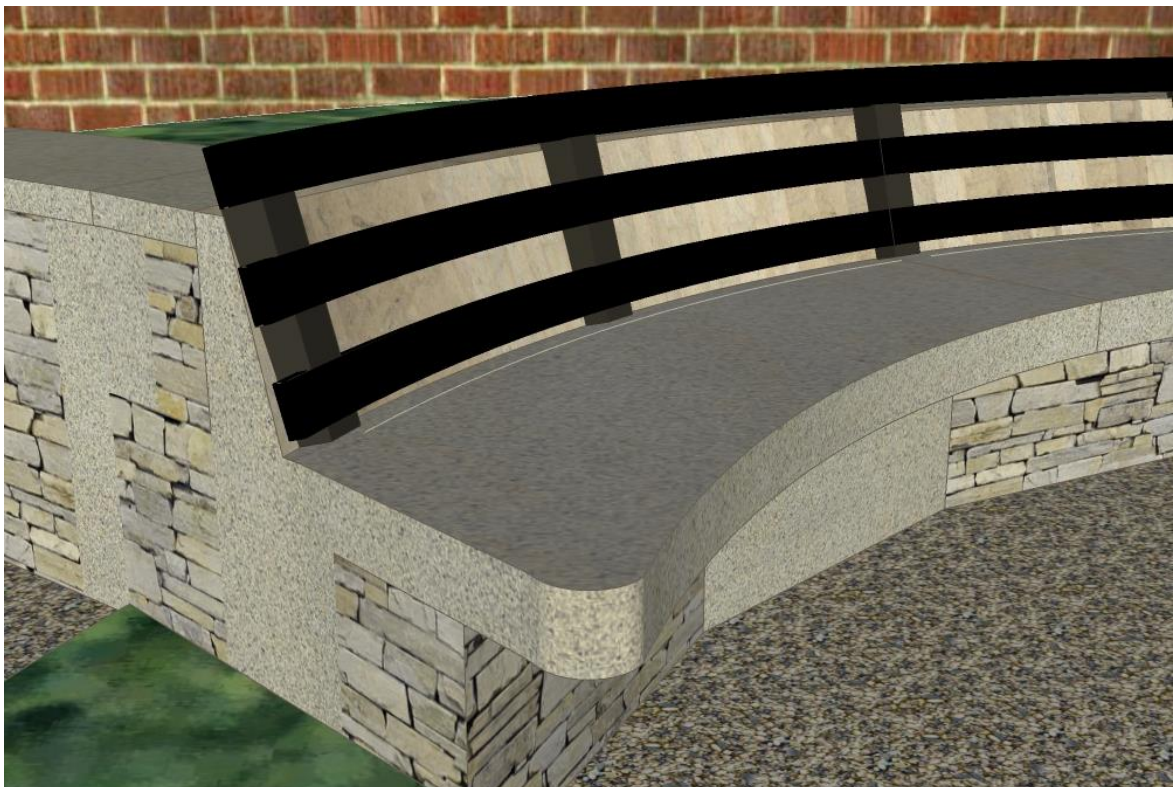
Bespoke stone water feature

The two visible components are an and upper spillway in the form of a machine cut yorkstone disc with a centrally located font hole placed centrally on a larger circular flat based stone bowl. Underneath both and below ground level is a large recycled plastic reservoir containing a sustainable, low voltage, low maintenance, submerged pump linked by short hose to the central font hole. Power comes via a sealed coupling and armoured cable, connecting to a transformer and timer housed in the electricity and water supply unit. Small side holes in the upper disc act as a return to the reservoir and pool depth limiters. All holes are protected from unwanted ingress of solids by hidden mesh. Maintenance can be achieved by unfastening and lifting the inner stone circle unit.

Recycled plastic curved bench



Bespoke stone and recycled plastic arc seating





Bespoke stone water feature

