



Appendices

Appendix A

A803 Design Principles

1.1 A803 Design Principles

The A803 design proposals consist of the following elements:

- gateways
- junctions
- footways
- carriageways
- cycleways

A set of design principles has been developed for each element as described below and summarised in the A803 Design Principles Summary table at the end of this appendix.

1.2 Gateway Design Principles

Two gateways are proposed on the A803 to identify the entrance to Bishopbriggs town centre when approaching from both the north and south. A northern gateway is proposed to the north of South Crosshill Road junction. This incorporates Bishopbriggs Library, and Bishopbriggs Park comfortably within the town centre environs. A southern gateway is proposed adjacent to the 'Kwik-Fit' vehicle repair garage where it will define the southern edge of the town. It incorporates the commercial properties to the east of the A803 within the extents of the town centre.

The gateways are to be seen as the transition point for a change in design approach and design character from that of a road corridor, to one which is in keeping with a town centre, and the town centre street elements.

A contrasting strip of high quality surface material should be implemented at the northern and southern gateways to provide a visual signal to users that they are entering the town centre. The materials of the strip are to compliment the specification of paved surfaces within the Civic Space and throughout the town centre. The change of surfacing should continue across the cycleway (if present) and the footways on either side of the road corridor.

'Bishopbriggs' place name signage should be incorporated as an identifier and the surfacing treatment should be complimented by boundary enhancements. These boundary enhancements will mirror the length of the gateway surface treatment which has been considered to be around a minimum of 3m. It is envisaged the treatment will take the form of metal panels with an artwork or design relevant to Bishopbriggs laser cut or etched into the surface material. Colour and finish is to be developed in keeping with the materials and colour palette chosen for the rest of the town centre.

1.3 Junction Design Principles

At the principal junctions along the A803 the road and footway surfaces should be close to level with a 20mm high tapping edge for the aid of partially sighted users with canes and guide dogs. Traditionally this 'raised table' junction arrangement would have a short transition section on the carriageway as the road surface raises up to footway level. Given the traffic volumes on the A803 and the status of the corridor as a priority / blue light route, the transition from 'normal' carriageway level to near footway level, should be extended over a greater distance so that there is no obvious transition and the gradient is 'lost' within the normal carriageway slopes. This will have the added benefit of reducing potential long-term maintenance issues with the surface in the immediate environs of the transition slopes.

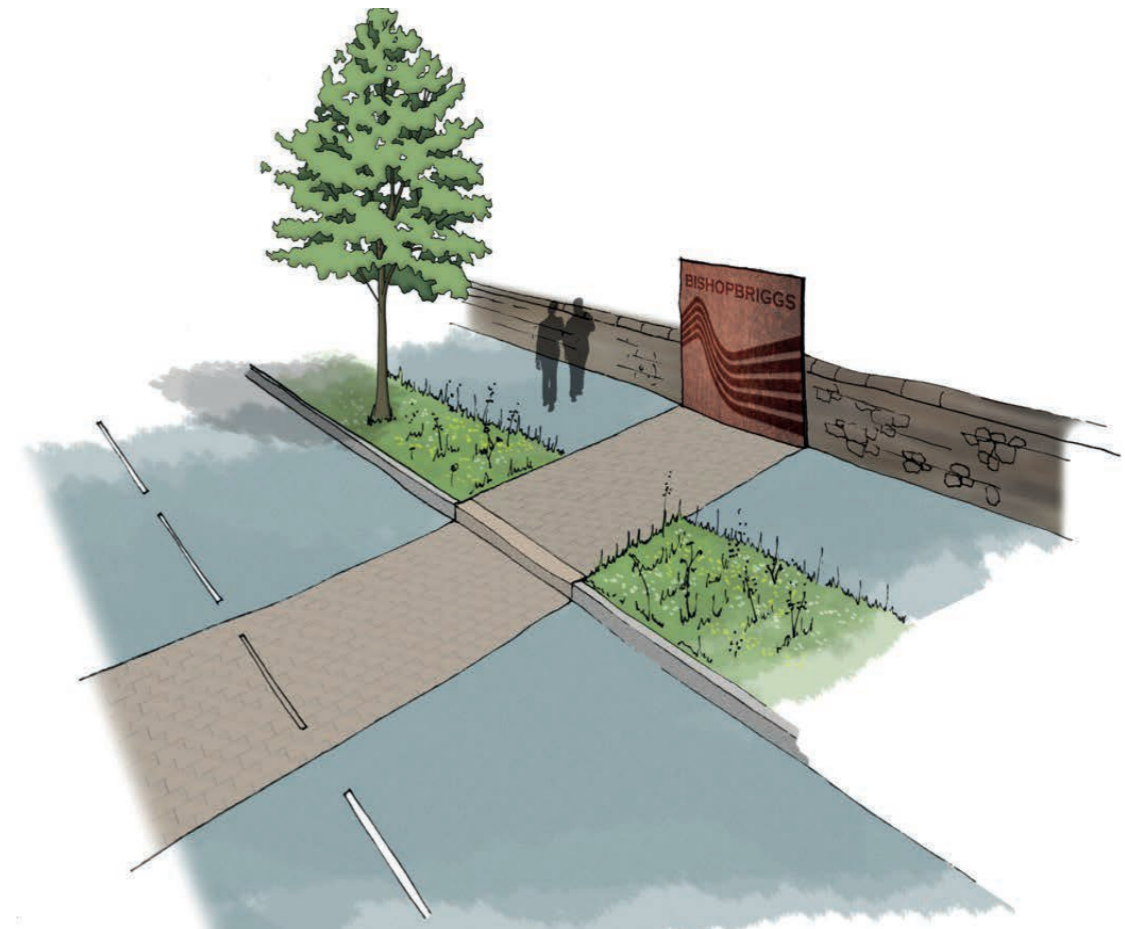


Figure 1: Illustration of gateway feature layout

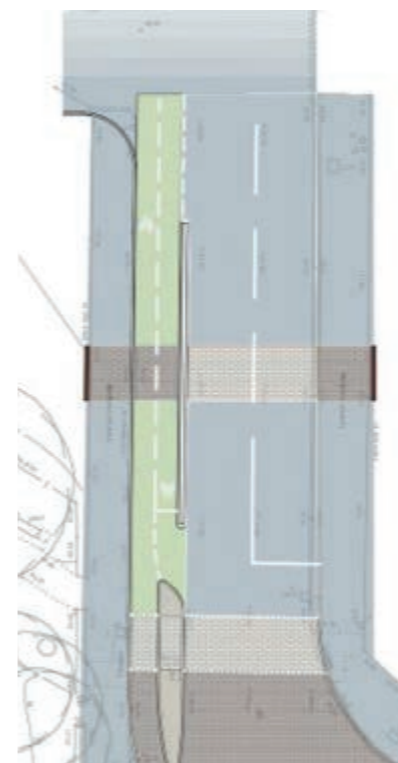


Figure 2: Northern Gateway

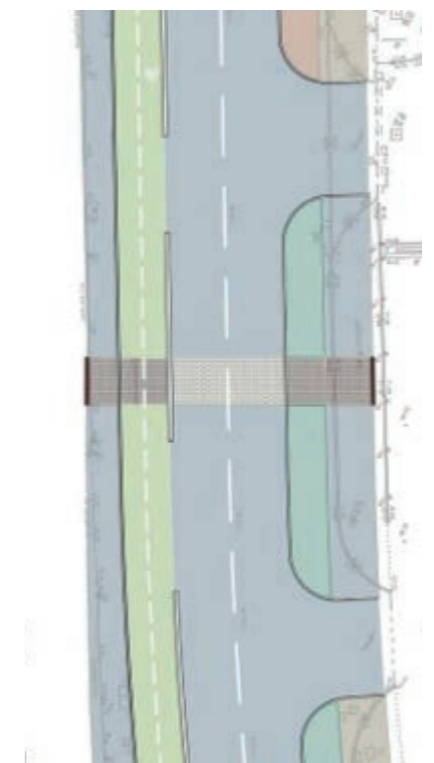


Figure 3: Southern Gateway

The overall design aesthetic of the junctions should give priority to pedestrians and every effort should be made to distance the presence of vehicles from the junctions. This will be achieved through creating wide pedestrian crossing points, with 'all red' phases to the signals and by moving the stop lines away from the junction. This will set queuing vehicles back from each arm of the junction and provide more open space when pedestrians are crossing both the A803 and adjacent side roads. Pedestrian users will also benefit from a reduction in traffic noise and vehicle exhaust fumes.

Junction surface materials shall be upgraded to a specification similar, and complimentary to the material palette specified for the Civic Space and should match those used for the Gateway features. Crossing points should contrast with the materials used across the carriageway sections of the junction and the carriageway on approach (if appropriate). This will highlight the controlled crossing points and the safe crossing route for visually impaired users.

Every attempt should be made to remove superfluous street furniture elements to de-clutter the junctions. This includes a rationalisation of traffic control columns and cabinets as well as pedestrian guardrails, signage, and street lighting. The removal of these elements will contribute to making these areas appear as pedestrian spaces through which the vehicles are passing, rather than road vehicle dominated interchanges through which pedestrians must navigate via circuitous routes and constrained spaces.

1.4 Footway Design Principles

Footways throughout the town centre have not been developed as part of the Town Centre Regeneration plans. This is due to the recognition that this needs to be done in tandem with the carriageway with the space afforded the pedestrian zones dictated by the minimum requirements of the road carriageway through the town.

A footway width of 3m is the desired minimum width required to both sides of the street through the town centre, with an absolute minimum of 2.5m acceptable for a short section where there may be no alternative. These footways should be free from any permanent fixtures including lighting columns, signs and control cabinets. For these elements, an additional 'services zone' shall be included between the footway and carriageway. This additional zone should be between 0.5-3m and should be incorporated along the length of both footways between Bishopbriggs Cross and the Morrisons junction. This can take the form of a paved surface or planting bed depending on the location. The zone shall include all signage, lighting columns, litter bins and control cabinets necessary for the function of the road corridor and town centre.

Footway surfaces shall be specified to match the materials palette of the Civic Space and be coordinated with the crossing points at the road junctions. The use of contrasting materials will be incorporated in addition to a 'clean' building line to the back of the footway to provide a legible public realm that is navigable to partially sighted users.



Figure 4: Near 'flush' level junction



Figure 5: 'Furniture zone between footway & road



Figure 6: Street clutter within single zone



Figure 7: 'Clean' building edge to footway

1.5 Carriageway Design Principles

In parallel to the setting out of the footways, the overall carriageway width through the town centre should be narrowed to reduce the dominance of vehicles and provide for a better pedestrian environment. Lane widths should be reduced to minimise carriageway space whilst helping to reduce traffic speeds. The number of lanes both north and southbound should be rationalised and reduced to a single carriageway wherever possible. There should be evidenced justification for the requirement of additional lanes.

Originally, the town centre proposals sought to have in carriageway bus-stops to act as a 'calming' measure to general traffic and assist in bus priority transiting through the town as well as providing for more pedestrian space through the removal of lay-bys. This will be investigated through the A803 project and further engagement and consultation with the bus service providers and SPT will be carried out.

Carriageway surface materials shall be upgraded to a specification that is complimentary to the material palette specified for the Civic Space and should match those used at the road junctions and for the Gateway features. Where a full carriageway resurfacing is not appropriate or achievable, a granite sett channel on the road edge and a central median strip can have the effect of visually narrowing the width of the carriageway and emphasising the pedestrian nature of the environment.

The extents of surface upgrade will be dictated by a number of factors with the Town Centre Regeneration Masterplan concluding 3 different options were to be considered;

1. No carriageway surface upgrades other than the surfacing at the three different road junctions through the town centre (South Crosshill Road / Morrisons / Bishopbriggs Cross).
2. Upgrade of surfacing to the afore mentioned junctions as well as the core section of the town centre between Morrisons and Bishopbriggs Cross.
3. Upgrade of surfacing through the extended town centre between Bishopbriggs Library and the Police Station, including the afore mentioned junctions.

The surface upgrading of the carriageway is one of the most significant enhancement options with the power to have a positive transformational effect upon the overall character and impression of Bishopbriggs to visitors and residents. The extents of the carriageway surfacing enhancements should be as extensive as possible.



Figure 8: Narrowing of road carriageway, physically and visually

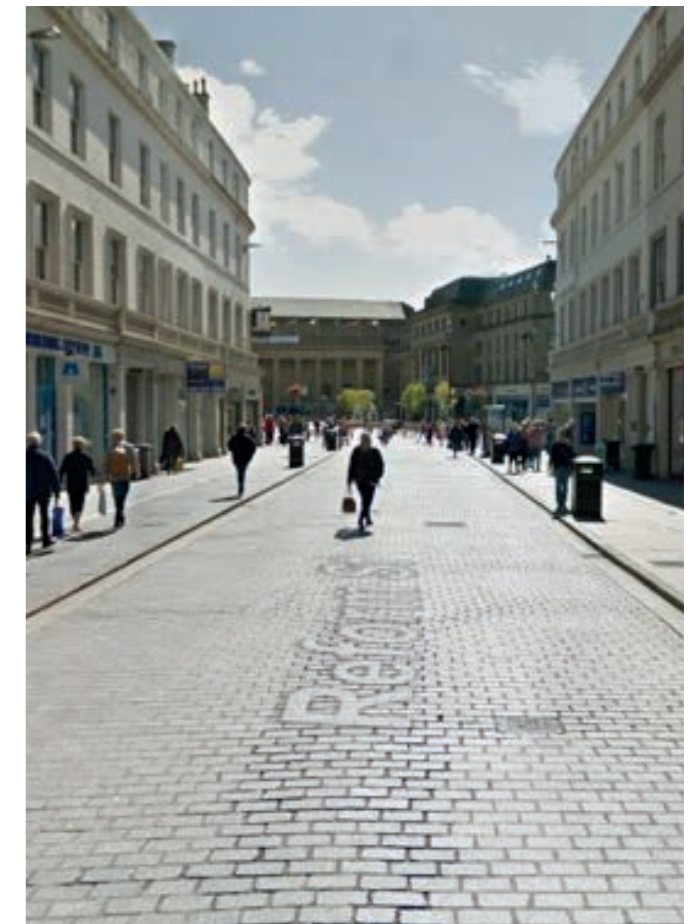


Figure 9: Granite sett paving to carriageway

1.6 Cycleway Design Principles

The integration of cycleway connections into and through the town centre proved to be challenging, resulting in the integration of a cycleway through the town centre being discounted. This was due to the potential user conflicts and overall space constraints between the Morrisons Junction and Bishopbriggs Cross being detrimental to the overall goals and aspirations of the project.

Two, bi-directional cycleway options are proposed for consideration, based on the concept that Bishopbriggs is a destination on the cycleway and not a location to 'pass through'.

CYCLEWAY OPTION 1

This option would terminate / start at the cycleway on South Crosshill Road Junction, to the north of the town, where it would be integrated within the phasing of the traffic control system at that junction. To the south of the town, it is proposed to terminate / start at the cycleway just south of the Police Station, where a new crossing point would be required to integrate the south bound cyclists back onto the bi-directional cycleway on the west side of the road corridor. This layout dovetails well with the extended carriageway surfacing proposals.

CYCLEWAY OPTION 2

This option connects closer to the town centre, extending down to the Morrisons junction in the north, and up to Bishopbriggs Cross in the south. In both cases, the cycleway could be integrated as a phase within the traffic control system at each junction. This option combines well with the reduced carriageway surfacing extents between Bishopbriggs Cross and Morrisons junction.

The town centre regeneration proposals include a cycle hub facility at the entrance to Bishopbriggs Park. In both cases, a convenient link to this facility would enable cyclists to easily access the town centre for amenities.



Figure 10: Bi-directional cycleway in urban setting

A803 DESIGN PRINCIPLES SUMMARY

Gateways'	<ul style="list-style-type: none"> •Carriageway surface material change •Material specification to match town centre paving •Treatment to extend through footways •Corridor boundary art panels / Fence treatment to match depth of gateway •Gateways located adjacent to Kwik-Fit garage (south) and north of South Crosshill Road
Junctions	<ul style="list-style-type: none"> •Kerb heights / raised table appearance •Surface materials •Pedestrian priority •Vehicles presence removed from junction vicinity (stop lines set back from junctions) •Declutter junction furniture (railings, signage, lighting, control pillars, traffic lights) •Wide pedestrian crossings
Footways	<ul style="list-style-type: none"> •Declutter footways and road corridor in general •3m minimum width •Street furniture zone between footways and carriageway •Surface materials co-ordinated with Civic Space and throughout the town centre
Carraigeways	<ul style="list-style-type: none"> •Reduction of carriageway to single lanes both north and southbound wherever possible •General narrowing of carriageway through town centre •Reduce dominance of vehicles within the town centre •Surface material upgrade to natural stone to compliment the material specification for the civic space •Duration of surface upgrade to be developed with 3 options; <ul style="list-style-type: none"> > Junctions only (South Crosshill Road / Morrisons / Bishopbriggs Cross) > Junctions, plus carriageway between Morrisons and Bishopbriggs Cross > Junctions plus carriageway between Bishopbriggs Library and Police Station
Cycleways	<ul style="list-style-type: none"> •2 options considered for the incorporation of the cycleway into / through the town centre; <ul style="list-style-type: none"> > Termination of the cycleway at Morrisons junction / Bishopbriggs Cross > Termination of the cycleway at South Crosshill Road / Police Station •Reconnection of cyclists southbound at either Bishopbriggs Cross or Police Station likely requires complicated crossing point arrangement •Integration of cycleway and residential access on southern part of A803 •Connection of cycleway to park entrance Cycle Hub

Appendix B Planting

1.1 Planting Character Area Type 01: Parkland Edge

Planting is designed to form a visual link between the public plaza and Bishopbriggs park through the selection of tree species and understorey herbaceous planting. Semi-mature, standard form trees with 2m clear stems and low level planting form a buffer between the public plaza and the A803 whilst maintaining visual permeability. Bold blocks of woodland edge understorey planting consisting of ornamental grasses, ferns and herbaceous perennials provide texture, evergreen structure and seasonal highlights.



Figures 1-4: Images of planting beds conveying the character of the Parkland Edge planting mix.



PARKLAND EDGE MIX						
Latin Name	Common Name	Height	Evergreen	Plant Type	Native	Flowering Season
<i>Aquilegia vulgaris</i>	columbine	0.5-1	No	HP	Y	Late spring
<i>Asplenium scolopendrium</i>	hart's tongue fern	0.6	Yes	F	Y	-
<i>Polypodium vulgare</i>	common polypody	0.3	Yes	F	Y	-
<i>Deschampsia cespitosa</i> 'Bronzeschleier'	wavy hair grass	0.5-1	Yes	G	N	-
<i>Dryopteris filix mas</i>	male fern	1-1.5	No	F	Y	-
<i>Luzula nivea</i>	snowy woodrush	0.5-1	Yes	G	N	-
<i>Acanthus mollis</i>	bear's breeches	1-1.5	Semi	HP	N	Summer
<i>Ajuga reptans</i> Caitlins Giant	bugle	0.1-0.5	Semi	HP	N	Summer
<i>Geranium pratense</i>	Meadow Cranesbill	0.1-0.5	No	HP	Y	Summer
<i>Anthriscus sylvestris</i>	cow parsley	1-1.5	No	HP	Y	-
<i>Helleborus foetidus</i>	stinking hellebore	0.3-0.6	Y	HP	Y	Winter
<i>Vinca minor alba</i>	lesser periwinkle	0.3-0.6	No	P	N	Spring / Summer
PARKLAND EDGE TREES						
Latin Name	Common Name	Height	Spread	Feature	Native	
<i>Liquidambar styraciflua</i> 'Wolpesdon'	sweet gum	10-15	5-10	Autumn colour	N	

Aquilegia vulgaris



Asplenium scolopendrium



Polypodium vulgare



Deschampsia cespitosa 'Bronzeschleier'



Dryopteris filix mas



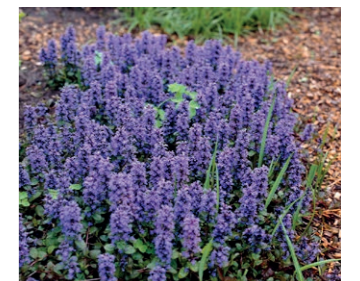
Luzula nivea



Acanthus mollis



Ajuga reptans Caitlins Giant



Geranium pratense



Anthriscus sylvestris



Helleborus foetidus



Vinca minor alba



Liquidambar styraciflua 'Wolpesdon'



1.2 Planting Character Area Type 02: Rain Gardens

A flower rich tapestry of predominantly herbaceous perennial species with a long flowering season, interspersed with architectural shrubs and grasses. Species are selected to tolerate both wet and dry conditions. Deciduous herbaceous perennials and grasses retain structure throughout much of the winter whilst evergreen species ensure year round interest.



Figures 5-7: Images of planting beds conveying the character of the Rain Gardens planting mix.



RAIN GARDENS MIX

Latin Name	Common Name	Height	Evergreen	Plant Type	Native	Season
Allium 'Globe Master'	allium	0.5-1	N	Bulb	N	Spring Summer
Bistorta officinalis	common bistort	0.7-1m	Yes	HP	Y	Spring
Eupatorium cannabinum	hemp agrimony	1.2-1.5	No	HP	Y	Summer Autumn
Campanula persicifolia	peach-leaved bellflower	0.3-0.6m	N	HP	N	Summer
Carex riparia 'Bowles's Golden'	carex elata	1-1.2	Y	G	N	-
Deschampsia 'Goldtau'	tufted hair grass	0.5-1	Y	G	N	-
Eremurus isobella 'Cleopatra'	foxtail lily	1.25	N	Bulb	N	Summer
Lychnis flos cuculi 'Red Robin'	ragged robin	0.7	N	HP	Y	Summer
Sesleria autumnalis	moor grass	0.5-1	Y	G	N	-
Lythrum salicaria 'Zigeunerblut'	purple loosestrife	0.9	N	HP	N	Summer Autumn
Veronicastrum virginicum f. roseum	culver's root	1-1.5	N	HP	N	Summer Autumn
Gaura lindheimeri 'Whirling Butterfiles'	gaura	0.5-1	N	HP	N	Spring to Autumn
Aster novae-angliae	new England aster	0.5-1	N	HP	N	Summer Autumn
Calamagrostis 'Karl Foerster'	feather reed grass	1-1.5	N	G	N	-
Helenium 'Wyndley'	sneezeweed	0.5-1	N	HP	N	Summer
Sanguisorba officinalis 'Red Thunder'	burnet	1-1.5	N	HP	N	Summer Autumn

RAIN GARDENS SHRUBS

Latin Name	Common Name	Height	Spread	Feature	Native
Viburnum Bodnantense 'Dawn'	viburnum	1.5-2.5	1-1.5	Flowers Spring, Autumn and Winter	N
Amelanchier canadensis (multistem)	June Berry	4-8	2.5-4	Spring flowers. Multi stem form to ensure visibility through stems	N

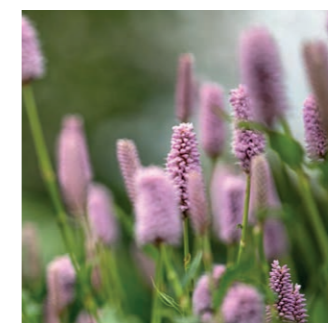
RAIN GARDENS TREES

Latin Name	Common Name	Height	Spread	Feature	Native
Amelanchier lamarckii 'Robin Hill'	juneberry	3-5	2.5	Spring blossom	N
Liquidambar styraciflua 'Wolpesdon'	sweet gum	10-15	5-10	Autumn colour	N
Betula pubescens	birch	10	6	Stem	Y

Allium 'Globe Master'



Bistorta officinalis



Eupatorium cannabinum



Campanula persicifolia



Carex riparia 'Bowles's Golden'



Deschampsia 'Goldtau'



Eremurus isobella 'Cleopatra'



Lychnis flos cuculi 'Red Robin'



Sesleria autumnalis



Lythrum salicaria 'Zigeunerblut'



Veronicastrum virginicum f. roseum



Gaura lindheimeri 'Whirling Butterfiles'



Aster novae-angliae



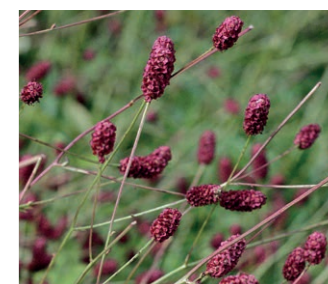
Calamagrostis 'Karl Foerster'



Helenium 'Wyndley'



Sanguisorba officinalis 'Red Thunder'



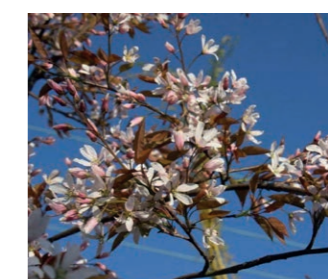
Viburnum Bodnantense 'Dawn'



Amelanchier canadensis



Amelanchier lamarckii 'Robin Hill'



Betula pubescens



1.3 Planting Character Area Type 03: The meadow

Ornamental planting is designed to create the impression of informal meadow like character through the specification of ornamental grasses and ephemeral flowering herbaceous perennials interspersed with bulbs. Species are selected to provide sensory experience through their movement and texture. The repetition of species present in other areas of the scheme unifies the overall space.



Figures 8-10: Images of planting beds conveying the character of the Meadow planting mix.



THE MEADOW MIX

Latin Name	Common Name	Height	Spread	Plant Type	Native	Season
Achillea millefolium 'Red Velvet'	yarrow	0.6	N	HP	N	Summer Autumn
Allium aflatunense	hollandicum	0.5-1	N	Bulb	N	Spring Summer
Calamagrostis × acutiflora 'Karl Foerster'	feather reed grass	1.5	N	G	N	-
Camassia leichtlinii 'Alba'	quamash 'Alba'	1	N	Bulb	N	Spring Summer
Aster novi-belgii 'Blue Lapis'	michaelmas daisy	0.5-1	N	HP	N	Summer Autumn
Deschampsia cespitosa 'Bronzeschleier'	tufted hair grass	0.5-1	Yes	G	N	-
Eupatorium maculatum red dwarf	spotted joe pye Weed	0.5-1	N	HP	N	Summer Autumn
Persicaria amplexicalis 'Firedance'	knotweed	1.2	N	HP	N	Summer Autumn
Phlomis Russeliana	phlomis	1	N	HP	N	Summer Autumn
Sanguisorba officinalis 'Morning Select'	great burnet	1.5-2.5	N	HP	N	Summer Autumn
Sesleria autumnalis	moor grass	0.6	Y	G	N	-
Sporobolus heterolepis	prairie dropseed	0.5-1	Yes	G	N	-
Stipa tenuissima	pony tails	0.6	N	G	N	-
Veronicastrum virginicum	culver's root	1-1.5	N	HP	N	Summer Autumn

THE MEADOW SHRUBS

Latin Name	Common Name	Height	Spread	Feature	Native
Cornus sanguinea 'Sifa'	dogwood 'Sifa'	1.5-2.5	1-1.5	Flowers Spring, Autumn and Winter	N
Euonymus alatus 'Compactus'	burning bush				
Viburnum Bodnantense 'Dawn'	viburnum	1.5-2.5	1-1.5	Flowers Spring, Autumn and Winter	N
Viburnum opulus 'Compactum'	snowball tree				

THE MEADOW TREES

Latin Name	Common Name	Height	Spread	Feature	Native
Amelanchier lamarckii 'Robin Hill'	viburnum	3-5	2.5	Spring blossom	N
Liquidambar styraciflua 'Wolpesdon'	sweet gum	10-15	5-10	Autumn colour	N
Sorbus tormentalis	wild service tree	10	6	Stem	Y

Achillea millefolium 'Red Velvet'



Allium aflatunense



Calamagrostis × acutiflora 'Karl Foerster'



Camassia leichtlinii 'Alba'



Aster novi-belgii 'Blue Lapis'



Deschampsia cespitosa 'Bronzeschleier'



Eupatorium maculatum red dwarf



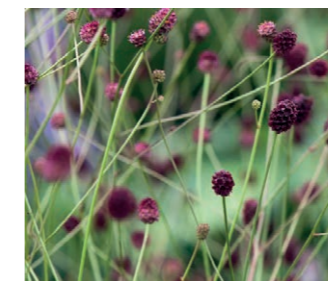
Persicaria amplexicalis 'Firedance'



Phlomis Russeliana



Sanguisorba officinalis 'Morning Select'



Sesleria autumnalis



Sporobolus heterolepis



Stipa tenuissima



Veronicastrum virginicum



Cornus sanguinea 'Sifa'



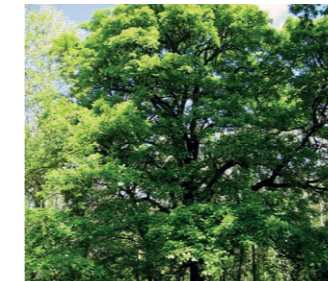
Euonymus alatus 'Compactus'



Viburnum opulus 'Compactum'



Sorbus tormentalis



1.4 Planting Character Area Type 04: Raised Planting

The planting along the terraces echoes the rain gardens to provide visual continuity across the site. Predominantly herbaceous perennial species with a long flowering season, interspersed with architectural shrubs and grasses. Planting is designed to be low in height to ensure clear visibility both into and out of the space whilst being tolerant of shadier conditions. A higher percentage of ever green species ensure that this area of the planting, which is adjacent to the café, retains year round structure.



Figures 11-13: Images of planting beds conveying the character of the Raised Planting mix.



RAISED PLANTING MIX						
Latin Name	Common Name	Height	Spread	Plant Type	Native	Season
Allium aflatunense	hollandicum	0.5-1	N	Bulb	N	Spring Summer
Allium fistulosum	Welsh onion	0.6	Y	Bulb	N	Summer
Bergenia 'Angel Kiss'	elephant's ears	0.5	Y	HP	N	Spring
Euphorbia amygdaloides var. robbiae	wood spurge	0.5	Y	HP	N	Spring
Geranium endressii 'Castle Drogo'	endres cranesbill	0.5	Y	HP	N	Summer Autumn
Geranium sylvaticum 'Mayflower'	wood cranesbill	0.2	N	HP	N	Spring Summer
Gaura lindheimeri 'Whirling Butterflies'	gaura	0.8	N	HP	N	Summer Autumn
Heuchera sanguinea 'Palace Purple'	coral bells	0.5	Y	HP	N	Summer
Iris 'Dardanus'	iris	0.45	N	Bulb	N	Spring
Penstemon heterophyllus 'Margarita Bop'	foothill penstemon	0.5	Y	HP	N	Spring Summer Autumn
Salvia nemorosa 'Caradonna'	balkan clary	0.5	N	HP	N	Summer
Persicaria affinis superba	lesser knotweed	0.1-0.5	Y	HP	N	Spring
Polypodium vulgare	common polypody	0.3	Y	Fern	Y	-
Sesleria autumnalis	moor grass	0.6	Y	G	N	-
Sesleria nitida	blue bristle grass	0.6	Y	G	N	-

Allium aflatunense



Allium fistulosum



Bergenia 'Angel Kiss'



Euphorbia amygdaloides var. robbiae



Geranium endressii 'Castle Drogo'



Geranium sylvaticum 'Mayflower'



Gaura lindheimeri 'Whirling Butterflies'



Heuchera sanguinea 'Palace Purple'



Iris 'Dardanus'



Penstemon heterophyllus 'Margarita Bop'



Salvia nemorosa 'Caradonna'



Persicaria affinis superba



Polypodium vulgare



Sesleria autumnalis



Sesleria nitida

