

MITCHELL + ASSOCIATES LANDSCAPE ARCHITECTS
RESIDENTIAL DEVELOPMENT AT DE LA SALLE LAND, BALLYFERMOT
PLANTING SCHEDULE LDEL007
rev 4

TE: To be read in conjunction with Landscape report and Drawings

STREET TREEPLANTING

All trees should be full and well-shaped, bark unmarked and have healthy root systems. All street trees to have 2m clear stem.

Plant name		Size	Stem	Root prep	Total	Tree pit	Comment
<i>Acer campestre</i> 'Elsrijk'	Field maple	20-25 cmg	2.2m clearstem	rootballed	14	2mx2mx1.5m	To North facing side of the street
<i>Crataegus monogyna</i> 'Stricta'	Upright hawthorn	18-20 cmg	2m clearstem	rootballed	4	2mx2mx1.5m	Pollinator friendly, native
<i>Prunus</i> 'Accolade'	Ornamental cherry	18-20 cmg	2m clearstem	rootballed	4	2mx2mx1.5m	Feature tree, pollinator friendly
<i>Pyrus calleryana</i> 'Chanticleer'	Callery pear	20-25 cmg	2.2m clearstem	rootballed	7	2mx2mx1.5m	Pollinator friendly
<i>Sorbus aucuparia</i>	Rowan	18-20 cmg	2m clearstem	rootballed	4	2mx2mx1.5m	Pollinator friendly, native
<i>Tilia cordata</i> 'Greenspire'	Linden	20-25 cmg	2.2m clearstem	rootballed	23	2mx2mx1.5m	Pollinator friendly
<i>Tilia europaea</i> 'Euchlora'	Linden	20-25 cmg	2.2m clearstem	rootballed	20	2mx2mx1.5m	Pollinator friendly
<i>Ulmus</i> 'Dodoens'	Elm tree	20-25 cmg	2.2m clearstem	rootballed	23	2mx2mx1.5m	not sensitive to the Dutch elm disease
<i>Amelanchier x grandiflora</i> 'Robin Hill'	Juneberry tree	min 3m high	multistem	rootballed	3	1.5 x1.5x x 1m	tree for street planters, pollinator f.
<i>Betula jacquemonti</i>	Birch tree	min 3m high	multistem	rootballed	6	1.5 x1.5x x 1m	tree for street planters
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FEATURE TREES TO CENTRAL AMENITY SPACE

All trees should be full and well-shaped, bark unmarked and have healthy root systems. All street trees to have 2m clear stem.

Plant name		Size	Stem	root prep	Total	Tree pit	Comment
<i>Quercus robur</i>	Pedunculate oak	18-20 and 20-25 cmg	1.8m clearstem	rootballed	11	2mx2mx1.5m	native, trees from Irish provenance!
<i>Malus</i> 'Evereste'	Crab apple tree	18-20 cmg	1.8m clearstem	rootballed	6	2mx2mx1.5m	native, pollinator friendly
<i>Paulownia tomentosa</i>	Foxglove tree	20-25 cmg	1.8m clearstem	rootballed	10	2mx2mx1.5m	summer flowers, pollinator friendly
<i>Pinus sylvestris</i>	Scot's pine	18-20 cmg	1.8m clearstem	rootballed	4	2mx2mx1.5m	evergreen, native
<i>Prunus padus</i>	Bird cherry	20-25 cmg	1.8m clearstem	rootballed	7	2mx2mx1.5m	spring flowers, pollinator friendly, native
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MICROFOREST PLANTING TO CENTRAL AMENITY SPACE

Inspired by the Miyawaki method, planting 13 species of native trees and shrubs to develop in time the forest multi-storey structure - with tree layer, sub-tree layer and shrub layer. Tree species from the canopy level are left out as there is limited depth of soil on top of the slab of the station. By combining this large variety of plants, a complex habitat will develop attracting much biodiversity. Whip planting (seedlings) 90%, feathered planting 10%, planting density 4 pieces/sqm. Min 1000 mm approved topsoil to landscape specifications. 75 mm approved straw/woodchip mulching. Additional native bulb planting for seasonal interest. 300 sqm.

Plant name		Size	Percentage	Total	Spacing	Comment
CANOPY LAYER						
<i>Quercus robur</i>	Pedunculus oak	90 cm whip/feathered	20%	240	4/sqm	
<i>Pinus sylvestris</i>	Pine	90 cm whip/feathered	5%	60	4/sqm	
TREE LAYER						
<i>Betula pubescens</i>	Downy birch	90 cm whip/feathered	15%	180	4/sqm	
<i>Malus silvestris</i>	Crab apple	90 cm whip/feathered	5%	60	4/sqm	
<i>Prunus avium</i>	Cherry	90 cm whip/feathered	10%	120	4/sqm	
<i>Sorbus aucuparia</i>	Rowan	90 cm whip/feathered	5%	60	4/sqm	
SUB-TREE LAYER						
<i>Corylus avellana</i>	Hazel	90 cm whip/feathered	20%	240	4/sqm	
<i>Crataegus monogyna</i>	Hawthorn	90 cm whip/feathered	5%	60	4/sqm	
<i>Euonymus europaeus</i>	Spindle	90 cm whip/feathered	5%	60	4/sqm	
<i>Ilex aquifolium</i>	Holly	90 cm whip/feathered	5%	60	4/sqm	
<i>Prunus spinosa</i>	Blackthorn	90 cm whip/feathered	5%	60	4/sqm	
ADDITIONAL BULB PLANTING						
<i>Galanthus nivalis</i>	Snowdrop	bulb	in drifts	500	10/sqm	
<i>Hyacinthoides non-scripta</i>	Bluebell	bulb	in drifts	500	10/sqm	
<i>Leucojum aestivum</i>	Summer snowflake	bulb	in drifts	500	10/sqm	

REINFORCING TREE AND SHRUB PLANTING TO ENTRANCE AND TO WESTERN BOUNDARY

Planted to the retained Lawson cypress trees to reinforce the planting and enrich both aesthetic effect and biodiversity, native pine trees are planted as a replacement planting for the pines removed from the same area for construction, native birches and hawthorns complement the group and create a strong aesthetic image, the white birch trunks and white clouds of hawthorn flowers in contrast with the evergreen foliage of the cypresses and pines.

Plant name		Size	Stem	root prep	Total	Tree pit	Comment
<i>Pinus sylvestris</i>	Scot's pine	20-25 cmg	1.8m clearstem	rootballed	3	2mx2mx1.5m	evergreen, native
<i>Betula pubescens</i>	Downey birch	18-20 cmg	standard	rootballed	17	2mx2mx1.5m	native, white trunk contrast
<i>Crataegus monogyna</i>	Hawthorn	min 3 m	multistem	rootballed	13	1mx1mx 0.6m	native, polinator and bird friendly
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TREE AND SHRUB PLANTING TO COURTYARDS

Each courtyard has its own character, inspired by the nature around, from Liffey river on the North side to the Wicklow mountains on the South, creating each time a unique atmosphere and identity for each of the residential blocks. The planting scheme includes many native plants from these landscapes but also additional plants that will increase the interest during the seasons. Many pollinator friendly plants are included. Each courtyard has its feature tree species that contribute to its specific atmosphere. Smaller, mostly multistem trees are selected as the courtyards are on the podium level and to limit overshadowing.

Plant name		Size	Stem	Root prep	Total	Tree pit	Comment
BLOCK H - Heathland							
<i>Arbutus unedo</i>	Strawberry tree	min 2m	multistem	rootballed	2	1.5 x1.5x x 1m	
<i>Pinus mugo</i> ssp. <i>Mugo</i>	Dwarf mountain pine	min 50 cm, 5l pot	multistem	container	5		
<i>Sorbus aucuparia</i>	Rowan	min 3.5 m	multistem	rootballed	1	1.5 x1.5x x 1m	
BLOCK G - Birch forest							
<i>Betula pubescens</i>	Downy birch	14-16 cmg	standard	rootballed	16	1.5 x1.5x x 1m	Irish provenance
<i>Betula utilis jacquemontii</i>	Himalyan birch tree	min 3.5m	multistem	rootballed	21	1.5 x1.5x x 1m	
BLOCK F - Meadows							
<i>Crataegus monogyna</i>	Hawthorn	min 3m	multistem	rootballed	3	1.5 x1.5x x 1m	
<i>Rosa rubiginosa</i>	Wild rose	min 50 cm, 5l pot		container	5		
<i>Rosa rugosa</i>	Dog rose	min 30 cm, 5l pot		container	6		
BLOCK D - River banks							

<i>Pyrus salicifolia</i> 'Pendula'	Willow leaved pear	12-14 cmg	standard	rootballed	8 1.5 x1.5x x 1m
<i>Sambucus nigra</i> 'Laciniata'	Elder	min 1.2 m, 10l		container	34 600 mm topsoil
BLOCK C - Forest wilderness					
<i>Acer griseum</i>	Paperbark maple	min 3m	multistem	rootballed	2 1.5 x1.5x x 1m
<i>Amelanchier lamarckii</i>	Juneberry	min 3.5m	multistem	rootballed	2 1.5 x1.5x x 1m
<i>Corylus avellana</i>	Hazel	min 3m	multistem	rootballed	6 1.5 x1.5x x 1m
<i>Sarcococca confusa</i>	Sarcococca	min 30 cm, 5l pot		container	5 650 mm topsoil
<i>Sorbus aucuparia</i>	Rowan	min 3.5 m	multistem	rootballed	2 1.5 x1.5x x 1m
<i>Viburnum opulus</i> 'Compactum'	Guelder rose	min 30 cm, 3l pot		container	5 600 mm topsoil
BLOCK B - The rocky landscape					
<i>Juniperus communis</i> 'Suecica'	Common juniper	min 1.2 m, 5 l		container	5 600 mm topsoil
<i>Cistus x pulverulentus</i> 'Sunset'	Rockrose	min 30cm, 3l		container	10 600 mm topsoil
<i>Genista lydia</i>	Lydian broom	min 30cm, 3l		container	10 600 mm topsoil
<i>Ulex europaeus</i>	Gorse	min 50cm, 5l		container	10 600 mm topsoil
BLOCK A - Pastoral landscape					
<i>Malus</i> 'Evereste'	Crab apple	16-18 cmg	standard	standard	8 1.5 x1.5x x 1m
Block A Creche garden:					
<i>Acer griseum</i>	Paperbark maple	16-18 cmg	standard	standard	1 1.5 x1.5x x 1m
<i>Acer palmatum</i>	Japanese maple	multistem		standard	1 1.5 x1.5x x 1m
<i>Amelanchier</i> 'Ballerina'	Juneberry	multistem		standard	1 1.5 x1.5x x 1m
<i>Mahonia</i> 'Soft Carress'	Mahonia Soft Carress	min 50 cm, 5l pot		standard	3 600 mm topsoil
<i>Syringa vulgaris</i>	Lilac	min 50 cm, 5l pot		standard	1 600 mm topsoil
<i>Viburnum farreri</i>	Fragrant viburnum	min 50 cm, 5l pot		standard	1 600 mm topsoil
<i>Trachelospermum jasminoides</i>	Star jasmine	climber to pillar		standard	450 mm topsoil

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HEDGEROW TO BOUNDARY

Native mixed biodiversity hedgerow shall be planted along the boundaries. Fruiting wildlife friendly and pollinator friendly species are selected. Planted at 4 plants per linear metre in a double staggered row, in 600 mm free draining topsoil, 50mm mulch layer.

Plant name		Size	Percentage	Spacing
<i>Crataegus monogyna</i>	Hawthorn	180-200cm	40%	4/lm
<i>Corylus avellana</i>	Hazel	180-200cm	10%	4/lm
<i>Malus sylvestris</i>	Crab apple	180-200cm	10%	4/lm
<i>Prunus padus</i>	Bird cherry	180-200cm	10%	4/lm
<i>Prunus spinosa</i>	Blackthorn	180-200cm	10%	4/lm
<i>Sambucus nigra</i>	Elder	180-200cm	10%	4/lm
<i>Viburnum opulus</i>	Guelder rose	180-200cm	10%	4/lm

CLIPPED HEDGES TO GROUND FLOOR PATIOS - PRIVACY PLANTING

Clipped hedge shall be planted along the perimeter of the apartment blocks and to the front of the duplexes to provide privacy screening from streets and public space to the ground floor apartments and patios. Planted at 4 plants per linear metre in a double staggered row, in 600 mm free draining topsoil, 50mm mulch layer.

Plant name		Size	Percentage	Spacing
BLOCK H				
<i>Phytolacca fraseri</i> 'Red Robin'	Hazel	90 cm	100%	4/lm
BLOCK G				
<i>Prunus lusitanica angustifolia</i>	Bird cherry	90 cm	100%	4/lm
BLOCK F				
<i>Crataegus monogyna</i>	Hawthorn	90 cm	100%	4/lm
BLOCK D				
<i>Olearia traversii</i>	Olearia	90 cm	100%	4/lm
BLOCK C				
<i>Ilex aquifolium</i>	Holly	90 cm	50%	4/lm
<i>Taxus baccata</i>	Yew	90 cm	50%	4/lm
BLOCK B				
<i>Ligustrum ovalifolium</i>	Green privet	90 cm	100%	4/lm
BLOCK A and E (duplexes)				
<i>Crataegus monogyna</i>	Hawthorn	90 cm	40%	4/lm
<i>Corylus avellana</i>	Hazel	90 cm	20%	4/lm
<i>Prunus spinosa</i>	Blackthorn	90 cm	20%	4/lm
<i>Sambucus nigra</i> 'Laciniata'	Elder	90 cm	10%	4/lm
<i>Viburnum opulus</i>	Guelder rose	90 cm	10%	4/lm

PERENNIAL AND GROUND COVER PLANTING TO COURTYARDS

Each courtyard has its own character, inspired by the nature around, from Liffey river on the North side to the Wicklow mountains on the South, creating each time a unique atmosphere and identity for each of the residential blocks. The planting scheme includes many native plants from these landscapes but also additional plants that will increase the interest during the seasons. Many **pollinator friendly plants are included (marked * in the list below)**. Planted in 450mm deep free draining topsoil, fine grade mulch at the base, laid 50mm deep.

Mix H Perennial and groundcover planting to Block H (Heathland)

Plant name		Pot size	Percent of mix	Density	Comment
<i>Blechnum spicant</i>	Hard fern	2l	15%	6/sqm	native, evergreen
<i>Calluna vulgaris</i> *	Heather	1.5l	15%	6/sqm	native, evergreen
<i>Carex testacea</i>	New Zealand sedge	2l	10%	6/sqm	
<i>Daboecia cantabrica</i> *	Heather	1.5l	15%	6/sqm	native, evergreen
<i>Erica cinerea</i> *	Heather	1.5l	15%	6/sqm	native, evergreen
<i>Libertia grandiflora</i>	Libertia	2l	10%	6/sqm	
<i>Molinia caerulea</i> 'Moorhexe'	Purple moor grass	2l	20%	4/sqm	native
BULBS					
<i>Galanthus nivalis</i> *	Snowdrop	bulbs		10/sqm	In drifts of 15 pieces
<i>Leucojum aestivum</i>	Summer snowflake	bulbs		10/sqm	In drifts of 15 pieces
<i>Narcissus</i> 'Thalia'	Narcissus	bulbs		10/sqm	In drifts of 15 pieces
<i>Fritilaria meleagris</i> var. <i>unicolor</i> subvar. <i>alba</i>	Checkered Lily	bulbs		15/sqm	In drifts of 10 pieces

Mix G Perennial and groundcover planting to Block G (Birch forest)

Plant name		Pot size	Percent of mix	Density	Comment
<i>Anemone nemorosa</i>	Wood anemone	P9	5%	groups of 3	native
<i>Anemone</i> 'Honorable Jobert'	Japanese anemone	2l	5%	6/sqm	
<i>Anthriscus sylvestris</i>	Cow parsley	P9	5%	6/sqm	native
<i>Astrantia major</i> *	Greater masterwort	2l	5%	9/sqm	
<i>Blechnum spicant</i>	Hard fern	2l	5%	6/sqm	native, evergreen
<i>Campanula rotundifolia</i> *	Bellflower	P9	5%	9/sqm	native

<i>Digitalis purpurea</i> 'Alba'*	White flowered foxglove	2l	5%	6/sqm	native
<i>Galium odoratum</i> *	Sweet woodruff	2l	10%	9/sqm	native
<i>Geranium</i> 'Bikovo'*	Crane's bill	2l	10%	6/sqm	
<i>Helleborus niger</i> *	Helleborus	2l	5%	6/sqm	evergreen
<i>Luzula sylvatica</i>	Great wood rush	1.5l	10%	6/sqm	native, evergreen
<i>Luzula nivea</i>	Snow rush	1.5l	10%	6/sqm	
<i>Polystichum setiferum</i>	Soft shield fern	2l	10%	6/sqm	native, evergreen
<i>Rodgersia aesculifolia</i>	Chesnut-leaved rogersia	3l	5%	4/sqm	
<i>Silene dioica</i> *	Red Campion	P9	5%	9/sqm	native
BULBS					
<i>Galanthus nivalis</i> *	Snowdrop	bulbs		10/sqm	In drifts of 15 pieces, native
<i>Hyacinthoides non-scripta</i> 'Alba'	Bluebell	bulbs		10/sqm	In drifts of 15 pieces, native
<i>Leucojum aestivum</i>	Summer snowflake	bulbs		10/sqm	In drifts of 15 pieces, native
<i>Narcissus</i> 'Ice Follies'	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

Mix F Perennial and groundcover planting to Block F (Meadows)

<i>Achillea millefolium</i> 'Cerise Queen'*	Yarrow	P9		5% 9/sqm	native
<i>Agastache</i> 'Blackadder'*	Giant hyssop	2l		5% 6/sqm	
<i>Astrantia major</i> 'Claret'*	Greater masterwort	2l		2% 9/sqm	
<i>Campanula persicifolia</i> *	Bellflower	P9		2% 9/sqm	
<i>Centaurea macrocephalla</i> *	Giant knapweed	P9		2% 6/sqm	
<i>Centaurea scabiosa</i> *	Greater knapweed	P9		2% 9/sqm	native
<i>Chamaemelum nobile</i>	Chamomile	P9		2% 9/sqm	native
<i>Foeniculum vulgare</i> *	Fennel	P9		2% 6/sqm	
<i>Leucanthemum</i> 'Snow Lady'*	Daisy	2l		5% 6/sqm	native
<i>Linum perenne</i>	Flax	P9		2% 6/sqm	
<i>Papaver orientale</i> 'Victoria Louise'*	Oriental poppy	P9		2% 6/sqm	
<i>Pennisetum</i> 'Fairy tales'	Fountaingrass	2l		20% 4/sqm	
<i>Primula veris</i>	Common cowslip	P9		5% 9/sqm	native
<i>Salvia nemorosa</i> 'Mainacht'*	Sage	2l		5% 6/sqm	
<i>Silene dioica</i>	Red campion	P9		2% 9/sqm	native
<i>Silene vulgaris</i>	Bladder campion	P9		2% 9/sqm	native
<i>Stipa arundinacea</i> *	Pheasant's grass	2l		15% 4/sqm	
<i>Stipa tenuissima</i> 'Pony Tails'	Mexican feather grass	2l		15% 6/sqm	
<i>Succisa pratensis</i>	Devil's bit scabious	P9		2% 9/sqm	native
<i>Verbascum nigrum</i> *	Mullein	P9		2% 6/sqm	
<i>Verbena bonariensis</i> *	Purple top	2l		5% 6/sqm	
BULBS					
<i>Crocus vernus</i> *	crocus	bulbs		10/sqm	In drifts of 15 pieces

Mix D Perennial and groundcover planting to Block D (River banks)

Symbolising river:

<i>Geranium</i> 'Johnson's Blue'*	Crane's bill	2l		6/sqm	to sun
<i>Liriope muscari</i> *	Lily turf	2l		6/sqm	to shade, evergreen
<i>Muscari</i> *	Grape hyacinth	bulbs		10/sqm	sun and shade

Symbolising river edge:

<i>Acanthus mollis</i>	Bear's breech	2l		15% 4/sqm	
<i>Bergenia cordifolia</i> *	Heart leafed bergenia	2l		20% 6/sqm	evergreen
<i>Carex pendula</i>	Pendulous sedge	2l		20% 4/sqm	native, evergreen
<i>Iris germanica</i> 'Golden Eclipse'	Iris	2l		15% 6/sqm	evergreen
<i>Iris germanica</i> 'Perfume Counter'	Iris	2l		15% 6/sqm	evergreen
<i>Veronica spicata</i> 'Rosea'	Speedwell	P9		15% 9/sqm	

Further away

<i>Chelone obliqua</i>	Turtlehead	P9		20% 6/sqm	
<i>Deschampsia cespitosa</i>	Tufted hairgrass	2l		60% 4/sqm	native
<i>Silene dioica</i>	Red campion	P9		10% 9/sqm	native
<i>Valeriana officinalis</i>	Common valerian	P9		10% 6/sqm	native

Mix C Perennial and groundcover planting to Block C (Forest wilderness)

<i>Ajuga reptans</i> *	Bugle herb	2l		10% 9/sqm	native, evergreen
<i>Asplenium scolopendrium</i>	Hart's tongue fern	2l		10% 6/sqm	native, evergreen
<i>Blechnum spicant</i>	Hard fern	2l		10% 6/sqm	native, evergreen
<i>Campanula rotundifolia</i> *	Bellflower	P9		5% 9/sqm	native
<i>Digitalis purpurea</i> *	Foxglove	2l		10% 6/sqm	native
<i>Fragaria vesca</i> *	Wild strawberry	P9		10% 9/sqm	native
<i>Galium odoratum</i> *	Sweet woodruff	2l		15% 9/sqm	native
<i>Helleborus foetidus</i> *	Helleborus	2l		5% 6/sqm	evergreen
<i>Luzula sylvatica</i>	Great wood rush	1.5l		15% 6/sqm	native, evergreen
<i>Polistichum setiferum</i>	Soft shield fern	2l		10% 6/sqm	native, evergreen
BULBS					
<i>Allium ursinum</i> *	Wild garlic	bulbs		6/sqm	In drifts of 15 pieces
<i>Galanthus nivalis</i> *	Snowdrop	bulbs		10/sqm	In drifts of 15 pieces
<i>Hyacinthoides non-scripta</i>	Bluebell	bulbs		10/sqm	In drifts of 15 pieces
<i>Leucojum aestivum</i>	Summer snowflakes	bulbs		10/sqm	In drifts of 15 pieces
<i>Narcissus</i> 'Tete a Tete'	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

Mix B Perennial and groundcover planting to Block B (Rocky landscape)

<i>Aster alpinus</i> 'Happy End'*	Alpine aster	2l		5% 6/sqm	
<i>Blechnum spicant</i>	Hard fern	2l		10% 6/sqm	native, evergreen
<i>Campanula persicifolia</i> *	Bellflower	P9		5% 9/sqm	
<i>Centranthus ruber</i> *	Red valerian	P9		5% 6/sqm	
<i>Erigeron karvinskianus</i> *	Latin-American fleabane	P9		5% 9/sqm	
<i>Erigeron glaucus</i> *	Seaside daisy	2l		5% 6/sqm	native
<i>Gaura lindheimeri</i> *	White gaura	2l		5% 6/sqm	
<i>Geranium sanguineum</i> *	Crane's bill	2l		5% 6/sqm	native
<i>Knautia arvensis</i> *	Wildflower scabious	P9		5% 9/sqm	native
<i>Knautia macedonica</i> *	Macedonian scabious	2l		5% 9/sqm	
<i>Koeleria glauca</i>	Koeleria	2l		25% 6/sqm	semi-evergreen
<i>Origanum vulgare</i> *	Oregano	P9		5% 9/sqm	native
<i>Primula veris</i>	Common cowslip	P9		5% 9/sqm	native
<i>Primula vulgaris</i>	Common primrose	P9		5% 9/sqm	native
<i>Thymus serpyllum</i> *	Thyme	P9		5% 9/sqm	evergreen
<i>Verbena bonariensis</i> *	Purpletop vervain	2l		5% 6/sqm	

BULBS					
<i>Allium oreophilum</i> *	Pink Lily Leek	bulbs	9/sqm		In drifts of 15 pieces
<i>Colchicum cilicicum</i>	Autumn crocus	bulbs	15/sqm		In drifts of 15 pieces
<i>Crocus chrysanthus</i> 'Cream Beauty'	Snow crocus	bulbs	15/sqm		In drifts of 15 pieces
<i>Fritilaria meleagris</i> var. <i>unicolor</i> subvar. <i>alba</i>	Checked Lily	bulbs	15/sqm		In drifts of 10 pieces
Mix A to privacy planting in courtyard (for planting under the trees refer to Mix 6)					
<i>Achillea millefolium</i> 'Cerise Queen'	Yarrow	P9	5% 9/sqm		native
<i>Astrantia major</i> 'Claret'	Greater masterwort	2l	5% 9/sqm		
<i>Campanula persicifolia</i> *	Bellflower	P9	5% 9/sqm		
<i>Centaurea macrocephalla</i> *	Giant knapweed	P9	5% 6/sqm		
<i>Centaurea scabiosa</i> *	Greater knapweed	P9	5% 9/sqm		native
<i>Chamaemelum nobile</i>	Chamomile	P9	5% 9/sqm		native
<i>Deschampsia caespitosa</i>	Tufted hairgrass	2l	20% 4/sqm		native
<i>Digitalis purpurea</i> 'Alba'	White flowered foxglove	2l	5% 6/sqm		native
<i>Foeniculum vulgare</i> *	Fennel	P9	5% 6/sqm		
<i>Knautia arvensis</i> *	Wildflower scabious	P9	5% 9/sqm		native
<i>Knautia macedonica</i> *	Macedonian scabious	2l	5% 9/sqm		
<i>Leucanthemum</i> 'Snow Lady'	Daisy	2l	5% 6/sqm		native
<i>Primula veris</i>	Common cowslip	P9	5% 9/sqm		native
<i>Primula vulgaris</i>	Common primrose	P9	5% 9/sqm		native
<i>Silene dioica</i> *	Red Campion	P9	5% 9/sqm		native
<i>Silene vulgaris</i>	Bladder campion	P9	5% 9/sqm		native
<i>Verbascum nigrum</i> *	Mullein	P9	5% 6/sqm		
<i>Allium</i> 'Purple sensation'	Garlic	bulbs	10/sqm		In drifts of 15 pieces
Mix S1: Sensory garden to Creche (planting to shrubs)					
<i>Pennisetum alopecuroides</i> 'Hammeln'	Chinese Fountain Grass	3l	60%		
<i>Matteucia struthiopteris</i>	Shuttlecock fern	2l	40%		
Mix S2: Sensory Herb garden to Creche					
<i>Agastache foeniculum</i> *	Hyssop	2l	10%		
<i>Foeniculum vulgare</i> *	Fennel	P9	5%		
<i>Chamaemelum nobile</i>	Chamomile	P9	5%		
<i>Lavandula angustifolia</i> *	Lavender	2l	10%		
<i>Pelargonium graveolens</i> *	Sweet scented geranium	2l	10%		
<i>Salvia officinalis</i> *	Sage	2l	10%		
<i>Santolina chamaecyparissius</i> *	Lavender cotton	2l	10%		
<i>Stachys byzantina</i> *	Lamb's ear	2l	10%		
<i>Stipa tenuissima</i> 'Pony Tails'	Mexican feather grass	2l	10%		
<i>Thymus vulgaris</i> *	Thyme	P9	10%		
<i>Allium schoenoprasum</i>	Chives	P9	10%		

PERENNIAL AND GROUNDCOVER PUBLIC OPEN SPACE

Mix 1 PERENNIAL PLANTING TO STREET PLANTERS

Seasonal interest through the year, sun to partial shade. Pollinator friendly plant marked *. Planted in 450 mm free draining tpsoil.50mm mulch layer.

<i>Agastache</i> 'Blackadder'	Giant hyssop	2l	5% 6/sqm		
<i>Alchemilla mollis</i>	Lady's mantle	2l	5% 6/sqm		
<i>Astrantia major</i> 'Claret'	Greater masterwort	2l	5% 9/sqm		
<i>Blechnum spicant</i>	Hard fern	2l	10% 6/sqm		native, evergreen
<i>Campanula persicifolia</i> *	Bellflower	P9	5% 9/sqm		
<i>Gaura lindheimeri</i> *	White gaura		5% 6/sqm		
<i>Geranium</i> 'Rozanne'	Crane's bill	2l	10% 6/sqm		evergreen
<i>Helleborus niger</i> *	Helleborus	2l	5% 6/sqm		evergreen
<i>Knautia macedonica</i> *	Macedonian scabious	2l	5% 9/sqm		
<i>Anemone</i> 'Honorine Jobert'	Japanese anemone	2l	5% 6/sqm		
<i>Luzula sylvatica</i>	Great wood rush	1.5l	15% 6/sqm		native, evergreen
<i>Salvia nemorosa</i> 'Mainacht'	Sage	2l	5% 6/sqm		
<i>Silene vulgaris</i>	Bladder campion	P9	5% 9/sqm		native
<i>Stipa tenuissima</i> 'Pony Tails'	Mexican feather grass	2l	10% 6/sqm		
<i>Verbena bonariensis</i> *	Purpletop vervain	2l	5% 6/sqm		
BULBS					
<i>Allium</i> 'Purple sensation'	Garlic	bulbs	10/sqm		In drifts of 15 pieces
<i>Narcissus Ice Follies</i>	Narcissus	bulbs	10/sqm		In drifts of 15 pieces

Mix 2 PERENNIAL PLANTING TO STREET BIORETENTION TREE PITS

Pollinator friendly plant marked *. Planted in 450 mm free draining tpsoil.50mm mulch layer.

<i>Polystichum munitum</i>	Western swordfern	2l	30% 6/sqm		evergreen
<i>Gaura lindheimeri</i> *	White gaura	2l	15% 6/sqm		
<i>Sporobolus heterolepis</i>	Prairie dropseed	2l	40% 6/sqm		
<i>Verbena bonariensis</i> *	Purple top	2l	15% 6/sqm		

Mix 3 PERENNIAL PLANTING TO SWALES

Pollinator friendly plant marked *. Planted in 450 mm free draining tpsoil.50mm mulch layer.

<i>Camasia leichtlinii</i>	Californian quamash	bulbs			
<i>Carex grayi</i>	Mace sedge	2l	5% 5/sqm		
<i>Carex pendula</i>	Pendulous sedge	2l	5% 4/sqm		native, evergreen
<i>Carex vulpinoidea</i>	Fox sedge	2l	10% 6/sqm		
<i>Deschampsia caespitosa</i>	Tufted hairgrass	2l	10% 4/sqm		native
<i>Eupatorium maculatum</i> *	Eupatorium	P9	5% 6/sqm		
<i>Gaura lindheimeri</i> *	White gaura	2l	5% 6/sqm		
<i>Iris sibirica</i>	Iris	1l	5% 6/sqm		
<i>Iris pseudacorus</i>	Iris	1l	5% 6/sqm		native
<i>Juncus effusus</i>	Common rush	2l	5% 6/sqm		native, evergreen
<i>Leucanthemum vulgare</i> *	Ox-eye daisy	2l	5% 6/sqm		native
<i>Lobelia cardinalis</i>	Lobelia	P9	5% 6/sqm		
<i>Lychnis flos cuculi</i>	Ragged Robin	P9	5% 9/sqm		native
<i>Lythrum salicaria</i> *	Purple loosestrife	2l	5% 6/sqm		native
<i>Molinia caerulea</i> 'Moorhexe'	Purple moor grass	3l	5% 4/sqm		native
<i>Polystichum munitum</i>	Western swordfern	2l	10% 6/sqm		
<i>Primula vulgaris</i>	Common primrose	P9	5% 9/sqm		

<i>Rudbeckia fulgida</i> *	Orange coneflower	2l	5%	6/sqm	
<i>Verbena bonariensis</i> *	Purple top	2l	5%	6/sqm	

Mix 4 PERENNIAL PLANTING TO GROUND FLOOR PATIOS AND APARTMENTS - SUN

Seasonal interest through the year, to sun. Pollinator friendly plant marked *.Planted in 450 mm free draining tpsoil.50mm mulch layer.

<i>Anemone 'Honorine Jobert'</i> *	Japanese anemone	2l	5%	6/sqm	
<i>Achillea millefolium 'Cerise Queen'</i> *	Yarrow	P9	5%	9/sqm	native
<i>Agastache 'Blackadder'</i> *	Giant hyssop	2l	5%	6/sqm	
<i>Astrantia major 'Claret'</i> *	Greater masterwort	2l	5%	9/sqm	
<i>Campanula persicifolia</i> *	Bellflower	P9	5%	9/sqm	
<i>Deschampsia caespitosa</i>	Tufted hairgrass	2l	15%	4/sqm	native
<i>Gaura lindheimeri</i> *	White gaura	2l	5%	6/sqm	
<i>Geranium 'Rozanne'</i> *	Crane's bill	2l	5%	6/sqm	evergreen
<i>Helleborus niger</i> *	Helleborus	2l	5%	6/sqm	evergreen
<i>Knautia macedonica</i> *	Macedonian scabious	2l	5%	9/sqm	
<i>Leucanthemum 'Snow Lady'</i> *	Daisy	2l	5%	6/sqm	native
<i>Primula veris</i>	Common cowslip	P9	5%	9/sqm	native
<i>Salvia nemorosa 'Mainacht'</i> *	Sage	2l	5%	6/sqm	
<i>Silene vulgaris</i>	Bladder campion	P9	5%	9/sqm	native
<i>Stipa tenuissima</i>	Mexican feather grass	2l	15%	6/sqm	
<i>Verbascum nigrum</i> *	Mullein	P9	5%	6/sqm	
BULBS					
<i>Allium 'Purple sensation'</i> *	Garlic	bulbs		10/sqm	In drifts of 15 pieces
<i>Narcissus Ice Follies</i>	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

Mix 5 PERENNIAL PLANTING TO GROUND FLOOR PATIOS AND APARTMENTS - PART SHADE

Seasonal interest through the year, to partial shade. Pollinator friendly plant marked *.Planted in 450 mm free draining tpsoil.50mm mulch layer.

<i>Acanthus mollis</i>	Bear's breech	2l	5%	4/sqm	
<i>Bergenia cordifolia</i> *	Heart leafed bergenia	2l	10%	6/sqm	evergreen
<i>Anemone 'Honorine Jobert'</i> *	Japanese anemone	2l	5%	6/sqm	
<i>Blechnum spicant</i>	Hard fern	2l	10%	6/sqm	native, evergreen
<i>Campanula rotundifolia</i> *	Bellflower	P9	5%	9/sqm	native
<i>Digitalis purpurea 'Albiflora'</i> *	Foxglove	P9	5%	6/sqm	native
<i>Geranium 'Rozanne'</i> *	Crane's bill	2l	15%	6/sqm	evergreen
<i>Helleborus niger</i> *	Helleborus	2l	5%	6/sqm	evergreen
<i>Liriope muscari</i> *	Lily turf	2l	10%	6/sqm	to shade, evergreen
<i>Luzula sylvatica</i>	Great wood rush	1.5l	20%	6/sqm	native, evergreen
<i>Rodgersia aesculifolia</i>	Chesnut-leaved rodgersia	3l	10%	4/sqm	
BULBS					
<i>Galanthus nivalis</i> *	Snowdrop	bulbs		10/sqm	In drifts of 15 pieces
<i>Leucojum aestivum</i>	Summer snowflake	bulbs		10/sqm	In drifts of 15 pieces
<i>Narcissus Thalia</i>	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

Mix 6 GROUND COVER PLANTING TO TREES

Pollinator friendly plant marked *.Planted in 450 mm free draining tpsoil.50mm mulch layer. Ivy as the main groundcover with large groups of ferns, and drifts of bulb planting.

<i>Anthrrium filix-femina</i>	Lady fern	2l	10%	6/sqm	Native
<i>Blechnum spicant</i>	Hard fern	2l	10%	6/sqm	Native evergreenrns
<i>Hedera hibernica</i>	Ivy	1l	70%	6/sqm	native, evergreen
<i>Polystichum setiferum</i>	Soft shield fern	2l	10%	6/sqm	native, semievergren
BULBS					
<i>Galanthus nivalis</i> *	Snowdrop	bulbs		10/sqm	In drifts of 15 pieces
<i>Leucojum aestivum</i>	Summer snowflake	bulbs		10/sqm	In drifts of 15 pieces
<i>Narcissus 'Tete a Tete'</i>	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

Mix 7 GROUND COVER SEED MIX TO MICROFOREST

Woodland wildflower mixture EC03 by Wildflowers.ie. Seeds of native irish origin.

Contains Bluebell, Burdock, Dog Violet, Cowslip, Devils Bit Scabious, Foxglove, Hedge Garlic Mustard, Lesser Knapweed, Meadowsweet, Ramson, Red Campion, Ribwort Plantain, Sorrel, Upright Hedge Parsley, Wild Angelica, Wood Avens, Hemp Agrimony, Hoary Plantain, Primrose, Sweet Violet, Wood Sage.

Mix 8 WILDFLOWER MEADOW MIX

Biodiversity Wildflower Meadow Mixture (Tolerates light-shade) bu Wildflower.ie, code WF02.250mm free draining topsoil.

Contains 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.

AMMENITY LAWN /GRASSLAND

80% lawn seed mixture.

ADD 20% of the seed mixture Species Rich Amenity Grassland seed mix by Wildflowers.ie, code EC09. 250mm free draining topsoil.

Contains Birdsfoot Trefoil, Black Meddock, Cowslip, Devil's Bit Scabious, Eyebright, Field Scabious, Greater Trefoil, Kidney Vetch, Lady's Bedstraw, Lesser Knapweed, Marjoram, Meadow Buttercup, Mullein, Ox-eye Daisy, Ragged Robin, Red Campion, Red Clover, Ribwort Plantain, Rough Hawksbit, Salad Burnet, Selfheal, St Johnswort, Wild Angelica, Wild Carrot, Yarrow, Yellow Agrimony, Yellow Rattle, Orchid seed from wild meadow harvests also included, Annuals included: Corn Marigold, Corn Poppy, Corncockle, Cornflower, Scented Mayweed

ADD *Crocus vernus* bulbs. To be planted closely spaced (5-10cm spacing) in large groups/drift.

GREEN ROOF - SEDUM MAT

Soprema sedum mat. Sedum mat to be sourced and grown in Ireland. Minimum vegetation coverage 75%, thickness 20 -40 mm. Species mix must comprise at least 5-7 sedum species with minor parts of grass and herbs.

Reference species: Sedum acre Aureum', Sedum album 'Coral Carpet', Sedum album 'Mini', Sedum album 'Athoum', Sedum hispanicum, Sedum 'Summer Glory', Sedum 'Reflexum', Sedum 'Weihenstephaner Gold', Sedum 'Voodoo'

ROOF GARDENS - RAISED PLANTERS

Raised planters with min 450 mm of appropriate lightweight growing medium for perennials and min 600mm appropriate light weight growing medium and 40 mm drainage board. Pollinator friendly planting marked with *.

Plant name		Size	Stem	Root prep	Comment
Acer palmatum	Japanese maple	min 2 m high	multistem	rootballed	To shade
Amelanchier 'Ballerina'*	Serviceberry	min 2 m high	multistem	rootballed	To sun
Betula jacquemontii	Himalayan birch	min 2 m high	multistem	rootballed	To sun
Betula nigra	River birch	min 2 m high	multistem	rootballed	To shade
		Pot size	Percent of mix	Density	Comment
Anemone 'Honorine Jobert'*	Japanese anemone	2l	10%	6/sqm	
Bergenia cordifolia*	Heart leaved bergenia	2l	10%	6/sqm	evergreen
Digitalis purpurea*	Foxglove	2l	5%	6/sqm	native
Geranium 'Rozanne'*	Crane's bill	2l	10%	6/sqm	evergreen
Helleborus niger*	Helleborus	2l	5%	6/sqm	evergreen
Luzula sylvatica	Great wood rush	1.5l	20%	6/sqm	native, evergreen
Pennisetum alopecuroides 'Hammeln'	Chinese Fountain Grass	3l	20%	4/sqm	
Polystichum setiferum	Soft shield fern	2l	10%	6/sqm	native, evergreen
Salvia nemorosa 'Mainacht'*	Sage	2l	10%	6/sqm	
Allium 'Purple sensation'*	Garlic	bulbs		10/sqm	In drifts of 15 pieces
Narcissus 'Thalia'	Narcissus	bulbs		10/sqm	In drifts of 15 pieces

ROOF GARDENS - XEROFYTE WILDFLOWERS

Min 100 mm of appropriate growing medium and 40 mm drainage board.

Plant name		Pot size	Percent of mix	Density	Comment
Achillea millefolium 'Cerise Queen'*	Yarrow	P9	5%	9/sqm	native
Centranthus ruber*	Red valerian	P9	5%	6/sqm	
Coreopsis verticillata 'Zagreb'*	Tickseed	P9	5%		
Dianthus giganteus*	Giant pink	P9	5%		evergreen
Echium vulgare*	Viper's bugloss	P9	5%		native
Geranium sanguineum*	Crane's bill	P9	10%	6/sqm	native
Knautia arvensis*	Wildflower scabious	P9	5%	9/sqm	native
Linum perenne	Flax	P9	5%	6/sqm	semi-evergreen
Lychnis coronaria*	Rose campion	P9	5%		
Origanum vulgare*	Oregano	P9	10%	9/sqm	native
Papaver orientale 'Victoria Louise'*	Oriental poppy	P9	5%	6/sqm	
Sedum acre	Sedum	P9	10%		evergreen
Sedum album	Sedum	P9	10%		evergreen
Sedum spurium	Sedum	P9	10%		evergreen
Scabiosa ochroleuca*	Pae yellow scabious	P9	5%		