LANDSCAPE MASTER PLAN & PLANTING PLAN /scale 1:500

Rev	Date	Description	By
A	2017-09-05	Relocation of few trees to avoid services. Planting to ramp revised. Gravel infill to approx. 4-8mm diameter.	LP
B	2017-11-05	Site Plan amended accordingly to Amendments to the Rear of the Proposed Sports Hall as requested by the Fire Officer relating to extended footpaths from rear escape doors	LP
C	2017-12-06	New section of path at the north of PE Hall. Continuation of building perimeter path to play area. A fixed seating bench on Access path to Sports Hall Entrance included. Continuation of concrete path at entrance to GP Room. 04no. trees relocated. Root barrier included. All revisions are highlighted by revision cloud.	LP
D	2017-12-22	All product names removed.	LP

This drawing is copyright. Figured dimensions to be used in all cases. All dimensions to be checked on site prior to commencement of works.

SPECIFICATION KEY

- Samples and specification sheets for all specified materials to be submitted planning by landscape architect prior to ordering
- 'Shop' fabrication drawings for handrails etc. to be submitted for comment by landscape architect prior to ordering
- Declaration of Performance to comply with the requirements of TGD D to be submitted to landscape architect for inclusion in project files and included with O&M Manual and Safety File for each and every product. All products to be CE-marked.
- All paving bedding, sub-bases, build-ups, joints, footings, foundations, joint detailing, reinforcing bar details and bolts to engineer's design, detail and specification.
- Carpark/road hardworks, kerbs, surface finish, line marking etc. to engineer's design detail and specification.
- Engineer/architect to advise regarding FFL and levels of DPM to existing buildings.
- All boundary details (walls, gates, fencing etc) to architect's design detail and specification.
- All services access covers and underground services shall be co-ordinated with landscape finishes, tree pit locations and street furniture locations. Services access covers to be located 100% in one finish or the other.
- M&E Engineer's specification for lighting design to be produced.

EXISTING TREES

- Existing trees to be retained and protected during works in accordance with BS:5837: 2012 in accordance with arborist's recommendations

Q23/110A, Q20/215, Q20/170A — **PAVING - GOLDEN HARD BINDING GRAVEL**

- Hard-compacting gravel paving and sub-bases to be laid as permeable, and laid to max 1:50 falls towards adjacent shrub planting beds.

Q25/150A — **CONCRETE BLOCK PAVING SYSTEM**

- 600mm x 150mm x 80mm depth natural granite aggregate paving unit, in Graphite finish on bedding & sub-base to engineer's design detail and specification, laid in a stretcher-bond laying pattern.
- Kiln-dried Jointing Sand in 'Silver Granite'.
- Paving Sealer for a 'Wet Look' finish.

Q21/115A, Q20/210, Q20/170A — **PAVING - IN-SITU CONCRETE, EXPOSED AGGREGATE FINISH**

- 210mm depth in-situ concrete paving laid to max. 1:50 cross-falls and treated with an exposed aggregate retarder to provide a more attractive surfacing treatment; saw-cut joints at 3m centres.
- Concrete to be a designed mix with a high amount of rounded aggregates.

Q21/215B, Q20/210, Q20/170A — **PAVING - IN-SITU CONCRETE, BRUSHED FINISH**

- 210mm depth in-situ concrete paving laid to max 1:50 cross-falls on 50mm depth sand blinding course
- sub-base and geotextile to engineer's design detail and specification
- applied brushed finish to create slip resistance; saw-cut joints at 3m centres.
- path to incorporate kerb edging adjacent to vehicular road to engineer's detail

Q31/505, Q31/200, Q31/485, Q31/385, Q28/315 — **SEMI-MATURE NATIVE TREES**

- Semi-mature native species provided with 1200mm² multi-purpose grade topsoil to BS: 3882, topped with black 90gs/m² landscape fabric secured with plastic pegs at 300mm c/cs & 75mm depth medium-grade bark mulch.
- Trees double- staked & supplied with planting accessories, and provided with root restrictors within 2m of paving, underground services and foundations.

Q31/200, Q31/485, Q31/385, Q28/315 — **PLANTING - PERENNIALS:**

- Ornamental perennial planting to comprise ornamental grasses & flowering perennials to soften the visual impact of the development.
- Planting to 300mm depth BS3882 multi-purpose topsoil on free-draining sub-base, topped with 90gs/m² black landscape fabric and 75mm depth medium-grade pine bark mulch.

Q31/200, Q31/485, Q31/385, Q28/315 — **PLANTING - HEDGEROWS:**

- Native & naturalised hedgerow species to provide biodiversity, support for wildlife & screening as they mature.
- Transplant planting to 300mm depth BS3882 multi-purpose topsoil on free-draining sub-base, topped with 90gs/m² black landscape fabric and 75mm depth medium-grade pine bark mulch.

Q30/310, Q28/315 — **SEEDING/TURFING: GRASS LAWNS**

- Excavate lawn areas to 150mm depth & break up base of area to ensure free drainage.
- Backfill with min. 150mm depth multi-purpose grade topsoil to BS3882 to lawn area and seed with low maintenance hard-wearing non-ryegrass amenity grass seed mix at 25g per m², suitable for play.

Q50/220A — **STREET FURNITURE - WOODEN SEATING**

- Iroko seat units
- Base plates bolted to concrete bases 100 mm below paving surface.

Q50/220B — **STREET FURNITURE - RAISED PLANTER**

- 2000x200x100 planed smooth 'Grade A' green oak sleepers (cut to lengths as required) to 500mm height off FPL to provide seating elements to detail.
- Top sleeper to be plugged with 18mmØ green oak plug. Sleepers slotted down over 18/20mm Ø rebar at 1m centres element fixed into C20P concrete foundation to engineer's design detail and specification.
- Backfill raised planters with min. 300mm depth BS:3882 multi-purpose grade topsoil.

Q50/220C — **STREET FURNITURE - HARDWOOD BENCH**

- Strong and rigid Hardwood Bench to comprise sturdy, crosswise-positioned solid slats (7x7cm) mounted in comb system, on an integrated galvanised mild steel structure powder-cpated to RAL 7016. Please refer to image for reference.
- 02 no. 2300x600x480 mm (LxWxH)

Q23/170A — **GRAVEL TRIM TO BASE OF BUILDING**

- Approx. 4-8mm diameter, 100mm depth loose gravel overlay to base of building elevation interface with soft landscape.

Q10/114A — **ALUMINIUM TRIM**

- L-shaped 102x76x2440 mill finish aluminium landscape edging trim, fixed with concrete nails at 250mm centres, into continuous C20P 200x300mm concrete foundation, and secured by min. 50mm depth increasing to 70 mm continuous C20P concrete as per detail.

Q10/114B — **EDGING TRIM - PRESSURE-TREATED TIMBER**

- 50x150mm planed pressure-treated larch timber edge laid in minimum 2m lengths and screw-fixed to posts at 1m c/cs.
- 50x50x610mm pressure-treated larch posts located at 1m c/cs. (3 no. per 2mtrs length)
- Posts to be finished with a 25mm bevelled top. 2 no. 80mm galvanised screws per post

Q10/114C — **CONCRETE EDGING TO LIGHTWEIGHT PATH SYSTEM**

- In situ exposed aggregate concrete edging on geotextile to achieve an exposed aggregate finish to IS EN 206/BS:8500 tolerances.

KERB

- Kerb to engineer's design, detail and specification

TREE ROOT BARRIER

- 1m depth deep root barrier to trees within 6m of distance from services.
- Quantity: 153 m length in total.

PLANTING SCHEDULE & SOFT LANDSCAPE MAINTENANCE

SOFT LANDSCAPE WORKS MAINTENANCE PROGRAMME

a. Bare root transplants, hedging and rootballed trees
b. Containerised shrubs, perennials and grass lawns
c. 12 months maintenance & defects liability period, to commence on practical completion of soft landscape works. Planted beds, trees, hedges and transplant planting 16 no. maintenance visits required per annum (April- October) carried out on a fortnightly basis and 2 additional visits over winter period. 16 no. maintenance visits required per annum.

Qty.	Species	Height (cm)	Pot Size	Density	Container-grown (cg) / Bare Root (br)	Quality Specification
	Trees					
	All trees to be provided with 1.5m³ multi-purpose grade topsoil to BS3882 and planted as per planting details drawings, with root restrictor membrane where appropriate to ensure adjacent paving/services are not disturbed by root growth, and provided with irrigation where appropriate.					
	Acer campestre (Field maple) Ac	16-18cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Amelanchier lamarckii (Serviceberry) Al	2½m height, (Multi-stemmed)	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Populus tremula (Aspen) Pt	14-16cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Populus tremula (Aspen) Pt	16-18cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Betula pubescens (Downy Birch) Bp	16-18cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Betula pubescens (Downy Birch) Bp	18-20cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Malus sylvestris (Crab Apple) Ms	14-16cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Alnus glutinosa (Alder)	16-18cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Prunus Padus (Bird cherry) Pa	16-18cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Prunus avium 'Stella' (cherry) Pa	14-16cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Pyrus pyraster (Wild Pear) Pp	14-16cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
	Quercus petraea (Oak) Qa	18-20cm girth	planted to Planting Detail A with root restrictor membrane near services		rootballed/	
0	Total					
	Shrubs & Perennials					
	Excavate to 400mm depth and backfill with 300mm multi-purpose grade topsoil to BS3882, and top with 90gsm black geotextile landscape weed-guard type fabric and 75mm depth medium-grade bark. Finish top of bark mulch 35mm below adjacent paving finish.					
Qty.	Species	Height (cm)	Pot Size	Density	Container-grown (cg) / Bare Root (br)	Quality Specification
P1	**Flowering Evergreen Perennial Mix**		**3 plants per ref 556 m²**			
152	*Knjphofia caulescens*	40-60cm	P9		cg	
152	*Libertia grandiflora*	40-60cm	P9		cg	
152	*Alpaga reptans*	40-60cm	P9		cg	
152	*Digitalis grandiflora*	40-60cm	P9		cg	
152	*Iris foetidissima*	40-60cm	P9		cg	
152	*Knjphofia 'Alcazar'*	40-60cm	P9		cg	
152	*Agapanthus 'Storm Cloud'*	40-60cm	P9		cg	
152	*Salvia nemorosa 'Caradonna'*	40-60cm	P9		cg	
152	*Liguleria 'The Rocket'*	40-60cm	P9		cg	
152	*Bergenia cordifolia 'Purpurea'*	40-60cm	P9		cg	
P2	**Perennial Mix low - medium height**		**3 plants per ref 54 m²**			
18	*Agapanthus 'Breiningham Blue'*	40-60cm	P9		cg	
18	*Agapanthus 'Black Adder'*	40-60cm	P9		cg	
18	*Alpaga reptans 'Catlins Giant'*	40-60cm	P9		cg	
18	*Eichinacea purpurea 'Kims Knee High'*	40-60cm	P9		cg	
18	*Echinops 'Taplow Blue'*	40-60cm	P9		cg	
18	*Helenium autumnale 'Moerheim Beauty'*	40-60cm	P9		cg	
18	*Knjphofia triangularis*	40-60cm	P9		cg	
18	*Verbena bonariensis*	40-60cm	P9		cg	
18	*Nepeta x faassenii 'Six Hills Giant'*	40-60cm	P9		cg	
18	*Rudbeckia fulgida 'Goldsturm'*	40-60cm	P9		cg	
18	*Sedum x telephium 'Autumn Joy'*	40-60cm	P9		cg	
P3	**Perennial Mix medium to tall**		**3 plants per ref 77 m²**			
23	*Aloes rooes 'Hollyhock'*	40-60cm	P9		cg	
23	*Echinops 'Taplow Blue'*	40-60cm	P9		cg	
23	*Eupatorium purpurea 'Atropurpureum'*	40-60cm	P9		cg	
23	*Ligularia 'The Rocket'*	40-60cm	P9		cg	
23	*Molinia caerula 'Transparent'*	40-60cm	P9		cg	
23	*Rudbeckia maxima*	40-60cm	P9		cg	
23	*Silpa gigantea*	40-60cm	P9		cg	
23	*Verbascum bombyciferum*	40-60cm	P9		cg	
23	*Verbascum 'Gainsborough'*	40-60cm	P9		cg	
23	*Verbena bonariensis*	40-60cm	P9		cg	
P4	**Shade Tolerant Perennial Mix**		**3 plants per ref 71 m²**			
36	*Astilbe chinensis*	40-60cm	P9		cg	
36	*Blechnum spicant*	40-60cm	P9		cg	
36	*Digitalis grandiflora*	40-60cm	P9		cg	
36	*Iris foetidissima*	40-60cm	P9		cg	
36	*Phyllitis (Asplenium) scolopendrium*	40-60cm	P9		cg	
36	*Polystichum aculeatum*	40-60cm	P9		cg	
	Transplants, Hedging & Understorey Planting					
	Excavate proposed screening mix shrub planting areas to 400mm depth and break up base of planter to ensure free drainage. Backfill with min. 300mm depth topsoil to BS:3882 to Planting Details drawing and top with black weed-guard type landscape fabric 90g/m² and 75mm depth medium-grade bark mulch topping. Finish top of bark mulch 35mm below adjacent paving finish.					
Qty.	Species	Height (cm)	Pot Size	Density	Container-grown (cg) / Bare Root (br)	Quality Specification
H1	**Mixt Native Species Hedgerow in double staggered row**		**3 plants per ref 445 m²**			
111	*Acer campestre (Field Maple)*	40-60cm	Transplant 1+1		br	
111	*Corylus avellana (Hazel)*	40-60cm	Transplant 1+1		br	
111	*Prunus Spinosa (Blackthorn)*	40-60cm	Transplant 1+1		br	
111	*Crataegus monogyna (Hawthorn)*	40-60cm	Transplant 1+1		br	
111	*Ilex aquifolium (Holly)*	40-60cm	P9		cg	
111	*Rosa rugosa (Wild Rose)*	40-60cm	Transplant 1+1		br	
111	*Salix aurita (eared willow)*	40-60cm	Transplant 1+1		br	
111	*Viburnum opulus (Guelder Rose)*	40-60cm	Transplant 1+1		br	
	Single Species Mix		**4 plants per ref 331 m²**			
636	*Ilex aquifolium (Holly)*	40-60cm	P9	4 per m²	cg	
T1	**Native Woodland Mix**		**4 plants per ref m²**			
	Alnus glutinosa	40-60cm	Transplant 1+1		br	
	Betula pubescens	40-60cm	Transplant 1+1		br	
	Prunus Padus	40-60cm	Transplant 1+1		br	
	Sorbus aucuparia	40-60cm	Transplant 1+1		br	
	Salix caprea (goat willow)	40-60cm	Transplant 1+1		br	
	Salix aurita (eared willow)	40-60cm	Transplant 1+1		br	
	Crataegus monogyna (Hawthorn)	40-60cm	Transplant 1+1		br	
	Corylus avellana (Hazel)	40-60cm	Transplant 1+1		br	
T4	**Wetland Scrub mix**		**4 plants per ref m²**			
	Alnus glutinosa	40-60cm	Transplant 1+1		br	
	Salix aurita (eared willow)	40-60cm	Transplant 1+1		br	
	Salix caprea (goat willow)	40-60cm	Transplant 1+1		br	
	Betula pubescens	40-60cm	Transplant 1+1		br	
	Ilex pseudacorus	40-60cm	Transplant 1+1		br	

SOFT LANDSCAPE WORKS PROGRAMME

a. Bare root transplants, hedging and rootballed trees — November - March
b. Containerised shrubs, perennials and grass lawns — Before main contract practical completion
c. 12 months maintenance & defects liability period, to commence on practical completion of soft landscape works. Lawn cutting: 14 cuts per growing season (April- October) carried out on a fortnightly basis and 2 additional cuts over winter period. 16 cuts in total, 16 no. maintenance visits required.
d. 12 months maintenance & defects liability period to planted beds, trees, hedges and transplant planting to be carried out at the same time as grass cutting. 16 no.

For further details on tree survey please refer to arborist report carried out by CMK HORT + ARB Ltd.

Brushed concrete paving

Natural granite aggregate paving, graphite finish. 600mm x 150mm x 80mm depth .

Acer campestre (Field Maple)

Amelanchier lamarckii (Serviceberry)

Betula pubescens (Downy Birch)

Exposed aggregate concrete paving

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Project: Clondalkin Adapt 18
Title: Landscape Master Plan & Planting Plan

Drg No	Date Issued	Scale
16-444-TD-01	2023-04-26	1:500 @ A1

Drawn	Purpose	Checked
LP	Tender	SD