# Landscape Specifications for

# Mixed Use Development

at

# Paintworld, 1-2 Ballymount Road Lower, Dublin 12



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# 1.0 Landscape Appraisal

# 1.1 Existing Site

The subject site is located adjacent to Walkinstown Roundabout along Ballymount Road Lower. The site is regular in shape and measures approximately 0.0459 hectares. It is proposed that the commercial retail development, Paintworld, is demolished to make way for the new mixed-use development.



Figure 1: Subject site outlined in red - Google Images

# 1.2 Landscape Strategy

The landscape design proposals for the development are detailed on drawing no P1004. The landscape design is structured to provide a cohesive design with an urban edge. The proposed development looks to assimilate the car park into the existing landscape context.

A variety of species of flowering shrubs, grasses and herbaceous perennials have been selected for the planting areas to provide seasonal interest through flowers and foliage. Plants are of varying heights, forms, and habits to provides visual amenity. There are native species used as part of the overall plant palette to help with the biodiversity of the site. The planting is selected to comply with the aspirations of the All-Ireland Pollinator Plan.





Figure 2: Pittosporum & Viburnum Tinus



Figure 3: Sedum SuDs Roof System

# 1.3 Planting Schedule

Proposed Shrub Plant	ting		
Species	Size/Spec.	Density	Condition
Pittosporum	30 - 40cm	5/sqm	C4
Viburnum Tinus	40 - 60cm	5/sqm	C5

# **Sedum Roof System**

Sopranature sedum blanket comprising:

- Sedum Album Coral Carpet
- Sedum Acre Aureum
- Sedum Album Mini
- Sedum Album Athoum
- Sedum Hispanicum
- Sedum Summer Glory
- Sedum Reflexum
- Sedum Weihenstephaner Gold
- Sedum Voodoo

# 2.0 Landscape Specifications: Soft Works

# 2.1 Preliminaries

# 2.1.1 Description of Work

The work consists of general works, site preparation, grass seeding, wildflower seeding, bulb/corn planting, shrub groundcover planting, and tree planting. Exact

dates for completion of works will be finalised after the award of contract.

## 2.1.2 Standards of Workmanship and Materials

The Landscape Contractor shall ensure that all works have been carried out to comply with BS 4428 (General Landscape Operations), BS 3936 (Nursery Stock). It is essential that the site is always tidy, and that the planting appears healthy. The Landscape Contractor should be prepared to ensure that such conditions are met and should include for this in his/her rates.

Any materials not meeting specifications for whatever cause, shall be rejected. The Landscape Contractor shall familiarise himself/herself with the layout of services and the positions of all structures on the site and shall be liable for any damage to the above.

## 2.1.3 Notice of Intentions and Recording Actions

The Landscape Contractor shall give 48 hours' notice of his/her intention to commence setting out, planting and maintenance visits. The Landscape Contractor shall return a bi-weekly record of all site actions.

# 2.1.4 Leaving the Site Tidy

The site shall be left in a neat and orderly condition at the end of works.

#### 2.1.5 Season

Landscape work shall take place in the appropriate season and only when the conditions are suitable, i.e. it is dull, moist, and mild, without undue risk of frost or drying winds.

There shall be no cultivation or planting when the soil is frozen or waterlogged. If exceptional weather conditions occur after planting, e.g. heavy frosts, measures shall be taken to ensure planting is not adversely affected.

# 2.1.6 Replacement

The sub-contractor shall make good at his own expense any losses of plants which die or appear unhealthy at any time up to practical completion in the twelve months after planting.

The sub-contractor shall make good at his own expense any losses of plants which die or appear unhealthy at any time prior to hand over. Plant failures will not be charged to the Landscape Contractor if the failure is due to plants left by guards or fencing, damage/losses due to theft, vandalism or disturbance by other contractors.

Persistence of weed in planted areas will be regarded as a contributory cause of failure due to drought. Prolonged dry weather will not exonerate the Landscape Contractor if the scheduled maintenance operations have not been carried out as programmed.

## 2.1.7 Damage

All plants are to be adequately and carefully packed and protected to survive transport, whatever means, to the site, during loading, transit or unloading. If despite these precautions' roots, branches, or shoots suffer slight damage, they are to be carefully pruned.

If major damage has occurred, the plant shall be rejected and replaced at the Landscape Contractor's own expense.

## 2.1.8 Defects Liability Period

The Landscape Contractor shall be responsible for any plants that fail to take during the first full growing season (12 months) from date of completion.

#### 2.1.9 Protection

The Landscape Contractor shall provide adequate temporary protection to the whole of his/her work and shall include temporary coverings, planked barrow runs and all other measures for protecting the work from damage.

The Landscape Contractor shall also protect from damage all existing roadways, kerbs, services, and other completed works on site.

Any work damaged or soiled by weather, traffic, or other causes due to inadequate temporary protection shall be removed and made good at the cost of the Landscape Contractor. The form of protection is left to the discretion of the Landscape Contractor.

## 2.1.10 Programme of Operation

The Landscape Contractor shall execute his works in conformity with a programme to be agreed and shall include in his estimate for working within an agreed time limit. No individual areas will be handed over unless there is an agreed sectional completion. The Landscape Contractor shall allow for keeping individual areas adequately maintained until the whole has been completed.

# 2.1.11 Site Inspection

Prior to the submission of tenders, the Landscape Contractor is expected to visit the site and familiarise himself/herself with the nature of the existing roads and pathways, the soil conditions, slope gradients, any hazards and other matters affecting the works. No extra charges will be made for any misunderstandings, or incorrect information or any of these points, or on grounds of insufficient description or lack of information will be allowed.

# 2.1.12 Setting Out

The Landscape Contractor will be responsible for checking all schedules and drawings. In the event of any discrepancies being found between schedules and drawings, or if the Landscape Contractor considers that additional detail drawings are required, the Landscape Contractor shall report such discrepancy in writing at least ten days before the works are to be executed.

The right is reserved to adjust the exact position of trees and specimen shrubs after they have been set out on site. Any trees which are planted without approval of the setting out may be required to be re-planted at the Landscape Contractor's expense.

## 2.1.13 Supervision and Contractor's Staff

The Landscape Contractor shall ensure full and adequate supervision of the site during the duration of the works.

The Landscape Contractor shall always during the Contract period employ sufficient persons of appropriate abilities, skills, care., and experience as are required for the proper performance of the services in accordance with the contract and shall ensure that a sufficient reserve of persons is available to provide the services during holiday periods, absences due to sickness and special events/emergencies.

The Landscape Contractor will appoint a contract manager to supervise those persons employed to perform the Services in accordance with the contract. The contract manager must be always available and present in the contract area that the services are being carried out.

# 2.2 Specification

# 2.2.1 Plants Generally

All plants conform fully to the specification in respect of species, size, and quality. The Landscape Contractor shall investigate the sources of supply and satisfy himself that he can supply all the plants specified on the planting schedule in the size, variety, and quality before submitting a bid. Substitutions will not be permitted. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of nearest equivalent size or variety, with an equitable adjustment of contract price. All plants shall be well grown, sturdy and bushy, according to type, and free from all disease and defects.

All plants shall be adequately hardened off prior to planting, where frost or cold winds may be a problem. All plants shall be supplied with temporary labels with the full botanical name, on each bundle or batch of plants.

The Landscape Contractor should indicate in their tender source of material; to be used and where it can be inspected prior to award of contract.

All plants that do not conform to the specification will be automatically rejected and must be removed from site and replaced at the Landscape Contractors expense.

All trees, shrubs and other plant material shall comply with the minimum requirement of the relevant British Standards below:

- BS3936 Part 1: Specification for trees and shrubs
- BS 3936 Part6: Specification for herbaceous, perennials and alpines
- BS 3936 Part9: Specification for bulbs, corns, and tubers
- BS 3936 Part 10: Specification for groundcover plants

# 2.2.2 Time of Lifting

Bare root plants must only be lifted when the ground is moist, and the plant is dormant between November and end of March of current year. Lifting must never take place when there is a severe ground frost. Particular attention must always be paid to the protection of the roots on lifting when there is a strong drying wind or sun.

#### 2.2.3 Protection

Care must be taken to ensure that bare roots are always protected from physical damage and desiccation. All bare roots must be covered within two hours of lifting.

# 2.2.4 Bundling

Whip planting must be in bundles of the same species and size, all shoots must face in the same direction so that roots and shoots are not in contact and must be of equal numbers. Bundles are to be securely tied with supple material which will not, by its nature or tension, cause damage to the plants.

# 2.2.5 Labelling

Each individual plant, bundle, bag, or lot of one species shall be labelled with a securely attached label, clearly indicating the plant name, grade and quantity.

# 2.2.6 Grass Seed

Grass seed shall conform to the requirements of British Standard 4428:1969 and subsequent amendments, and to the European communities (seed and fodder plants) regulations 1976.

The Landscape Contractor shall supply, with each seed mixture, a certificate stating the composition, purity, germination, year of collection and country of origin. The

germination capacity of each constituent of the mixture should not be less than 80%, and the purity of the mixture not less than 90%.

Total weed seed content should not be more than 0.5% and the total content of other crop seeds should not be more than 1%. These minimum figures shall be for the current 14-month period of annual tests.

#### 2.2.7 Wild Flower Seed

Wild Flora Mix is to be 'Corburn's Light Soil mix' or similar approved as supplied by Corburn's, seed merchants. Grass seed shall conform to the requirements of British Standard 4428:1969 and subsequent amendments, and to the European communities (seed and fodder plants) regulations 1976.

The seed is to be thoroughly re-mixed before sowing to avoid patchiness on the ground. The seed can be bulked up with sand to ease distribution, lightly raked or rolled in with a ringed roller, taking care not to bury the smaller seeds. The seed is to be sown at a rate of 5gms per square metre.

# 2.2.8 Container Grown Shrubs, Groundcovers, Climbers and Herbaceous Plants

Shrubs shall be bushy, well established nursery stock with a good fibrous root system. They shall be container grown, true to size, name, and description as scheduled. Shrubs shall conform to the appropriate British Standards. Plants shall not be pot bound, nor with roots deformed or restricted. Bare root material will only be accepted where specified.

Herbaceous plants shall be supplied as well rooted clumps, showing several healthy buds, and grown in pots. Pots shall be appropriate to the size of the plant supplied, minimum size 0.5 litres (80mm square or 90mm diameter).

# 2.2.9 Whips and Transplants

All plant material must comply in all respects with the current edition of BS 3936 Parts 1, 4 and 5.

Transplants shall not be less than 3 years old and have been transplanted at least once. Trees shall be sturdy, with a balanced root and shoot development and sizes shall conform to schedule.

Willows shall have been stumped and transplanted at the end of the first year in the nursery.

They shall have a well-defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown shall be well shaped, balanced, of a form and habit natural for the species.

All advanced nursery trees shall comply with BS 5236: 1975. They shall have a well-defined, straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown shall be well shaped, balanced, of a form and habit natural for the species. All advanced nursery stock trees shall be supplied with roots balled.

#### 2.2.10 Shrubs/ Groundcover Sizes

All shrubs and groundcovers shall be supplied as sizes indicated in the Bill of Quantities and Contract drawings.

# 2.2.11 Whip Sizes

Unless otherwise specified, all trees shall be as follows: -

Whips, 600-1200mm high,  $150 \times 150$  150mm minimum root dimensions. All whips are to have a sound central leader and well-formed branches.

## 2.2.12 Approved Chemicals

All chemicals used shall be non-toxic to human beings, birds and animals under normal use, and chemicals which are not agriculturally approved shall not be used.

The use of the following herbicides is acceptable:

Roudup Bata Actrilawn 10, Casoron G Kerb Flo

The use of the following fertilizers is acceptable:

Fisons PSS: Grass areas

Osmocote Plus- fertilizer N:P:K 15:9:11 plus trace elements: Shrub areas

## 2.3 Workmanship

#### 2.3.1 Site Clearance

Remove and dispose of offsite any rubbish still occurring in topsoiled areas, including weeds, old masonry and rubble, metal, wood, and stones, excavating as necessary to permit the specified depth of final cultivations.

All scrub areas shall be grubbed and all existing plants of same shall be removed and disposed of including all root systems unless otherwise specified.

#### 2.3.2 Cultivation Generally

The aim of cultivation is to produce a well-drained and textured soil suitable for plant growth. All areas to be planted or seeded shall be cultivated to a minimum depth of 450mm or deeper if specified. Areas where obvious compaction has occurred shall be ripped. Stones above 75mm longest dimension shall be removed from the top 100mm layer of shrub planting areas.

# 2.3.3 Final Preparation - Seeding Areas

One week before seeding, Fisons PSS or similar approved pre-seeding fertilizer shall be spread at a rate of 70g per square metre and incorporated in the surface layer. The soil shall be firmed and raked to a fine tilth suitable for seeding.

# 2.3.4 Final Preparation - Wild flower Seeding Areas

The soil shall be firmed and raked to a fine tilth suitable for seeding. No fertilizers shall be used on areas for wildflower seeding.

# 2.3.5 Final Preparation - Shrub planting areas

Coarse clean moist compost or approved peat substitute shall be forked in at a rate of 5kg per square metre and incorporated to a depth of 200mm.

Controlled release fertilizer N:P:K 15:9:11 plus trace elements - Osmocote plus or similar approved shall be applied at specified rates and raked into the top 50mm. The surface shall be raked to a tilth suitable for planting.

# 2.3.6 Final Preparation Whip planting areas

Coarse clean moist compost or approved peat substitute shall be forked in at a rate of 5kg per square metre and incorporated to a depth of 200mm. An approved fertilizer shall be spread at a rate of 70g per square metre and raked into the top 50mm layer. The surface shall be raked to a fine tilth for planting.

# 2.3.7 Planting

Containerised plants may be planted throughout the year provided the weather is suitable, the soil is sufficiently moist and each plant is watered following planting.

Planting out with the specified planting period will only be permitted in exceptional circumstances at the discretion of the Landscape Architect; such exceptional circumstances shall include unsuitable weather and no penalty shall be incurred under provided that any delay is formally accepted by the Landscape Architect as attributed to this cause. In the event that works are delayed by inclement weather, the Landscape Contractor shall complete the works at the earliest opportunity afforded by suitable weather.

## 2.3.8 Planting Generally

All planting operations shall be carried out in accordance with BS 4428 and good horticultural practice.

The Landscape Contractor shall provide the Landscape Architect with species and quantities reserved from each named nursery, and the Landscape Architect shall have the right to inspect such nursery stock as deemed necessary, prior to its purchase by the contractor.

All plant labels are to be kept on their respective plants by the Landscape Contractor until the final inspection has been carried out. Only on approval from the Landscape Architect may such labels be removed by the Landscape Contractor.

Bare root stock shall be delivered to the site on the day of planting.

If under exceptional circumstances planting cannot take place within 12 hours of delivery, stock shall be healed in or their roots shall be adequately covered with moist hessian or good quality topsoil for a maximum period of 10 days. The roots are to be kept moist throughout this time by adequate watering. Water logging shall be prevented. Any plants which fail due to inadequate protection prior to planting shall be rejected and replaced at the Landscape Contractor's own expense.

Any plants stored temporarily on site shall be protected from adverse weather conditions. Plants with damaged root systems shall not be accepted. After planting, any minor damage shall be rectified by pruning. Plants which, in the opinion of the Landscape Architect, have been seriously damaged during planting shall be rectified by pruning. Plants which, in the opinion of the Landscape Architect, have been seriously damaged during planting shall be rejected and replaced at the Landscape Contractor's expense. All planting shall be firmed up if loosened by frost or wind.

Prior to planting all bare rooted plants shall be completely immersed in a container of Alignure Root Dip (1:99) solution and container grown plants shall be sprayed with the solution according to manufacturer's instructions.

# 2.3.9 Seeding & Establishment

Grass seeding rate shall be: 25-35gm per square metre. Wildflower seeding rate shall be: 5gms per square metre.

Seeding shall only be carried out at the correct season and in suitably calm but moist weather conditions.

Seeds shall be cross sown in two directions at right angles to each other (half the seed to be used in each direction) to prevent striping.

After sowing, all areas shall be lightly raked with a chain harrow or by hand.

About 48 hours before first cut, large stones (more than 40mm in any dimension) should be removed and all areas rolled with a light roller to firm grass and press in all remaining stones.

When the grass is established and from 40 mm to 75 mm high, according to the seed mixture, it should be topped with a rota-scythe to leave from 25mm to 50mm of growth, to cut weeds, to control the growth of coarser grass and to encourage tillering. Grass areas shall only be accepted as reaching practical completion when germination has proved satisfactory, and weeds have been removed.

No payment for re-seeding shall be made to the landscaping Sub-Contractor if the seed fails due to any cause whatsoever. He shall be required to make good the soiling and repeat the seeding until a good sward is obtained.

#### 2.3.10 Shrubs

All shrubs shall be pit planted in precise locations as shown in plans. Pits shall be excavated 150mm wider in all directions than the natural root spread of the plant, and the bottom of the pit must be well forked to improve drainage. Backfilling of all pits shall be with soil and compost or an approved peat substitute in the ratio of 4:1.

All plastic and non-degradable wrappings and containers shall be removed before planting. Make 4 vertical cuts with a sharp knife on the quadrants through the edge of container grown root balls to sever girdling roots.

All ratchet tensioning systems shall be nailed to the timber frame so that the ratchet shall remain upright and, in the position, intended when installed. All timber frames of the root ball fixing system shall be installed to ensure that when the tree pit is backfilled the frame shall be covered by a minimum of 50mm of mulch. All root balls of semi mature trees are to be surrounded with a 4-inch perforated land drain pipe to aid in future waterings.

# 2.3.11 Mulch

On completion of planting, the total area of the disturbed soil is to be mulched to a depth of 150mm. The soil and the mulch shall be thoroughly wetted prior to application, and prior to application a complete clearly through and weeding of the area shall be carried out, leaving the soil weed free, smooth and conforming to acceptable finished levels.

# 2.3.12 Watering

During dry periods at any other times deemed necessary prior to practical completion, the Landscape Contractor shall water all plant areas.

The Landscape Contractor is to ensure that he is aware of any restrictions on the use of water and hose pipes which may be applied by the water authority and is to comply with any such restrictions. Any water carried out shall take care to avoid soil wash off the shrub area and disturbance of the peat mulch. Any damage caused by soil wash shall be immediately rectified by the Landscape Contractor at his own expense, to the approval of the Landscape Architect. Watering shall be carried out to add moisture to the full planting depth. No minor surface watering shall be carried out. The Landscape Contractor shall allow for watering of all plants to field capacity as and when necessary, until practical completion is achieved.

## 2.3.13 Weeding

All planting areas are to be kept free of weeds and rubbish prior to practical completion. All planting areas are to be hoed, forked or hand weeded. The use of chemicals shall only be upon approval from Landscape Architects.

Roundup - by Monsanto chemicals Ltd. 4-51itre/Ha. Do not apply when rain is forecast within six hours. Do not apply when rain is likely to cause spray drift. Allow for leaf symptoms to develop before carrying out any cultivation. Apply to manufacturers recommendations. Apply 'Roundup' to kill existing grass preseeding, and weeds germinating in topsoil.

If germinating weed grasses are less than 100mm high and broad-leaved weeds have not produced full sized leaves, do not apply 'Roundup'. Apply 'Basta' @ recommended rates, 4 to 7 days before cultivating.

<u>Basta</u> - by May+ Baker Ltd., 11litre/Ha. Shall be used in accordance with manufacturers instructions. Apply 'Actrilawn' when grasses have reached the 2 leaf stage or beyond, and when seedlings have emerged and reached cotyledon or 2 leaf stage (approx. 4 weeks after sowing). Do not mow grass within 7 days of treatment.

<u>Casoron G</u> - Granular weedkiller to be applied 5.6-22.5 kg/1000sq.m. Shall be used in accordance with manufacturer's instructions.

# 3.0 Landscape Specifications: Maintenance

# 3.1 Scope of Work

The maintenance of grass trees and shrubs, for the period of each contract. During this period thee contractor shall keep all roads and pavements clear of weeds, grass mowing, mulch and rubbish from site at the conclusion of each day's work.

#### 3.2 Shrubs

Shrubs and trees loosened by wind, frost or any maintenance operations shall be firmed up. This shall be carried out at least four times a year. If any plants have been completely lifted out of the ground, they shall not be replanted but replaced.

A 500mm diameter circular shall be kept grass free around each tree to facilitate grass cutting. A similar 500mm weed and grass free area shall be maintained around the outer leaf reaches of shrubs to facilitate grass cuttings.

# 3.3 Weed Control

Any weed growth occurring during the maintenance period in the shrub areas shall be spot treated with a translocated herbicide such as 'Roundup' or a similar approved chemical or removed by hand. An application of pre germination herbicide such as 'Simazine' or similarly approved shall be applied in the spring of each year. All herbicides shall be applied according to the manufacturer's instructions using a directional spray to prevent spraying of adjacent shrubs. Spraying shall only be carried out in calm conditions to prevent drift damage.

## 3.4 Watering

Watering shall be carried out when it will be most beneficial to the plants, preferably later in the day when transpiration and evaporation rates are at their lowest. Shrubs shall be watered when the contractor deems it necessary and/or at the discretion of the Landscape Designer after the initial planting operation and during the maintenance period. Watering shall be taken to mean a thorough soaking of the soil within the area of the plant pit, to the depth of the roots. Under no circumstances shall small amounts of water be applied to trees and shrubs.

#### 3.5 Plant Deaths

All shrub losses due to natural causes after planting shall be replaced by the

contractor within the following season with plants equal in size and shape to those first planted.

#### 3.6 Pests and Diseases

All plants shall be inspected by experienced personnel at least twice a year for the presence of pests and diseases. If either or both are present, the contractor shall report the conditions and implement the appropriate control measure immediately.

All chemicals to be used for the control of pests and diseases shall be approved and applied in accordance with the manufacturers written instructions.

If any plants are so heavily infested that even after control measures have been taken death is likely, they shall be removed from site and replaced with new healthy stock.