

LANDSCAPING SPECIFICATION
TO
DEVELOPMENT AT NEWTOWNSTALABAN
DROGHEDA
LAGAN HOMES DROGHEDA LTD

PC **ROCHE** + associates
landscape architects and site planners

October 2019

1.0 GENERAL

1.1 Description of work

The work consists of general works, soil preparation, grass seeding, shrub, shall satisfy the landscape architect that all works have been carried out to B.S. 4428 General Landscape Operations, B.S. 3936 Nursery Stock and to B.S. 3882, Topsoil and the items stated below.

It is always essential that the site tidy and that the planting appears healthy. The landscape contractor should always be prepared to ensure that such conditions are met and should include for this in his rates. An agreed schedule of phased completion and expected handover dates will be finalized after the contract is awarded.

The construction of hard works shall be undertaken with the main construction program. Care is to be taken to avoid unnecessary machinery traffic on completed areas.

Top soiling shall be carried out in areas where the underground service work and hard works elements are completed to avoid disturbance to top soiled areas. Any unnecessary works and disturbance to be reinstated by the contractor at no expenses rot the client.

Planting bare root and rootballed stock to take place in the following planting season from completion of topsoil works; namely between November and March. Container grown stock and grass seeding shall be carried out in the appropriate weather conditions following completion of topsoil works.

1.2 Standards of Workmanship and Materials

The landscape contractor should include for this in his rates.

No existing plants shall be removed or damaged over than those specified by the landscaped architect.

1.3 Notice of Intentions and Recording Actions

The landscape contractor shall give 48 hours notice of his intentions to commence setting out, planting and maintenance visits.

The landscape contractor shall return a weekly record of all site actions.

1.4 Leaving the Site Tidy

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

1.5 Season

Landscape work shall take place in the appropriate season and only when 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 id frozen or waterlogged.

If exceptional weather conditions occur after planting eg heavy frost, measures shall be undertaken as approved by landscape architect.

1.6 Replacement

The landscape contractor shall make good at his own expense any losses of trees and plants which die or appear unhealthy at any time up to practical completion and in the 18 months after planting.

Plant failures will not be charged to the landscape contractor if the failure is due to, damage by hares, rabbits, livestock where not protected by guards or fencing, damage or loss due to theft, vandalism or disturbance by other contractors.

1.7 Damage

All trees and plants are to be adequately and carefully packed and protected to survive transport, whatever means, to the site, during loading, transit or unloading.

If in spite of these precautions' roots, branches, or shoots suffer slight damage, they are to be carefully pruned.

If major damage has occurred, the plants or tree shall be rejected and replaced at the landscape contractor's expense.

1.8 Defects liability period

The landscape contractor shall be responsible for any plants that fail to take during the first growing season, 18 months, from date of completion.

1.9 Protection

The landscape contractor shall provide adequate temporary protection to the whole of the works 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.

1.10 Setting out the works:

Setting out shall be in accordance with the landscape architect, and the supplied drawings.

1.11 Finished grading

All area planted by the landscape contractor shall be left in a reasonably even state, with all soil dumps broken up, stones >50mm shall be removed off site.

1.12 Site access

The landscape contractor is to consult with the developer as to the most suitable access point to undertake the works. The contractor to ensure that as little inconvenience as possible is caused to the users of the public road. In this regard arrangements will be agreed with the client as to the times for moving of materials onto or about the site.

1.13 Existing services

The contractor is to make himself aware of the extent of the existing services in so far as they affect his contract area. The contractor to make good at his own expense any damage to services damaged, due to any cause within his control and he shall pay any costs and charges in connection with same.

The landscape contractor is to indemnify the client and the landscape architect against any charge of negligence and cost of repairs caused by the landscape contractor during the course of this contract.

1.14 Plant materials

The landscape contractor is to ensure that plants brought onto the site are grown in Ireland, written proof will be required.

1.15 Nursery stock:

All plant material shall be good quality nursery stock, free from fungal, bacterial or viral infection, aphids, red spider or other insect's pests and any physical damage. It shall comply with the requirements of B.S. 3936: parts 1-10: 1965 Specification for nursery stock, where Applicable.

All plants shall have been nursery grown in accordance with good practice. They shall have the Habit of growth that is normal for the species. The contractor will be deemed to have advised his/her suppliers of the relevant sections of this in all cases be liable to replace materials brought on site that are not in accordance with this specification

1.16 Species

All plants supplied shall be exactly true to name as shown in plant schedules. Unless stipulated, varieties with variegated and/or colored leaves not to be accepted, and any plant found to be of this type upon leafing out shall be replaced by the contractor at his/her own expense.

Bundles of plants shall be marked in conformity with B.S. 3936: Part 1 1965 and B.S. 3936: Part 4: 1966. The landscape contractor shall replace any plants, which, on leafing out, are found not to conform to the labels. Definitions of all terms used in accordance with the following British Standards: - B.S. No. 3936: Part 1: 1965 entitled "Nursery Stock- Trees and Shrubs" B.S. No. 3936: Part 4: 1966 entitled "Nursery Stock- Forest Trees" B.S. No. 3936: 1967 entitled "Specification for Nursery Stock"

2.0 TREES

All trees to be to B.S. 3936, Part 1, including orientation, pruning and root systems.

2.1 Tree specification

Trees shall have a sturdy, reasonably straight stem, and a well-defined straight and upright central leader, with branches growing out of the stem with reasonable symmetry. The crown and root systems shall be well formed. Roots shall be in reasonable balance with the crown and shall be conducive to successful transplantation.

2.2 Setting out

Supply and plant trees in location shown on layout drawing. All plants to be set out for approval.

Minimum tree sizes are indicated on the accompanying layout drawing.

2.3 Planting

Standard and advanced standard trees planted with tie and two number 70 dia. treated stakes set in pit. Each tree to have 70 grams of slow releasing fertilizer mixed with 20 litres of moss peat and good quality topsoil. Bottom of pit to be broken up and turned over to a depth of 350 to assist drainage.

Tree stakes to be pressure treated timber to manufactures instructions.

2.4 Stakes:

Round stakes shall be of peeled larch, pine or Douglas fir, preserved with a water-borne Copper chrome arsenic composition in accordance with I.S. 131. Drive stake with a wooden maul or cast-iron headed drive.

Tree ties shall be rubber, PVC or proprietary fabric laminate composition and shall be Strong and durable enough to hold the tree securely in all weather conditions for a period of three years. They shall be flexible enough to allow proper tightening of the tie. Ties shall be min. 38mm wide for standard trees and upward sizes. They shall be fitted with a simple collar spacer to prevent chafing, and with a buckle for adjustment. Nail each tie to the stake with one galvanised nail immediately behind the buckle, leaving the tie free for adjustment

2.5 Tree and shrub planting

2.5.1 Standards

Excavate tree pits to minimum dimensions of 350 mm wider than root ball, minimum tree planting tip to be 800 x 800 x 800 deep. The base of the pit shall be broken up to a depth of 450 below root ball and glazed sides roughened. Incorporate slow releasing fertilizer and moist moss peat to each tree pit prior to planting. Backfill

planting hole with excavated topsoil, and remove all stones and debris, firming plants into position. Supply and drive the stake 800mm into the ground.

Where indicated trees set into precast containers to have prepared backfill with topsoil mixed with patent potting compost and approved loam.

2.5.2 Containerized shrubs and herbaceous

Excavate planting hole to a minimum depth of 350 wider than root ball. The base to be broken to a depth of 350 mm and glazed sides roughened. Apply slow releasing fertilizer and moist moss peat as directed.

Where indicated shrubs set into precast containers to have prepared backfill with topsoil mixed with patent potting compost and approved loam.

2.5.3 Container grown shrubs / conifers / bare root shrubs

Excavate planting pit to a minimum depth of 350mm wider than root ball. The base to be broken to a depth of 350 mm and glazed sides roughened. Apply prepared mix of bone meal, moss peat and topsoil to planting pit.

2.5.4 Protection of plants

Plants shall be protected from drying out and from damage in transport. All stock awaiting transport shall be protected from the wind and frost and from drying out.

2.5.5 Damage / Inspection

On completion of lifting of plants in the nursery, any broken shoots or severed roots shall be pruned, areas of damaged bark neatly pared back to sound tissue.

2.5.6 Raking off

Upon completion of planting, all pits shall be raked over lightly to even surface and neat appearance. All stones greater than 50mm dia. to be removed off site.

3.0 WATERING

All bare rooted light standards and selected standards shall be soaked in water overnight, on site. Fertilizers shall conform to B.S. 5581: 1981. In the case of granular fertilizer being added to plantings, it must be mixed though

and incorporated into the base of the planting hole and covered over in order to avoid roots of plants coming in direct contact.

4.0 MULCH TO PLANTED AREAS

Supply and spread a 25 mm thick layer of approved and treated mulch. Mulch to be spent hops/brewers waste, set aside for 2 days before using or approved and treated bark.

5.0 GRASSING AND EARTHMOVING

Landscape contractor to allow for removing topsoil to depth of 150 and storing in selected area for re-uses.

Contractor to allow for deep rippling of the sub-base with 300mm deep at 1000mm centre rips. Approved mound of spoil to be spread to achieve levels as indicated on the attached layout drawing, allowing for topsoil finish. Sub-soil to be placed in layers not exceeding 150 thick.

On completion of soil spread contractor to allow for ripping of soil with deep plough at 400 deep and 900 centers. On completion of sub-soil moving the formation level shall be graded with box scraper to even, running contours.

Topsoil to be spread evenly on formation levels to achieve minimum depth of 150mm. Topsoil to be cultivated to crumb size to a condition suitable for blade grading. When the topsoil is reasonably dry and workable grade to smooth flowing contours, with falls for adequate drainage, removing all minor ridges and hollows. Large stones and unwanted material 50mm and over to be picked off and removed from site. Final contouring to be achieved with blade grader to true, flowing contours as indicated on the attached layout drawing.

The use of heavy rubber tyred vehicles shall be governed by weather conditions. All topsoil to be cultivated to a depth of 150mm prior to cultivation. Unless otherwise stated, finished levels of topsoil, after settlement, to be 32mm minimum above adjoining pavements and kerbs.

Landscape contractor to allow for final raking to prevent the development of humps and hollows in grassed areas, preparation to include for raking to encourage surface water runoff, removing stones and all foreign material.

5.1 Grass seed

Grass seed mixture to be;

25% Perennial Ryegrass, Aberelf, Darius
25% Perennial Ryegrass, Bareine, Lorina
25% Chewings Fescue, Bargreen, Baroxi, Darwin, Raisa
25% Slender Creeping Red Fescue, Barcrown.

or other approved.

Where indicated the seed mixture to include a selection of native wildflower seeds mixed through and spread by contractor. On completion of seeding and in season following sward establishment a selection of bulbs to be hand scattered and planted into sward.

5.2 Wild grass mix to include selection

Grasses

Crested Dogstail (*Cynosurus cristatus*)

Sheep's Fescue (*Festuca ovina*)

Flora

Autumn Hawkbit (*Scorzoneroides autumnalis*)

Bladder Campion (*Silene vulgaris*)

Common Sorrel (*Rumex acetosa*)

Cowslip (*Primula veris*)

Lady's Bedstraw (*Galium verum*)

Meadowsweet (*Filipendula ulmaria*)

Perforate St Johns Wort (*Hypericum perforatum*)
Ribwort Plantain (*Plantago lanceolata*)
Tufted Vetch (*Vicia cracca*)
Wild Red Clover (*Trifolium pratense*)
Betony (*Stachys officinalis*)
Cats Ear (*Hypochaeris radicata*)
Common Vetch (*Vicia sativa ssp. segetalis*)
Field Scabious (*Knautia arvensis*)
Meadow Buttercup (*Ranunculus acris*)
Musk Mallow (*Malva moschata*)
Ragged Robin (*Lychnis flos-cuculi*)
Salad Burnet (*Sanguisorba minor*)
Wild Carrot (*Daucus carota*)
White Champion (*Silene latifolia*)
Birdsfoot Trefoil (*Lotus corniculatus*)
Common Knapweed (*Centaurea nigra*)
Common Toadflax (*Linaria vulgaris*)
Greater Hawkbit (*Leontodon hispidus*)
Meadow Cranesbill (*Geranium pratense*)
Ox Eye Daisy (*Leucanthemum vulgare*)

Red Campion (*Silene dioica*)

Self-heal (*Prunella vulgaris*)

Wild Marjoram (*Origanum vulgare*)

Yarrow (*Achillea millefolium*)

6.0 Bulb planting

Landscape contractor to supply and plant in designated areas indicated on the planting drawing at rate of 20 bulbs per m². Bulbs planted in scatter pattern in mixed groups.

Anemone nemrosa

Crocus tommasinians

Narcissus February Silver

Narcissus February gold

Narcissus Mt Hood

6.1 Bulb Planting

If planting whilst laying turf, for a naturalised effect, bulbs should be scattered from waist height onto prepared soil (a light tilth) and then covered over with the turf. The turf provides adequate cover, so no additional soil or dibbing is required. Bulb sizes are deliberately small, but care should be taken not to put too much heavy weight on to the turf, so as not to damage the bulbs underneath.

Planting into established wildflower areas, use a handheld bulb planter to a depth of 6-8 cms and plant where they have fallen after scattering them from waist height. A motorised turf cutter can also be used for a larger area, forking over the bared soil to create a light tilth, scattering the bulbs and taking care to lay down the cut turf back into place once the bulbs have been scattered.

Bulbs should be planted between September and December, ideally when the ground temperature is between 4-8° C.

6.2 Densities

For a naturalised effect we recommend planting 20 bulbs per m². Denser looks can be achieved by doubling the rate.

7.0 MAINTENANCE;

Landscape contractor to allow for maintaining the works for a period of 18 months after practical completion,

This work to include; -

Grass cutting to maintain sward between 35 to 50 mm. Cutting of areas with wild seed and bulbs to be agreed, maximum times per year.

Fertilizing of grassed areas to commence in late spring/early summer following development of sward. Application and type of fertilizer to be agreed on site with landscape contractor, prior to application.

Replacing all plants, which die or fail to thrive, under circumstances within the contractor control, within the 18 months.

Weeding all areas, allow for supplying and spreading Simizone weed suppressing to all planted areas, to manufactures instructions.

Watering all planted areas, including shrubs and trees, allow for standpipe connection and hoses as required.

Resetting and retying all ties to trees.

7.1 Long Term Maintenance;

Long-term maintenance to be undertaken by approved landscape contractor.

8.0 TIMESCALE AND PROGRAM OF LANDSCAPING WORKS;

Landscaping works to be undertaken in first planting season following completion of site and the development works.

Phased completion of landscaping works to be undertaken to match completion of each phase of the development.

Topsoil spreading and preparation of soft landscaped areas of gardens and open space area including subsoil cultivation shall be agreed and carried out in suitable weather conditions. Avoiding waterlogged and frost weather periods.

Planting of trees and shrubs to be undertaken in dormant period of growth, generally between October and March subject to approval, grassing and surface cultivation between April and September.

PLANT LEGEND

symbol	plant description	size in cm	comment
AC	ACER CAMPESTRE	20-25 GIRTH	RB
PS	PINUS SYLVESTRIS	4.5+ M HIGH	RB
QP	QUERCUS PETRAEA	18-20 GIRTH	RB
AI	ALNUS INCANA	16-18 GIRTH	RB
SJ	SORBUS JOSEPH ROCK	16-18 GIRTH	RB
BP	BETULA PENDULA	20-25 GIRTH	RB
GT	GLEDITSIA T. SUNBURST	16-18 GIRTH	BR
CO	CORYLUS COLURNA	16-18 GIRTH	RB
PA	PRUNUS AVIUM	18-20 GIRTH	RB
GB	GINGKO BILOBA	16-18 GIRTH	RB
MIXED WOODLAND PLANTING			
AE	ACER CAMPESTRE	10-12 GIRTH	BARE ROOT
PI	PINUS SYLVESTRIS	75+ HIGH	BR
QU	QUERCUS PETRAEA	8-10 GIRTH	BR
AL	ALNUS INCANA	6-8 GIRTH	BR
BA	BETULA PENDULA	12-14 GIRTH	BR
PR	PRUNUS AVIUM	8-10 GIRTH	BR
BOUNDARY HEDGE PLANTING			
CM	CRATAEGUS MONOGYNA	180+ HIGH	BR
IC	ILEX CRENATA	45+ HIGH	CONTAINER
FS	FAGUS SYLVATICA	200+ HIGH	BR
CA	CORYLUS AVELLANA	55+ HIGH	BR
RC	ROSA CANINA	50+ HIGH	BR
SHRUBS COURTYARD AND MIX PLANTED AREAS			
AL	ALCHEMILLA MOLLIS	2.5 LT	2 PER M2 MIXED SHRUB PLANTING TO FRONT GARDENS OF HOUSES
AH	ANEMONE HONORINE JOBET	1.5 LT	2.5 PER M2
CT	CHOISYA T. SUN DANCE	2.0 LT	2 PER M2
CC	COTINUS C ROYAL PURPLE	3.0 LT	2 PER M2
CR	COTONEASTER REPENS	2.0 LT	2.5 PER M2
EE	ELAEAGNUS EBINGEI	2.5 LT	2.0 PER M2
FI	FORSYTHIA I. SPECTABILIS	2.0 LT	2.0 PER M2
FJ	FATSIA JAPONICA	2.5 LT	1.5 PER M2
FT	FUSCIA TOM THUMB	3.0 LT	1.0 PER M2
HR	HEBE RAKIENSIS	2.0 LT	2.5 PER M2
HQ	HYDRANGEA Q. SNOW QUEEN	4.0 LT	1.0 PER M2
JM	JUNIPERUS M. OLD GOLD	2.5 LT	2.0 PER M2
LS	LAVANDULA STOECHAS	2.0 LT	2.5 PER M2
PZ	PRUNUS L. ZABELLIANA	2.5 LT	2.0 PER M2
PY	PHORMIUM YELLOW WAVE	3.0 LT	1.5 PER M2
PM	PHYLLOSTACHYS MITIS	8.0 LT	1.0 PER M2 PLANTED IN BOTTOMLESS POTS
PF	PIERIS FOREST FLAME	2.5 LT	2.0 PER M2
RO	ROSMARINUS OFFICINALIS	2.5 LT	2.0 PER M2
SJ	SKIMMIA JAPONICA	2.0 LT	2.0 PER M2
SS	SENECIO SUNSHINE	2.0 LT	2.0 PER M2
SV	SYRINGA V MADAME LEMCINE	2.5 LT	2.0 PER M2
SO	SALIX VIMINALIS	3.0 LT	1.0 PER M2 SET INTO PREPARED PLANTER
TL	TYPHA LATIFOLA	1.5 LT	2.5 PER M2 SET IN DAMP AND WET LAND SET INTO PREPARED PLANTER
GARDEN HERB PLANTING TO REINFORCE ABOVE			
AM	ALLIUM PURPLE SENSATION	GROUP PLANTING IN PLANTERS IN GROUPS	
BO	BORAGE OFFICINALIS	TO PLANTERS	
MO	MELISSA OFFICINALIS		
SN	SILENE NUTANS		
SN	SILENE NOCTIFLORA		
PH	PETASITES HYBRIDUS		
BULBS PLANTED IN MIXED GROUPS AT 100 PER M2			
ANEMONE NEMEROSA	SCATTER PLANTING TECHNIQUE TO E USED WITH		
CROCUS TOMMASINIANUS	GROUP BULBS		
NARCISSUS FEBRUARY SILVER			
NARCISSUS FEBRUARY GOLD			
NARCISSUS MT HOOD			
NOTES			
ALL PLANTING TO BE UNDERTAKEN IN FIRST SEASON FOLLOWING COMPLETION OF SITE AND DEVELOPMENT WORKS TO EACH PHASE OF THE WORKS			
SHRUB PLANTED AREAS TO HAVE BARK MULCH LAYER AS SAURFACE FINISH			

Plant Schedule