

8333 TURF LAYING AND LAWN SEEDING

1. GENERAL

If you have pre-customised this work section using the "questions and answers" provided as part of the downloading process, it may be necessary to amend some clauses to suit the final project-specific version.

The section must still be checked and customised to suit the project being specified, by removing any other irrelevant details and adding project-specific details and selections.

This section relates to the laying of turf and seeding of lawns.

It includes, fertilizer and initial mowing

Modify or expand this clause to suit requirements of this specification section.

1.1 RELATED WORK

Refer to ~ for ~

Include cross references only to other work sections where they include directly related work.

1.2 DOCUMENTS

Refer to the general section 1233 REFERENCED DOCUMENTS. The following documents are specifically referred to in this section:

~ ~

List any additional cited documents.

1.3 MANUFACTURER/SUPPLIER DOCUMENTS

Manufacturer's and supplier's documents relating to this part of the work:

~ ~

List documents relating to this part of the work, i.e. technical product/system specifications, test reports, appraisals, certification, etc. Normally they will be referred to in the text by the abbreviated title.

Manufacturer/supplier contact details

Company: ~

Web: ~

Email: ~

Telephone: ~

It is important to ensure that all personnel on site have access to accurate, up to date technical information on the many products, materials and equipment used on a project. In most cases individual products are not used in isolation, but form part of a building process. Also a particular manufacturer's and/or supplier's requirements for handling, storage, preparation, installation, finishing and protection of their product can vary from what might be considered the norm. Access to technical information can help overcome this potential problem.

Warranties

1.4 WARRANTY

Provide warranty for:

~ years: For ~

- Provide the warranty in the standard form in the general section 1237WA WARRANTY AGREEMENT.

- Commence the warranty from the date of practical completion of the contract works.

Modify or expand the clause to suit project requirements, options include:

- Change the standard form to be used

- Commence the warranty from the date of completion of this part of the contract work

Requirements

1.5 QUALIFICATIONS

Workers to be experienced, competent trades people familiar with the materials and techniques specified.

This clause includes generic text which should be expanded only if there are specific qualification requirements.

1.6 ACCEPTABLE PRODUCT/MATERIAL SUPPLIERS
Where a product or material supplier is named in SELECTIONS, the product/material must be provided by the named supplier. Where more than one named supplier, any one of the named suppliers will be acceptable.
This clause is used to nominate a supplier or suppliers to supply materials. It is not intended for nominating subcontractors which must be done in the specific conditions of contract applying to the work. Check with BCA for acceptability of multiple selection options.

1.7 NO SUBSTITUTIONS
Substitutions are not permitted to any of the specified systems, components and associated products listed in this section.

1.8 SAMPLES
Supply a sample of the turf for the approval of the Contract Administrator. Ensure that all the turfs are similar to the approved sample.
The general section 1270 CONSTRUCTION describes how samples are to be addressed. Use this clause to describe specific requirements for the samples and prototypes.

Quality control and assurance

1.9 INSPECTIONS
Contract Administrator to inspect the works following:
- cultivation and preparatory work prior to turfing
- cultivation and preparatory work prior to seeding
- completion of respreading topsoil prior to final levelling and seeding
- completion of turf establishment
Amend the above to suit your project.

2. PRODUCTS

Materials - Turf

2.1 SIZES
Turf of an even thickness of approximately 20mm x 450mm wide and of a consistent length. Sufficiently fibrous for turfs to hold together when handled, but without excessive fibre of thatch.

2.2 WEED AND PEST FREE
Ensure the turf is free of weeds and pests.

2.3 GRASSES
The constituent grasses of the turf should provide a close texture of even density and green in colour. The turf should be sufficiently fibrous for turf to hold together when handled but excess fibre or thatch is undesirable.
Typical grasses include Elka Ryegrass, Red Chewings Fescue and Browntop. Refer to SELECTIONS.

Materials - Seed

2.4 LAWN SEED MIX
All seed shall be certified and less than 12 months old at the time of sowing. Ryegrass component (if used) to be certified as having greater than 80% live entophyte content.
Seed mixes are generally a mixture of several seed varieties, e.g. Browntop, Ryegrass, Allstar, Red fescue, Chewings fescue, Modify this clause to suit. Refer to SELECTIONS.

All seed label analysis data shall comply with trade standards. Germination tests must have occurred within the past six months. The germination capacity of each constituent of the mixture should be not less than 80%, and the purity of the mixture not less than 90%.

2.5 WEED FREE
Ensure seed is free of noxious weeds. Other crop not to exceed 1%. Weed seed shall not exceed 0.05%.

3. EXECUTION

Conditions

3.1 DELIVERY, STORAGE AND HANDLING - TURF

Pack turf to avoid drying out in transit. In hot weather spray it with water and cover with hessian as required.

Deliver turf to the site the day of lifting and off load by hand unless arranged on pallets for mechanical handling.

Turf permitted to dry out shall be rejected when its survival after placement is doubtful.

3.2 PRE-INSTALLATION REQUIREMENTS - TURFING

Thoroughly cultivated the area of topsoil to a depth of 100 - 150mm, and free of clods. Clear weeds, stones and rubbish. Evenly consolidate the topsoil sufficiently to avoid settlement, but friable enough to allow free root penetration. Carry out minor grading to ensure an even surface, particularly at junctions with edgings, kerbs, manholes and paths etc.

The top 25mm shall have a loose tilth. No soil shall be cultivated or handled when the moisture content is at a level where soil structure damage will result.

3.3 PRE-INSTALLATION REQUIREMENTS -SEEDING

Topsoiled areas to be grassed shall be cultivated to a depth of 100 - 150mm, clod free to provide a suitable tilth for seed distribution and grass growth. Remove weeds, root material, stones, rubble and any other debris exposed during cultivation.

Cultivate by mechanical means with rotary hoes except within the root zones of trees to be retained. Within the root zone, cultivate with hand tools (spades etc). Following cultivation, spread area with 100mm compacted depth of topsoil. Carry out minor regrading to ensure an even surface with no low points, particularly at junctions with edgings, kerbs, manholes and paths etc.

Installation/application

3.4 SOIL PH LEVEL

Target a soil pH level of between 5.5 and 6.0. Dress clay based soils with agricultural lime, applied at the rate of 150gms/m², and thoroughly 'work in' during cultivation (unless soil tests prove otherwise).

3.5 STANDARDS AND TOLERANCES - SEEDING & TURFING

Completed topsoil shall be 15mm above paths, paving and tops of kerbs, manhole covers and catchpit aprons, and free draining. It shall not have depressions capable of ponding.

Grassed surfaces shall be deemed to be in an acceptable condition when;

- fully established with vigorous growth
- no ponding of surface water occurs
- grass covers 95% of the grassed areas
- single areas of exposed soil are less than 100mm diameter in any one location
- broad leaved weeds visible by eye through 360 degrees from any location, are limited to 4 plants/m².
- Kikuyu grass is not present

Amend this clause to describe specific standards and tolerances to be achieved in carrying out this part of the work.

Turf

3.6 INSTALLATION

Lay turf immediately after delivery to site. Where this is not possible unload the turfs and stack on clear ground to a maximum height of 1.0m, and ensure they are suitably protected and watered.

3.7 TURF LAYING

Do not lay in exceptionally hot, dry weather, or in exceptionally wet or frosty soil or weather conditions.

Handle turf carefully to ensure minimum breakage and to prevent soil dropping from the roots.

Lay turfs on the prepared soil bed and firm into position in consecutive rows with broken joints (as in stretcher bond brick work) closely butted together and to correct levels. Lay turfs from planks working over the turfs previously laid.

Thoroughly water until the turf mat and top 50mm of soil is wet. Allow a "soaking in" period, and then firmly and evenly compress with a wooden tamper, so that the under side of the turf mat and the wet soil surface are thoroughly bonded.

Any inequalities in finished levels owing to variation in turf thickness or uneven consolidation of soil shall be adjusted by raking and/or packing fine soil under the turf, not by top dressing the lawn surface.

The finished level of the turf is to conform to the final levels taking into account settlement.

Do not allow turfs to dry out for at least three weeks after laying - after that water normally. Do not overwater.

In summer this will probably mean watering at least daily, but not in hot sunlight.

3.8 MOWING TURF

Mow the grass when it has reached a height of 30mm to 40mm. Cut to 20mm to 25mm high depending on variety and end use. Mow only one third grass length at one mowing. Mow in dry conditions with sharp mower blades and remove clippings. Use only reel mowers on fine turf, rotary mowers can be used on coarser sports/amenities turf like Ryegrass.

For subsequent mowings, the mowing frequency shall be governed by growth rate. Grass height at the completion of the contract to be, 15mm to 20mm for fine turf like Fescue/Browntop etc, 20mm to 25mm for coarser turf like Ryegrass etc.

Lawn Seeding

3.9 SOWING

Sow the seed mix by broadcasting in two directions, in suitable calm weather, at a rate of 30 gm/m² using a mechanical spreader.

Lightly brush soil to cover seeds, and lightly roll to ensure a good moisture content.

Water immediately after sowing and then as often as necessary to keep it moist until germination and grass is well established.

3.10 TIMING

Carry out sowing from 1st April to 31st May, or from 1st September to 30th November. When sowing takes place outside this period, when the weather changes, or when silt control requires its use, mulch the seeding area using hay.

The Engineer may authorise the sowing to be carried out at different periods from those stated above. Amend clause to suit.

3.11 FERTILISER

Apply a dressing of fertiliser and work into the top 50mm of soil immediately prior to sowing.

Refer to SELECTIONS.

3.12 FENCING

Install "Pigs Tails" and warning tape fencing around the perimeter of the sown area to prevent damage from unauthorised access.

3.13 WEED CONTROL

Control weeds, which affect the establishment of the grassed surface during the establishment period.

Spray weeds with spot spray or selective herbicide applied to the manufacturers specifications.

Over sow areas rendered with inadequate grass plants following weed control, to re-establish the specified grassed surface species. Apply a fine layer of topsoil or straw mulch over these areas to promote germination and protect the grass. Prior to Practical Completion, remove all weeds within grassed areas and re-sow as necessary.

3.14 **FAILURE TO ESTABLISH A SUCCESSFUL GRASS SURFACE**
Make good the grass areas that fail to establish successfully. If required submit a sample of the seed used to the contract administrator for checking.

3.15 **MOWING**
Mow the grass when it has reached a height of 100mm. Cut to 50mm high. Mow only one third grass length at one mowing. Mow in dry conditions with sharp mower blades and remove clippings. Use only reel mowers on fine grasses.
For subsequent mowings, the mowing frequency shall be governed by growth rate. Grass height at the completion of the contract to be, 15mm to 20mm for fine grasses like Fescue/Browntop etc, 20mm to 25mm for coarser grasses like Ryegrass etc.

Generally

3.16 **ROUTINE CLEANING**
Carry out routine trade cleaning of this part of the work including periodic removal of all debris, unused materials and elements from the site.
Use this standard generic clause and add additional specific requirements.
ESD note: Re-cycling is addressed in the general section 1256 WASTE MANAGEMENT; amend this clause if it is to apply to this section.

3.17 **DEFECTIVE OR DAMAGED ELEMENTS**
Replace damaged elements.
Use this standard generic clause and add additional specific requirements.

3.18 **PROTECTION**
Provide the following temporary protection of the finished work:
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Amend this clause if protection is required from weather, water, dust, damage etc. Refer to the general section 1270 CONSTRUCTION for removal as part of final clean.
If special protection is required or protection is to be supplied by others, make reference in this clause, or in the general section 1250 TEMPORARY WORKS & SERVICES clause SPECIAL PROTECTION.

3.19 **MAINTENANCE**
The contractor shall be required to maintain the surface of all grassed areas, and to cut the grass at intervals throughout the period of the contract works, including the defects notification/liability period. A final cut shall be made just prior to the expiration of the defects notification/liability period, and ground surfaces shall present a uniform, dense continuous surface free from bare patches.
This clause should be modified if the project consists of maintaining new and/or existing grassed areas.

4. SELECTIONS

Substitutions are not permitted to the following, unless stated otherwise.

Materials

4.1 **TURF**
Location: ~
Mix/Brand: ~

Cultivar	Species	%

- 4.2 SEED
 Location: ~
 Mix/Brand ~

Species	%

Seed mixes are generally a mixture of several seed varieties, e.g. Browntop, Ryegrass, Allstar, Red fescue, Chewings fescue, Modify this clause to suit.

- 4.3 FERTILISER
 Location: ~
 Mix: ~

Type	%

*A typical mix may be;
 1 part: sulphate of potash
 2 parts: sulphate of ammonia
 2 parts: super phosphate
 Modify this clause to suit.*

Spares

- 4.4 SPARES
 Provide the following spares and maintenance materials:
 Item: grass seed
 Quantity: 2% of amount used

