

SECTION 1203 – SODDING

1203-1 DESCRIPTION

This item shall consist of furnishing, hauling, and placing approved live sod on prepared areas in accordance with this specification at the locations shown on the plans or as directed by the ENGINEER.

1203-2 MATERIALS

1203-2.1 SOD. Sod furnished by the CONTRACTOR shall have a good cover of living or growing grass. This shall be interpreted to include grass that is seasonally dormant during the cold or dry seasons and capable of renewing growth after the dormant period. All sod shall be obtained from where the soil is reasonably fertile and contains a high percentage of loamy topsoil. Sod shall be cut or stripped from living, thickly matted turf relatively free of weeds or other undesirable foreign plants, large stones, roots, or other materials which might be detrimental to the development of the sod or to future maintenance. At least 70 percent of the plants in the cut sod shall be composed of the species stated in the special provisions, and any vegetation more than 6 inches in height shall be mowed to a height of 3 inches or less before sod is lifted. Sod, including the soil containing the roots and the plant growth shown above, shall be cut uniformly to a thickness not less than that stated in the special provisions.

1203-2.2 LIME. Lime, if specified, shall conform to the requirements of Subsection 1202-2.3.

1203-2.3 FERTILIZER. Fertilizer, if specified, shall conform to the requirements of Subsection 1202-2.4.

1203-2.4 WATER. The water shall be sufficiently free from oil, acid, alkali, salt, or other harmful materials that would inhibit the growth of grass. It shall be subject to the approval of the ENGINEER prior to use.

1203-2.5 SOIL FOR REPAIRS. The soil for fill and topsoiling of areas to be repaired shall conform to the requirements of Subsection 1202-2.5.

1203-3 CONSTRUCTION REQUIREMENTS

1203-3.1 GENERAL. Areas to be solid, strip, or spot sodded shall be shown on the plans. Areas requiring special ground surface preparation such as tilling and those areas in a satisfactory condition which are to remain undisturbed shall also be shown on the plans.

Suitable equipment necessary for proper preparation of the ground surface and for the handling and placing of all required materials shall be on hand, in good condition, and shall be approved by the ENGINEER before the various operations. The CONTRACTOR shall demonstrate to the ENGINEER before starting the various operations that the application of required materials will be made at the specified rates.

1203-3.2 PREPARING THE GROUND SURFACE. After grading of areas has been completed and before applying fertilizer and limestone, areas to be sodded shall be raked or otherwise cleared of stones larger than 2 inches in any diameter, sticks, stumps, and other debris which might interfere with sodding, growth of grasses, or subsequent maintenance of grass covered areas. If any damage by erosion or other cause occurs after grading of areas and before beginning the application of fertilizer and ground limestone, the CONTRACTOR shall repair such damage. This may include filling gullies, smoothing irregularities, and repairing other incidental damage.

1203-3.3 APPLYING FERTILIZER AND GROUND LIMESTONE. Following ground surface preparation, fertilizer shall be uniformly spread at a rate which will provide not less than the minimum quantity of each fertilizer ingredient, as stated in the special provisions. If use of ground limestone is required, it shall then be spread at a rate which will provide not less than the minimum quantity stated in the special provisions. These materials shall be incorporated into the soil at a depth of not less than 2 inches by disking, raking, or other methods acceptable to the ENGINEER. Any stones larger than 2 inches in any diameter, large clods, roots, and other litter brought to the surface by this operation shall be removed.

1203-3.4 OBTAINING AND DELIVERING SOD. After inspection and approval of the source of sod by the ENGINEER, the sod shall be cut with approved sod cutters to such a thickness that after it has been transported and placed on the prepared bed, but before it has been compacted, it shall have a uniform thickness of not less than 2 inches. Sod sections or strips shall be cut in uniform widths, not less than 10 inches, and in lengths of not less than 18 inches, but of such length as may be readily lifted without breaking, tearing, or loss of soil. Where strips are required, the sod must be rolled without damage with the grass folded inside. The CONTRACTOR may be required to mow high grass before cutting sod.

The sod shall be transplanted within 24 hours from the time it is stripped, unless circumstances beyond the CONTRACTOR's control make storing necessary. In such cases, sod shall be stacked, kept moist, and protected from exposure to the air and sun and shall be kept from freezing. Sod shall be cut and moved only when the soil moisture conditions are such that favorable results can be expected. Where the soil is too dry, permission to cut sod may be granted only after it has been watered sufficiently to moisten the soil to the depth the sod is to be cut.

1203-3.5 LAYING SOD. Sodding shall be performed only during the seasons when satisfactory results can be expected. Frozen sod shall not be used and sod shall not be placed upon frozen soil. Sod may be transplanted during periods of drought with the approval of the ENGINEER, provided the sod bed is watered to moisten the soil to a depth of at least 4 inches immediately prior to laying the sod.

The sod shall be moist and shall be placed on a moist earth bed. Pitchforks shall not be used to handle sod and dumping from vehicles shall not be permitted. The sod shall be carefully placed by hand, edge to edge and with staggered joints, in rows at right angles to the slopes, commencing at the base of the area to be sodded and working upward.

The sod shall immediately be pressed firmly into contact with the sod bed by tamping or rolling with approved equipment to provide a true and even surface, and insure knitting without displacement of the sod or deformation of the surfaces of sodded areas. Where the sod may be displaced during sodding operations, the workmen when replacing it shall work from ladders or threaded planks to prevent further displacement. Screened soil of good quality shall be used to fill all cracks between sods. The quantity of the fill soil shall not cause smothering of the grass. Where the grades are such that the flow of water will be from paved surfaces across sodded areas, the surface of the soil in the sod after compaction shall be set approximately 1 inch below the pavement edge. Where the flow will be over the sodded areas and onto the paved surfaces around manholes and inlets, the surface of the soil in the sod after compaction shall be placed flush with the pavement edges.

On slopes steeper than 1 vertical to 2½ horizontal and in V-Shaped or flat bottom ditches or gutters, the sod shall be pegged with wooden pegs not less than 12 inches in length and have a cross sectional area of not less than ¾ square inch. The pegs shall be driven flush with the surface of the sod.

1203-3.6 CLEANUP. After the staking has been completed, the surface shall be cleaned of loose sod, excess soil, or other foreign materials before watering.

1203-3.7 WATERING. Adequate water and watering equipment must be on hand before sodding begins and sod shall be kept moist until it has become established and its continued growth assured. In all cases, watering shall be done in a manner which will avoid erosion from the application of excessive quantities and will avoid damage to the finished surface.

1203-3.8 ESTABLISHING TURF

(a) General. The newly placed sod shall be kept in good condition during the care period following placement. The care period after placement of the sod shall be 14 days' duration for sod placed during season before July 15 and after September 15; and shall be 21 days' duration for sod placed between July 15 and September 15.

The time between October 15 of any year and April 15 of the following year shall not be considered to be a part of the required care period for sod. Sod replaced after October 15 of any year, or sod placed at a time when the care period for that sod extends past October 15, shall show evidence of establishing growth after April 15 of the following year before its care period will be considered concluded.

Water shall be applied to the sod during the care period according to the following schedule:

Immediately after sod replacement	- 5 gals./sq. yd.
7 days after sod placement	- 5 gals./sq. yd.
14 days after sod placement	- 5 gals./sq. yd.

For sod placed between July 15 and September 15, an additional 5 gals./sq. yd. shall be applied 21 days after sod placement.

Water shall be applied by sprinkling or any method approved by the ENGINEER that prevents wasting the water by runoff from the sod area. If necessary to prevent runoff several hours of application of the water may be required. The amount of water to be applied may be reduced by the ENGINEER if in his opinion there has been enough rainfall to warrant a reduction.

The CONTRACTOR shall furnish and replace without any compensation therefor, any sod that dies or is damaged to the extent replacement is required during the care period. Replacement sod shall be installed under the same specification requirements as those for the original sod being replaced, including the care period.

Water will be considered incidental to the item "Sodding."

(b) Protection. All sodded areas shall be protected against traffic or other use by warning signs or barricades approved by the ENGINEER.

(c) Mowing. The CONTRACTOR shall mow the sodded areas with approved mowing equipment, depending upon climatic and growth conditions and the needs for mowing specific areas. In the event that weeds or other undesirable vegetation are permitted to grow to such an extent that, either cut or uncut, they threaten to smother the sodded species, they shall be mowed and the clippings raked and removed from the area.

1203-3.9 REPAIRING. When the surface has become gullied or otherwise damaged during the period covered by the contract, the affected areas shall be repaired to re-establish the grade and the condition of the soil, as directed by the ENGINEER, and shall then be re-sodded as specified in Subsection 1203-3.5.

1203-4 MEASUREMENT AND PAYMENT

1203-4.1 SODDING. Sodding shall be measured by the square yard (SY) and paid for at the unit price bid for "Sodding" complete in place and accepted by the ENGINEER.