SECTION 73

SODDING

73.1 DESCRIPTION

A. General

This work consists of preparing the ground surface and furnishing, transporting, and placing live sod and other materials.

B. Related Work

Section 17 Salvaging, Stockpiling, and Placing Topsoil

Section 71 Fertilizing

Section 76 Compost Application

73.2 MATERIALS

The sod shall consist of a dense, well-rooted growth of Kentucky Blue Grass or other approved grass native to the general locality of the project. The sod shall be free from noxious weeds and substantially free from other objectionable grasses, weeds, or foreign materials detrimental to the development and future maintenance of the sod.

At the time the sod is cut, the grass shall have a length of approximately two inches. If longer than three inches, the grass shall be cut to approximately two inches in length, and the sod shall have been raked free of debris. Sod shall be delivered to the jobsite in live, moist condition without undue crumbling or breaking.

If the sod is in a dry condition so that it cannot be cut, rolled, loaded, and hauled to the jobsite, without crumbling or breaking, the Contractor shall apply water to the sod in sufficient quantities to provide a well-moistened condition of the sod to the depth to which it is to be cut. This watering shall be at no additional cost to the City.

Water used on sod shall be from municipal, domestic, or other sources known to be suitable for irrigation.

Fertilizer shall be provided as indicated in Section 71.

73.3 CONSTRUCTION REQUIREMENTS

A. Cutting and Salvaging Sod

Sod shall be machine cut into rectangular sections. The sections shall be of uniform width of not less than 10 inches or more than 24 inches. The sections may vary in length, up to nine feet maximum. The sod shall be cut to a depth of three-fourths inch or more so the dense root system will be retained and exposed in the bottom side of sod, and the sod can be handled without undue tearing or breaking. Sod shall be rolled with the top growth inside. Sod strips, which indicate crumbling, tearing, breaking, or loss of soil during the operations of cutting, transporting, or handling will not be acceptable. Sod shall be laid in its final position within 36 hours after being cut. During the period between cutting and laying, the sod shall be protected from damage.

B. Preparing Surface for Sodding

The surfaces to be sodded shall be constructed to the required cross-section and contour and shall be smooth, uniform, and free from stones, roots, or other undesirable foreign material. These surfaces shall be undercut to sufficient depth below adjacent areas so the top of newly-laid sod will be flush with any adjacent seeded or turfed areas and one inch below top of sidewalks, curbs, or other structures. Some trenching-in of the areas to be sodded and some building up of the adjacent areas may be necessary. The adjacent areas shall smoothly blend with each other, without sharp breaks in the contours.

The prepared soil bed shall be inspected and approved prior to sodding. If the soil bed is dry and/or hot, the Engineer may require the Contractor to pre-water to a depth of one inch prior to sodding. The earth planting bed shall be allowed to dry sufficiently after watering to permit sod placement without tracking.

Immediately prior to placing the sod, the soil shall be loosened and brought to a fine granular texture, to a depth of not less than one inch. Clods, lumps, weeds or other unsatisfactory materials shall be removed.

Fertilizer shall be uniformly incorporated into the soil prior to sodding. The same fertilizer and ratio of application as specified for seeding shall be used.

C. Laying Sod

Sod shall be placed as soon as practicable following the winter season. When sod is available in the spring, the Engineer may issue written notice requiring the Contractor to begin placing sod within 10 working days of receipt of the notice. Failure to begin placement of the sod within the specified time shall result in issuance of a stop-work order. However, contract time will continue to be counted.

The sod on berm slopes shall be laid by hand in horizontal strips, beginning at the bottom of the slope and working upwards. In waterways, strips shall be laid parallel to the flow. Each section of sod shall be laid parallel to the flow. Each section of sod shall join the adjacent sections without overlapping but shall abut snugly against the section previously laid. End joints shall be staggered and open joints or gaps shall be filled with sod cut to the proper size and shape.

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The top and bottom ends of sodded areas shall extend at least two inches into the ground or ditch bottom. Other edges of sodded areas shall be turned into the ground two inches and covered with a layer of topsoil which shall be compacted to conduct the surface water over the edge of the sod and blend the sodded areas into the adjacent finished grades.

D. Anchoring

On slopes steeper than 6:1, the sod shall be anchored with one inch wide by six inch long U-shaped staples made from No. 11 or heavier ungalvanized steel wire. A minimum of four staples per sod strip in every other row shall be used.

In waterways, two staples shall be placed in the upper end of each sod strip in the end facing flow.

Staples shall be driven flush with the top of the sod. Additional staples as required, to obtain adequate anchoring shall be placed as determined by the Engineer.

E. Watering

After sod has been laid, it shall be watered to provide a moist condition through the thickness of the sod and 6 inches into the underlying soil bed.

For a period of three weeks after sodding and initial watering, the Contractor shall apply adequate water to insure proper germination of the seed and growth of the grass. The Engineer may waive watering requirements if adequate natural moisture has been present. At the end of the three week watering period, the Engineer will make an inspection to determine if the sod is rooted into the underlying soil and is alive and growing. If sod has not satisfactorily rooted into the soil and is not alive and growing, the Engineer will determine if new sod and / or additional watering, at the Contractors expense, are required. Replaced sod shall be watered as required for the original.

After the Engineers acceptance of the newly sodded areas, the Contractor shall notify all affected property owners, with notification of watering requirements provided by the Owner, that they will be responsible for watering the newly sodded areas. The Contractor shall provide written verification that affected property owners have both been notified and accepted the condition of the newly sodded areas.

The growing season is defined as May through September.

F. Rolling

While not generally required, rolling may be specifically ordered for any areas where an especially smooth and level surface is desired.

G. <u>Seasonal limitations</u> on sodding shall be the same as for seeding.

73.4 **METHOD OF MEASUREMENT**

Sodding will be measured to the nearest whole square yard. Necessary resodding of areas damaged from causes beyond the control of the Contractor will be measured and added to the original quantity used.

73.5 **BASIS OF PAYMENT**

Sodding will be paid for at the contract unit price per square yard. Payment will be full compensation for cutting, preparing the earth planting bed, for furnishing, hauling, placing, anchoring, rolling, tamping, and maintaining the sod, and for labor, equipment, tools, and incidentals, which may be necessary.

Payment for fertilizing sod and sodding will be included under the same bid item. Water for sodding shall be considered incidental and shall be included in the unit price bid for sodding.

END OF SECTION

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