

# General Hydro-seeding Specification

**Scope:** This shall include all equipment, materials, management, and labor necessary to prepare a seed bed, apply the specified seed, fertilizer, and mulch evenly **IMMEDIATELY** after the seedbed has been prepared and as shown on the drawings or as directed by the **ENGINEER**.

## Materials:

**Fertilizer:** 400 (Four-Hundred) pounds of fertilizer shall be used per acre. It shall consist of 300 pounds of 18-46-0 (Diammonium Phosphate) and 100 pounds of 0-0-50 (Muriate of Potash) or 400 pounds per acre of 19-19-19 fertilizer.

**Hydro-mulch:** Shall be cellulose or wood fiber based and shall be applied at 1,000 (one-thousand) pounds per acre.

**Tackifier:** Shall be organic/ non petroleum based and shall be applied at the manufacturer's recommended rate / acre.

**Water:** Shall not be acidic if non potable water is used.

**Seed:** The specified species and Pure Live Seed amounts per acre shall be used. Seed shall be the last item to be placed into the tank and shall not remain in the hydro-seeder more than 4 hours. If legume inoculant is required, shall be added to the tank with the seed.

**Equipment:** A truck or trailer mounted hydraulic seeder shall be used with sufficient mixing capacity, pressure, and or hose to evenly apply the mulch, fertilizer, tackifier, and seed to all specified areas and as directed by the **ENGINEER**.

A tracked piece of equipment, preferably a crawler tractor (bulldozer) shall be used to prepare a seedbed. Slopes greater than (steeper) 4:1 shall be tracked perpendicular to the slope and each track shall meet or overlap slightly the adjacent track. On slopes less than 4:1 back blading may be used to prepare the soil to receive the seed under this specification. This activity is **INCIDENTAL to Hydro-seeding** unless seedbed preparation is a separate bid item for the contract.

**Payment:** Will be made at the contract unit price for **General Hydro-seeding** to the nearest  $\frac{1}{4}$  acre as approved and accepted by the **ENGINEER**.

**3.7. Netting:** Install netting on all slopes exceeding 30% (3:1 and steeper slopes). Overlap the netting a minimum of 6 inch with previous row. Apply staples at 4 feet maximum spacing on all edges and laps, with interior rows of staples at a 4 feet maximum spacing and spaced in the row at 8 feet maximum spacing. Staples in an interior row shall alternate in spacing with staples on an adjacent interior row. All staples shall be driven flush with the soil surface.

**3.8. Hydromulch & Hydroseeding (Cut to Bedrock):** The equipment, hydromulch, seed, lime, fertilizer, and tack are all incidental to the bid item. The ENGINEER will only pay for the use of a hydroseeder when used to apply hydromulch on project areas specified in the Drawings, Special Conditions, and on all areas where soil material has been removed to bedrock. No seedbed preparation or netting is required on these areas. Hydro-mulch, either cellulose fiber or processed straw, shall be used and applied at a net dry rate of 1,500 pounds per acre. Mix the cellulose fiber with water to attain a mixture with a maximum of 50 pounds cellulose fiber per 100 gallons of water. Use the seed mixture stated in the Drawings and/or Special Condition. Apply agriculture lime or rock dust at 1 ton/acre and fertilizer at 0.35 tons/acre of an 18-46-60 mixture made from 500 lbs of 18-46-0 and 200 lbs 0-0-60 fertilizers.

### **3.8a General Hydroseeding**

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**Payment:** Will be made at the contract unit price for **General Hydro-seeding** to the nearest ¼ acre as approved and accepted by the **ENGINEER**.

**3.9. Residential Seeding:** This includes seedbed preparation, lime, seed, fertilizer, mulch and any other material or items necessary to complete the required work. In areas around houses, lime, fertilizer, and seeding rates will vary and additional seedbed preparation work will be required for revegetation of residential areas. Hydrated lime (90% CaCO<sub>3</sub> equivalent content and 85% passing a #200 sieve) shall be applied at a rate of 20 pounds per 1,000 square feet. Fertilizer will be applied at a rate of 15 pounds per 1,000 square feet using a "10-10-10" fertilizer. Seed shall consist of a 3:1 mixture of turf type fescue (NOT KY31) and Perennial Ryegrass applied at a combined rate of 4 pounds (PLS) per 1,000 square feet. Additional seedbed preparation shall be required to remove all rock and debris larger than 2 inches and to rake the area to a completely smooth surface. Do not seed on hard ground. Hand raking and tilling will be required. Straw only mulch shall be applied at rates indicated in these Technical Specifications following all other operations.

**3.10. Landscape Allowance:** This shall consist of replacement "in kind" of any landscape in and around residential areas as part of normal construction techniques to facilitate the completion of other construction bid items. "In Kind" shall be determined in writing by the ENGINEER prior to the disturbance. When approved, landscape to be replaced shall be of the same species. To qualify for reimbursement, advanced approval from the ENGINEER must be given for removal and subsequent replacement. All removal and replacement shall be documented by the inspector. Any landscape damaged due to CONTRACTOR carelessness shall be replaced at the CONTRACTOR'S expense.