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9.1a Function of Erosion Control Seeding and Basis of Work The specifications of Section 9 shall apply to the seeding of permanent erosion control groundcover at private residences, construction sites and locations where other seeding specifications are not legally mandated. All labor, equipment, and materials required for the completion of Section 9 shall be furnished by the seeding contractor, unless specified otherwise.

9.1b Characteristics of Erosion Control Sites Erosion control groundcover sites may be steep, rocky or difficult to prepare with typical soil tilling and seeding equipment. Maintenance of these sites is minimal, and fertilization and the use of selective herbicides after establishment may be impossible. Although annual mowing may be performed at some sites, the use of tall and relatively mowing-intolerant grasses and legumes may make it undesirable or impractical to mow erosion control sites regularly after establishment. Where steep slopes are absent, or where recreational or other uses are expected that will require routine mowing, the results obtained by using MSA-GS-05.0 specifications for turfgrass seeding (Sections 1-5) may be preferable and more appropriate than those of Section 9.

9.1c Limitations of Erosion Control Sites and Seedings Because erosion control groundcover is often seeded at sites where irrigation is not available or when germination is uncertain or impossible, the seeding contractor shall not be obliged to provide post seeding care or to guarantee the development of living erosion control groundcover within any timeframe.

9.2a Soil Testing Requirements Soil shall be tested by an accredited soil testing laboratory for acidity (pH), phosphorus (P_2O_5), potassium (K_2O) and soluble salts concentration. If, because of contractual obligations or other compelling reasons, there is insufficient time to conduct and evaluate soil test results before seedbed preparation and seeding operations are begun, a soil sample shall be collected at the time of seedbed preparation or seeding, and the soil tests shall be conducted and evaluated as soon as possible thereafter. All parties which may be affected by soil conditions that may adversely influence the success of erosion control seedings shall be promptly notified by the seeding contractor of the results of such soil tests.

9.2b Soil Acidity (pH) Soil shall be tested by for soil acidity (pH). The acidity of the soil, to a depth of 4.0 inches, shall be considered suitable for erosion control groundcover seeding if the soil pH lies in the range of pH 5.0 to 7.0. Soil acidity of pH 6.5 is ideal. Because acidic cuts and dredge soils are frequently encountered in Maryland, it is recommended that soil tests be taken for as many different soil lots or sites as there are within the area to be seeded. If soil pH is below pH 5.0, see Table A, below, and add the amount of limestone necessary to raise soil pH to 5.0 to 8.0. If soil pH is above pH 8.0, see Table B, below, and add the amount of elemental sulfur necessary to lower the soil pH to 5.0 to 8.0. Modifications to correct soil pH shall be made in accordance with Table A or B, or according to the recommendations of an accredited soil testing laboratory; seed shall not be placed in topsoil with acidity below pH 5.0 or above pH 8.0. Modifications to correct soil pH may be made before, during, or after seeding of erosion control groundcover. Section 6.3 and Section 6.4 provide requirements and additional information about limestone and elemental sulfur which shall apply to the performance of Section 9.2b.

Table B Pounds of Elemental Sulfur to Add per 1000 ft² to Reduce Soil pH to 6.5

Original pH	Soil Texture	
	Sandy Soil	Clay Soil
7.5	10-15	20-25
8.0	25-35	35-50
8.5	35-50	40-50

Note: Table B shall be used for elemental sulfur applied according to the specifications of Sections 9.2b and 6.4

Table A Pounds of Limestone to Add per 1000 ft² to Raise Soil pH to 6.5

Original pH	Soil Texture Class		
	Sand	Loam	Clay
4.8	85	140	200
5.0	75	125	175
5.2	65	110	150
5.4	55	95	125
5.6	45	80	100
5.8	35	65	80
6.0	25	50	60
6.2	15	35	40
6.4	5	15	20

Note: Table A shall be used for limestone applied according to the specifications of Sections 9.2b and 6.3

9.2c Soil Soluble Salts Soil shall be tested for its soluble salts concentration. Soluble salts in the soil shall not exceed 500 parts per million by weight, or shall not exceed 4.0 millisiemens per centimeter when evaluated by the electrical conductivity method. When soluble salt levels exceed these levels, see Table C, below. Soluble salts shall be dissipated or otherwise reduced before seeding; seed shall not be placed in soil with soluble salts over 500 parts per million, or 4.0 millisiemens per centimeter.

Table C Pounds of Gypsum to Add per 1000 ft² to Reduce Soluble Salts to Recommended Levels

Original Salts Level millisiemens	Salts Level parts per million (ppm)	Pounds Gypsum
		per 1000 ft ²
8	2500	320
7	1800	230
6	1250	160
5	700	80
4.5	550	40

Note: Table C shall be used for gypsum applied according to the specifications of Sections 9.2c and 6.5

9.2d Soil Phosphorus and Potassium Soil shall be tested by an accredited soil testing laboratory for phosphorus (P_2O_5) and potassium (K_2O), and fertility recommendations for the site based on turfgrass requirements for phosphorus and potassium shall be obtained from the soil testing laboratory or the Maryland Cooperative Extension. Soil levels of phosphorus and potassium shall be adjusted with fertilizer to conform with the recommendations of the testing laboratory or the Maryland Cooperative Extension either before seeding, at the time of seeding, or at any time after seed is distributed, as long as the establishment of the erosion control groundcover seeding is not adversely affected by soil nutrient deficiencies of phosphorus or potassium.

9.3a Use of Fertilizer When soil tests have been performed by an accredited soil testing laboratory as specified in Section 9.2, erosion control groundcover seeding sites shall receive fertilizer at rates which are in accordance with recommendations made by the soil testing laboratory or the Maryland Cooperative Extension.

9.3b Starter Fertilizer In the absence of soil tests and without regard to any established nutrient requirements, a starter fertilizer may be applied to an erosion control seeding site so that not more than 1.0 lb. of soluble nitrogen (N) per 1000 ft² (45 lbs. N/acre) or 2.0 lbs. of 50% slow-release nitrogen (N) per 1000 ft², (90 lbs. N/Acre) and 2.0 lbs. of phosphorus (P_2O_5) per 1000 ft² (90 lbs. P_2O_5 /acre) and 2.0 lbs. of potassium (K_2O) per 1000 ft² (90 lbs. K_2O /acre) are applied to the soil surface as an aid to rapid seedling establishment. Starter fertilizer may be applied up to 10 days before seeding, at the time of seeding, or up to 5 days after seeding.

Table D Maximum Fertilizer Applications According to Maryland Nutrient Management Guidelines

Fertilizer Analysis	Maximum Application Lbs.		N Yield Lbs.		P_2O_5 Yield Lbs.		K_2O Yield Lbs.	
	Acre	1000 ft ²	Acre	1000 ft ²	Acre	1000 ft ²	Acre	1000 ft ²
10 - 20 - 20 (100% Soluble N)	436	10.0	43.6	1.0	87.1	2.0	87.1	2.0
10-22- 22 (50% UF)	396	9.1	39.6	0.9	87.1	2.0	87.1	2.0
18 -18 -18 (100% Sol N)	242	5.6	43.6	1.0	43.6	1.0	43.6	1.0
(50% SCU or UF)	484	11.1	87.1	2.0	87.1	2.0	87.1	2.0
18 -24 -12 (50% SCU)	363	8.3	65.3	1.5	87.1	2.0	43.6	0.5
19 -19 -19 (100% Sol N)	229	5.3	43.6	1.0	43.6	1.0	43.6	1.0
(50% SCU)	458	10.5	87.1	2.0	87.1	2.0	43.6	2.0

Note: All fertilizer applications shall conform to Maryland Nutrient Management Regulations

9.4 Soil Preparation Areas shall conform to the contract specifications of the finished grade and be free of plant growth before soil preparation is begun.. In sites where the slope is shallower than 3:1, the soil shall be loosened with rototillers, disk harrows, chisel plows, rippers, bulldozers, or other suitable soil preparation equipment to a minimum average depth of 2.0 inches. In sites where the slope is 3:1 or steeper, the soil shall be loosened to a depth of 0.5 to 1.0 inch. Bulldozers which are used to loosen the soil shall leave the surface with an open irregular surface, and with track ridges that run parallel to the slope. Serrated cut slopes shall not be loosened, and shall be seeded in vertical increments not wider than 50 feet. All debris such as clods, loose stones, and other material with a diameter over 1.5 inches shall be removed before seeding in or near residential areas; in other areas, only debris with a diameter over 3.0 inches shall be removed.

9.5a Choice of Seeding Methods Seed and/or mulch shall be applied with spreaders, drills, or hydraulic seeders which ensure uniform distribution and coverage at specified rates. The seeding contractor shall select one of the methods specified in Section 9.5b (hydraulic seeding), 9.5c (conventional seeding), or 9.5d (cultipacker seeding).

9.5b.1 Hydraulic Seeding Definition Hydraulic seeding methods shall be defined to include the distribution of seed through a pump under pressure with equipment that continuously agitates the seed in a suspension (slurry) of water. In addition to seed and water, the hydraulic seeding slurry may also include pulverized limestone and/or pelletized limestone and/or fertilizer and/or hydraulic mulch. Hydraulic mulch products shall contain wood fiber, paper, or a combination of these materials (wood fiber + paper hydraulic mulch).

9.5b.2 Hydraulic Seeding Fertilizer & Limestone Rates When fertilizer and/or limestone is included in the hydraulic seeding slurry with seed, the maximum combined weight of fertilizer and limestone included in the slurry shall not exceed 150 pounds per 100 gallons of water. When fertilizer is applied with seed in the seeding slurry, the amount of soluble nitrogen fertilizer (N) included shall not exceed 90 pounds per acre. Also, the amount of phosphorus (P_2O_5) shall not exceed 180 pounds per acre and the amount of potassium (K_2O) shall not exceed 180 pounds per acre. Limestone included with seed in the seeding slurry shall be applied at a maximum rate of 2,200 pounds of limestone per acre. Pulverized or pelletized limestone shall be the only limestone used for this application: neither granulated limestone, nor burnt lime, nor hydrated lime shall be used for hydraulic seeding.

9.5b.3 Hydraulic Seeding Excess Fertilizer & Limestone When soil test results recommend the application of more than 2,200 lbs. of limestone per acre, or when more than 90 lbs. of soluble nitrogen per acre, or more than 180 lbs. of phosphorus per acre, or more than 180 lbs. of potassium per acre will be applied, the required amounts of these materials which are in excess of these limits shall be applied with appropriate spreader equipment in one or more separate operations (see Section 9.5b).

9.5c Conventional Seeding Conventional seeding includes the use of drop spreaders, broadcast spreaders and other types of seed spreading equipment that do not disturb the soil surface when they distribute seed. The seed distributed by dry seeding methods shall be uniformly spread in two directions at right angles to each other, using one half of the total seed to be distributed in each direction, unless extreme slopes interfere with the safe or practical use of the seeding equipment, in which case one or more passes in the same direction shall be an acceptable substitute. After the seed is distributed, the seed shall be incorporated into the soil to an average depth of 1/8 to 1/4 inch below the soil surface. Areas which receive seed by conventional seeding methods shall be rolled with a weighted roller after seeding, so that the seed is pressed firmly into the soil.

9.5d Cultipacker Seeding Cultipacker seeding methods include all seed distribution equipment that covers the seed with soil at the time of seeding, including drill, slot, and disk seeders. The seed distributed by cultipacker seeding methods shall be uniformly spread in two directions at right angles to each other, using one half of the total seed to be distributed in each direction, unless extreme slopes interfere with the safe or practical use of the seeding equipment, in which case one or more passes in the same direction shall be an acceptable substitute. Cultipacker seeders shall bury the seed which they distribute to an average depth of 1/8 to 1/4 inch below the soil surface, and shall firmly press the seed into the soil.

9.6 Erosion Control Seeding Regions The erosion control seeding regions of Maryland are based on USDA Plant Hardiness Zones. The counties of Maryland are classed according to their USDA Plant Hardiness Zone, which affects the selection of erosion control species and seeding times. See Table F-3 in Section 9.7.

Northwestern (USDA Zone 5b) hardy -10 to -15 °F: Western Garrett county

Western (USDA Zone 6a) hardy -5 to -10 °F: Eastern Garrett, western Allegany, western Washington counties

Northern (USDA Zone 6b) hardy 0 to -5 °F: High ridges in this region are Zone 6a. Eastern Allegany, eastern Washington, western Carroll, northeastern Baltimore, northern Harford, northeastern Cecil, Howard, Montgomery, northern Prince George's, western Anne Arundel counties.

Eastern (USDA Zone 7a) hardy +5 to 0 °F: Low elevations/bay areas are Zone 7a. Southern Prince George's, eastern Anne Arundel, Calvert, Charles, St. Mary's, Baltimore City, southern and western Baltimore, southern Harford, southern Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, western Worcester, Somerset counties.

Southeastern (USDA Zone 7b) hardy +10 to +5 °F: Eastern Worcester and central Wicomico Counties.

9.7a Erosion Control Seed Mixtures Erosion control seed and mixtures shall be selected and seeded according to the specifications of Table F-3 and Table F-4

Table F-3 Seed Mixtures for Erosion Control Seedings

- See important notes in Section 9.7b -

MSA Seed Mix	Seed Mix Species	Seed Mix Proportions	Seed Mix Rate		Seeding Site Type	USDA Hardiness Zone	Recommended Seeding Dates		
			Lb./A	Lb./1000 ft ²					
A	Hard or Sheep Fescue Kentucky Bluegrass	85-95% 5-15%	150	3.44	Moist to Dry	5b	03/15 - 6/01	and	08/01 - 10/01
						6a	03/15 - 6/01		08/01 - 10/01
						6b	03/01 - 5/15		08/15 - 10/15
						7a	03/01 - 5/15		08/15 - 11/15
						7b	03/01 - 5/15		08/15 - 11/15
B	Hard or Sheep Fescue Tall Fescue Kentucky Bluegrass	30-60% 30-60% 5-15%	150	3.44	Moist to Dry	5b	03/15 - 06/01	and	08/01 - 10/1
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15
						7a	03/01 - 05/15		08/15 - 11/15
						7b	03/01 - 05/15		08/15 - 11/15
C	Tall Fescue Kentucky Bluegrass	85-95% 5-15%	150	3.44	Moist	5b	03/15 - 06/01	and	08/01 - 10/01
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15
						7a	03/01 - 05/15		08/15 - 11/15
						7b	03/01 - 05/15		08/15 - 11/15
D	Tall Fescue Perennial Rye	80-100% 0-20%	150	3.44	Wet to Moist	5b	03/15 - 06/01	and	08/01 - 10/01
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15
						7a	03/01 - 05/15		08/15 - 11/15
						7b	03/01 - 05/15		08/15 - 11/15
E	Tall Fescue or Perennial Rye plus Crown Vetch or Flatpea	80-90% 10-20%	130	3.0	Moist to Dry	5b	03/15 - 06/01	and	08/01 - 10/01
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15
						7a	03/01 - 05/15		08/15 - 11/15
						7b	03/01 - 05/15		08/15 - 11/15
F	Weeping Lovegrass or Lehmann Lovegrass Sericia Lespedeza	15-20% 80-90%	25	0.055	Dry to v. Dry	6b	03/01 - 08/14		
						7a	03/01 - 08/14		
						7b	03/01 - 08/14		
G	Tall Fescue Sericia Lespedeza Weeping Lovegrass or Lehmann Lovegrass	80-85% 10-20% 1-3%	135	3.1	Dry to v. Dry	5b	03/15 - 10/01		
						6a	03/15 - 10/01		
						6b	03/01 - 10/15		
						7a	03/01 - 11/15		
						7b	03/01 - 11/15		
H	Reed Canarygrass Birdsfoot Trefoil Roughstalk Bluegrass	80-90% 0- 20% 0- 10%	50	1.15	Wet to Moist	5b	03/15 - 06/01	and	08/01 - 10/01
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15
						7a	03/01 - 05/15		08/15 - 11/15
						7b	03/01 - 05/015		08/15 - 11/15
I	Tall Fescue Roughstalk Bluegrass Birdsfoot Trefoil	80-90% 10-20% 0-10%	150	3.33	Wet to Moist	5b	03/15 - 06/01	and	08/01 - 10/01
						6a	03/15 - 06/01		08/01 - 10/01
						6b	03/01 - 05/15		08/15 - 10/15

9.7b Out of Season Amendments for Seed Mixtures When an erosion control seed mixture is seeded out of season according to Table F-3 (i.e., the seed mixture will not be seeded during the range of seeding dates given for the seed mixture), then either the seed mixture shall not be used and another mixture which is appropriate for the date and the USDA Region of the seeding site shall be selected, or one of the following seed amendments shall be included with erosion control seed mixture at the time of seeding:

9.7c.1 Warm Season Amendments Weeping or Lehmann lovegrass at 2.0 pounds per acre (0.046 pounds per 1000 ft²) or foxtail millet at 10.0 pounds per acre (0.23 pounds per 1000 ft²) shall be added to the erosion control seed mixture when the mixture is seeded out of season in the mid-summer months.

9.7c.2 Cool Season Amendments Cereal rye (i.e., Winter Rye) at 56 pounds per acre (1.0 bushels or 1.28 pounds per 1000 ft²) shall be added to the erosion control seed mixture when the mixture is seeded out of season from late Fall to early Spring. Alkaligrass shall be seeded at 10.0 lbs per acre as a supplement to another specified seed mix in sites known to have high soil pH and/or or high soluble salts which may not be fully dissipated at the time of seeding (see Section 1.3c, 2.3c, and 4.5).

9.8a Grass Cultivars for Erosion Control Seeding The following cultivars are preferred for use in erosion control seed mixtures when seeded according to Table F-3. Cultivars of the same species may be mixed but bags of individual cultivars shall carry tags denoting them as 'certified' seed according to the state of origin.

Alkaligrass cultivars: Fults Salty

Hard Fescue, Sheep Fescue cultivars: Berkshire (H) Bighorn (S) Chariot (H) Defiant (H) Discovery (H) Heron (H) MX-86 (S) Nordic (H) Osprey (H) Oxford (H) Quatro (S) Reliant II (H) Rescue 911 (H) Scaldis (H)

Kentucky Bluegrass cultivars in Section 4.4a and especially the following noted for low-maintenance tolerance: Apollo Arcadia Award Awesome Barirus Baron Baronie Barrister Bedazzled Blackstone Blue Velvet Bluemax Bluestone Bordeaux Caliber Champagne Champlain Chicago II Everest Everglade Excursion Ginney Impact Langara Midnight Midnight II North Star NuDestiny Nuglade Perfection Quantum Leap Royce Rugby II Serene SR2284 Total Eclipse Tsunami Washington

Lehmann Lovegrass cultivars: None specified

Perennial Ryegrass cultivars in Section 4.4d, including the following: Applaud Brightstar II Manhattan 4 Pizzazz Prelude III Prizm Prowler Quickstart Stellar

Reed Canarygrass cultivars: loreed Palaton Rise

Roughstalk Bluegrass cultivars: Laser Sabre

Tall Fescue cultivars in Section 4.4b, including the following: Arid 3 Chapel Hill Duster Dynasty Endeavor Falcon II Genesis Grande Houndog 5 Jaguar 3 Masterpiece Millennium Olympic Gold Picasso Plantation Rebel 2000 Rebel Exeda Rebel Jr Rebel Sentry Rembrandt Reserve Shenandoah II Shenandoah SR8300 Tarheel TF66 Titan 2 Tulsa Wolfpack

Weeping Lovegrass cultivars: Ermello Morpa

9.8b Legume Cultivars for Erosion Control Seeding The following cultivars are preferred for use in erosion control seed mixtures when seeded according to Table F-3. Cultivars of the same species may be mixed but bags of individual cultivars shall carry tags denoting them as 'certified' seed according to the state of origin.

Birdsfoot Trefoil cultivars: Empire Norcen Viking

Crown Vetch cultivars: Chemung Emerald Penngift

Flatpea cultivars: Lathco

Sericia Lespedeza cultivars: Appalow Interstate Interstate 76 Serala

Table F-4 Seed Quality Standards for Temporary & Erosion Control Seeding

Species	Minimum Purity	Minimum Germination	Other Crop Seed	Maximum Weed Seed	Noxious Weed Seed
All Species	90 %	80 %	Limits for species as allowed by Maryland law		

Note: Seed for temporary and erosion control areas shall conform in all respects to standards of the Maryland Dept. of Agriculture, including requirements regarding weed seed and other crop seed content which are not reproduced here.

9.9a Seed Mulch Categories Seed mulches for erosion control groundcovers shall consist of straw, hay, wood fiber hydraulic mulch, paper hydraulic mulch, wood fiber + paper hydraulic mulch, and soil stabilization matting (erosion control blankets). Any of these materials, either alone or in combination, may be used as a seed mulch for erosion control seedings, as specified in Section 9.9.

9.9b Straw, Hay, Wood Fiber, Paper Products The composition of straw and hay used for erosion control seed mulch shall conform to the definitions of Section 7.6a-c. Straw and hay used for erosion control seeding shall be free of seeds or viable parts of the following weeds (all are regulated according to Maryland Law):

Balloonvine	Canada Thistle	Johnsongrass & hybrids	Serrated Tussock
Bermudagrass	Curly Thistle	Musk Thistle	Sicklepod
Bindweed	Dodder	Phragmites	Spurred Anoda
Corn cockle	Giant Foxtail	Plumeless Thistle	Wild Garlic
Cocklebur	Horse Nettle	Quackgrass	Wild Onion

Straw and hay shall be applied and anchored, if necessary, according to Section 7.9c. Wood fiber, paper, and wood fiber + paper hydraulic mulch products shall conform to the definitions of Section 7.2, 7.3 and 7.4 and be applied according to Section 7.9a.

9.9c Erosion Control Blankets Erosion control blankets, also known as stabilization matting products, shall have a uniform thickness and distribution of natural or biodegradable synthetic fibers, netting or cords; see Section 7.5 regarding non-biodegradable materials. Erosion control blankets shall freely allow the penetration and percolation of water, as well as the upward growth and development of seedlings of the plant species which they cover. Erosion control blankets shall contain no materials or chemicals in concentrations which inhibit the germination or growth of grasses, forbs, meadow flowers, or other seedlings when they are applied according to the manufacturer's label directions. Erosion control blankets may be manufactured in any of several different forms: as a felted sheet, a fine or coarsely woven fabric, or a loose aggregation of fibers (e.g., wood excelsior) that is held together with natural fibers or polymer netting on the top surface and/or bottom surface of its structure. Erosion control blankets shall resist rotting or decay for a minimum of six months. Erosion control blankets shall be applied according to the specifications of Section 7.9b.

9.9d Steel Staples Steel staples shall be used to secure erosion control blankets to the soil surface. Staples shall be either of 'U' or 'T' shape. 'U' shape staples shall be 11-gauge U-shaped wire, with width not less than 1.5 inches and length not less than 6.0 inches. 'T' shape staples shall be 8-gauge T-shaped wire, with main leg not less than 8.0 inches long and secondary leg not less than 1.0 inch long and head not less than 4.0 inches wide. Steel staples shall be installed according to the label instructions of the manufacturer of the erosion control blanket, or as may be necessary to ensure that the erosion control blanket is securely held in place, so that minimal amounts of seed and/or soil are permitted to erode from the seeding site.

9.10 Site Clean Up Grading stakes, stones, trash, and other debris which may hinder the maintenance or detract from the appearance of erosion control groundcover seeding sites shall be removed from the site when seeding operations are completed. Soil, straw, hay, hydraulic fiber mulch, fertilizer, compost, limestone, etc. shall be removed from paved areas as soon as possible after spreading and seeding operations are completed. Clean up operations shall be completed before acceptance is given.

9.11a Materials Acceptance The seeding contractor shall inform all affected parties of the composition of the seed mixtures, fertilizer, compost, limestone, elemental sulfur, gypsum, and seed mulch materials which are intended for application at the erosion control groundcover seeding site before any of these materials are applied at the site; acknowledgment of acceptance of these materials shall be given by the owner, general contractor, landscape architect, or other person(s) authorized to make such a decision before spreading or seeding operations are begun. Labels and other material identification pertaining to the materials which are applied shall be retained by the seeding contractor for a minimum of 90 days after the completion of spreading and seeding operations.

9.11b Performance Acceptance Acknowledgment of acceptable performance shall be given by the owner, general contractor, landscape architect, or other person(s) authorized to inspect the erosion control groundcover seeding site upon the satisfactory completion of each subsection of Section 9. The erosion control groundcover seeding site shall be inspected within 24 hours of the completion of each subsection, as indicated by the seeding contractor, unless specified otherwise. The seeding contractor shall give notification when all subsections of Section 9 have been completed; final acceptance and payment shall be made within 24 hours of such notification, or within the time period specified in the contract.

9.12 Professional Guarantee The seeding contractor shall guarantee that all materials and application methods used at the erosion control groundcover seeding site shall be selected and used under the supervision of the seeding contractor in accordance with the specifications of Section 9, unless specified otherwise, and that those materials and methods shall be appropriate for the site and the intended use of the site. However, if seeding operations are completed outside the seeding times specified in Table F-3 in Section 9.7 because of contractual obligations or delays not caused by the seeding contractor, then the seeding contractor shall not be required to guarantee the success of the seeding. Because the seeding contractor shall have no responsibility for providing irrigation or other grow-in care for the erosion control groundcover seeding site, the seeding contractor shall not guarantee the development of living groundcover at the site within any timeframe, unless specified otherwise. The seeding contractor shall guarantee that the erosion control groundcover seeding shall control soil erosion for a minimum period of 60 days after seeding operations are completed.

9.13a Site Protection It shall be the responsibility of the owner, general contractor, or other authorized party to install signs, flagging, etc. at the perimeter of the temporary seeding site which shall serve to notify foot and vehicular traffic that a sensitive area may be damaged by their entry. Under no circumstances shall the seeding contractor be held liable to repair a temporary seeding site that is damaged by the entry of such traffic.

9.13b Site Repair It shall be the responsibility of the seeding contractor to apply effective erosion control mulch materials and to ensure that such materials are secured to the soil so that they are not blown, washed, or otherwise removed from the seeding site, and so that nearby streams and other areas shall be protected from soil, fertilizer, compost, and the incursion of unwanted grass seed. In the event of heavy rain, wind, or other natural event that causes damage to the erosion control groundcover seeding site which is of a kind or type that may have been anticipated or prevented by the seeding contractor, such as through the use of mulch, staples, tackifier, etc., then the seeding contractor shall be obliged to make repairs limited to the damaged areas within the site, including regrading, reseeding, and remulching, so that the erosion control groundcover seeding site is restored to a condition acceptable according to the specifications of Section 9. In the event of heavy rain, etc. that causes damage to the erosion control groundcover seeding site and which also causes damage to nearby areas, as may be evidenced by soil deposition, straw deposition, etc. on the surfaces of the nearby areas, then the seeding contractor shall be obliged to make repairs to the damaged nearby areas, so that the nearby areas shall be restored to a condition substantially similar to their condition before the damaging event.

9.13c Repair Limitations The seeding contractor shall not be obliged, financially or otherwise, to regrade, reseed, remulch, or make any repairs to the erosion control groundcover seeding site, or to any nearby areas, when there is evidence that the failure of the seeding was substantially due to water, soil, or other materials which passed into the erosion control groundcover seeding site from an area which was not stabilized or under the control or supervision of the seeding contractor. Examples of situations which shall void the responsibility of the seeding contractor to repair the erosion control groundcover seeding site and nearby areas shall include the failure of responsible parties to provide effective groundcover, spillways, drainage diversions, water settlements, silt fence, etc. for areas which drain into the site, which would have prevented significant damage to the erosion control groundcover seeding site and nearby areas.

9.14a Damages Disclaimer The seeding contractor shall not be financially or otherwise held liable to repair damages incurred to the erosion control groundcover seeding site as a result of materials not applied under the supervision of the seeding contractor, nor by vandalism, nor by acts of God. The seeding contractor shall not be financially or otherwise held liable to reseed, remulch, repair or otherwise amend the seeding site as a result

of the use of topsoil, fertilizer, soil amendments, seed, seed mulch or other products which are labeled in error or which are otherwise not in accordance with the label or description provided with them by the manufacturer or distributor of the products, when they are applied by the seeding contractor in good faith, in accordance with their label or description.

9.14b Hazards Disclaimer Because the erosion control groundcover seeding site is a construction zone not under the ownership or legal control of the seeding contractor it may present hazards to persons or property which enter the site. The seeding contractor specifically disclaims any and all responsibility for the safety and security of persons or property which may enter the erosion control groundcover seeding site before the seeding contractor has begun work or when work is underway or at any time after work has been completed, and without regard to whether such entry is legal or otherwise. The seeding contractor shall assume no responsibility for personal injury or property damage, nor be subject to any claims of negligence, when the seeding contractor has performed work according to the specifications of MSA-GS-05.0, as mutually agreed, or has applied products or materials according to the recommendations of their manufacturer or distributor.

9.15 Payment The seeding contractor shall give notification upon the completion of Section 9; the erosion control groundcover seeding site shall be inspected within 24 hours of such notification, and payment shall be made at that time, or as specified in the contract. When payment is not received within the specified time period, the seeding contractor may void any guarantees related to Section 9, and may seek appropriate legal remedies.