

Grass Seed and Sod: Pearl's Premium patent pending grass seed blends enable an ultra low maintenance approach to lawn care that can save you time and money. What's the secret? Go to [www.pearlspremium.com](http://www.pearlspremium.com) for the full story on our ultra low maintenance lawn seed. Purchase of the products directly from Pearl's Premium or an authorized distributor constitutes authorization to use our patented approach to grass seed and sod. Refer to our website to ensure availability for installation!

Note to Specifier: This Section includes both seed and sod applications for lawns. Delete paragraphs not applicable to your project. Refer to Notes to the Specifier in the text of the section.

## SECTION 329200 (formerly 02920)

### LAWNS AND GRASSES

#### PART 1 GENERAL

##### 1.1 SUMMARY

- A. This Section specifies lawn and grasses with soil amendments and maintenance.
  - 1. Seeded lawns.
  - 2. Sodded lawns.
- B. Related sections: Refer to the following specification sections for condition:
  - 1. Division 31: Finish grading.
  - 2. Division 32: Trees, shrubs and ground covers.

##### 1.2 REFERENCES

- A. ASTM International (ASTM): ASTM D 977 - Standard Specification for Emulsified Asphalt.
- B. Association of Official Analytical Chemists (AOAC) Standards.
- C. Association of Official Seed Analysts (AOSA) Testing Provisions.
- D. American Sod Producers Association (ASPA) Guidelines Specifications to Sodding.

##### 1.3 SUBMITTALS

- A. Product Data: Submit manufacture's product data and installation instructions.
- B. Samples: Submit manufacturer's 1/4 cubic foot sample of mulch material.
- C. Closeout Submittals: Manufacturer's standard guarantee.
- D. Test Reports: For approval, test reports, manufacturer's certificates or independent lab tests for the following:
  - 1. Fertilizer.
  - 2. Limestone.
  - 3. Certification of Bulk Fertilizer or Limestone.
  - 4. Certificate of Pearl's Premium seed.
  - 5. Certificate of Pearl's Premium sod.
  - 6. Peat Moss

- E. Daily Hydro-seeding Report: Hydro-seed mix description, amount of coverage area and location.
- F. Monthly Worksheet: For Guarantee and Maintenance Work.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials to site and store in unopened factory labeled packaging.

#### 1.5 GUARANTEE

- A. Provide manufacturer's standard one-year maintenance and guarantee. During Maintenance and Guarantee Period, damage to lawn areas not caused by Contractor shall be excluded from Guarantee.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Pearl's Premium, Inc.; P.O. Box 5166; Wayland, MA 01778. Phone: 508-521-9940.

#### 2.2 MATERIALS

- A. Topsoil: Cleaned and placed as specified in Division 31 Section "Finish Grading."
- B. Pearl's Premium Seed:
  - 1. Pearl's Premium Ultra Low Maintenance Grass Seed:
    - a. Pearl's Premium Sunny Mix for areas in full or substantially full sun.
    - b. Pearl's Premium Shady Mix for areas in full or substantially full shade.
    - c. Pearl's Premium Sun / Shade Mix for areas in mixed sun / shade.
    - d. Conforming to applicable State and Federal Regulations and to test provisions of Association of Official Seed Analysts.
- C. Pearl's Premium Sod: Nursery-grown and cultivated from certified Pearl's Premium seed mix. Sod to be from 11 to 36 months in age before lifting, uniform in density, natural green color, free of noxious weeds. Cut sod 3/4 inch. 1/8 inch tolerance plus or minus, with grass height at 1 1/2 to 2 inches, wetted before cutting. Obtain approval of sod and certify Pearl's Premium before cutting or delivery to Project Site.
- D. Limestone: Ground agricultural dolomitic limestone, 90 percent calcium carbonate equivalent, conforming to standards of Association of Official Analytical Chemists and applicable State and Federal Regulations.
- E. Fertilizer: Conforming to standards of Association of Official Analytical Chemists, delivered to Project Site in sealed and labeled bags, or in bulk with certification as to quality and analysis. Nitrogen source shall be at least 33 percent water insoluble. Basic and Starter Fertilizers shall be used. Formulations shall be based on recommendations from soil testing. Organic fertilizer strongly recommended by manufacturer.
- F. Soil-Stabilizing Agent: For use in hydro-seed mix only. Material shall be one (1) of the following:
  - 1. "Verdyol Complex": Weyerhaeuser Company.

2. "Curasol": Wolbert Master Associates.
3. "Terra-Tack": Grass Growers, Inc.
4. "J-Tac": Reclamare Company.

Note to Specifier: Use only if necessary as mulch material can introduce unacceptable levels of weed into a newly installed, slow growing lawn, making establishment harder.

- G. Mulch Material:
1. For General Use: Straw, salt marsh hay, or a combination of both. Material shall be reasonably weed free, not brittle or overly decomposed.
  2. For Hydraulic Seeding: Wood cellulose "Fiber Mulch", containing nontoxic green dye marker.

Note to Specifier: Delete if not required.

- H Asphalt Anchorage Material: ASTM D 977, Type RS-1 emulsion. For use with mulch material (general use type).
- I. Water: On Project Site potable. Owner will supply water at no cost. Transport on Project Site water to planting bed locations at no additional cost.
- J Peat Moss: A mix of partially decomposed reed-sedge peat and sphagnum peat moss, yellow-brown in color, free from lumps, roots and stones and meeting the following analysis:
1. Organic Matter: On dry weight basis, 90 percent or better.
  2. Moisture Absorption: On dry basis of its own weight 450 percent.
  3. pH Factor: 3.5 to 5.5.
  4. Furnish manufacturer's test report of peat moss.

## PART 3 EXECUTION

### 3.1 PREPARATION:

- A. Existing On-Project Site Topsoil for Lawn Areas: Incorporate the following materials uniformly throughout the entire depth of topsoil by disking, roto-tilling, or other approved method:
1. Limestone: Pounds per acre as determined by test reports.
  2. Organic Fertilizer: Pounds per acre as determined by test reports.
  3. Kick-Start Seed Activator: Pounds per acre as determined by test reports.
- B. Off-Project Site Topsoil Fine Lawn and Sodded Areas: Incorporate the following materials uniformly throughout entire depth of topsoil:
1. Limestone: Pounds per acre as determined by test reports.
  2. Organic Basic Fertilizer: Pounds per acre as determined by test reports.
- C. Existing on Project Site topsoil for Pearl's Premium Meadow Grass Areas: Incorporate the following materials uniformly throughout entire depth of topsoil by disking, roto-tilling, or other approved method.
1. Limestone: Pounds per acre as determined by test reports.
  2. Organic Basic Fertilizer: Pounds per acre as determined by test reports.
  3. Kick-Start Seed Activator: Pounds per acre as determined by test reports.
- D. Add organic starter fertilizer at the following rates to surface of seed bed or include as an ingredient in hydro-seed mix:
1. Limestone: Pounds per acre as determined by test reports.
  2. Organic Basic Fertilizer Pounds per acre as determined by test reports.

- E. For Spring Seedings, use Organic Water Wizard (hydretain) at rate of 1 gallon per 16,000 sq. ft. to help retain moisture in root stock during initial establishment period.
- F. Grade lawn areas as follows:
  - 1. Fine Lawn: Drag smooth and hand rake topsoil to final grade elevations. Roll if necessary to stabilize in order to commence seeding. Remove all ruts, mounds, and ridges on surface of topsoil. Remove all stones greater than 1 inch, roots, or other debris visible on soil surface. Resulting holes shall be filled with specified topsoil, leaving a uniform planar surface. Grade uniformly so soil surface does not have low spots, which may collect water.
  - 2. Low Maintenance Lawn: Drag smooth or power rake topsoil to final grade elevations. Remove ruts, mounds, and ridges on surface that are in excess of 3 inches. Remove all ruts, mounds and ridges on surface interfering with surface flow of water. Remove loose surface stones greater than 3 inches and all roots and biodegradable debris visible on soil surface.
  - 3. Meadow Grass: Grade as specified for rough lawn.
- G. Sodding operation shall take place while topsoil is in friable, loose condition, with no crusting of surface.
- H. For Spring or Summer Sodding, use Organic Water Wizard (hydretain) at rate of 1 gallon per 16,000 sq. ft. to help retain moisture in root stock during initial establishment period.
- I. Contractor shall obtain Design Professional's approval for sod bed preparation prior to beginning of sodding operation. Two (2) days prior notice will be required for review.

Note to Specifier: For spring seedings Organic Water Wizard (hydretain) should be used to retain moisture in root stock and help with initial summer establishment period. Pearl's Premium is slow growing. Planting in late spring or early summer during periods of significant heat and weed activity can impact the initial result. Early spring seeding and late summer/early fall seeding periods are highly desirable. Heavy seeding rate desirable to thicken lawn quickly thereby choking out weed growth. Over-seeding second season should be anticipated. Delete if not required.

### 3.2 SEEDING

- A. Seeding shall be done between the following dates.
  - 1. Fine Lawn, Low Maintenance Lawn: [4/15 through 10/15] [        ].
  - 2. Temporary Lawns: [3/15 through 10/15] [    ].
  - 3. Meadow Grass: [6/15 through 10/15] [    ].
- B. Seed during favorable weather conditions. Prepared bed shall be in moderately dry condition during seeding.
- C. Sow Pearl's Premium seed mix at the following rates per acre:
  - 1. Fine Lawn: 340 pounds.
  - 2. Low Maintenance Lawn: 300 pounds.
  - 3. Meadow Grass: 215 pounds.
- D. Sowing may be by the following optional methods:
  - 1. Mechanical Power-Drawn Seeder: Combination grass planter and land packer or pulverizer. Plant seed not deeper than 1/4 inch. Keep seeding operation as close as possible to contours and not up and down slopes. After seeding, compact with land roller, such as a culti-packer making sure not to over-compact soil in process. With proper equipment, sowing seed and culti-packing in one (1) operation is satisfactory.

2. Hopper Type Spreader: Manually-propelled or power-drawn hopper devices. Uniformly distribute seed by sowing half seed in one (1) direction and remainder at right angles to direction of first sowing. Cover seed an average depth of 1/4 inch by means of chain harrow, culti-packer, or other approved method.

Note to Specifier: Never cover seed with more an 1/2 inch of soil to ensure germination. For Spring and Summer seedings, spray on Organic Water Wizard (hydretain) as specified.

3. Hydro-Seeding: Hydraulic broadcasting of prepared material, with written approval of Design Professional, at the following rates per acre. Provide daily reports of hydro-seed mix description as indicated:
  - a. Water: As specified herein.
  - b. 1,500 pounds of wood cellulose, plus 15 percent for slopes 5 percent and steeper.
  - c. Fertilizer: As specified for starter fertilizer. Starter fertilizer may be added to surface of seed bed.
  - d. Soil stabilizer of type and at rate recommended in writing by manufacturer.
  - e. Seed Mix: As specified.
  - f. Kick-start: As specified.
  - g. For Spring and Summer seedings, Organic Water Wizard (hydretain) : As specified.
  - h. Mix and agitate all materials, except wood cellulose, according to material coverage specifications and tank size in partially filled tank; then add specified wood cellulose, fill tank with water and continue agitation. Seed promptly, under constant agitation of mix, beginning when complete mix is a uniform slurry.
  - i. Take precautions against overspray onto roads, curbs, sidewalks, building walls, and other surfaces except ground areas. Contractor shall promptly clean all areas of overspray to satisfaction of Owner's Representative and Design Professional.

Note to Specifier: Delete if not required.

- E. Meadow Grass Areas: After topsoil has been prepared for seeding, allow inherent weed seed to germinate. After germination of weed seed, apply organic herbicide "Phydura" in accordance with manufacturer's written recommendations. Wait seven (7) days after application of herbicide and hydro-seed with Pearl's Premium mix. Keep disturbance of topsoil to a minimum.

Note to Specifier: Delete if not required.

### 3.3 SODDING

- A. Provide Pearl's Premium sod in the following areas:
  1. As indicated on Drawings.
  2. All slopes equal to or steeper than four (4) horizontal to one (1) vertical.
  3. Four (4) feet from edge of the following:
    - a. Manholes.
    - b. Catch basins.
    - c. Exterior light fixtures.
  4. Minimum 10 feet from face of all new buildings, including retaining walls connected to building and plazas.
  5. Within drainage swales as indicated on Drawings.
- B. Place sod on topsoil bed prepared as indicated for seeded areas, including lime, basic fertilizer, starter fertilizer, kick-start applied to bed surface. For Spring or Summer sodding, apply Organic Water Wizard (hydretain) to attract moisture to root stock and aid in initial establishment. At time sod is placed, topsoil shall be in a damp, friable, loose condition, with no surface crust. Organic fertilizers highly recommended.
- C. Retain sod on slopes equal to or steeper than four (4) horizontal to one (1) vertical and in drainage swales, using sod pins driven into sod until top is flush with sod.

- D. In placing sod, keep rows parallel with contour lines. Keep Work true to finished grade, and tamp or roll to establish firm contact with topsoil bed. Butt pads tightly and stagger ends with those in adjacent rows. If sod separates less than 1/2 inch, backfill with topsoil flush with sod and over-seed with Pearl's Premium seed mix. If sod separates 1/2 inch or greater, overlay with sod and spade cut to fit.

### 3.4 MULCHING

- A. Except hydro-seeded areas, seeded areas sloped four (4) horizontal to one (1) vertical or greater, and areas where lawn would be difficult to establish, shall be mulched at rate of 1.5 tons per acre.
- B. Use wood fiber mulch or soil stabilizing agents, hydraulically applied in water at rate of 1,500 pounds of wood fiber per acre, plus 15 percent on slopes greater than four (4) to one (1).
- C. For dry-mulched areas, spray with asphalt anchorage material immediately after spreading straw or salt marsh hay or both, at rate of 200 gallons of asphalt per acre, in a method to bind mulch to soil and inhibit wind loss of mulch. Do not apply asphalt anchorage material within 30 feet of building lines, nor when ambient temperature is below 55 degrees F. Clean off misplaced spray from building walks, paving, light standards and bases, and other surfaces to satisfaction of Owner's Representative or Design Professional.

### 3.5 WATERING

- A. Keep newly seeded areas continuously moist until grass becomes well rooted - typically 30 days. Thereafter, reduce or stop watering - as weather conditions allow - to encourage root growth.
- B. In event of insufficient rainfall and during first summer's heat, water areas every two or three days to ensure proper lawn establishment. Thereafter, water only as needed. When watering sod, make sure that water soaks through sod into topsoil bed below.
- C. For lawns installed in Spring, apply second treatment of Organic Water Wizard (hydretain) at onset of hot summer weather or no more than three (3) months after installation.

### 3.6 PROTECTION

- A. Provide materials and Work necessary to protect Work from damage. Prevent damage to Owner's property and Work specified in other Sections during these operations.
- B. Protective work shall include wire line and stakes along walkways with cloth strips at 4 feet intervals as evidence of wire and also "KEEP OFF" signs.
- C. Defer Work when continuation of construction Work must occur over certain lawn areas.

### 3.7 MAINTENANCE PRIOR TO ACCEPTANCE

- A. Maintain all sodded areas by properly mowing, watering, weeding, and similar care following Pearl's Premium Lawn Maintenance Guidelines to keep Work in a clean and neat condition at all times. Advise Owner's Representative, in writing, when Work is in condition to meet acceptance.

### 3.8 CONDITIONS OF ACCEPTANCE

- A. Fine Lawns shall be approved to begin one year Maintenance and Guarantee Period based on the following requirements:
  - 1. Bare spots, not greater than 1 square foot, shall be permitted up to a maximum of 3 percent of Fine Lawn Area.
- B. Sod Areas will be approved to begin one year Maintenance and Guarantee Period based on the following requirements:
  - 1. Sodded areas shall have been mowed at least once since time of installation.
  - 2. Sod shall have shown signs of knitting with topsoil layer and adjoining sod pads. No open joints between sod pads nor sod slippage on slopes will be acceptable.
  - 3. Sod shall be in a thriving and vigorous condition exhibiting a healthy green color. Bare spots or brown spots will not be accepted.
- C. Low Maintenance, Meadow Grasses and Wildflower Areas: Shall be approved to begin one (1) year Maintenance and Guarantee Period based on the following requirements:
  - 1. Bare spots, not greater than 1 square foot, shall be permitted up to a maximum of 5 percent of Fine Lawn Area.
- D. During one year Maintenance and Guarantee Period, Owner will do no Maintenance Work, watering or cutting of lawns provided under this Contract. Contractor shall follow Pearl's Premium Lawn Maintenance Guidelines.
- E. Contractor may use existing underground irrigation systems if available.
- F. When Work meets conditions specified above, Date of Acceptance shall be date that Guarantee Period commences. Design Professional will notify Contractor in writing of said date.

### 3.9 SEMI-FINAL INSPECTION

- A. Inspection of Work to determine its completion for beginning Maintenance and Guarantee Period will be made by Owner and Design Professional upon written notice requesting such inspection submitted by Contractor at least ten (10) days prior to anticipated date.
- B. All sodded areas shall be healthy and thriving at time of Semi-final Inspection.
- C. After inspection, Contractor will be notified of date that Work has been approved for beginning Maintenance and Guarantee Period or, if there are any deficiencies, of requirements for beginning this Period of Work.

### 3.10 MAINTENANCE AND GUARANTEE OF FINE LAWN AREAS AND SODDED AREAS

- A. Provide all Maintenance Work following Pearl's Premium Lawn Maintenance Guidelines throughout Guarantee Period, which shall be one year from Date of Acceptance.
- B. Guarantee Work to be in vigorous and thriving condition by end of Guarantee Period, free of objectionable quantities of weeds and other undesirable growth. Maximum percentage allowed for scattered bare spots shall not exceed 3 percent of fine lawn area. Each bare spot shall not be larger than 1 square foot.
- C. Maintenance Work shall follow Pearl's Premium Lawn Maintenance Guidelines, including

watering, remedial Work such as repair of eroded areas and re-sodding if required. Provide general cleanup of stakes, strings, temporary signs, and sweeping of paving and sidewalks. Cut grass a maximum of 16 cuttings a year. Include other Work as maintenance as necessary, such as lawn feeding, grub control, weeding, broadleaf weed control, as deemed required by Contractor in support of his/her Guarantee, or as may be brought to his/her attention during Guarantee Period. Organic treatments highly recommended.

- D. Additional organic fertilization and limestone shall be required. Spread one (1) additional application of 10-6-4 organic fertilizer evenly over fine lawn area at rate of 871 pounds/acre and spread one (1) additional application of limestone at rate of 2,000 pounds per acre. Complete applications in fall season of the year approaching termination of Maintenance and Guarantee Period.
- E. Cutting of fine lawn areas shall occur when grass is dry and to maintain a height of at least 3 inches. Cut grass a maximum of 1/3 of total grass blade height. Sharpen mower blades before each cutting. Maintain a neatly-trimmed edge condition throughout at all times.
- F. During one (1) year Maintenance and Guarantee Period, Owner will do no Maintenance Work, watering or cutting of lawns provided under this Contract. Contractor will follow Pearl's Premium Lawn Maintenance Guidelines.
- G. Contractor may use existing underground irrigation systems if available.

3.11 MAINTENANCE AND GUARANTEE OF LOW MAINTENANCE LAWN AND MEADOW GRASS AREAS

- A. Provide all maintenance work following Pearl's Premium Lawn Maintenance Guidelines throughout Guarantee Period, which shall be one year from Date of Acceptance.
- B. Additional fertilization and limestone shall be required. Spread a minimum of one (1) additional application of 10-6-4 organic fertilizer evenly over area at rate of 436 pounds/acre and spread one additional application of limestone at rate of 1,000 pounds per acre. Applications shall be completed in fall season of year.
- C. Guarantee Work to be in vigorous and thriving condition by end of Guarantee Period. Scattered bare spots not larger than 10 square feet will be allowed up to a maximum of 5 percent of area.
- D. Maintenance Work shall follow Pearl's Premium Lawn Maintenance Guidelines, including watering as required and remedial Work such as: repair of eroded areas, reseeding if necessary, general cleanup of stakes, strings, temporary signs; cutting of grass as herein specified. Other Work shall be included as maintenance Work if required, as deemed required by Contractor in support of his/her Guarantee, or as may be brought to attention of Contractor in support of his/her Guarantee, or as may be brought to attention of Contractor during Guarantee Period.
- E. Cutting of grass shall be done when ground is firm enough to prevent ruts caused by mower equipment. Cut meadow grass once per year during late November or early December to minimum height of 18 inches or maximum of 1/3 grass blade length. Cut low maintenance lawns once monthly during growing season to height of 4 inches to 6 inches.
- F. During one year Maintenance and Guarantee Period, Owner shall do no maintenance Work on lawns provided under this Contract.



3.12 MONTHLY WORKSHEET

- A. Contractor shall submit a monthly worksheet to Owner and Design Professional stating Work performed during Maintenance and Guarantee Period.

3.13 FINAL INSPECTION AND ACCEPTANCE

- A. Toward end of Maintenance and Guarantee Period, give notice in writing to Owner's Representative stating desired Date for Final Inspection.
- B. At time of Final Inspection, lawn work shall be in condition required by Maintenance and Guarantee Work specified hereinbefore.
- C. If Work is accepted at time of Final Inspection, Guarantee shall be considered fulfilled and terminated. Should any Work need replacement at time of Final Inspection, continue Guarantee Period until such re- placements are made and deemed acceptable.
- D. Design Professional will notify Contractor in writing of Date of Final Acceptance.

END OF SECTION