

U.S. DEPARTMENT OF TRANSPORTATION  
 FEDERAL AVIATION ADMINISTRATION  
 NORTHWEST MOUNTAIN REGION  
 AIRPORT IMPROVEMENT PROGRAM

**MODIFICATION OF AIRPORT DESIGN STANDARDS**

BACKGROUND														
1. AIRPORT:	2. LOCATION(CITY,STATE):	3. LOC ID:												
4. EFFECTED RUNWAY/TAXIWAY:	5. APPROACH (EACH RUNWAY): <input type="checkbox"/> PIR <input type="checkbox"/> NPI <input type="checkbox"/> VISUAL	6. AIRPORT REF. CODE (ARC):												
7. DESIGN AIRCRAFT (EACH RUNWAY/TAXIWAY):														
MODIFICATION OF STANDARDS														
8. TITLE OF STANDARD BEING MODIFIED (CITE REFERENCE DOCUMENT): <b>Federal Aviation Administration, Advisory Circular (AC) 150/5370-10G, Standards for Specifying Construction of Airports. Item T-901 Seeding.</b>														
9. STANDARD/REQUIREMENT: <b>901-2.1 Seed. The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. Seed shall conform to the requirements of Federal Specification JJJ-S-181, Federal Specification, Seeds, Agricultural.</b>  <b>Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and applicable state seed laws with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Engineer duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected.</b> <b>Seeds shall be applied as follows:</b>														
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">Seed</th> <th style="width: 25%;">Minimum Seed Purity (Percent)</th> <th style="width: 25%;">Minimum Germination (Percent)</th> <th style="width: 30%;">Rate of Application lb/acre (or lb/1,000 S.F.)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> <tr> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> <td style="text-align: center;">*</td> </tr> </tbody> </table>			Seed	Minimum Seed Purity (Percent)	Minimum Germination (Percent)	Rate of Application lb/acre (or lb/1,000 S.F.)	*	*	*	*	*	*	*	*
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*	*	*	*											
*	*	*	*											
<b>Seeding shall be performed during the period between [    ] and [    ] inclusive, unless otherwise approved by the Engineer.</b>														

Appendix 2

10. PROPOSED:

**901-2.1 Seed.** The species and application rates of grass, legume, and cover-crop seed furnished shall be those stipulated herein. The seed mix shall conform to the requirements of ORS 633. The seed mix shall be untreated tested seed of good quality and free of noxious weeds. Seed shall be dry, not moldy, and show no sign of having been wet or otherwise damaged.

Seed shall be furnished separately or in mixtures in standard containers labeled in conformance with the Agricultural Marketing Service (AMS) Seed Act and ORS 633 with the seed name, lot number, net weight, percentages of purity and of germination and hard seed, and percentage of maximum weed seed content clearly marked for each kind of seed. The Contractor shall furnish the Port duplicate signed copies of a statement by the vendor certifying that each lot of seed has been tested by a recognized laboratory for seed testing within six (6) months of date of delivery. This statement shall include: name and address of laboratory, date of test, lot number for each kind of seed, and the results of tests as to name, percentages of purity and of germination, and percentage of weed content for each kind of seed furnished, and, in case of a mixture, the proportions of each kind of seed. Wet, moldy, or otherwise damaged seed will be rejected. Seed mix shall be a three-way blend of endophyte enhanced dwarf turf type tall fescues meeting the following criteria:

Seed	Percent PLS	Minimum Seed Purity (Percent)	Minimum Germination (Percent)	Endophyte Enhanced
Seed Type 1	33	98	90	80 min
Seed Type 2	33	98	90	80 min
Seed Type 3	33	98	90	80 min
Inert Matter	1	--	--	--

PLS (pure live seed) is the amount of living, viable seed in a larger total amount of seed. The amount of seed to be applied is obtained by using the purity and germination percentages from the label on the actual bag of seed to be used on the project. To calculate the amount of seed to be applied:

- a. Obtain the PLS factor by multiplying the seed label germination percentage times the seed label purity percentage;
- b. Divide the specified PLS rate by the PLS factor;
- c. Round off the result as approved.

For example, assume a PLS seeding rate of 350 lbs/acre is specified and the seed label shows a purity of 98 percent and germination of 90 percent. Multiply 0.98 by 0.90 to obtain a PLS factor of 0.88. The specified PLS rate of 350 lbs/acre, divided by the factor of 0.88, equals 397.73. Thus 400 lbs/acre of total seed needs to be applied in order to meet a specified PLS seeding rate of 350 lbs/acre (approximately 1,600 seeds/sq ft).

Seeding shall be performed during the period between September 1 and October 15 inclusive, unless otherwise approved or directed by the Port. Seeding on stockpile areas shall be completed prior to September 1.

Appendix 2

11. EXPLAIN WHY STANDARD CANNOT BE MET (FAA ORDER 5300.1E):

**Currently AC 150/5370-10G indicates seed must meet Federal Specification JJJ-S-181, while locally available seed must instead meet Oregon Revised Statutes (ORS) and the airport's Wildlife Hazard Management Plan. The Port of Portland has chosen to use endophytic enhanced fescue based on the best available science to reduce the risk that wildlife poses to safe aircraft operations.**

12. DISCUSS VIABLE ALTERNATIVES (FAA ORDER 5300.1E):

**Ship seed that meets Federal regulations and was tested for Federal standards to the job site, in lieu of using locally available seed.**

13. STATE WHY MODIFICATION WOULD PROVIDE ACCEPTABLE LEVEL OF SAFETY, ECONOMY, DURABILITY, AND WORKMANSHIP (FAA ORDER 5300.1E):

**Currently AC 150/5370-10G indicates seed meet Federal Specification JJJ-S-181, which is understandable given that these specifications are meant to cover all US airports. For seed however, locally available seed is required to meet ORS requirements, and local labs are set up to test based on ORS requirements, not Federal requirements. The ORS requirements are as stringent (if not more so) than the Federal requirements, so using ORS specifications in lieu of Federal specifications will produce a product that is acceptable to what was intended per AC 150/5370-10G, without the undue burden of finding seed and a testing lab that will provide the federal specifications for additional cost to the project, with no additional benefit.**

**Additionally, specifications in AC 150/5370-10G acknowledge that local seeding rates, species, and dates should be used, indicating it is understood that seed is an item that needs to be based on local conditions as long as minimum federal requirements are met.**

**ATTACH ADDITIONAL SHEETS AS NECESSARY – INCLUDE SKETCH/PLAN**

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**MODIFICATION OF AIRPORT DESIGN STANDARDS**

MODIFICATION:		LOCATION:		PAGE 2 OF 2	
14. SIGNATURE OF ORIGINATOR:		15. ORIGINATOR'S ORGANIZATION:		16. TELEPHONE:	
17. DATE OF LATEST FAA SIGNED ALP:					
18. ADO RECOMMENDATION:		19. SIGNATURE:		20. DATE:	
21. FAA DIVISIONAL REVIEW (AT, AF, FS):					
ROUTING SYMBOL	SIGNATURE	DATE	CONCUR	NON-CONCUR	
COMMENTS:					
22. AIRPORTS' DIVISION FINAL ACTION:					
<input type="checkbox"/> UNCONDITIONAL APPROVAL		<input type="checkbox"/> CONDITIONAL APPROVAL		<input type="checkbox"/> DISAPPROVAL	
DATE:	SIGNATURE:		TITLE:		
CONDITIONS OF APPROVAL:					

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## MODIFICATION OF AIRPORT DESIGN STANDARDS

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ITEMS 1-17 ARE TO BE COMPLETED BY THE AIRPORT SPONSOR(ORIGINATOR). ALL OTHER ITEMS WILL BE COMPLETED BY THE FAA.

THE COMPLETED FORM WILL BE TRANSMITTED BY THE ORIGINATOR TO THE APPLICABLE ADO/AFO. THE ADO/AFO WILL TRANSMIT THE FINAL FAA DETERMINATION TO THE ORIGINATOR.

MODIFICATION TO AIRPORT DESIGN STANDARDS REQUESTS SHOULD INCLUDE SKETCHES OR DRAWINGS WHICH CLEARLY ILLUSTRATE THE NONSTANDARD CONDITION.

### ITEMS

1. LEGAL NAME OF AIRPORT.
2. ASSOCIATED CITY.
3. AIRPORT LOCATION IDENTIFIER (SEE APPROACH PLATES/AIRPORT FACILITY DIRECTORY).
4. IDENTIFY THE RUNWAY(S), TAXIWAY(S) OR OTHER FACILITIES EFFECTED BY THE PROPOSED MODIFICATION TO STANDARDS REQUEST.
5. IDENTIFY THE MOST CRITICAL APPROACH FOR EACH RUNWAY IDENTIFIED IN #4.
6. AIRPORT REFERENCE CODE - SEE PARAGRAPH 2, PAGE 1 AC 150/5300-13(CHANGE 4) - I.E. C-II, B-II, A-I (SMALL).
7. NOTE THE DESIGN AIRCRAFT (ARC OR SPECIFIC AIRCRAFT) FOR EACH FACILITY IDENTIFIED IN #4. A DESIGN AIRCRAFT MUST MAKE REGULAR USE OF THE FACILITY. NORMALLY, FAA CONSIDERS REGULAR USE TO BE 500 OR MORE ANNUAL INTINERANT OPERATIONS.  
  
IF THE AIRPORT SERVES A WHOLE FAMILY OF AIRCRAFT IN A PARTICULAR GROUP, THE ARC (I.E. B-II) SHOULD BE SPECIFIED. IF, HOWEVER, THE AIRPORT IS USED BY ONLY 1 OR 2 OF A FAMILY OF AIRCRAFT (IX- BEECH KING AIR C90), THE MOST DEMANDING (APPROACH SPEED, WINGSPAN) AIRCRAFT SHOULD BE SPECIFIED.
8. IDENTIFY THE SPECIFIC NAME OF THE STANDARD THAT IS PROPOSED TO BE MODIFIED FOR THE SUBJECT LOCAL CONDITION.
9. DESCRIBE (WORDS AND NUMBERS) THE DIMENSIONS AND REQUIREMENTS OF THE STANDARD AS PROVIDED IN AC 150/5300-13.
10. STATE THE PROPOSED MODIFICATION TO THE STANDARD.
11. DISCUSS THE LOCAL CONDITIONS THAT MAKE IT IMPRACTICAL OR IMPOSSIBLE TO MEET THE STANDARD.
12. IDENTIFY ALTERNATIVES TO THE SUBJECT PROPOSED MODIFICATION, AND SHOW WHY THESE ALTERNATIVES ARE NOT VIABLE.
13. DISCUSS HOW THE PROPOSED MODIFICATION WOULD IMPACT AIRPORT SAFETY AND EXPLAIN WHY AN ACCEPTABLE LEVEL OF SAFETY, ECONOMY, DURABILITY, AND WORKMANSHIP WOULD STILL EXIST.
14. TYPED NAME AND SIGINATURE OF AIRPORT AUTHORITY REPRESLNTATIVE.
15. SELF-EXPLANATORY.
16. SELF-EXPLANATORY.
17. SELF-EXPLANATORY.
18. TO BE COMPLETED BY FAA