

FENCE (suspension) SPECIFICATION SHEET

Client		Date	
Farm/Tract		Field(s)	
Location		Length(s)	
Planner		County/SWCD	

1. Management Objectives:

Additional Narrative:

2. Type of Fence (check all that apply):

<input type="checkbox"/> Barbed Wire	<input type="checkbox"/> High Tensile Wire	<input type="checkbox"/> 3-Wire	<input type="checkbox"/> 4-Wire	<input type="checkbox"/> 5-Wire
--------------------------------------	--	---------------------------------	---------------------------------	---------------------------------

3. Additional Specifications:

Narrative:

See attached designs drawings and/or maps.

4. CONSTRUCTION SPECIFICATIONS

GENERAL

Installation shall be in accordance with an approved plan. Details of construction shown on the drawings but not include herein are considered as part of these specifications. Construction activities shall be in accordance with applicable OSHA regulations.

Prior to construction the fence lines shall be cleared of any possible obstruction that would hinder the fence placement and operation.

The soil surface along the fence line shall be relatively smooth such that placement of the bottom fencing member does not exceed the maximum fence member to soil surface spacing specified.

The fence materials shall have an expected life of at least 10 years with routine maintenance. All wood materials except Orange Osage, Western Red Cedar, Juniper, and Black Locust that have contact with the soil shall be treated with an EPA-registered wood preservative. Wood posts shall be treated from the butt end of the post to distance of at least 30 inches for line posts and 36 inches for all corner, gate, and brace posts. Refer to Table 1 for the life expectancy of treated versus untreated wood posts.

FENCE (suspension) SPECIFICATION SHEET

MATERIALS

Wood Posts: Line posts shall have a minimum top diameter of 3 inches and shall be a minimum of 6 feet in length. Corner, gate, and brace posts shall have a minimum top diameter of 6 inches and shall be a minimum of 8 feet in length. Braces shall have a minimum top diameter of 4 inches and shall be a minimum of 6 feet in length.

Steel Posts: Steel line posts shall be the “T”, “U”, or “Y” type with a welded or riveted anchor plate near the bottom (minimum area = 18 inches square) and have suitable corrugations, knobs, studs, or grooves for fastening the wire. Line posts shall weigh at least 1.33 pounds per linear foot of length and shall be a minimum of 5.5 feet long.

Steel Pipe Posts: Steel pipe corner, gate, or brace posts shall be a minimum diameter of 2 inches, Schedule 40 (2.375-inch O.D.), and at least 7 feet long. Bracing shall be a minimum of 1-1/2 inch nominal diameter, Schedule 40 Pipe. Brace fittings and clamps shall be galvanized.

Angle Section Posts: Angle section posts shall have nominal sectional dimensions of 2.5 by 2.5 by 0.25 inches thick and at least 7 feet in length. Braces shall be of the same size dimensions as corner and gate posts and shall be a minimum of 6 feet in length.

Table 1: Life Expectancy of Untreated and Treated Fence Posts (Years)

Kind of Wood	Un-treated	Pressure Treated	Hot and Cold Bath	Cold Soak
Western Red Cedar	12-15	20-25	20-25	-
Lodgepole & Ponderosa Pine	2-4	20-25	15-20	10-20
Aspen or Cottonwood	1-3	15-20	10-15	5-10
Douglas Fir & Western Hemlock	3-6	20-35	15-25	10-20

Barbed Wire: Barbed wire shall be composed of two strands of 12.5 gauge zinc coated wire wrapped around each other, with 2-point 14 gauge barbs spaced no more than 5 inches apart conforming to ASTM A 121.

Smooth Wire: Smooth wire shall be a single steel wire of 9 gauge or heavier, or two wrapped strands of 12.5 gauge or heavier wire. Wire shall have a minimum tensile strength of 45,000 psi.

Wire Panel Fasteners: Staples shall be 9 gauge or heavier and have a minimum length of 1.5 inches, except 1.0 inch staples are allowed on very hard woods. Fasteners for use with steel posts shall be 12 gauge or heavier zinc coated wire.

Stays: Wire stays shall be 9.5 gauge or heavier, zinc coated, twisted wire. The length shall be at least two inches longer than the distance between the top and the bottom strands of the fence. Wood stays shall be sound, straight pieces at least 2 inches in diameter.

INSTALLATION

The fence shall be reasonably straight and shall not deviate more than 12 inches between any corner and gate or line brace assembly.

Post Depth: Line steel posts shall be set a minimum depth of 1.5 feet and wood line posts shall be set to a minimum depth of 2 feet, unless otherwise specified. Gate, corner and brace posts shall be set to a minimum depth of 3 feet, unless otherwise specified. Steel pipe and angle section posts shall be embedded in a 12-inch circular or square concrete pier, except when set in firm rock.

Suspension fences should be constructed with approximately a 3-inch sag in the wires between posts to permit maximum sway of the fence.

Post Spacing: The maximum post spacing interval shall not exceed 100 feet.

Line Bracing: Line brace assemblies shall be located at all corners, gates and abrupt changes in vertical topography (generally considered as 15 degrees). On straight reaches of fencing line braces shall be installed at a spacing of no more than 1300 feet.

FENCE (suspension) SPECIFICATION SHEET

Wire Spacing: Wire spacings are as follows, unless otherwise specified:

Table 2: Barbed or High Tensile Wire Fence

Fence Type	Spacing Measured from Groundline (inches)				
3-wire	16	28	40		
4-wire	14	22	30	42-45	
5-wire	5	12	20	30	42-45

Note: Where the movement of antelope is a concern, the minimum height of the bottom wire shall be 16 inches from the groundline and the wire may be smooth. Antelope crossings shall be provided if sheep-tight fences are built.

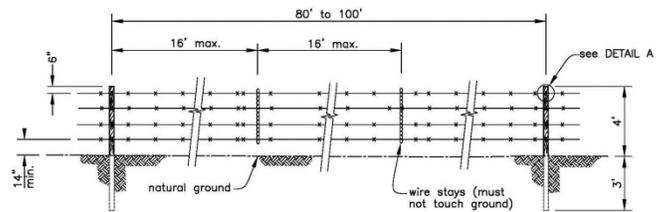
Note: Oregon Department of Fish and Wildlife recommends maximum fence heights of 42 inches where wildlife crossings are a concern.

Wire Fasteners: Staples shall be driven diagonally into the wood grain of the post. Space shall be left between the post and the staple to allow movement of the wire. Fasteners on steel posts shall be snug enough to prevent vertical movement of the wire on the post.

Stays: The maximum distance between stays and/or line, corner, gate or brace posts shall not exceed 15 feet.

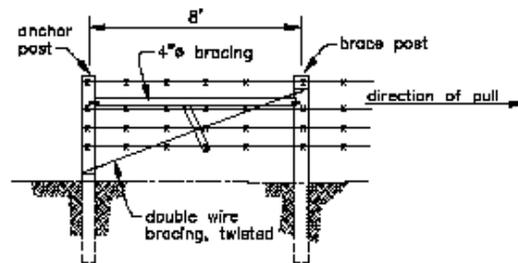
Drainageways: In crossing drainageways or depressions a weight or deadman anchor shall be fastened to the fence to maintain the required spacing interval or additional wires shall be added to maintain the required minimum wire height from the groundline.

Suspension Fence Details

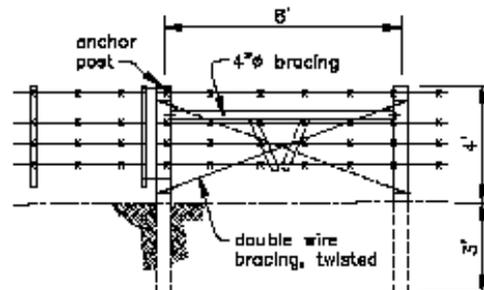


ELEVATION VIEW

a) Line Brace Details



1-SPAN END



GATE BRACE

382B OR-Specification

Natural Resources Conservation Service, Oregon

December 2014

FENCE (suspension) SPECIFICATION SHEET

Design Approval:

Practice Code No.	Practice	Lead Discipline	Controlling Factor	Units	Job Class				
					I	II	III	IV	V
382	Fence	BCSD Graz Land Spec	Length	feet	All	All	All	All	All
			Animal Units	AUE	25	100	250	350	All
This practice is classified as Job Class (check one):									

Design Approved By: /s/ _____ Date: _____

Job Title: _____

Client's Acknowledgement Statement:

The Client acknowledges that:

- a. They have received a copy of the specification and understand the contents and requirements.
- b. It shall be the responsibility of the client to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to the application of this practice.

Accepted By: /s/ _____ Date: _____

Certification:

I have completed a review of the information provided by the client and certify this practice has been applied as specified.

Certification By: /s/ _____ Date: _____

Job Title: _____

Refer to the Following Conservation Practice Specifications [✓]			
	Use Exclusion 472		Prescribed Grazing 528A
	Range Planting 550		Critical Area Planting 342
	Pipeline 516		Watering Facility 614
	Spring Development 574		Wetland Wildlife Habitat Management 644
	Upland Wildlife Habitat Management 645		Other:

USDA Nondiscrimination Statement

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.