FENCE SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE

FENCE TYPES

There are several types of fences used in Louisiana. They can be designed and installed as permanent or temporary. The overall effectiveness of each type of fence and the costs for installation and maintenance, depends on the type of animal controlled, the number and size of wires used, and posts type, and spacing.

Permanent fence types are designed to be in place for a period of many years with minimal maintenance requirements. Therefore, components are designed for a life span of 20 years. Permanent fences are used for exterior (boundary) fencing of property and fencing of specific land uses (such as cropland) as well as for interior division fencing.

Temporary, or moveable fences, are designed to be in place for short periods of time. Temporary fences are best used as division fences for controlled grazing and fencing of areas where livestock exclusion is needed for periods of 180 days or less.

Standard Post and Wire Fences are the most common fence type used for controlling all types of livestock. They are suitable as permanent fences in areas that receive moderate to heavy pressure from livestock.

Suspension Fences are a low cost variation of the standard post and wire fence and can be used as either boundary or interior cross fencing. They are typically used on large pastures with level terrain. They can be either barbed wire or smooth wire. The fence design allows it to sway (move) in the wind and when contacted by animals.

Both High Tensile and non-High Tensile Woven, Net and Mesh Wire Fences are best suited in areas where good control is necessary such as with sheep, goats, calves, horses, hogs, or predator control. These fences consist of multiple rows of horizontal smooth wires held apart by vertical wires, usually of different sizes and configurations. Space between wires varies depending on designated use.

Permanent Energized (Electric) Fences provide a low cost alternative and more flexibility than the other types of fences. They are mostly used for interior cross fencing. They can be powered by a variety of types of energizers. Livestock must be trained to respect electric fences if they are to be effective.

Temporary Electric Fences are only used for interior cross fencing and areas where pressure from livestock is not heavy. They can be easily attached to permanent fences and can be of either high tensile smooth wire, net fencing (for use with sheep and goats), or polyethylene twine and/or tape.

Off-set electric fence The permanent single wire offset power fence is used to charge the entire field and then use polywire/tape/braid to construct an effective barrier for short term or long term stock control. Poly tape and/or poly wire is more affordable and easily constructed and maintained. This is the least expensive way to facilitate rotational grazing. All single offset wires should be attached at two thirds the height of the animals to be controlled.

High Tensile, non-energized fences are suitable as permanent fence in areas that receive moderate to heavy pressure from livestock but require more strands of wire than barbed wire to maintain the same level of control. These fences are safer for domestic animals, especially horses, and wildlife, than are the barbed wire fences.

Wooden Board Fences are recommended in areas where the main concerns are safety and aesthetics. Costs of installation and maintenance are higher than most other types of fencing. They are best suited for control of horses and when used for corrals and barn lots.

A wooden board fence shall have a minimum of 3 boards. The maximum board spacing shall be 16 inches center to center. The top edge of the uppermost board shall be at least 48 inches above the ground line, and the top edge of the lowest board shall be no greater than 16 inches above the ground line. The board shall be a minimum size of 1" X 6" (nominal). Use untreated durable wood of such species as red cedar, black locust, or a non-durable wood that is preservative pressure treated. Post shall be treated to meet ground contact criteria. Boards and posts may be painted if desired. Nails should be galvanized and not less than 3 ½ inches long.

The materials used in construction and installation of fences must be in accordance with and meet or exceed, in size, strength, durability and lifespan, the requirements listed in the Fence (382) Specifications.

Variations from materials and construction may be approved by the State Resource Conservationist if sufficient documentation is provided which proves that the variations will result in an installation that will meet or exceed that which is described in this FENCE Standard and Specifications.

Table 1. Construction must meet or exceed this minimum criteria:

Kind of Grazing Animal 10/	Kind of Fence	Galvanized Wire (New Only)		Type	Minimum Number of Wires	Maximum Line Posts Spacing With 2 or More Stays	Maximum Line Posts Without Stays 7/	Average Height of Top Wire	Wire Spacing
	Non- Electric	Electric	Gauge 1/						
Cattle/ Horses	Barbed		12 1/2	Malleable	4	30'	20'	44"	A/
	Barbed		13 1/2	High Tensile	4	30'	20'	44"	A/
	Barbed		15 1/2	High Tensile	4	30'	20'	44"	A/
	Woven (net)/ Barbed			Malleable 2/		30'	20'	44"	B/
		Smooth	12 1/2	High Tensile 3/	1 9/ 5/	150'	100'	32"	C/
		Smooth	12 1/2	High Tensile 3/	2 9/ 5/	150'	100'	35"	D/
		Smooth	12 1/2	High Tensile 3/	3 9/	150'	100'	39"	E/
		Smooth	12 1/2	High Tensile 3/	4 9/	150'	100'	43"	F/
		Smooth	12 1/2	High Tensile 3/	5 9/	150'	100'	43"	G/
	Barbed (suspension)		12 1/2 13 1/2 15 1/2	Malleable or High Tensile	4	100' 4/		44"	A/
Sheep	Barbed		12 1/2	Malleable	7 8/	30'	20'	36"	J/
	Barbed		12 1/2 13 1/2	High Tensile	7 8/	30'	20'	36"	J/
	Woven (net)			Malleable 2/	8/	30'	20'	39"	B/
		Smooth	12 1/2	High Tensile 3/	4 9/ 5/	150'	75'	36"	H/
		Smooth	12 1/2	High Tensile 3/	5 9/	150'	75'	46"	I/
Goats	Barbed		12 1/2	Malleable	7 8/	20'	15'	36"	J/
	Barbed		13 1/2	High Tensile	7 8/	20'	15'	36"	J/
	Barbed		15 1/2	High Tensile	7 8/	20'	15'	36"	J/
	Woven (net)			Malleable 2/	8/	30'	20'	39"	B/
		Smooth	12 1/2	High Tensile 3/	4 9/ 5/	150'	75'	36"	H/
		Smooth	12 1/2	High Tensile 3/	5 9/	150'	50'	36"	I/
Deer	Woven (net)			Malleable 6/		20'	20'	8'	K/

1/ Gauge - Foreign made 12 ½ gauge and heavier malleable steel barbed wire (not high tensile) must equal or exceed 950 pounds (lbs.) force break strength

2/ At least 32" of woven (net) wire having at least, 12 1/2 gauge top and bottom strands, 14 ½ gauge intermediate and stay wires with stay wires spacing 24" or less. **If cattle are the only livestock being managed**, include two strands of 12 ½ gauge barbed wire or equivalent in tensile strength on top, or 35" net wire with 1 strand of 12 ½ gauge barbed wire on top. **When managing sheep or goats alone, 39"** net wire with 12 ½ gauge top and bottom strands, and 14 ½ gauge intermediate and stay wires with spacing of 24 or less can be used in lieu of the first alternative. When high tensile net wire 48" or higher is used, no additional barbed or smooth wires are required above or below the net wire.

3/ 170,000 PSI minimum strength or greater for 3 or more wire fences, 130,000 PSI minimum strength or greater for 2 or less wire fences, and minimum Type III galvanization which has .80 ounces of zinc per square inch of wire surface.

4/ Twisted wire stays must be installed at not more than 20 foot intervals between line posts. All stays should swing free of the ground to permit the fence to sway when contacted by animals. Suspension fences shall not be constructed on a curve. Directional changes in the line shall be by definite angles and properly braced. Suspension fences should be constructed with approximately a 3 inch sag in the wire between posts to permit maximum sway of the fence.

5/ For use as cross-fence in a grazing system. Introducing animals to electric fencing in a designated training facility is recommended. Not recommended for exterior fences.

6/ Bottom section of at least 48" woven wire, 11 gauge or larger top and bottom strands, 12 ½ gauge or larger intermediate and stay wires, and stay wires spaced no more than 6 inches. Top section of at least 35" woven wire and made of 11 gauge or larger top and bottom strands, 14 ½ gauge or larger intermediate and stay wires spaced no more than 12 inches.

7/ Line posts must be set at significant high and low points along fence to maintain proper wire height.

8/ When cattle are grazed in addition to sheep and/or goats, use one barbed wire above the top wire or above 39 inch net, with approximately 10 inch spacing between top two wires. 48 or 49 inch high tensile net wire will not require a wire above the net wire.

9/ In most instances in Louisiana, an all positive charge fence will normally suffice. If experience shows that the soil on the site will dry to the point that it will not cause sufficient shock to the animal, then a combination of positive (+) and negative (-) wires should be used.

10/ 12 ½ gauge smooth wire with minimum Type III galvanization can be substituted for barbed wire when fencing is constructed for horses only.

WIRE SPACING

A/ Bottom wire set a minimum of 14" above ground with middle two wires set at 10" intervals, and top wire set at not less than 44" above ground.

B/ At a minimum 32" woven (net) wire set at ground level with one strand of 12 1/2 gauge barbed wire or equivalent set 3" above the woven wire, and another strand of 12 1/2 gauge barbed wire set 10" above the first barbed wire, or 35" woven (net) wire set at ground level with one 12 1/2 gauge barbed wire or equivalent set 10" above the net wire. For sheep and goats alone, 39" net wire set at ground level will suffice.

C/ One "hot" wire set 24" - 40" above ground level, depending on the size of the animal to be controlled. This spacing also includes offset wire on existing fences.

D/ Top wire shall be set from 30" - 42" above ground, with second wire set below at 14" - 24" above ground level.

E/ Top wire shall be set from 34" - 48" above ground, with middle wire set at 24" - 36" above ground, and bottom wire set at 12" - 24" above ground.

F/ Interior or boundary fence. Top wire shall be set from 42" - 60" above ground, second wire from top set at 34" - 48" above ground, third wire from top set at 20" - 34" above ground, and bottom

wire set at 10" - 20" above ground. Wire spacing needs to be constructed in a manner **not** to allow the animal's head to penetrate the fence without being shocked.

G/ Boundary fence with top wire set 50" - 60" above ground level, 4th wire set 40" - 50" above ground level, 3rd wire set 30" - 40" above ground level, 2nd wire set 20" - 30" above ground level, and bottom wire set 10" - 20" above ground level. Wire spacing needs to be constructed in a manner not to allow the animal's head to penetrate the fence without being shocked.

H/ Top wire (hot) shall be set at 36" above ground level with the lower wires (grounded or hot) spaced at 24", and 14" above ground, with bottom wire (hot) no higher than 6" above ground level.

I/ Top wire (hot) shall be set at 36" above ground level with lower wires (hot or alternating ground/hot) spaced at 26", 18", and 12" above ground level, with the bottom wire (hot) no higher than 6" above ground level.

J/ Top wire shall be set at 34" - 36" above the ground level, with the remaining 6 wires set no more than 5" apart and the bottom wire set no higher than 5" above ground level.

K/ See Deer Fence Drawings.

GENERAL MATERIAL AND INSTALLATION CRITERIA - APPLICABLE TO ALL NON- ELECTRIC FENCES

Wire Requirements

Barbed wire – 13 ½ & 15 1/2 gauge high tensile steel wire with **Class III galvanized coating** and must be 130,000 PSI or greater. 12 ½ gauge may be class 1 galvanized with 950 lbs. force break strength.

1. Staples - Use at least 9 gauge galvanized staples which are at least 1 ½ inches long for softwoods and 1 inch for hardwoods.

Posts

Trees or utility poles shall not be used for line posts, brace post assemblies, corner posts, or end/gate posts

1. Line Posts - Shall have a minimum length of 6 ft.; be set approximately 15 inches in the ground and spaced not more than 20 ft. apart without stays and 30 ft. apart with 2 or more stays spaced 8 ft. apart.
   a. Untreated wood (Red cedar, bois-d-'arc, mulberry, catalpa or black locust) having a minimum top diameter of 3-1/2 inches.
   b. Pressure treated wood (Pine most commonly available) with a minimum top diameter of 2 1/2 inches. Wood preservation treatment shall be in accordance with Federal Specifications No. TT-W-571i (0.4 retention).
   c. Metal - Standard T or U section steel post (1.25 lbs/ft) 6 ft. long or equivalent metal rod or pipe.
2. H-Brace Post - Minimum of 8 ft. in length be set approximately 3 ft. in the ground, spaced 6 ft. apart.
   a. Wood - A minimum of 3½ inch (i.e., 4 inch nominal scale) top diameter of treated timber or durable wood as listed above for upright post and cross post.
   b. Metal - Minimum 2-3/8 inch metal pipe or equivalent. At least (1) 80 lbs. bag of concrete should be used in each 12 inch post hole to secure brace assembly. Metal cross post must be a minimum of 2 inches in diameter.
   c. All brace assemblies shall have a minimum of two posts in line to provide a suitable anchor for the fence. They shall be spaced at a maximum of 1320 ft. or at corners and points of extreme changes in slope and at curves (See Figure 1 H-Brace Pull Assembly).
3. Corner and End/Gate Post
   a. Wood - (Pressure treated or durable wood) shall have minimum top diameter of 5 inches, (Posts should be designated as 6" posts when purchased) 8 ft. in length, and be set firmly 3 ft. in the ground. Cross post will have a minimum 3½ inch top diameter (i.e., 4 inch nominal scale).

b. Metal - Minimum 2-3/8 inch steel pipe or equivalent, 8 ft. in length, set 3 ft. in ground. Metal cross posts must be a minimum 2 inch diameter. At least (1) 80 lbs. bag of concrete will be used for each post.
c. All corners and end/gate post assemblies shall have a minimum of two (2) posts in line to provide a suitable anchor for the fence (See Figure 1 for Corner and End/Gate Brace Post).

4. Any metal pipes used must be permanently capped to exclude rainwater and all metal components used must be painted with a durable permanent rust resistant coating or be galvanized; components will be repainted if rusting occurs.
5. Allow newly installed braces and assemblies to settle and/or pack dirt sufficiently around all post; do not over-tighten wires.
6. Wire clips or fasteners must be galvanized and similar to strength of fence wire.
7. Boundary and exclusion fences shall be constructed so that the wire is on the side of the post facing the animals to be controlled.

GENERAL MATERIAL AND INSTALLATION CRITERIA - APPLICABLE TO PERMANENT ELECTRIC FENCES ONLY

Energizers and Components

1. Energizers for permanent electric fences should be high voltage/low impedance short pulse which can produce at least 4000 volts output, with all livestock containment fences charged (on) when under maximum anticipated load.
   a. Recommended one DIGITAL read out volt meter to be accompanied with energizer.
   b. For 110 volt or 220 volt energizers, install a voltage spike/surge protector to protect energizer from power surges from the energizer plug.
2. Grounding - A minimum of three (1/2 inch diameter) 6 ft. long galvanized steel rods will be installed near energizer spaced at 10 ft. intervals (See Figure 2).
   a. Avoid mixing dissimilar materials to prevent electrolysis (do not use copper components).
   b. For large energizer systems (14 or more joules), use a minimum of 3 additional feet of ground rods per joule of energizer output capacity.
3. Lightning arrestor or lightning choke will be required (See Figure 2). Install an additional set of four 6 ft. ground rods for arresting the lightning. Locate rods 65 ft. away from ground rods set for the energizer. These rods will also be spaced 10 ft. apart. Energizer manufacturer's requirements for lightning protection must be met or exceeded.

Wire Requirements

1. Galvanized – 12 ½ gauge high tensile steel wire with Class III galvanized coating. Minimum strength for 3 or more wires should be 170,000 PSI or greater and 130,000 PSI minimum strength for 1 or 2 wires.
2. Wires attached to line post must be allowed to slip and be locked to stay post if applicable.
3. For splicing high tensile strength wire, use only the equivalent of crimping sleeves, figure eight knots or thread through knot. All electrical connections (both ground and positive) must use the equivalent of crimping sleeves or galvanized joint clamps.
4. Underground wire - All underground wire(s) must be insulated, molded, steel 12-1/2 gauge or larger wire. The insulation must be high density polyethylene or polypropylene with ultraviolet (UV) stabilizer and capable of withstanding a minimum of 10,000 volts.

Posts

Trees or utility poles shall not be used for line posts, brace post assemblies, corner posts, or end/gate posts

1. Line Post - Maximum line post spacing with 2 or more stays will be 150 ft. apart. The maximum line post spacing without stays will be 100 ft.
   a. Fiberglass sucker rods of no less than 3/8 inch diameter can be used on 1 and 2 wire fences. Fiberglass sucker rods must be at least ¾ inch in diameter on fences more than 2 wires.

b. Fiberglass T-post must be new and at least 1 inch in cross-section for fences with more than 2 wires. Steel T-post and other conductive material post can be used ONLY if polyethylene or polypropylene with ultraviolet (UV) stabilizer insulators are used.
c. PVC post can be used as stays if material is UV treated. PVC stays must be at least ½ inch in diameter.
d. Pull post or pull post assemblies for electric permanent fence shall be spaced no more than 1/2 mile apart on undulating terrain. On flat terrain, spacing may be increased to end of spool (normally 4000 ft.).

2. Corner and End/Gate Post
   a. Minimum post length will be determined by the number of wires used. The length of the post should be 36" (below ground) plus 6" above the height of the top wire (For example: a two wire fence with the top wire set at 30"; the minimum post length will be 72" or 6 ft.).
   b. Braces for electric fences with two wires or less can use a Bed Log Brace (Figure 2). A Bed Log Brace shall consist of a wood (pressure treated or durable wood) post with a minimum top diameter of 3½ inches (i.e., 4 inch nominal scale) set 3 ft. below ground or steel post with minimum 2 3/8 inch diameter, capped, set 3 ft. below ground. The bed log shall be 4 ft. long and set a minimum of 3" below ground. Bed logs can be made from landscape timbers or equivalent size posts.
   c. Wood - (Pressure treated or durable wood) Single pole post are for low tension applications only. A single wood post can be used on fences 2 wires or less. Post will have a minimum top diameter of 5 inches (Posts should be designated as 6" posts when purchased) and be set firmly in concrete, 3 ft. in the ground. At least (1) 80 lbs. bag of concrete is to be used in each 12 inch post hole to secure brace assembly.
   d. Metal – Single pole post are for low tension applications only. A single steel pipe can be used on fences 2 wires or less. Minimum of 2-3/8 inch steel pipe or equivalent, capped, set 3 ft. in ground in concrete. At least 1 80 lbs. bag of concrete should be used in each 12 inch posthole to secure brace assembly.
   e. For 3 or more wire fences or when heavy duty gates will be installed, a minimum of two (2) posts in line will be installed to provide a suitable anchor for the fence. Post will have a minimum top diameter of 5 inches (Posts should be designated as 6" posts when purchased), 8 ft. in length, and be set firmly 3 ft. in the ground. Cross post will be a minimum of 3½ inches across (4 inches nominal scale; See Figure 1 for Corner and End/Gate Brace Post).
   f. Allow newly installed braces and assemblies to settle and/or pack dirt sufficiently around all posts, do not over-tighten wires.
   g. Metal pipes must be permanently capped to exclude rainwater and all metal components used must be painted with a durable permanent rust resistant coating or be galvanized; components will be repainted if rusting occurs.

Electrical Accessories

1. Insulators - Any plastic or porcelain insulators used in the installation of permanent electric fences shall be capable of withstanding a minimum of 10,000 volts. Any plastic insulators used will be ultra-violet (UV) treated.
2. Warning signs - Electric fence warning signs are recommend every 300 ft. on exterior fences. Warning signs are also recommended to be posted around barns, troughs, and other facilities as specified by any local, state, and/or federal laws or regulations.
3. Gate handles, switches, and other hardware used to conduct current must be galvanized or use aluminum components.
4. NRCS conservationist must certify variations that meet or exceed this fencing practice standard.

USDA Natural Resources Conservation Service
Alexandria, Louisiana

LA-GL-1
1/12

FENCE CONSTRUCTION CHECK SHEET (NON-ELECTRIC)

Landowner _____ Planned _____ Installed _____
Field No. _____ Tract No. _____ By _____ _____
Fence No. _____ Length _____ Date _____ _____

		Unit	Minimum		
I.	**Wire**				
A.	Barbed Wire (galvanized)	Total Footage			
1.	Size	Gauge			
2.	Strands	Number			
3.	Height of top wire	Inches			
B.	Net Wire (galvanized)	Total Footage			
1.	Size (Top and bottom strand)	Gauge			
	(Intermediate and stay strands)	Gauge			
2.	Spacing of stay wire	Inches			
3.	Height of net wire	Inches			
4.	Height of fence (top wire)	Inches			
5.	Strands above/below net wire	Number			
II.	**Corner, End/Gate, and H-Brace Posts (See attached diagram)**				
A.	Corner and End/Gate Post				
1.	Kind (1)	Material			
2.	Length	Feet			
3.	Nominal Top Diameter	Inches			
4.	Depth to Set	Inches			
5.	Amount	Number			
B.	Cross-member				
1.	Kind (1)	Material			
2.	Length	Feet			
3.	Nominal Top Diameter	Inches			
4.	Amount	Number			
C.	H-Brace Post				
1.	Kind (1)	Material			
2.	Length	Feet			
3.	Nominal Top Diameter	Inches			
4.	Depth to Set	Inches			
5.	Amount	Number			
III.	**Line Posts (2)**				
A.	Wood Posts				
1.	Kind (1)	Material			
2.	Length	Feet			
3.	Nominal Diameter	Inches			
4.	Spacing	Feet			
5.	Amount	Number			
B.	Steel Posts				
1.	Kind	Coating			
2.	Length	Feet			
3.	Weight per Foot	Pounds			
4.	Spacing	Feet			
5.	Amount	Number			

(1) Certificate required for treated posts and metal pipe must be permanently capped and painted or galvanized. All gates used must meet or exceed standard for type of fence constructed.

Vicinity Map/Diagram

Remarks _____

This practice meets or exceeds USDA/NRCS Specifications:

Signature _____ **Date** _____

FENCE CONSTRUCTION CHECK SHEET (ELECTRIC)

Landowner _____ Planned _____ Installed _____
Field No. _____ Tract No. _____ By _____
Fence No. _____ Length _____ Date _____

	Unit	Minimum	Planned	Installed
I. **Wire**	Total Footage			
A. Size (12 ½ gauge)	Gauge			
B. Strands	Number			
C. Average height of wires	Inches			
II. **Brace Assemblies (See attached diagram)**	Number			
A. Post				
1. Kind (1)	Material			
2. Length	Feet			
3. Nominal Top Diameter	Inches			
4. Depth to Set	Inches			
5. Concrete (80 lbs. bag)	Number			
6. Amount	Number			
B. Cross-member				
1. Kind (1)	Material			
2. Length	Feet			
3. Nominal Top Diameter	Inches			
4. Amount	Number			
III. **Line Posts**				
A. Wood and Fiberglass Posts				
1. Kind	Material			
2. Length	Feet			
3. Nominal Top Diameter	Inches			
4. Spacing	Feet			
5. Amount	Number			
B. Steel Posts				
1. Kind	Coating			
2. Length	Feet			
3. Weight per Foot	Pounds			
4. Spacing	Feet			
5. Amount	Number			
IV. **Accessories (All conducting materials will be galvanized)**				
1. Strainers or wire tightners	Number			
2. Pull post insulators	Number			
3. Line post insulators	Number			
4. Ground rods	Number			
5. Lightning arrestors	Number			
6. Insulated cable	Feet			
7. Offset brackets	Number			
8. Warning signs	Number			
9. Cut off switches	Number			
10. Digital Volt Meter	Number			
11. _____	_____			
12. _____	_____			
V. **Power Unit**	Type			

A. The energizer selected must be high voltage/low impedance, short pulse which can produce at least 4000 volts Output with all livestock containment fences charged (on) when under maximum anticipated load.

(1) Certificate required for treated posts and metal pipe must be permanently capped and painted or galvanized.

Vicinity Map/Diagram

Remarks _____

This practice meets or exceeds USDA/NRCS Specifications:

Signature _____ **Date** _____

Figure 1

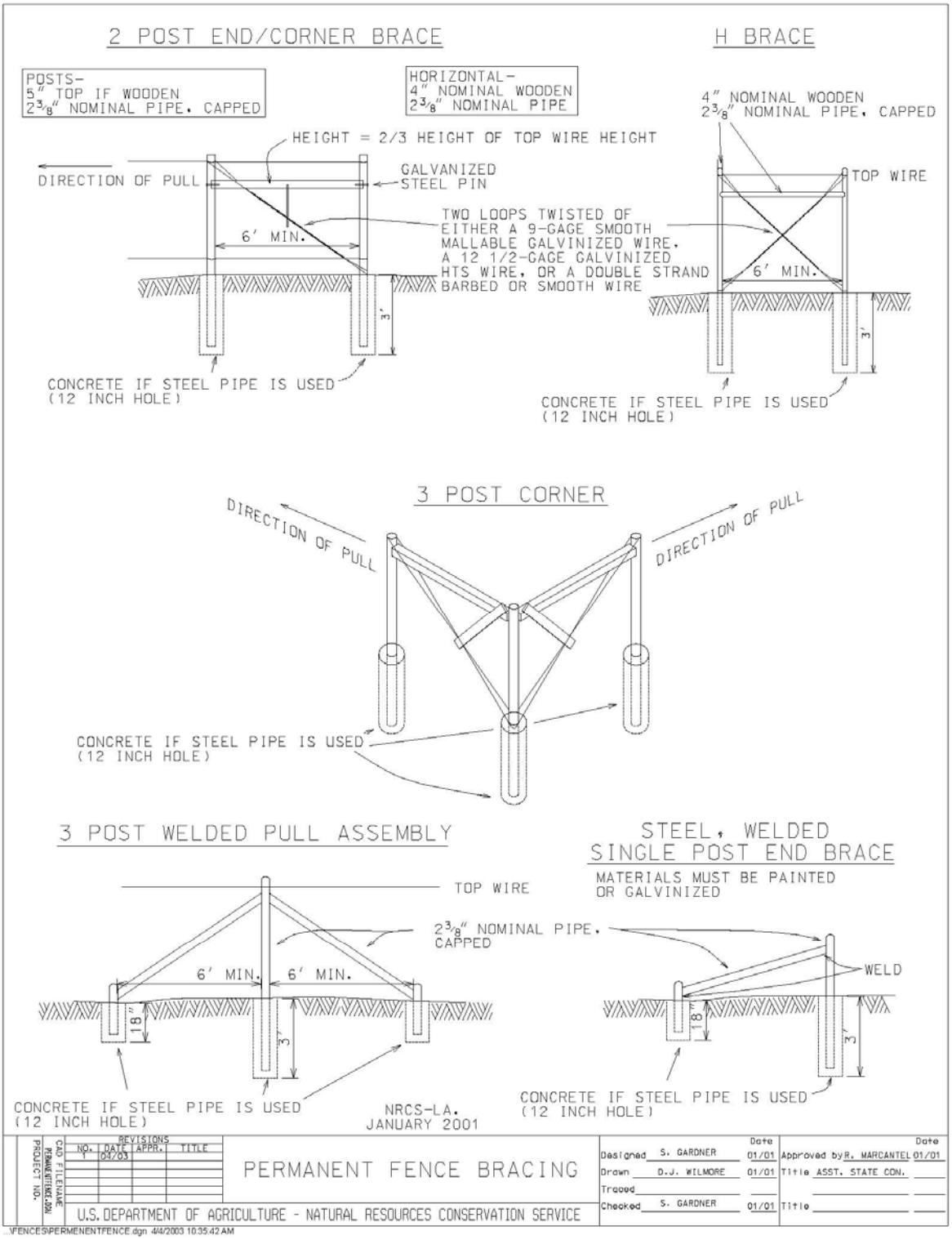
2 POST END/CORNER BRACE
POSTS-
5" TOP IF WOODEN
2 3/8" NOMINAL PIPE, CAPPED
HORIZONTAL-
4" NOMINAL WOODEN
2 3/8" NOMINAL PIPE
HEIGHT = 2/3 HEIGHT OF TOP WIRE HEIGHT
DIRECTION OF PULL
GALVANIZED STEEL PIN
TWO LOOPS TWISTED OF EITHER A 9-GAGE SMOOTH MALLABLE GALVINIZED WIRE, A 12 1/2-GAGE GALVINIZED HTS WIRE, OR A DOUBLE STRAND BARBED OR SMOOTH WIRE
6' MIN.
3'
CONCRETE IF STEEL PIPE IS USED (12 INCH HOLE)
H BRACE
4" NOMINAL WOODEN
2 3/8" NOMINAL PIPE, CAPPED
TOP WIRE
6' MIN.
3'
CONCRETE IF STEEL PIPE IS USED (12 INCH HOLE)
3 POST CORNER
DIRECTION OF PULL
DIRECTION OF PULL
CONCRETE IF STEEL PIPE IS USED (12 INCH HOLE)
3 POST WELDED PULL ASSEMBLY
TOP WIRE
2 3/8" NOMINAL PIPE, CAPPED
6' MIN.
6' MIN.
18"
3'
CONCRETE IF STEEL PIPE IS USED (12 INCH HOLE)
STEEL, WELDED SINGLE POST END BRACE
MATERIALS MUST BE PAINTED OR GALVINIZED
WELD
18"
3'
CONCRETE IF STEEL PIPE IS USED (12 INCH HOLE)
NRCS-LA. JANUARY 2001
REVISIONS
NO. DATE APPR. TITLE
1 04/03
CAD FILENAME PERMANENTFENCE.dgn
PROJECT NO.
PERMANENT FENCE BRACING
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE
Designed S. GARDNER Date 01/01
Drawn D.J. WILMORE Date 01/01
Traced Date
Checked S. GARDNER Date 01/01
Approved by R. MARCANTEL Date 01/01
Title ASST. STATE CON.
Title
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Figure 2

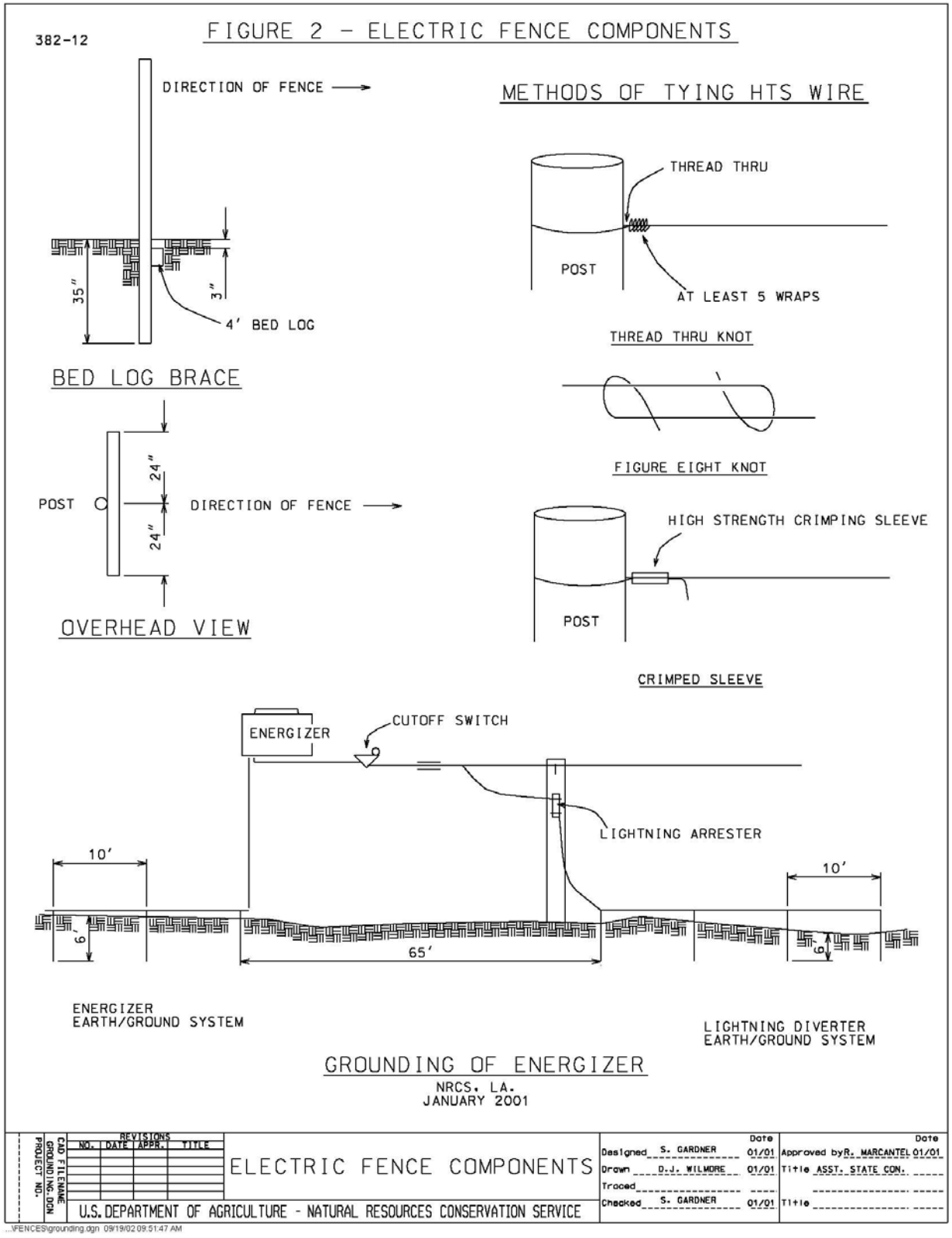
382-12
FIGURE 2 - ELECTRIC FENCE COMPONENTS
DIRECTION OF FENCE
35"
3"
4' BED LOG
BED LOG BRACE
POST
24"
24"
DIRECTION OF FENCE
OVERHEAD VIEW
METHODS OF TYING HTS WIRE
THREAD THRU
POST
AT LEAST 5 WRAPS
THREAD THRU KNOT
FIGURE EIGHT KNOT
HIGH STRENGTH CRIMPING SLEEVE
POST
CRIMPED SLEEVE
ENERGIZER
CUTOFF SWITCH
LIGHTNING ARRESTER
10'
10'
6'
6'
65'
ENERGIZER
EARTH/GROUND SYSTEM
LIGHTNING DIVERTER
EARTH/GROUND SYSTEM
GROUNDING OF ENERGIZER
NRCS. LA.
JANUARY 2001
PROJECT NO.
GROUNDING.DGN
CAD FILENAME
REVISIONS
NO. DATE APPR. TITLE
ELECTRIC FENCE COMPONENTS
U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE
Designed S. GARDNER 01/01
Drawn D.J. WILMORE 01/01
Traced
Checked S. GARDNER 01/01
Approved by R. MARCANTEL 01/01
Title ASST. STATE CON.
Title
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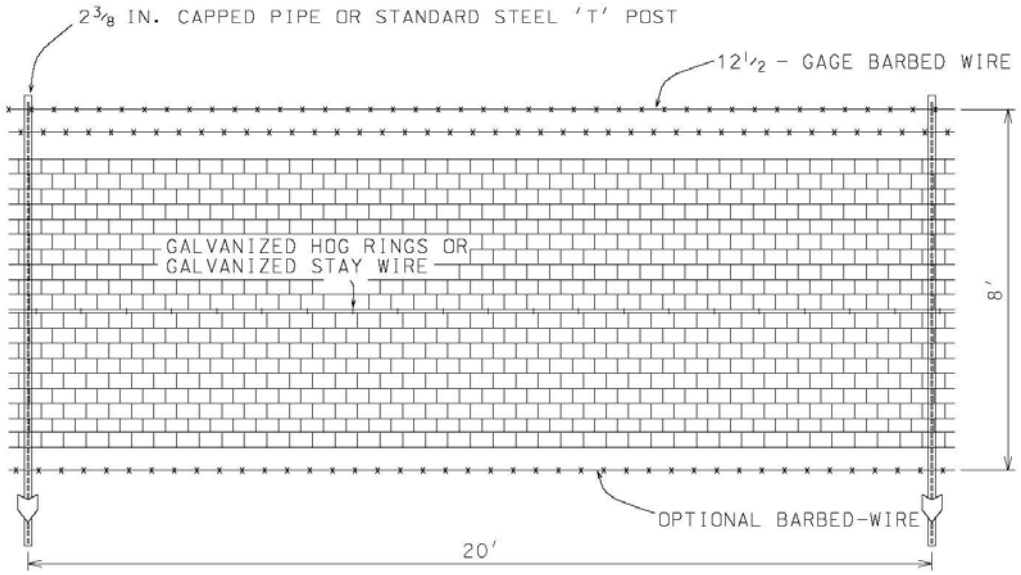
Figure 3

382-13

FIGURE 3

GENERAL INSTALLATION SPECIFICATIONS FOR DEER MANAGEMENT FENCE



NOTE:
IF STANDARD STEEL 'T' POSTS ARE USED, INSTALL 2 3/8 IN. PIPE POST (CAPPED) OR 5 IN. TOP WOODEN POST EVERY 150 FT.
(WOODEN STAYS MAY BE PLACED BETWEEN LINE POST AS NEEDED.)
STEEL POSTS MUST BE PAINTED OR GALVANIZED.

NRCS, LA.
JANUARY 2001

REVISIONS						
NO.	DATE	APPR.	TITLE			
1	04/03					

PROJECT NO.
CAD FILENAME: DEERFENCE.DGN

DEER MANAGEMENT FENCE

U.S. DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICE

		Date		Date
Designed	S. GARDNER	01/01	Approved by R. MARCANTEL	01/01
Drawn	D.J. WILMORE	01/01	Title ASST. STATE CON.	
Traced				
Checked	S. GARDNER	01/01	Title	

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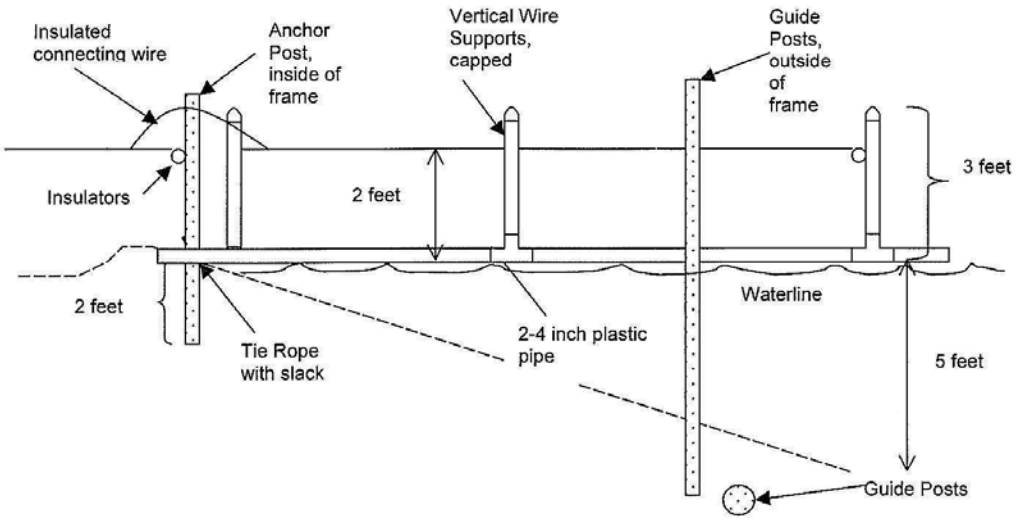
Figure 4

Floating Fence Diagrams

SIDE VIEW



TOP VIEW