

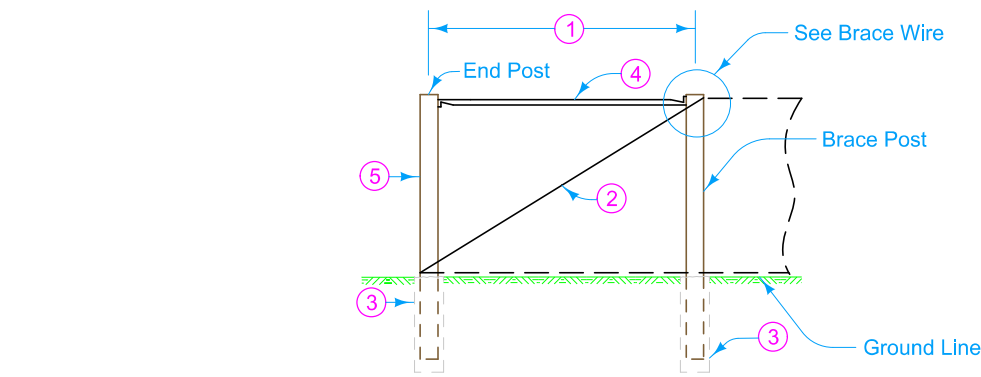
# DESIGNER INFORMATION

Double wrap barbed wire and tie off at end posts, corner posts, and line brace posts. Single wrap woven wire and tie off. Restart fence to be continued, in like manner.

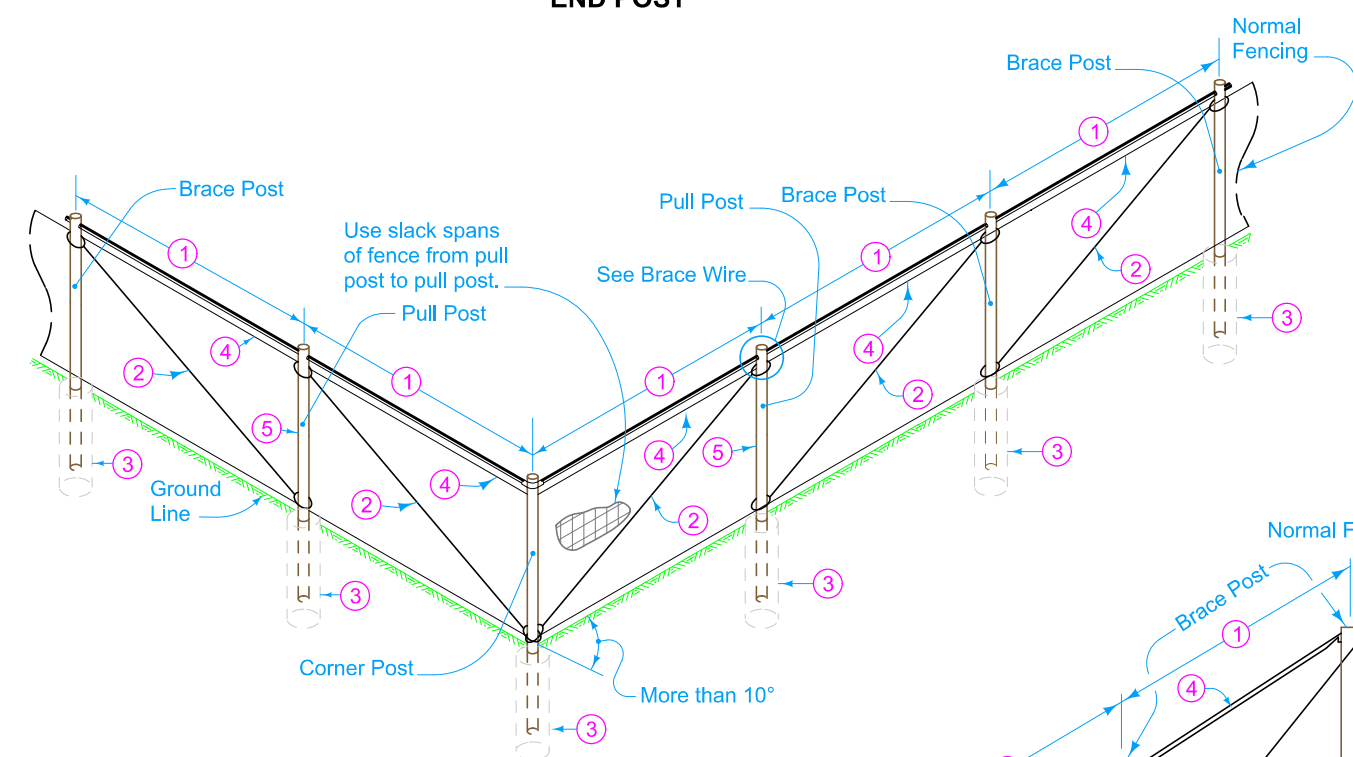
Fence wire fabric may be placed on either the road side or the field side of posts, depending on local conditions; i.e., on curves, the wire should be placed on the side which would result in the least amount of tension on the staples. This will also apply where wind, drift, or other conditions would exert unusual pressure against the wire.

Refer to **MI-104** for fencing at Channel Crossings, Minor Groud Depressions, and Flood Plains.

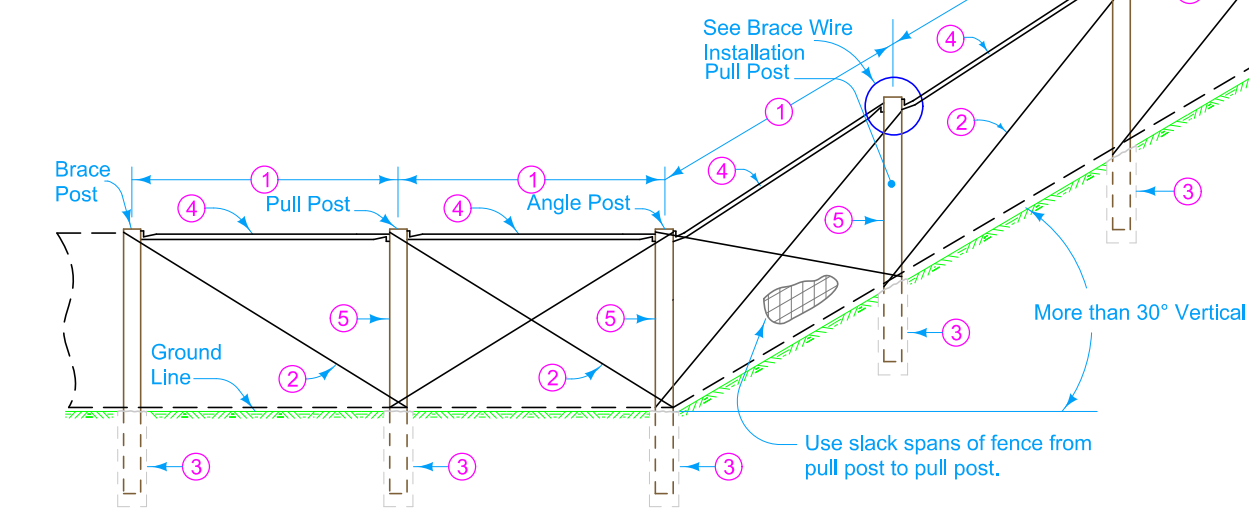
- ① Brace Panel.
- ② Brace Wire: 4 strands of No. 9 wire.
- ③ Details indicate placement of granular material for certain posts. The Contractor has the option to drive posts if method demonstrated is satisfactory to the Engineer. Granular material will not be required for driven posts.
- ④ Metal brace 8 feet long.
- ⑤ Wrap wire fabric around post.
- ⑥ Pull Post Assembly is required when the distance between pull posts is greater than 960 feet in straight lines of fence.



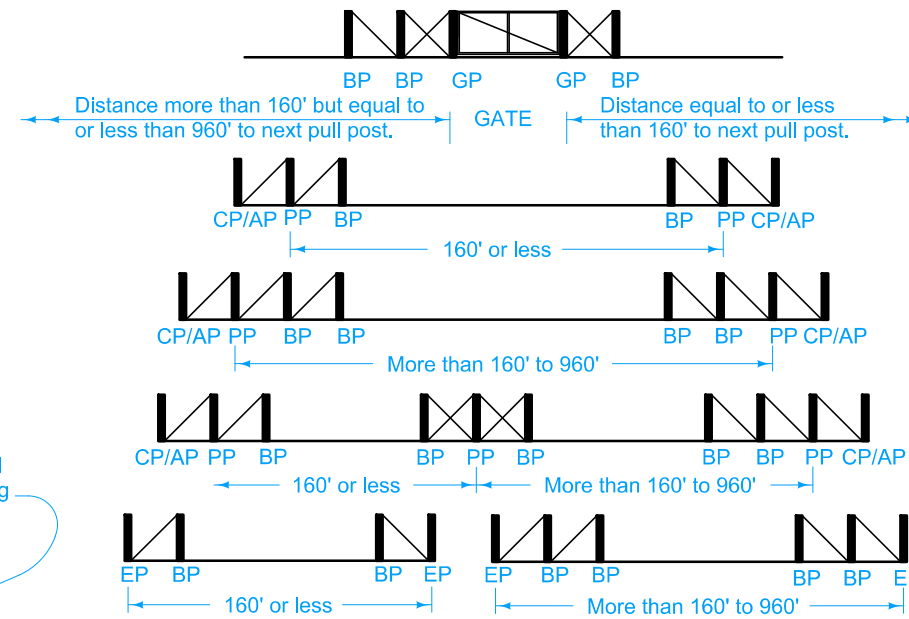
**END POST**



**CORNER POST**

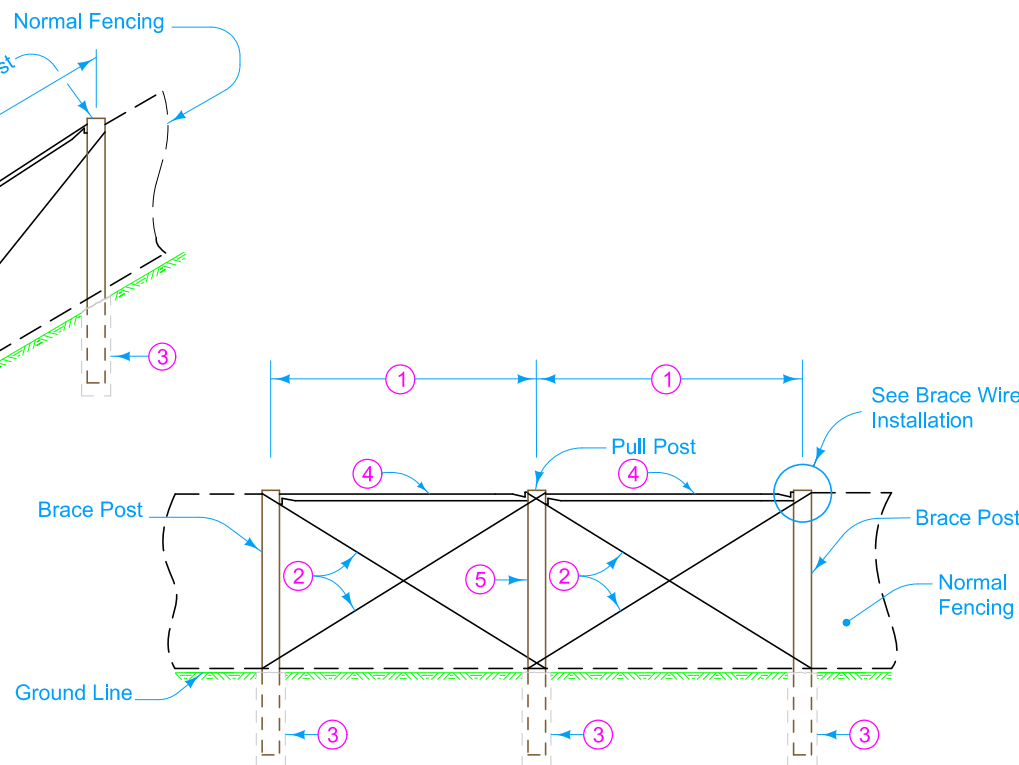


**ANGLE POST**



PP = Pull Post      CP = Corner Post      AP = Angle Post  
BP = Brace Post      EP = End Post      GP = Gate Post

**BRACE PANEL LAYOUT**



**PULL POST**

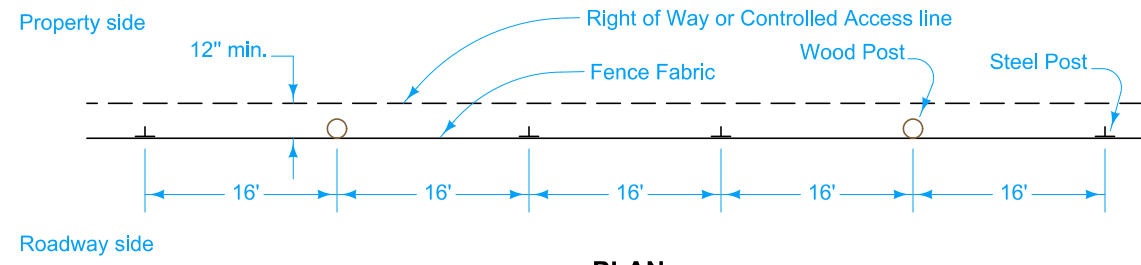
Possible Contract Items:  
Deer Fence  
Deer Fence Brace Panels  
Deer Fence Gate  
Field Fence  
Field Fence Brace Panel  
Field Fence Gate

Possible Tabulation:  
100-7

<b>IOWA DOT</b>	REVISION	
	2	10-20-15
<b>STANDARD ROAD PLAN</b>		<b>MI-103</b>
REVISIONS: Added Designer Info button.		SHEET 1 of 7

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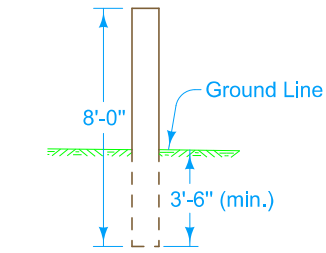
**DEER FENCE AND FIELD FENCE  
CONSTRUCTION**



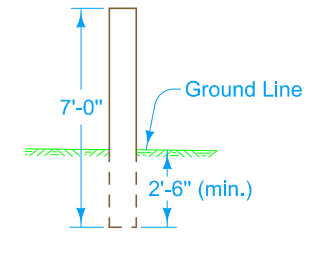
PLAN

**FIELD FENCE**

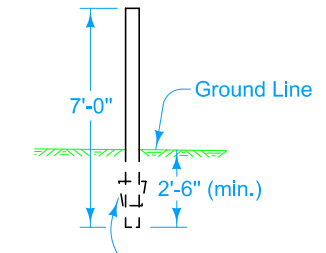
**DEER FENCE**



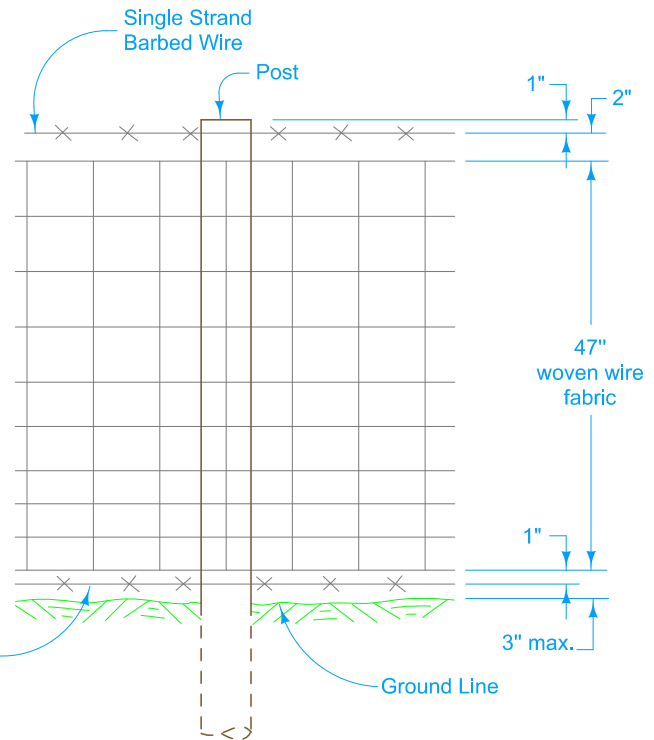
ANGLE, BRACE, CORNER, END OR PULL POST (WOOD)



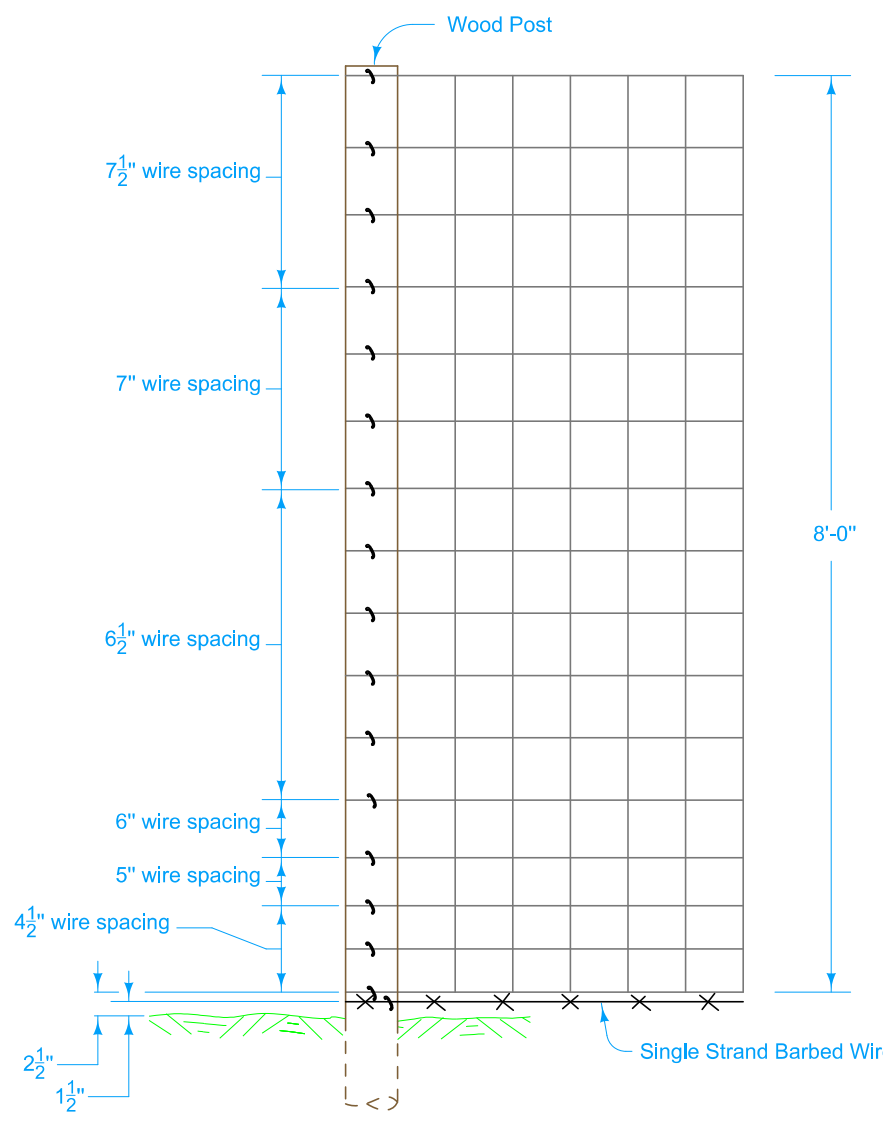
LINE POST (WOOD)



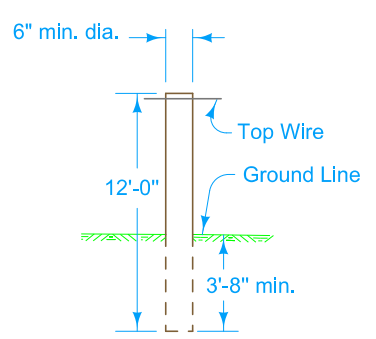
LINE POST (STEEL)



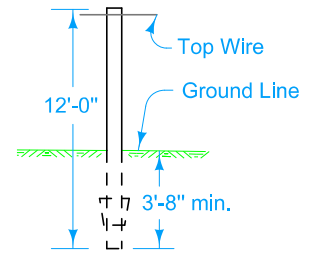
ELEVATION



ELEVATION



WOOD POST



STEEL POST

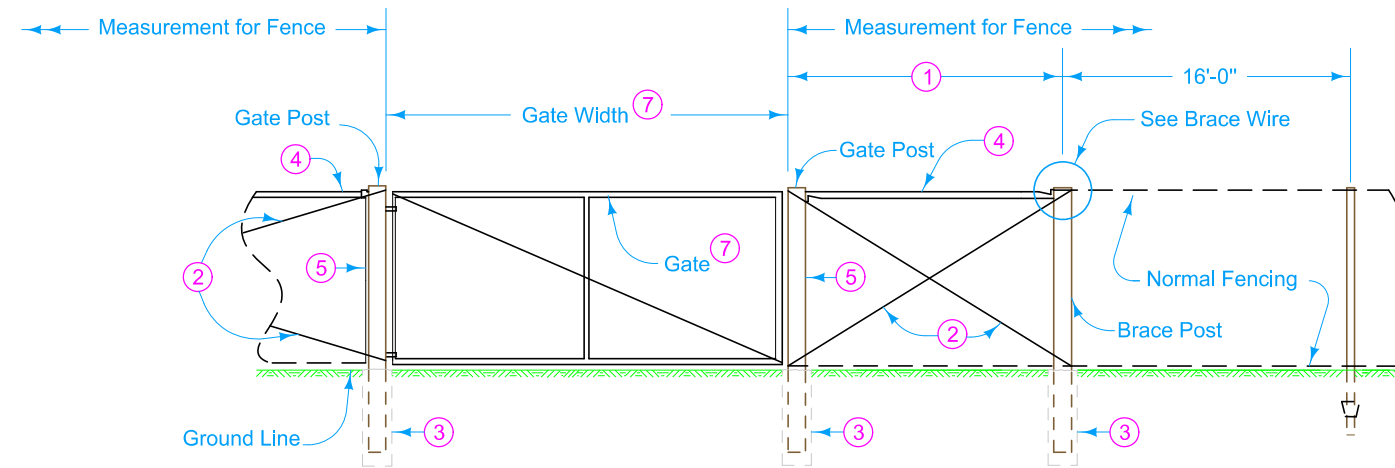
<p><b>STANDARD ROAD PLAN</b></p>	REVISION	
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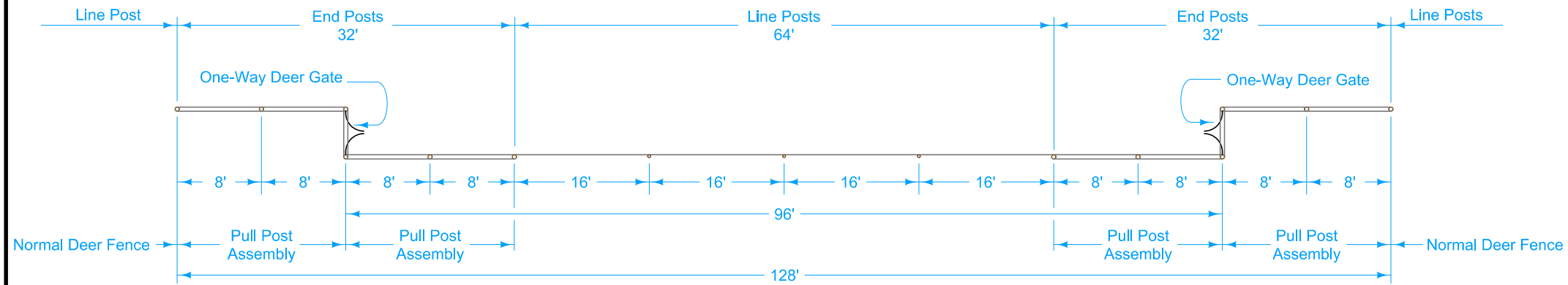
**DEER FENCE AND FIELD FENCE CONSTRUCTION**

- ① Brace Panel.
- ② Brace Wire: 4 strands of No. 9 wire.
- ③ Details indicate placement of granular material for certain posts. The Contractor has the option to drive posts if method demonstrated is satisfactory to the Engineer. Granular material will not be required for driven posts.
- ④ Metal brace 8 feet long.
- ⑤ Wrap wire fabric around post.
- ⑦ Unless specified otherwise, install a 16 foot gate. Double gate is required only for widths more than 16 feet. Exact details of gate design are subject to the approval of the Engineer. Install as recommended by the manufacturer.



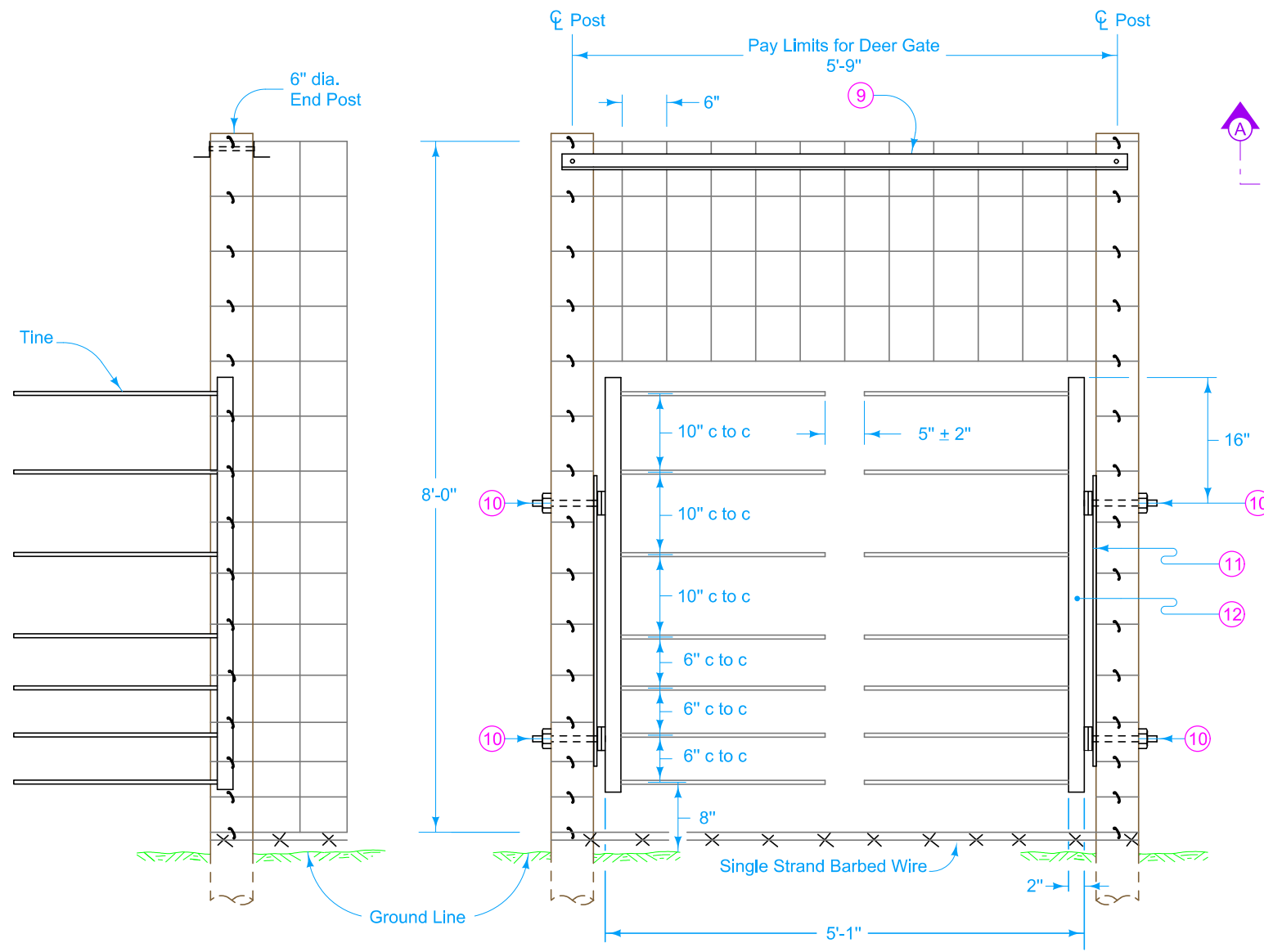
**FIELD FENCE GATE**

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<b>STANDARD ROAD PLAN</b>	<b>MI-103</b>	
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<b>DEER FENCE AND FIELD FENCE CONSTRUCTION</b>		



**PLAN**

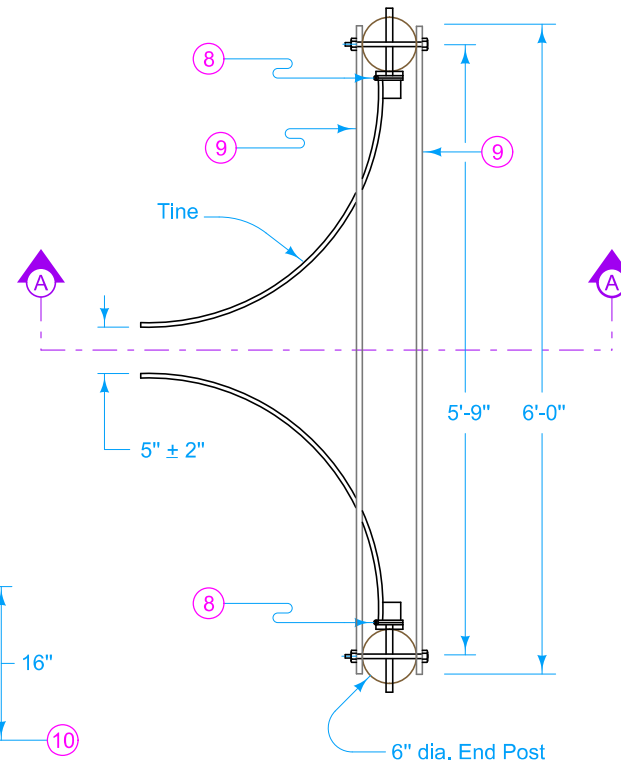
- ⑧ Spring loaded hinge allows tines to spread apart and return to original position.
- ⑨ Two 2 in. x 2 in. x  $\frac{1}{8}$  in. L top braces held by  $\frac{1}{2}$  inch diameter bolts.
- ⑩ Attach nut and washer to each bolt.
- ⑪ Support Plate 3 in. x  $\frac{5}{16}$  in. x 37 in.
- ⑫ 2 in. x 2 in. x 54 in. structural steel tubing welded to Hinge Plate.
- ⑬  $\frac{3}{4}$  in. diameter x 8 in. bolt welded to Support Plate



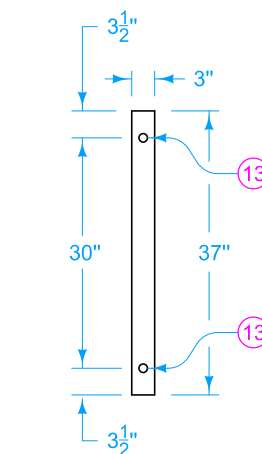
**SECTION A-A**

**PROFILE**

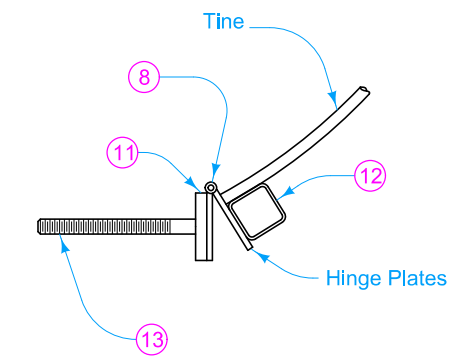
**DEER GATE**



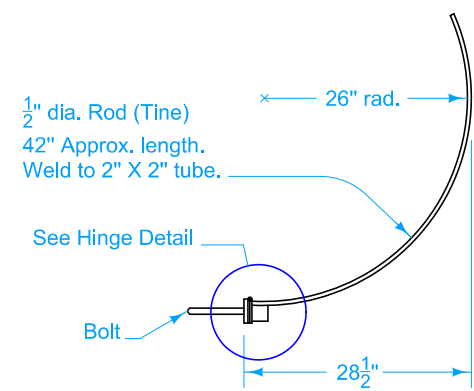
**DEER GATE TOP**



**SUPPORT PLATE**

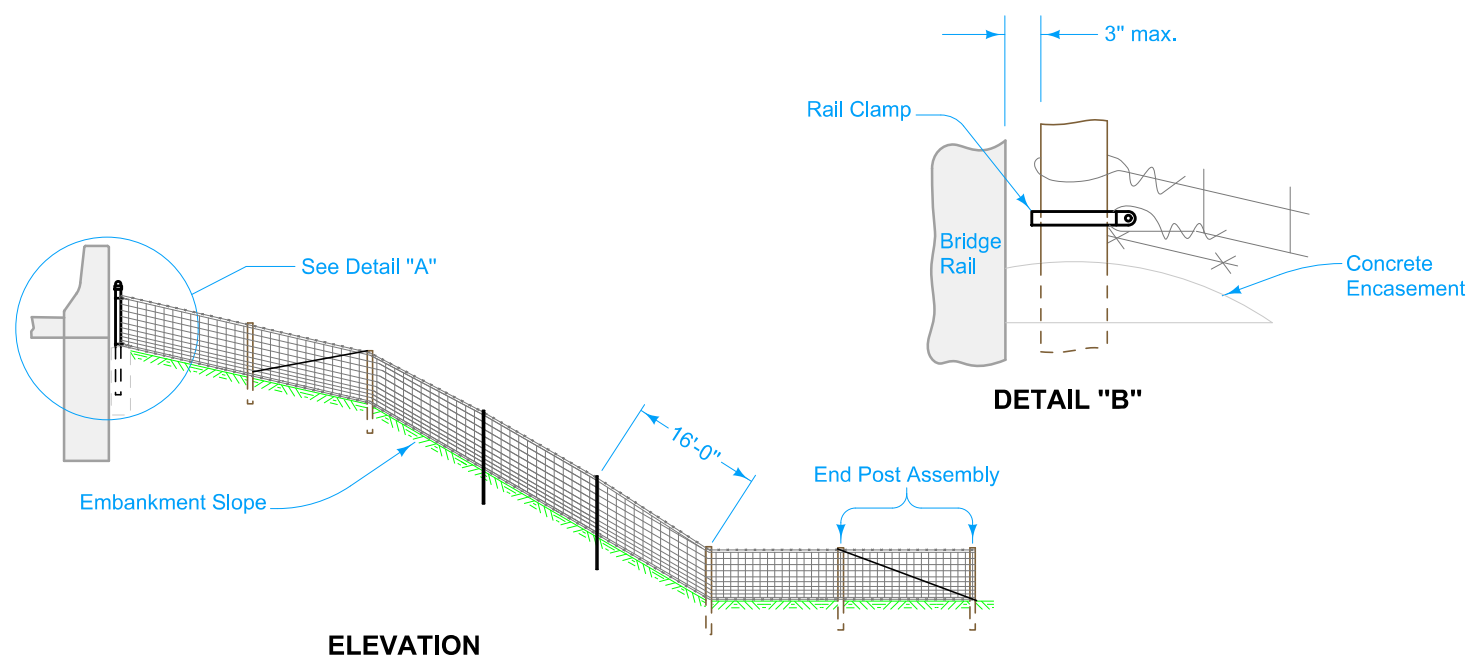


**HINGE**

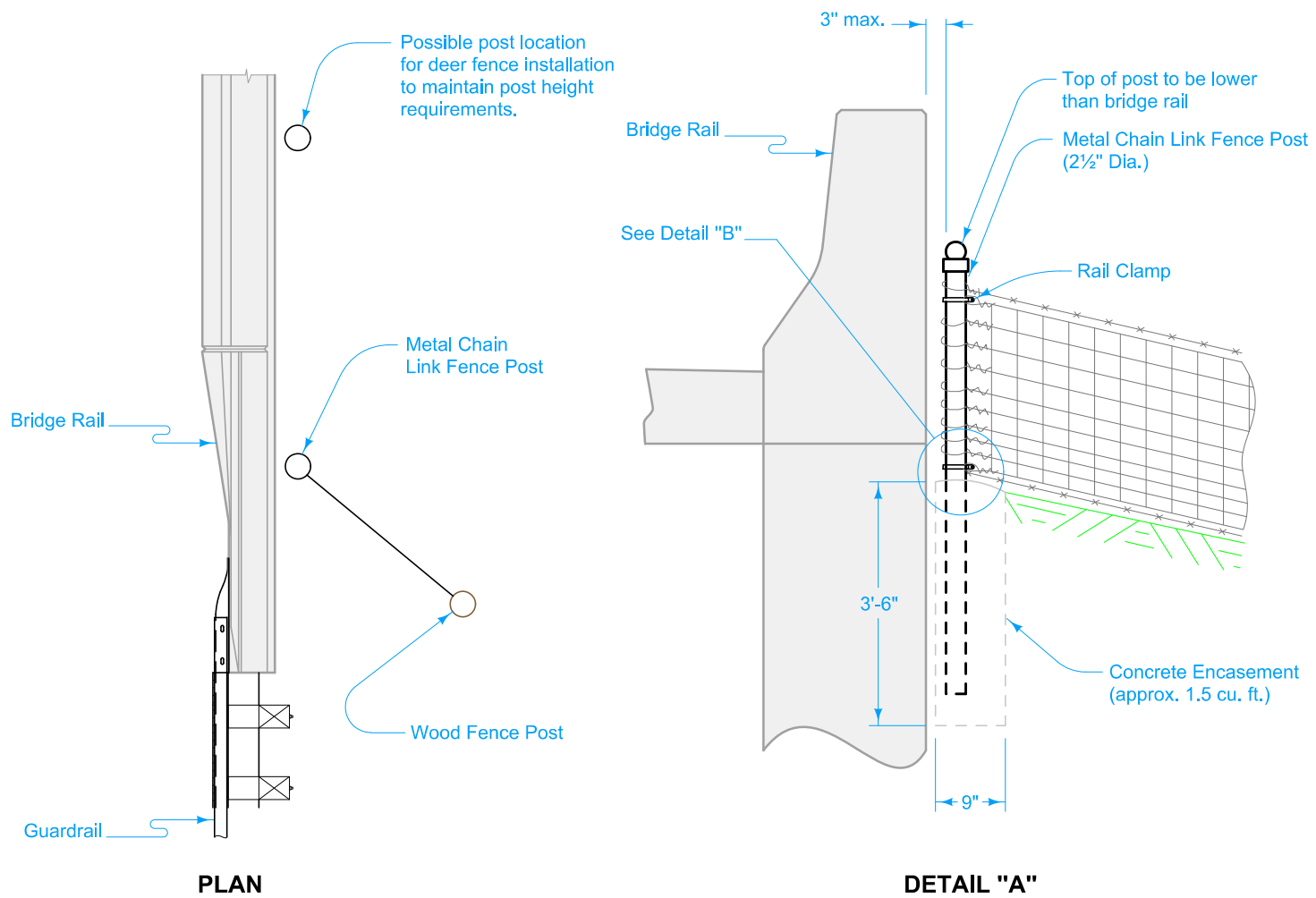


**TINE**

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<b>DEER FENCE AND FIELD FENCE CONSTRUCTION</b>		

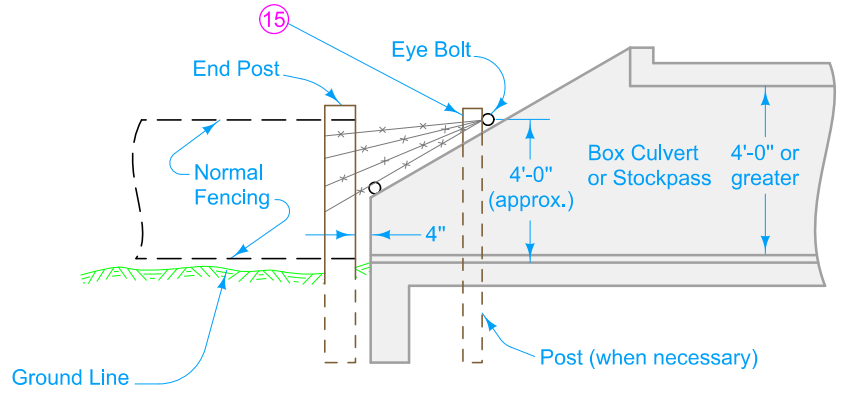
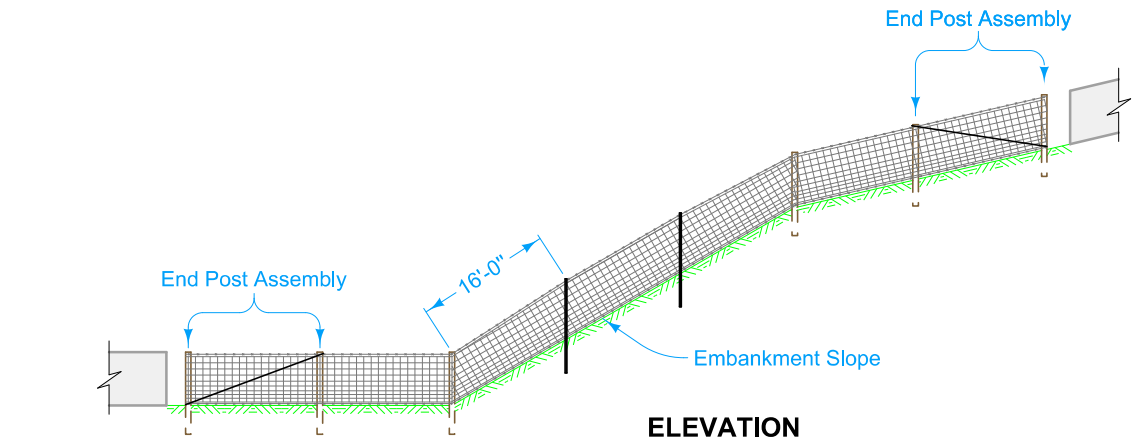


ELEVATION



FENCE TERMINATION AT BRIDGES <sup>14</sup>

- <sup>14</sup> Fence termination at bridges, culverts, and other structures as detailed herein will not be paid for separately but will be considered incidental to the bid item "Deer Fence" or "Field Fence."
- <sup>15</sup> Place minimum of four (4) barbed wires fan shaped, connected to eye bolt on culvert wall or set 4 inch post when necessary.



BOX CULVERTS OR STOCK PASSES 4 FEET OR LARGER

FENCE TERMINATION AT STRUCTURES <sup>15</sup>

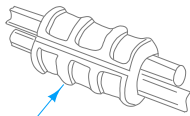
 <b>IOWA DOT</b>	REVISION	
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**DEER FENCE AND FIELD FENCE CONSTRUCTION**

Crimp Connectors that will develop a strength of at least 85% of the wire strength.

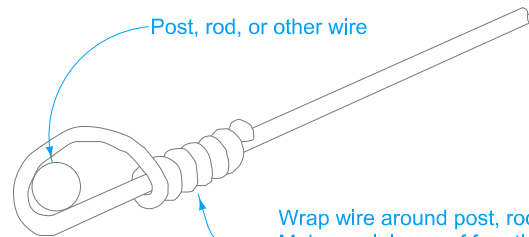


**CRIMP CONNECTION**



Make a minimum of four tight wraps on the connecting wire. Ends of the wrap to be trimmed flush.

**IN-LINE CONNECTION**

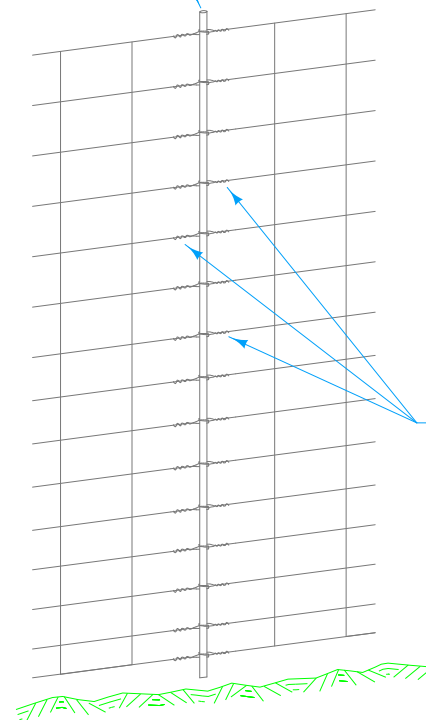


Wrap wire around post, rod or other wire. Make a minimum of four tight wraps back around itself. Ends of the wrap to be trimmed flush.

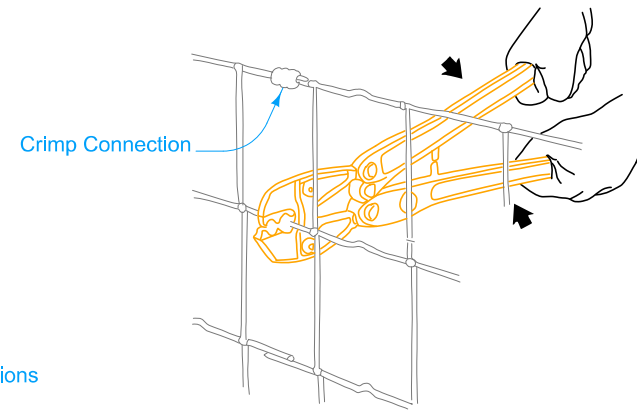
**SELF-WRAP CONNECTION**

**APPROVED WIRE CONNECTIONS**

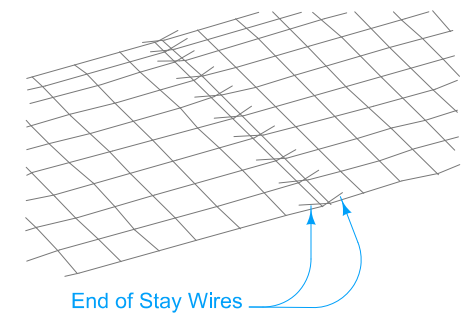
1/2" Galvanized Rod  
(Fabric height plus 2" min. length)



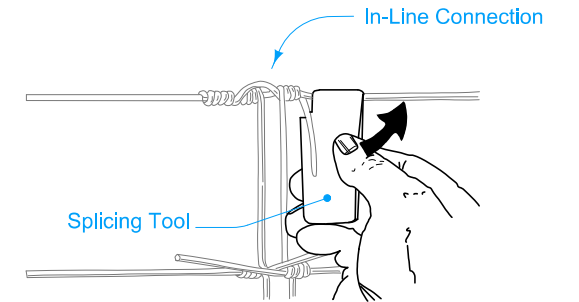
**SPLICE WITH ROD**



**CRIMP SPLICE**



End of Stay Wires

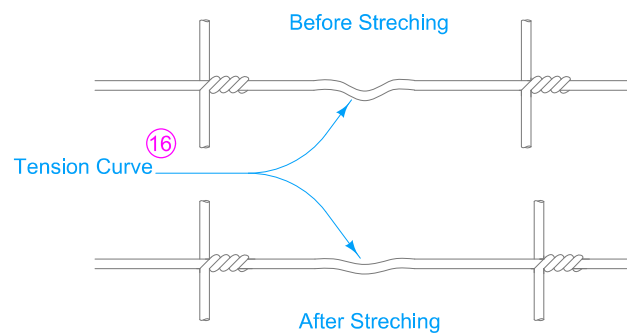


In-Line Connection

Splicing Tool

**OVERLAP SPLICE**

**FABRIC SPLICES**

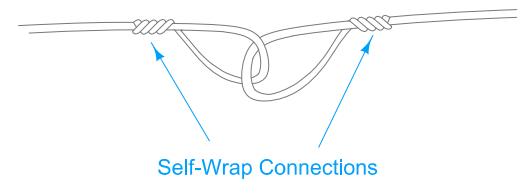


Before Stretching

Tension Curve <sup>16</sup>

After Stretching

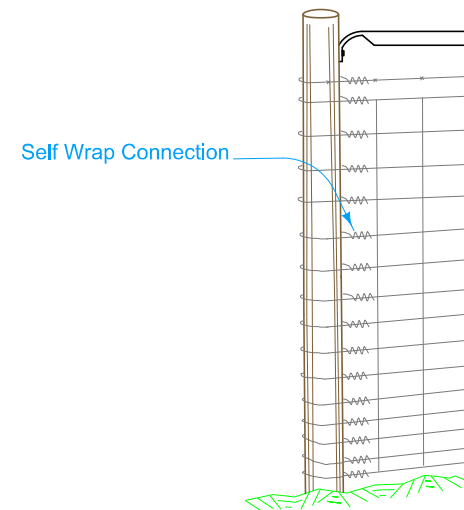
**STRETCHING DETAILS**



Self-Wrap Connections

**BRACE WIRE SPLICE <sup>17</sup>**

**FENCE ASSEMBLY**



Self Wrap Connection

**END POST CONNECTION**

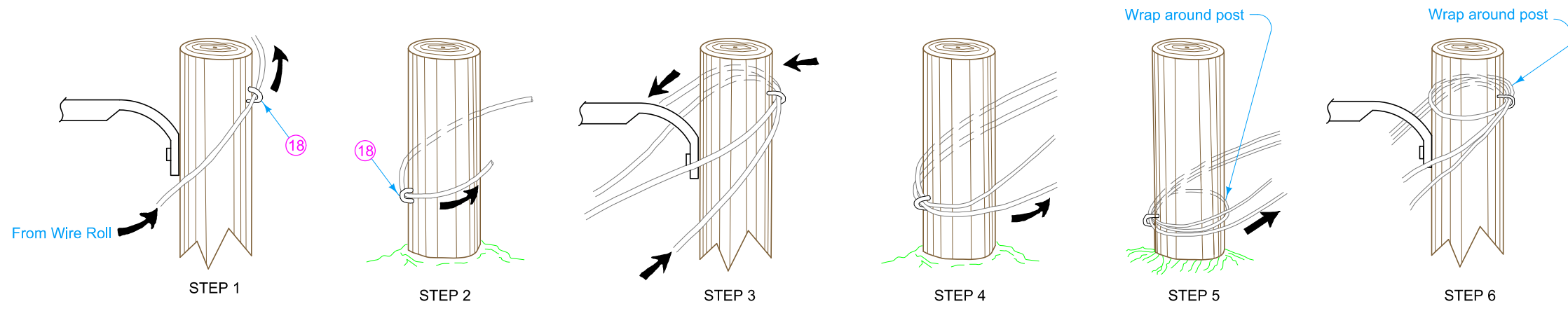
- <sup>16</sup> Tension curve consists of a "U" shaped crimp in the fence wires and has the same effect as a spring. Stretch to 50% removal of the factory crimp.
- <sup>17</sup> Crimp connection and in-line connection are also acceptable brace wire splices.

 <b>STANDARD ROAD PLAN</b>	REVISION	
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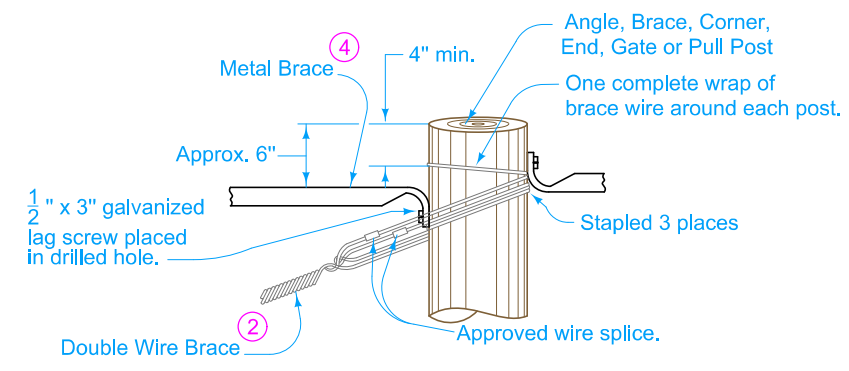
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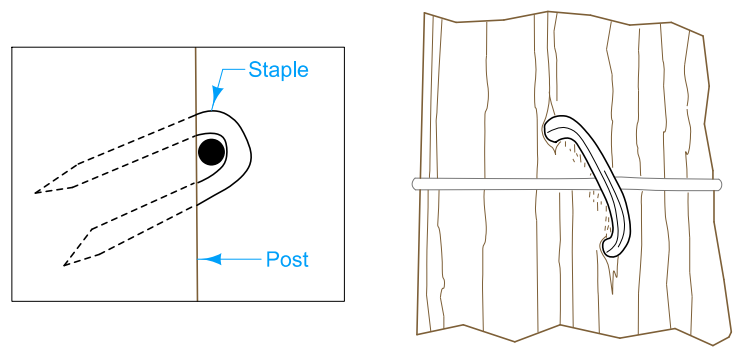
**DEER FENCE AND FIELD FENCE CONSTRUCTION**



- ② Brace Wire: 4 strands of No. 9 wire.
- ④ Metal brace 8 feet long.
- ⑱ Set staples cross-wise to the grain. Drive staples tight at pull posts. Drive all other staples firm, but loose enough to allow lateral movement of the wire.
- ⑲ Twist the two brace wires together to produce proper tension in the brace assembly.



**BRACE WIRE INSTALLATION** ⑲  
 (Brace wire wrapped the same at the bottom of post.)



**STAPLES** ⑱

**WIRE ASSEMBLY**

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<b>DEER FENCE AND FIELD FENCE CONSTRUCTION</b>		