

Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Gibbs, Shae	Index Number:	550-001
Date:	1/23/2025	Sheet Number(s):	ALL
E-mail:	shae.gibbs@dot.state.fl.us	Index Title:	Fence Type A

Summary of the changes:

Sheet 1: Moved General Notes 2, 6a,b,c,d, 7 (recycled plastic requirements), 8, 10, 11, 19 (payment note) and 21 to Specifications 550, 954, 962, and 965. Updated General Note 3 to allow fencing wire to be installed on either side of the fence. Updated General Note 4 to reference Specification 550 and allow a combination of materials "with Engineer approval." Moved General Notes 4, 5a,c, 6e, 7 (staple note), 9, 15, 18, and 19 (gate note) to Sheet 2. Deleted notes that were already covered in the index details or Specifications.

Sheet 2: Redeveloped Farm Fence details installation details to match NEW Wildlife Fence details. Moved Fence Position detail to Sheet 1. Moved Design Note to the SPI. Created Farm Fence Notes. Added Typical Fence Location detail. Added "Steel, recycled plastic, and aluminum similar" to the Note.

Sheet 3: Moved Fastener details to NEW Sheet 5. Moved Splice details to Sheet 2.

Sheet 4: NEW 10' Wildlife Fence

Sheet 5: NEW Type A Fence Details

Commentary/Background:

Worked closely with District 3 to add Wildlife Fence detail sheets at the request of the districts.

Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans		No
FDOT Design Manual		No
Standard Specifications	Daniel Strickland	Yes
Basis of Estimates Manual	Ryan Gray	Yes
Approved Product List		No
Construction Office		No
Maintenance Office		No

Implementation

["FY-Standard Plans (Next Release)"]

MOVED to SPI

DELETED: Already covered in the Specs

Moved to Specs

Moved to Specs

GENERAL NOTES:

1. This fence to be provided generally in rural areas. For supplemental information see Specifications 550.

2. Fabric shall be woven wire, either galvanized steel, meeting the requirements of ASTM A116, No. 9 Grade 60, Design Number 1047-6-9, with Class 3 zinc coating; No. 12 1/2 Grade 175, Design Number 1047-6-12 1/2, with a 10 1/2 gage top and bottom wire and with Class 3 zinc coating; or aluminum coated steel, meeting the requirements of ASTM A584, No. 9 Farm, Design Number 1047-6-9, with a minimum coating weight of 0.40 oz./ft. For additional information see payment note below.

3. Fence shall be installed with wire side to private property except on horizontal curves greater than 3° the fence shall be installed so as to pull against all posts.

4. Posts may be either timber, steel, recycled plastic or concrete. Unless a specific post material is called for in the plans, the Contractor may elect to use either a single material or a combination of timber, steel, recycled plastic or concrete materials, but must comply with the electrical grounding requirements in Specification 550. Line posts of one material may be used with corner, pull and end post assemblies of a different material. Line posts of only one optional material and pull post assemblies of only one optional material will be permitted between corner and end post assemblies. Within individual corner and end post assemblies only one optional material will be permitted.

UPDATED to: Wire side may be installed on either side of the fence. On horizontal curves greater than 3 degrees, install so as to pull against all posts.

meeting the requirements of Specification 550.

with Engineer approval.

5. Timber posts shall meet the material requirements of Specification 954. Timber line posts are to be minimum 4" diameter. Timber corner, pull, approach and end posts are to be a minimum 5" diameter. Timber braces are to be minimum 4" diameter.

DELETED: Covering in details

(A) Staples for line posts to be 1 1/4" minimum length; for approach, corner and pull posts 1 1/2" minimum length. At approach, corner and pull posts, staple every line wire. At line posts, staple every line wire in top half and alternate line wires in bottom half. Staples shall be driven diagonally across the line wire with the points in separate grains.

(B) Connections between timber posts and braces to be provided by dowels as shown in fastener details.

(C) Wire to be wrapped and tied, as shown in the splice details, at the following locations:
 (a) All end posts, (b) Corner post, including the assemblies at vertical breaks of 15° or more and
 (c) Pull posts where the wire is not spliced and pulled through the assembly; see General Note 18.

Kept with General Notes

UPDATED and Moved to Sheet 2

6. Steel posts and braces shall be standard steel posts, galvanized at the rate of 2 oz./ft.², together with necessary hardware and wire clamps and meeting the following requirements:

(A) Line posts: 8' long; 1.33 lbs./ft.; hot rolled studded; anchor plate attached, ASTM A702 (18 in.²).

(B) Approach posts: 2 1/2"x2 1/2"x1/4" angles, 8' long; fabricated for attaching brace; with necessary hardware, clamps, etc.

(C) Pull, end and corner posts: 2 1/2"x2 1/2"x1/4" angles, 8' long; fabricated for attaching brace; with necessary hardware, clamps, etc.

(D) Braces: 2"x2"x1/4" angles with necessary hardware and fabricated for attaching to post.

(E) The pull, corner, approach and end posts are to be set in concrete as per detail. (Also see General Note 15)

Moved to Specs

Moved to Sheet 2

7. Recycled plastic posts shall meet the following material requirements: Line posts shall have a minimum section of 4" round or 4" square. Plastic posts shall not be used as corner, pull, end or approach posts unless such use is specifically detailed in the plans. The straightness of the post shall comply with Specification 954 for timber post. The flexural strength shall meet the requirements of the latest edition of the Southern Pine Inspection Bureau's Standard Grading Rules for Southern Pine Lumber for No. 2SR Stress Rated Grade Timber. Plastic posts can be set by either digging and tamped backfill or by driving into full depth preformed holes 1/4" to 1/2" smaller than cross section of post.

Staples for fabric and barbed wire connection to plastic line posts shall be the same size, count and location as that for timber posts.

8. The Contractor, at his option, may use any suitable precast or prestressed concrete posts; however, approval by the Engineer, of posts not shown on this index, will be required prior to construction of the fence. Precast posts shall be Class II concrete. Prestressed posts shall be Class III concrete. Lengths of concrete post to be as indicated for timber posts.

9. Aluminum post, braces and accessory framing hardware shall not be used unless the plans specifically detail their application or the Engineer specifically approves their incorporation in fence construction or repair. Aluminum framed gates are permitted as described in General Note 19.

Moved to Specs

Moved to Sheet 2

Moved to Specs

Moved to Sheet 2

10. The woven wire shall be attached to steel and concrete posts by a minimum of five tie wires. The single wire ties shall be applied to the top, bottom and three intermittent line wires. The ends of each tie wire shall have a minimum of two tight turns around the line wire. Tie wires shall be steel wire not less than 0.120" diameter, zinc coating Class 3, soft temper, in accordance with ASTM A641.

11. Steel Barbed Wire can be either of the following types:
 Type I: This type shall conform to the requirements of ASTM A121, with two strands of 12 1/2 gage wire; four-point barbs, wire size 14 gage, twisted around both line wires; and, Class 3 coating, Design No. 12-4-5-14R.
 Type IIA: This type same as Type I except the two strand wires are twisted in alternating directions between consecutive barbs.
 Type IIB: This type shall conform to the requirements of ASTM A121 with two strands of 15 1/2 gage high tensile wire; four-point barbs, wire size 16 1/2 gage twisted around both line wires; and Class 3 coating, Design No. 15-4-5-16R.

minum Barbed Wire shall be fabricated of two strands of 0.110-inch wire with 0.08-inch diameter four-point barbs spaced at approximately 5 1/2", and at a maximum spacing of 6". The wire for the strands and for the barbs shall be of ASTM B211M Alloy 5052-H38 or equal.

12. The woven wire shall be stretched only until one-half the tension curl has been pulled out of the line wires.

13. Posts to be set by driving or digging. If by digging, the posts shall be set at the center of the hole and the soil tamped securely on all sides.

14. Longer posts than those indicated above may be required by the plans or for deeper installations.

15. Concrete bases for angular steel posts (pull, corner, end and approach) shall be Class NS in accordance with Specification 347. Materials for Class NS concrete may be proportioned by volume and/or by weight.

16. Pull post assemblies shall be installed at approximately 330' centers except that this maximum interval may be reduced by the Engineer on curves where the radius is less than 3°.

17. Corner post assemblies are to be installed at all horizontal and vertical breaks in fence of 15° or more.

18. A maximum length of 1320' of wire may be installed as a unit. For pulls through a pull post assembly the fabric shall be spliced by crimping sleeves only. Pulls through a corner post assembly will not be permitted.

19. Unless otherwise called for in the plans gates shall be commercially available metal swing gates assembled and installed in accordance with the manufacturer's specifications as approved by the Engineer. Chain link swing gates in accordance with Index 550-002 may be substituted for metal swing gates, as approved by the Engineer. Gate size is full opening width whether single leaf or double leaves. Payment for gates shall include the gate, single or double, all necessary hardware for installation and any additional length and/or size for posts at the opening. Gates shall be paid for under the contract unit price for Fence Gates, EA.

20. For construction purposes, assemblies are defined as follows: End post assemblies shall consist of: one end post, one approach post, two braces, four diagonal tension wires and all necessary fittings and hardware. Pull post assemblies shall consist of: one pull post, two braces, four diagonal tension wires and necessary fittings and hardware. Corner post assemblies shall consist of: one corner post, two approach posts, four braces, eight diagonal tension wires and all necessary fittings and hardware.

21. All posts, braces, tension wires, fabric, tie wires, Class NS concrete, and all miscellaneous fittings and hardware to be included in the cost for Fencing, LF. Fencing shall be inclusive of the lengths of pull, end and corner post assemblies, but exclusive of gate widths.

degree of curvature is more

Moved to Sheet 2

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Move to Sheet 2

Payment note moved to Specs

Moved to Specs

Moved to Specs

Moved to Specs

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DELETE: Covered in details

ADDED: Table of Contents

ADDED: Install Electrical Grounds for Fence that are installed within Electrical Transmission Right(s) of Way in accordance with Specification 550.

Fence Post Locations at Frontage Roads Detail

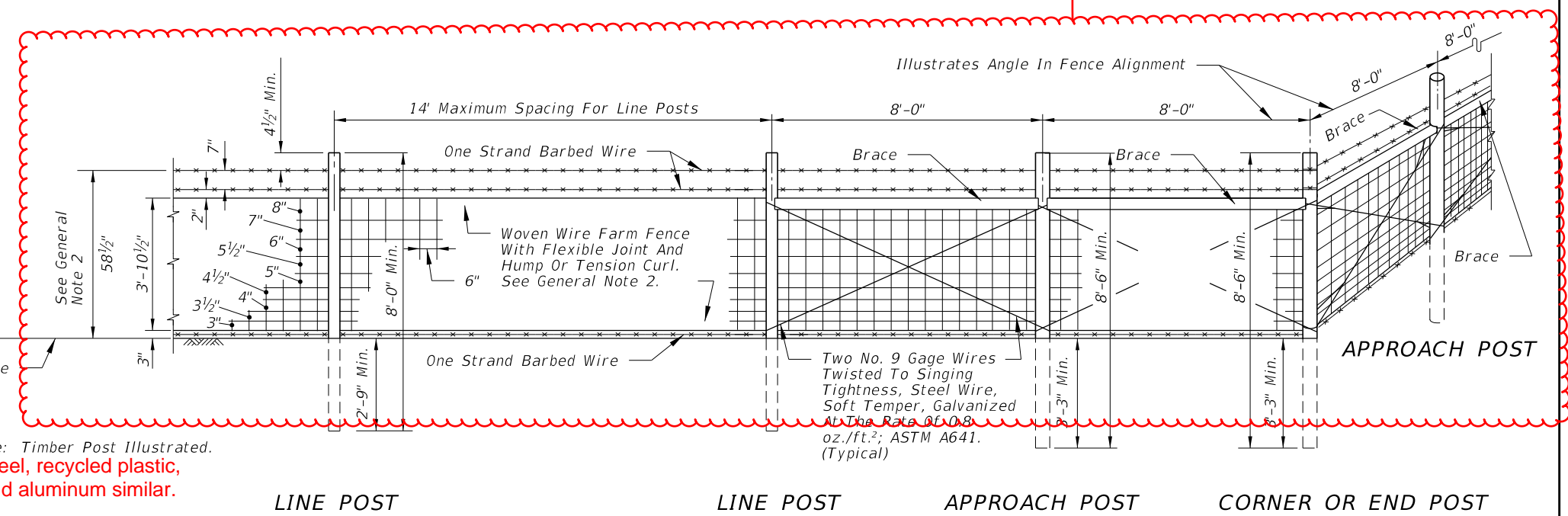
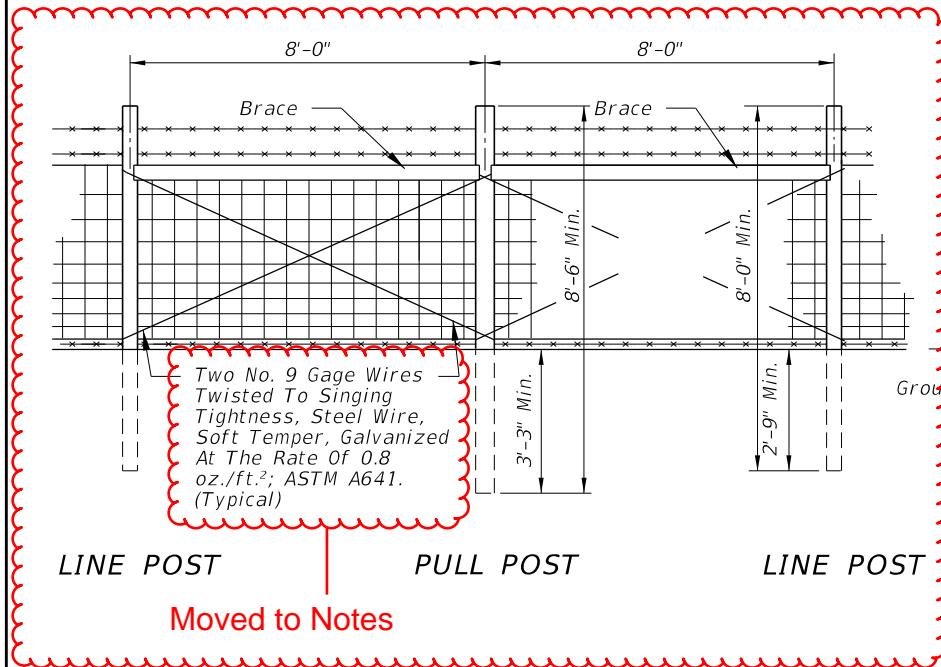
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LAST REVISION 11/01/21 11/01/25	DESCRIPTION:	FDOT	FY 2025-26 STANDARD PLANS	FENCE TYPE A	INDEX 550-001	SHEET 1 of 3
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ADDED: Typical Fence Location Detail

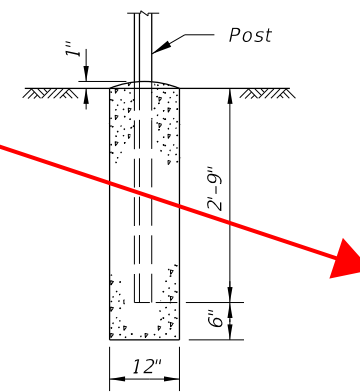
REDEVELOPED:
Updated drawing and
details to match new
Wildlife Fence sheets



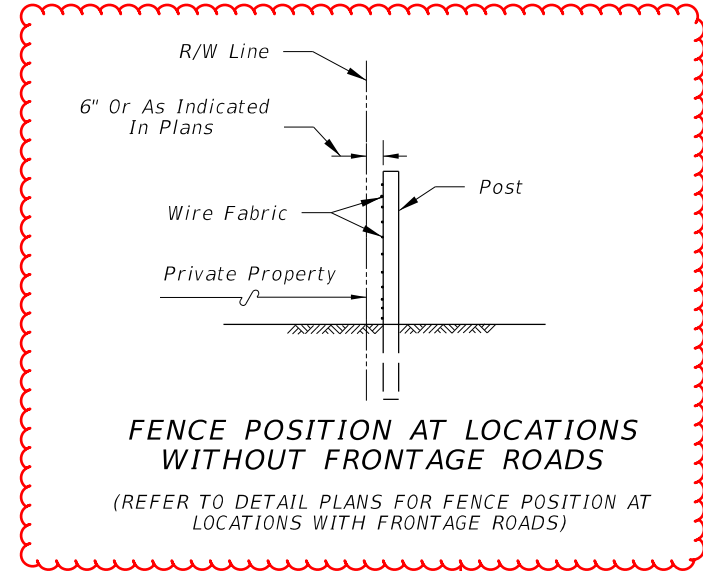
Moved to SPI

DESIGN NOTE:
This index details fencing that is constructed with farm fabric 46 1/2" (47" nominal) in height and with specific ground clearance and specific barbed wire spacings. For fencing of different height or installation details, the fence shall be fully detailed in the Contract plans.

FARM FENCE SPECIFIC NOTES



(Pull, Corner, End And Approach Posts)
CONCRETE BASE FOR ANGULAR STEEL POST



MOVED to Sheet 1

SPLICE DETAIL MOVED FROM SHEET 3

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LAST REVISION 11/01/17 11/01/25		DESCRIPTION:	2026-27	FY 2025-26 STANDARD PLANS	FENCE TYPE A	INDEX 550-001	SHEET 2 of 3
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5' Farm Fence

**SHEET 4: NEW Wildlife Fence
Details and Notes**

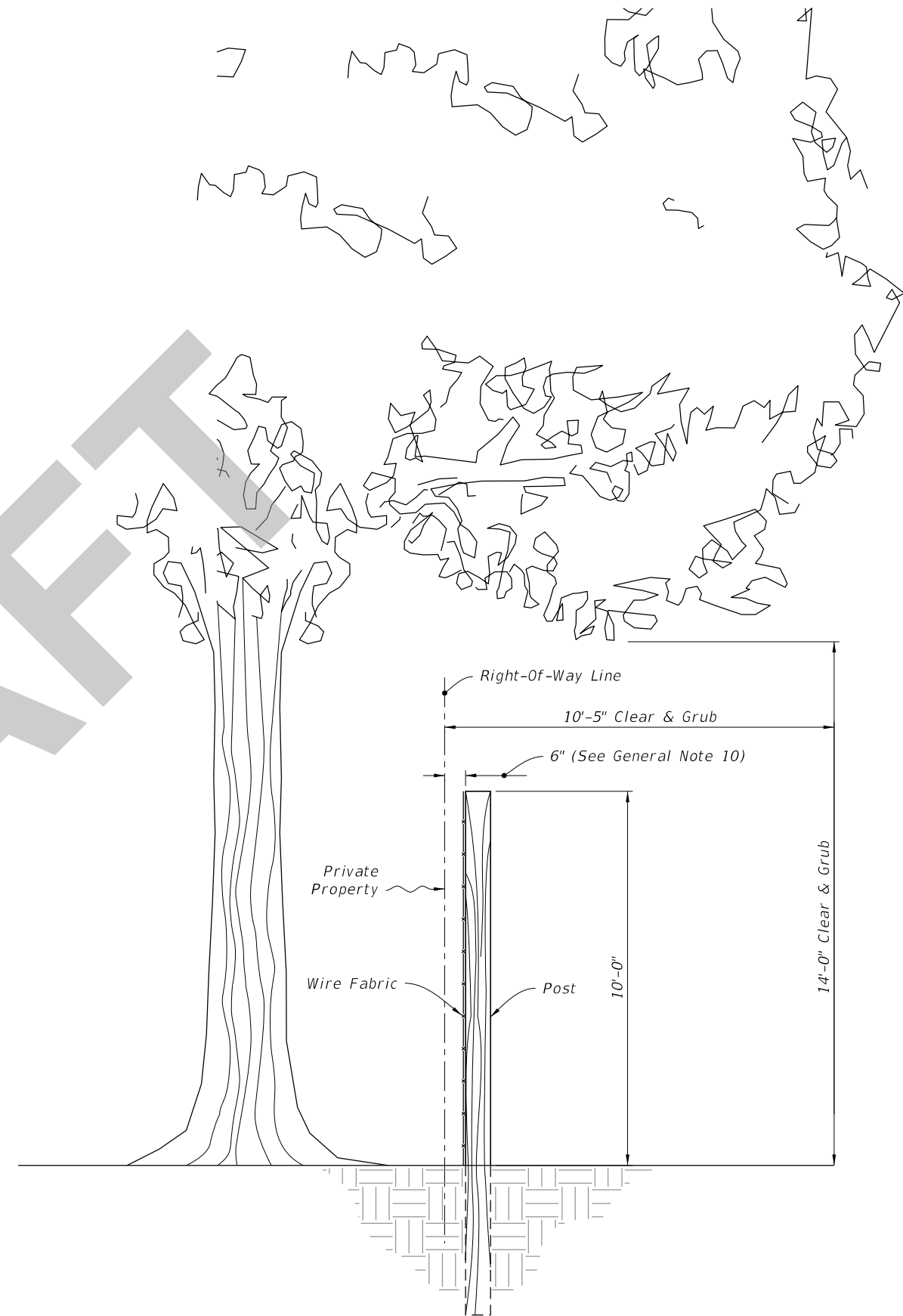
NEW SHEET 5:
Type A Fence Details

GENERAL NOTES:

1. For supplemental information, see Specifications 550.
2. Install woven wire side on either side of fence. Install fence, on horizontal curves greater than 3°, so as to pull against all posts.
3. Connections between timber posts and braces to be provided by dowels as shown in fastener details.
4. Stretch woven wire only until one-half the tension curl has been pulled out of the line wires.
5. Set posts by driving or digging. If by digging, set the post at the center of the hole and the soil tamped securely on all sides.
6. Longer posts than those indicated in this Index may be required in the Plans or for deeper installations.
7. Install pull post assemblies at approximately 330' centers except that this maximum interval may be reduced by the Engineer on curves where the degree of curvature is more than 3°.
8. Install corner post assemblies at all horizontal and vertical breaks in fence of 15° or more.
9. Install Electrical Grounds for Fence(s) that are installed within Electrical Transmission Right(s) of Way in accordance with Specification 550.
10. Install fence 6" inside the Right of Way line unless otherwise indicated in the Plans or by the Engineer.

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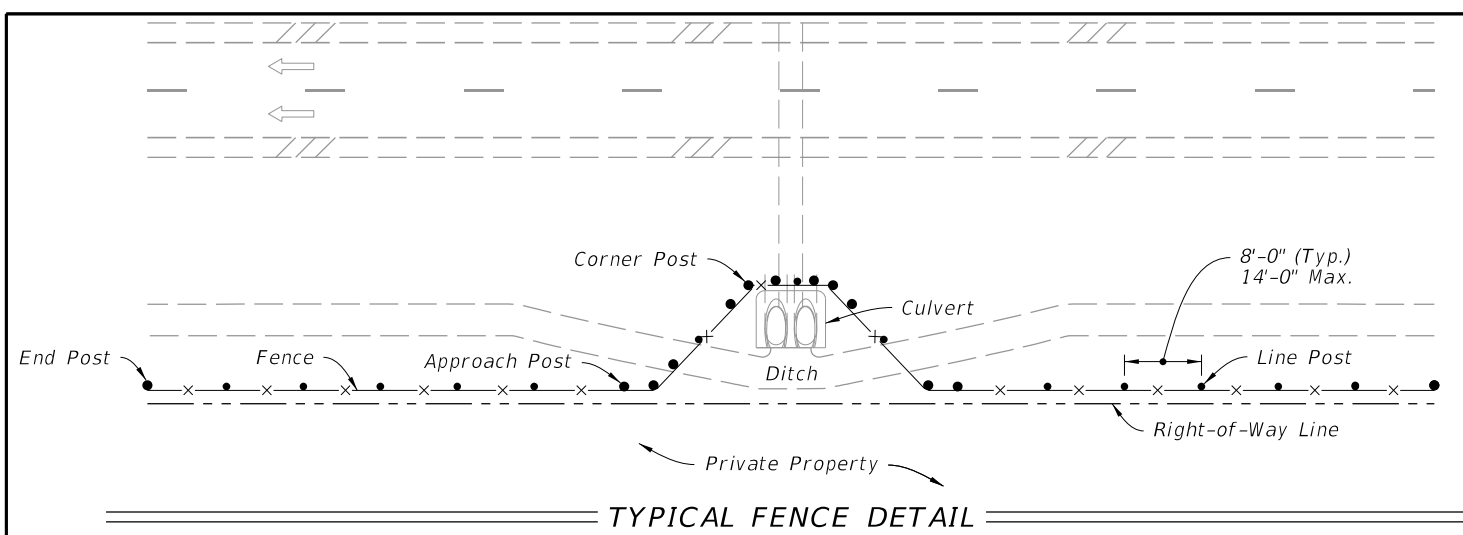
Sheet	Description
1	General Notes and Contents
2	5' Farm Fence - General Details
3	5' Farm Fence - Concrete Post, Brace, and Fasteners
4	10' Wildlife Fence - General Details
5	Timber Post and Brace Fasteners and Fencing Details at Culvert



FENCE POSITION AT LOCATIONS WITHOUT FRONTAGE ROADS

(Refer to Detail Plans for Fence Position at Locations With Frontage Roads)
(Wildlife Fence Shown, Farm Fence Similar)

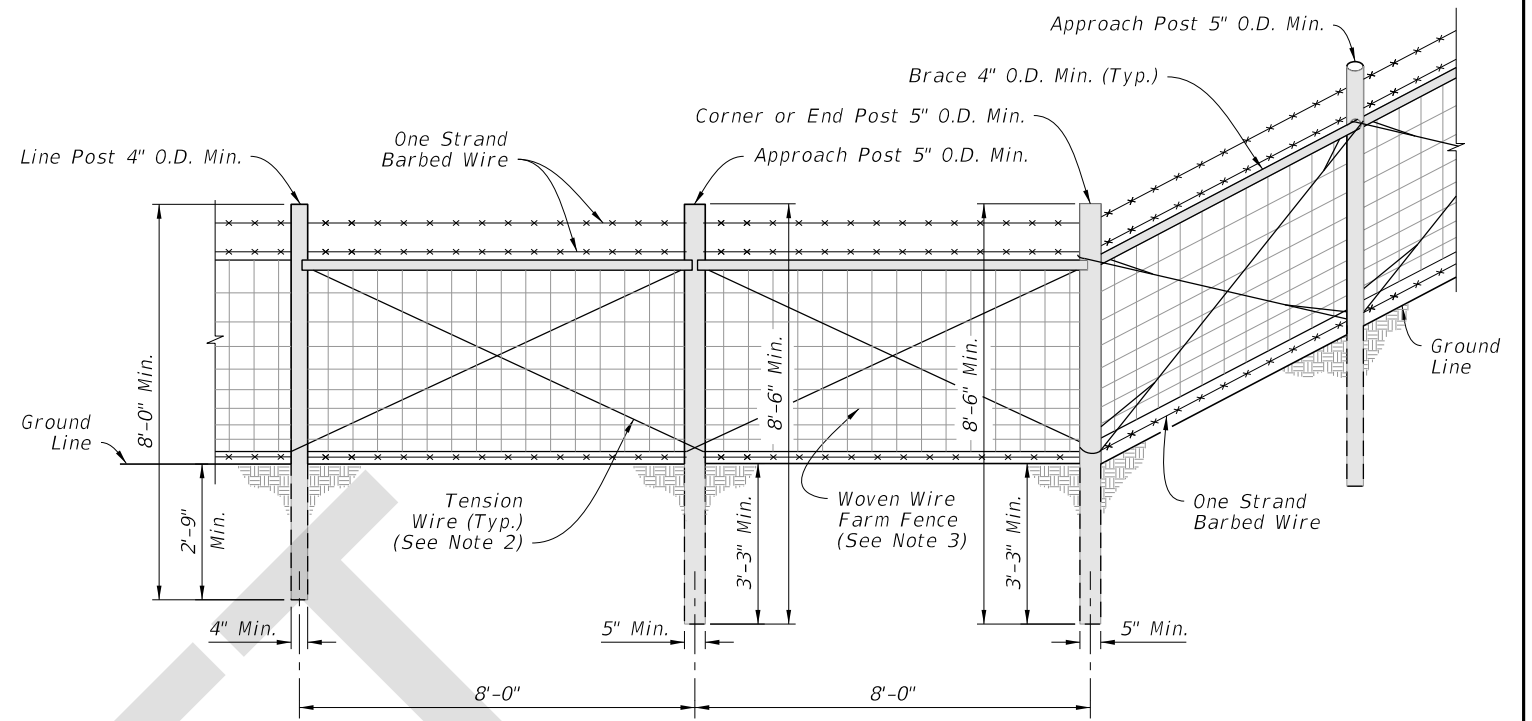
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TYPICAL FENCE DETAIL

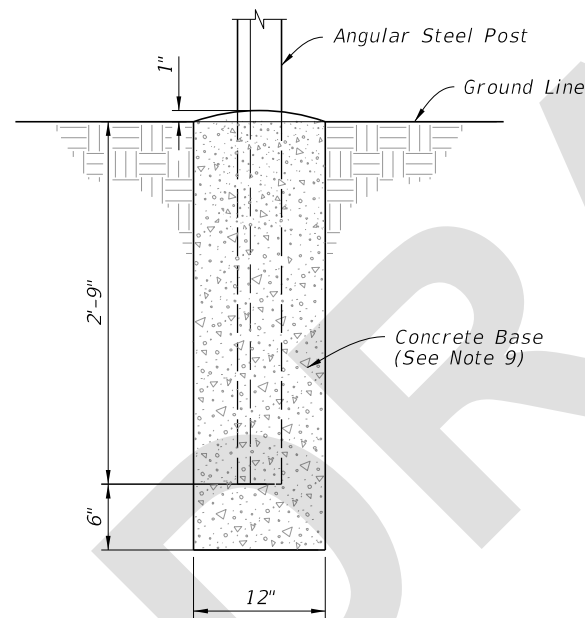
NOTES:

1. Posts may be either timber, steel, recycled plastic or concrete meeting the requirements of Specification 550. Unless a specific post material is called for in the plans, the Contractor may elect to use either a single material or a combination of timber, steel, recycled plastic or concrete materials with Engineer approval.
2. Install 2 No. 9 gage wires twisted to singing tightness, steel wire, soft temper, galvanized at the rate of 0.8 oz./ft. : ASTM A641.
3. Fence with flexible joint and hump or tension curl, meeting the requirements of Specifications 550.
4. For timber, staples for line posts to be 1¼" minimum length; for approach, corner, and pull posts 1½" minimum length. At approach, corner, and pull posts, staple every line wire. At line posts, staple every line wire in top half and alternate line wires in bottom half. Drive staples diagonally across the line wire with the points in separate grains.
5. Wrap and tie wire, as shown in the splice details, at the following locations:
 - A. All end posts
 - B. Corner posts, including the assemblies at vertical breaks of 15° or more
 - C. Pull posts where the wire is not spliced and pulled through the assembly (See Note 10)
6. Steel pull, corner, approach and end posts are to be set in concrete as per detail. (See Note 9)
7. For recycled plastic posts, connect fabric and barbed wire to plastic line posts using staples the same size, count, and in the same locations as for timber posts.
8. Do not use aluminum posts, braces, and accessory frame hardware unless the Plans specifically detail their application or the Engineer specifically approves their incorporation in fence construction or repair. Aluminum framed gates are permitted as described in Note 11.
9. Use Class NS concrete in accordance with Specification 347 for Concrete bases for angular steel posts (pull, corner, end, and approach). Materials for Class NS concrete can be proportioned by volume and/or by weight.
10. A maximum length of 1320' of wire may be installed as a unit. For pulls through a pull post assembly, splice the fabric by crimping sleeves only. Pulls through a corner post assembly will not be permitted.
11. Unless otherwise called for in the Plans, gates to be commercially available metal swing gates assembled and installed in accordance with the manufacturer's specifications as approved by the Engineer. Chain link swing gates in accordance with 550-002 may be substituted for metal swing gates as approved by the Engineer. Gate size is full opening width whether single leaf or double leaves.



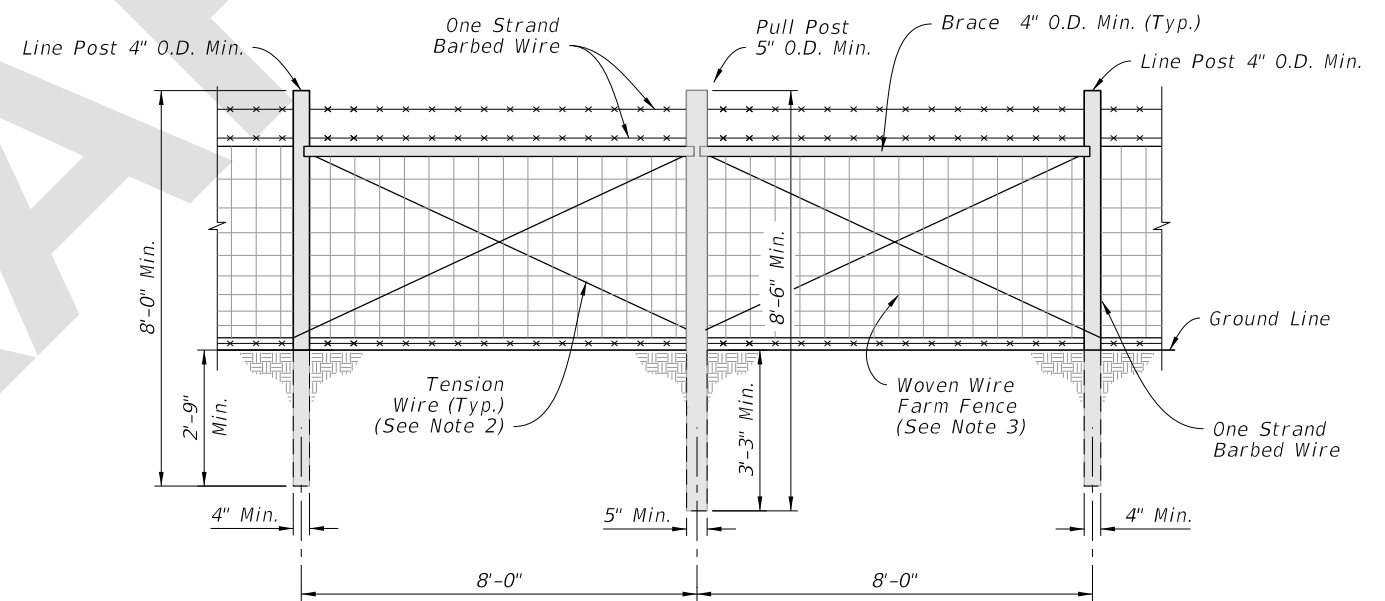
(Timber Post Shown. Steel, Recycled Plastic, and Concrete Post Similar)

CORNER OR END POST DETAILS



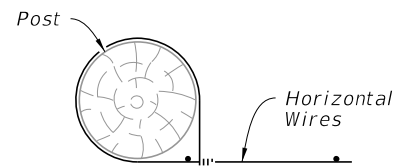
(Pull, Corner, End and Approach Posts)

CONCRETE BASE FOR ANGULAR STEEL POST

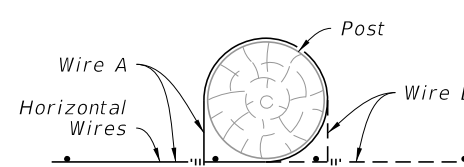


(Timber Post Shown. Steel, Recycled Plastic, and Concrete Post Similar)

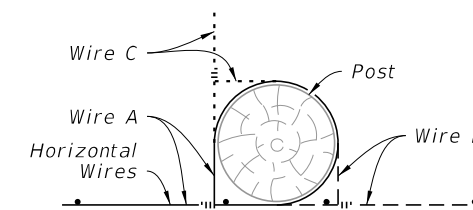
PULL POST DETAILS



END POST



PULL POST




CORNER

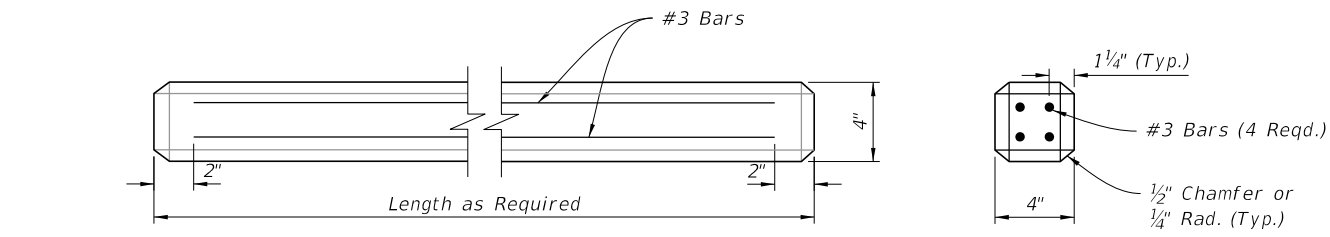
Each horizontal wire to be wrapped around corner, end, and pull posts are tied to same wire. See Note 5 and General Note 8. These methods also apply to steel and concrete post.

WOVEN WIRE SPLICES

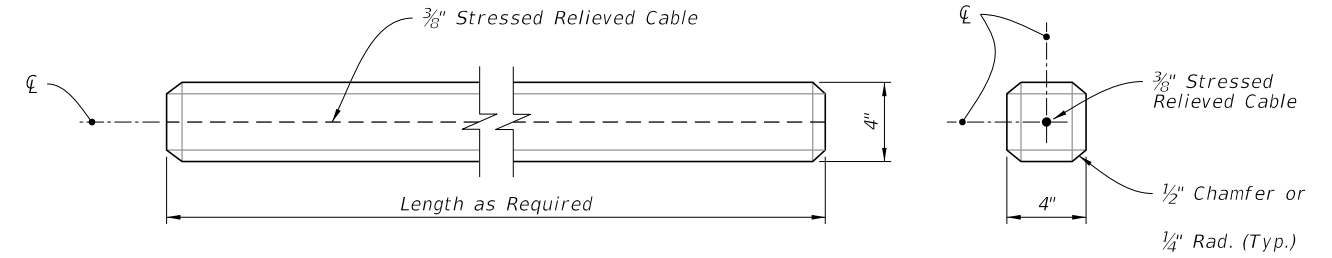
5' FARM FENCE - GENERAL DETAILS

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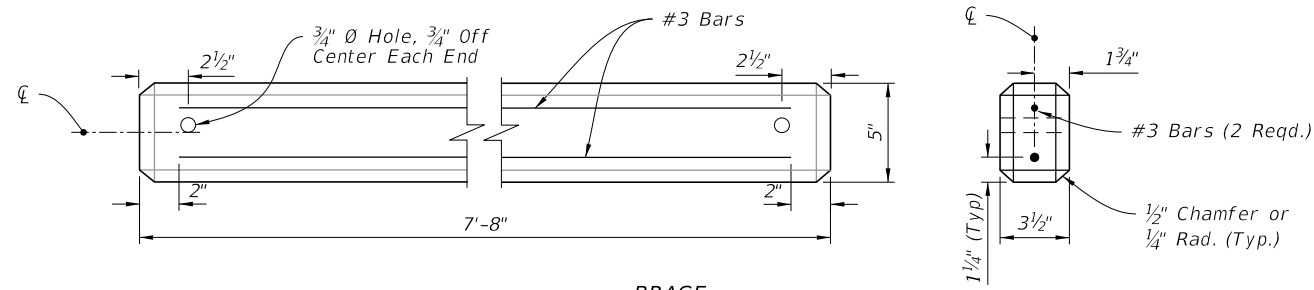
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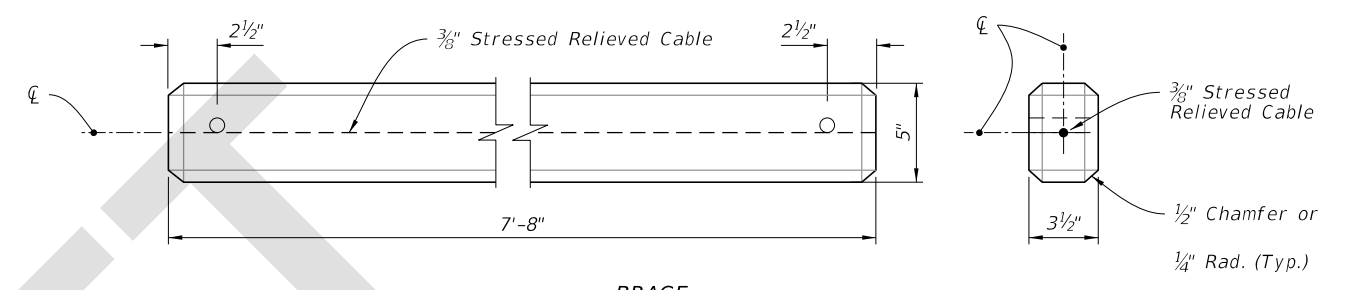
POST



POST



BRACE

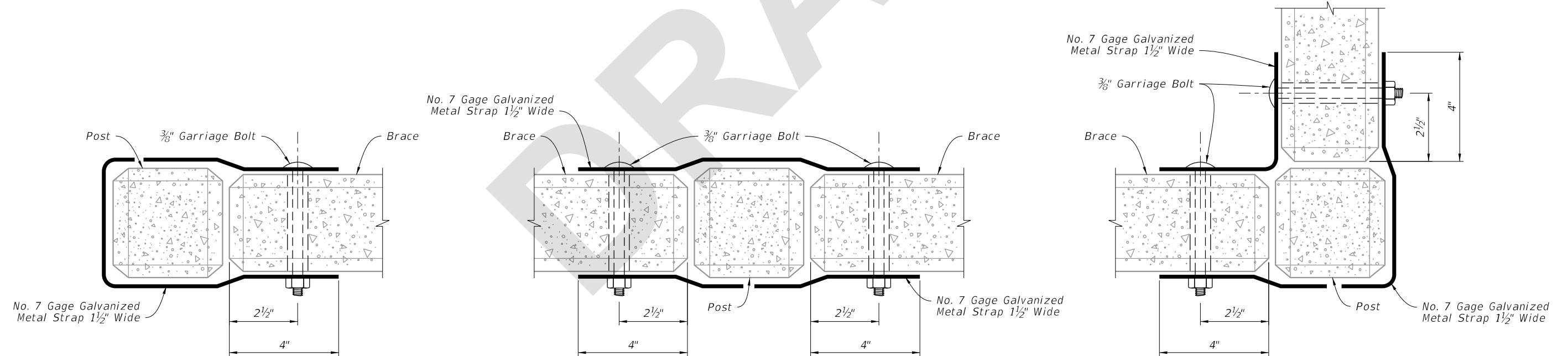


BRACE

PRECAST

PRESTRESSED

CONCRETE POSTS AND BRACES



CONCRETE POST AND BRACE FASTENERS

5' FARM FENCE - CONCRETE POSTS, BRACE AND FASTENERS

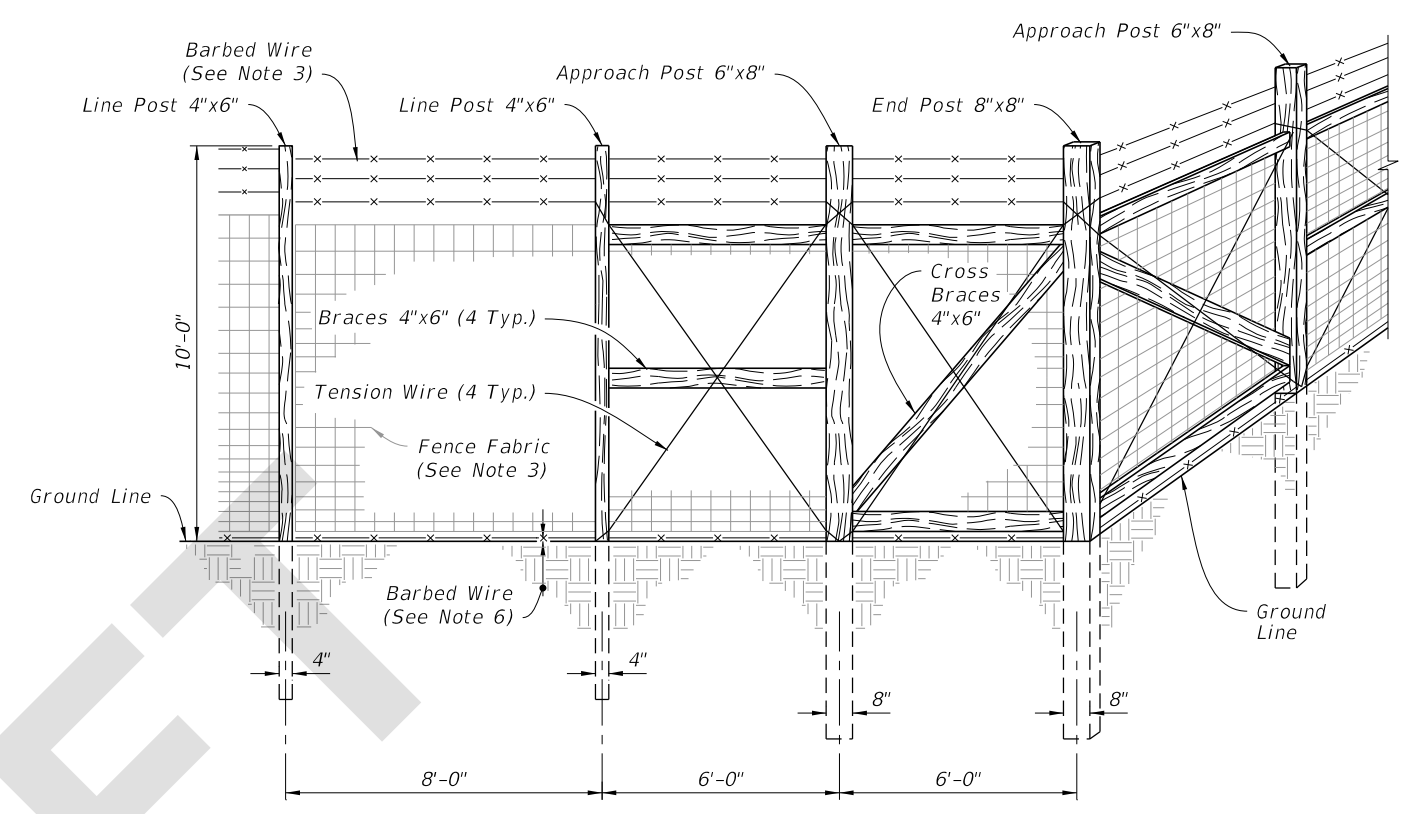
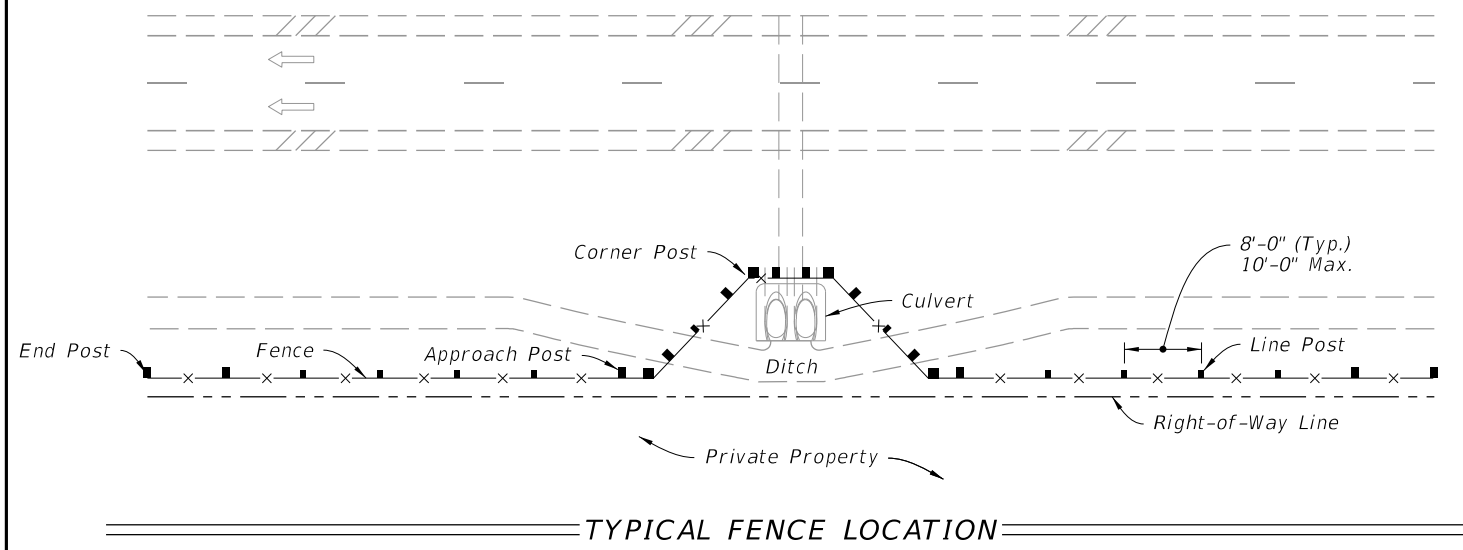
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FENCE TYPE A	
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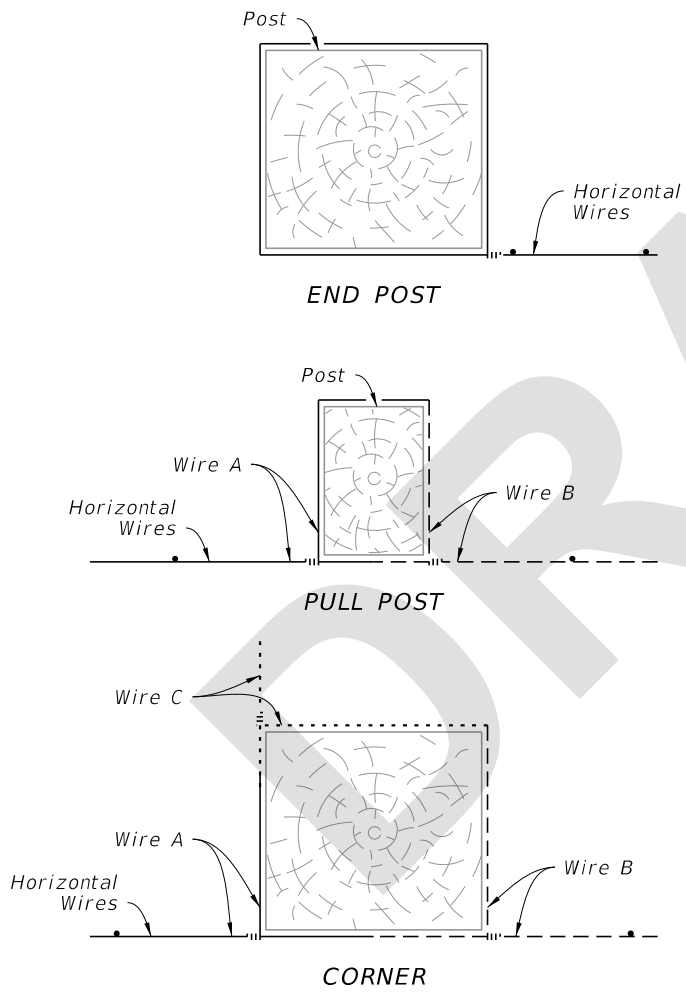
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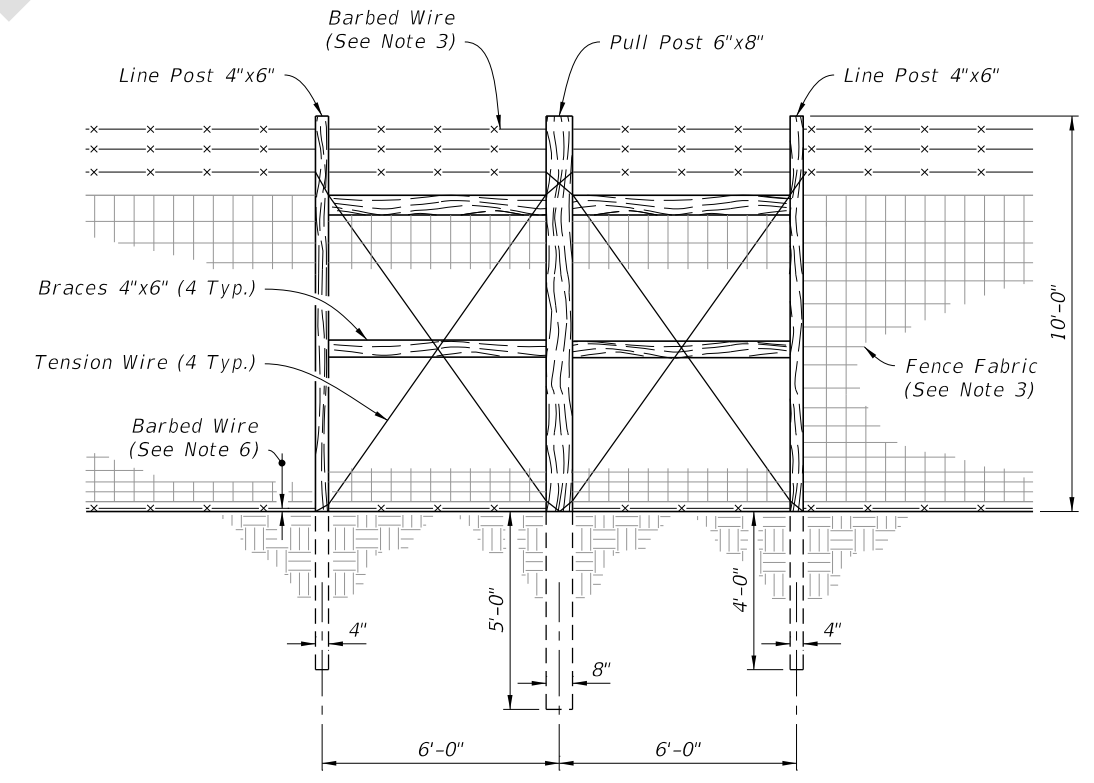
NOTES:

1. Post material(s) other than timber are prohibited. However, the contractor has the option of using metal posts in wetland areas (tangent sections only) at no additional cost to the Department.
2. For timber, staples for line posts are to be 1/4" minimum length; for approach, corner, and pull posts, staple every line wire. At line posts, staple every line wire in top half and alternate line wires in bottom half. Drive staples diagonally across the line wire with the points in separate grains.
3. Install barbed wire and fence fabric in accordance with Specification 550.
4. Fence wire to be spliced with high-tensile fence splicing sleeves. Hand knotting/wrapping wire is not permitted. Splice all line wire unless otherwise directed by the engineer.
5. A maximum length of 660' of fence may be installed as a unit. For pulls through a pull post assembly, splice the fabric with high tensile fence splicing sleeves. Pulls through a corner post assembly will not be permitted.
6. Barbed wire is not to exceed 1" above natural ground between any post. Extra line post may be required.
7. Removal of existing fence is restricted to that which can be replaced with Wildlife Fence within the same work operation.
8. Clear and grub the area measuring 10.5' horizontally and 14' vertically from the fence line.
9. Tension wire to be two No. 9 gage wires twisted to singing tightness, steel wire, soft tempered, galvanized at the rate of 1.8 oz./ft², ASTM A641.



Each horizontal wire to be wrapped around corner, end, and pull posts are tied to same wire. See Note 4 and General Note 8.

CORNER OR END POST DETAIL



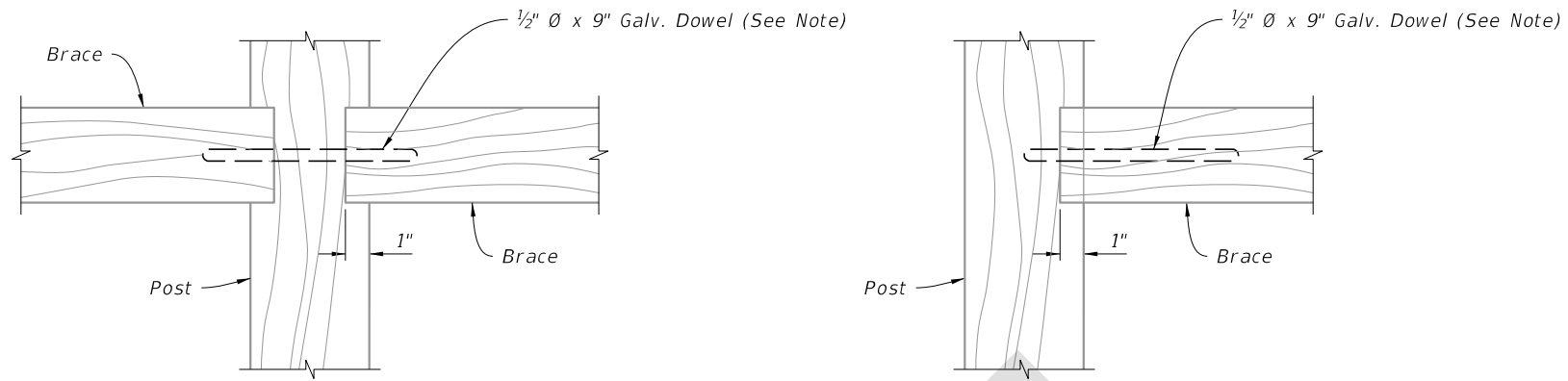
PULL POST DETAIL

WOVEN WIRE SPLICES

10' WILDLIFE FENCE - GENERAL DETAILS

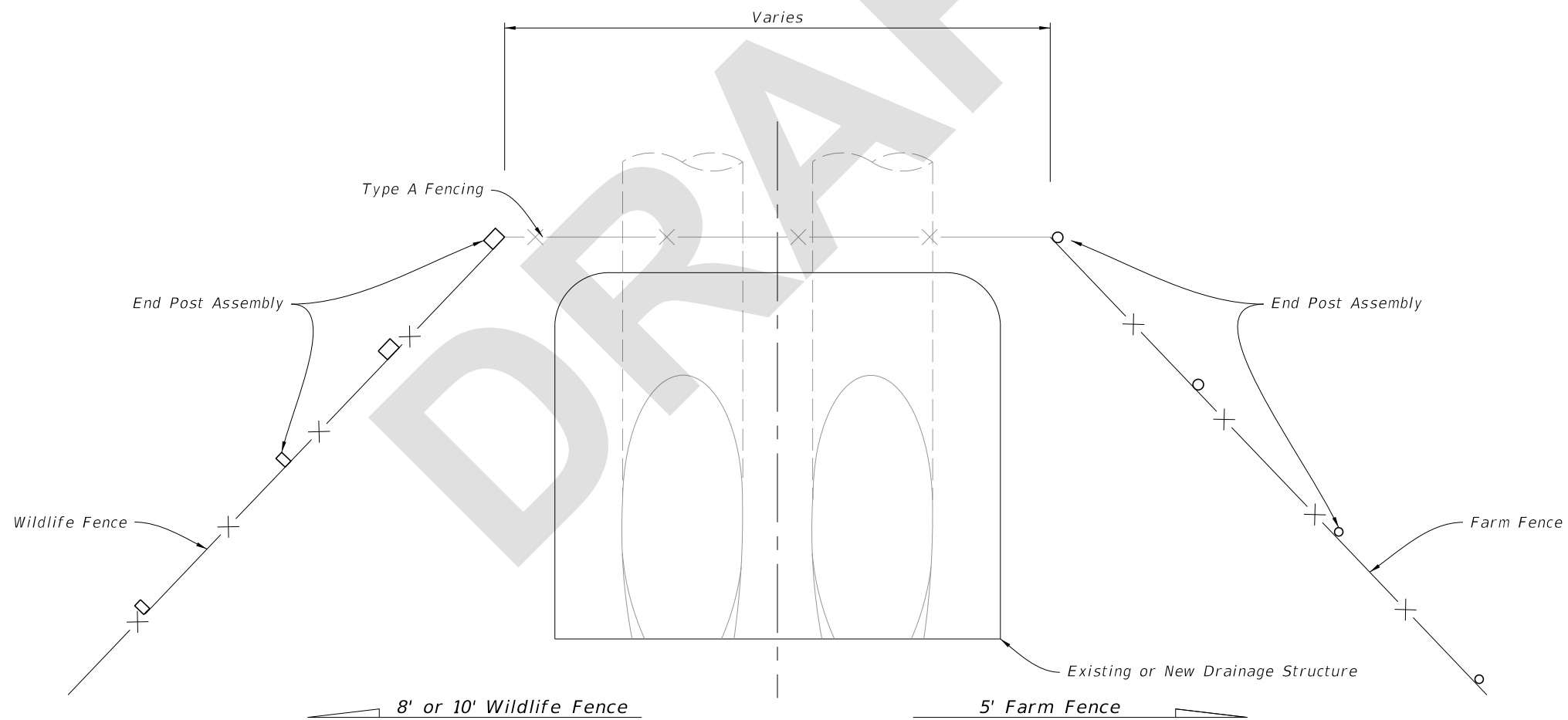
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NOTE:
Hurricane clips or mending plates on either side of brace may be substituted.


TIMBER POST AND BRACE FASTENER



FENCING DETAIL AT CULVERT

TIMBER POST AND BRACE FASTENERS AND FENCING DETAILS AT CULVERT

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