

# INSTALLATION GUIDELINES



2014

AMICO ANC®

## Non-Conductive Fence System

perimeter security barriers  
for electrical applications



QUALITY PRODUCTS COAST TO COAST

A GIBRALTAR INDUSTRIES COMPANY



## Table of Contents

- 1 Installation Overview
- 2 System Components and Testing
- 3 100% Non-Conductive ANC Composite Fence System Components
- 4 ANC Components on Steel Framework (New Construction)
- 5-8 100% Non-Conductive Construction
  - a. 6-Ft. High New Construction ANC .50-2.25 Mesh Panels
  - b. 8-Ft. High New Construction ANC .50-2.25 Mesh Panels
  - c. 6-Ft. High New Construction ANC 1.0-1.75 Mesh Panels
  - d. 8-Ft. High New Construction ANC 1.0-1.75 Mesh Panels
- 9-12 Retrofit Construction of Existing Chain Link Framework on 10-Ft. Post Spacing
  - a. 6-Ft. High New Construction ANC .50-2.25 Mesh Panels
  - b. 8-Ft. High New Construction ANC .50-2.25 Mesh Panels
  - c. 6-Ft. High New Construction ANC 1.0-1.75 Mesh Panels
  - d. 8-Ft. High New Construction ANC 1.0-1.75 Mesh Panels
- 13 ANC Gates



# AMICO ANC® Fence System

# Installation Overview

The following guide should be used for installing the ANC Non-Conductive Fence System™. There are numerous jobsite conditions that cannot be foreseen or detailed in advance. Therefore good common sense and proper safety practices must be used during installation. Installation problems that arise should be directed to the AMICO Security Department in Birmingham, Alabama. 8:00 AM to 5:00 PM CST.

## Installation Tips

1. A three man crew is best suited for installation of the ANC System.
2. Before starting, review all installation instructions pertinent to your layout (i.e. panels, post types, gates, fittings and fasteners)
3. Identify on the panels which side is the attack side. Wedge plug fittings fit into the panels from the attack side.
4. Threaded fasteners are on the inside face of the barrier.
5. Panels install horizontally in front of posts.
6. Make sure all posts are installed plumb.
7. Posts shall be set as a standard, 6' ±¼" max. on center web to web. H posts require a minimum 12-in. diameter post holes.
8. Begin installation process at a building wall, end or corner of layout.
9. Cut panels or posts using a circular saw with a masonry, carbide tip or diamond coated blade.
10. Holes drilled in posts shall require a carbide tip drill bit.
11. Rough edges should be sanded before sealing.
12. All cut edges or drilled surfaces MUST be coated with AMICO sealant.
13. All bolt threads must be coated with AMICO sealant to prevent unwanted removal.
14. Contractor should advise AMICO of any grade change in order to suggest best method for installation.
15. Different grade conditions and methods of installing panels must be discussed with the owner or specifier prior to installation.
16. The use of steel or existing posts must be agreed upon with the owner or specifier prior to the installation.

## Special Tools Required

1. Power saw with a masonry, carbide tip or diamond coated blade: use a rotary saw for straight cuts, a jig saw for circular cuts. For large fabrication jobs, use a diamond grit blade and diamond tip drill bits.
2. Sawhorses or platforms for supporting products while cutting.
3. Tape measure, straight edge, and chalk-line or felt tip pen for marking cuts.
4. Sandpaper, to smooth cut edges prior to sealing. For best results, use a powersanding wheel. Use Sealing Kit to seal edges after cutting.

## Recommended Safety Practices

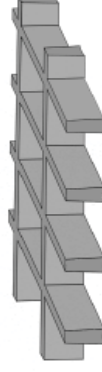
1. Carefully read the Material Safety Data Sheet (MSDS). If you do not have a MSDS, contact AMICO prior to fabricating. Individuals with respiratory ailments should not fabricate ANC products.
2. Observe common safety precautions when using cutting tools. Always wear gloves when handling ANC products. Wear approved safety glasses or goggles to protect your eyes and a respirator (mask) to reduce inhalation of dust. We recommend the use of a NIOSH/MSHA approved mask for dust with a permissible exposure limit (PEL) of not less than 0.1 mg/M3.
3. Dust from cutting ANC products can cause skin irritation. Wear long sleeve clothing to reduce dust from coming into contact with skin. If cutting products causes difficulty in breathing or excessive skin irritation, stop immediately and consult a physician.
4. Observe common safety precautions when using the Sealing Kit. Read and follow instructions enclosed in the kit prior to using. Always wear safety glasses and protective clothing when working with ANC products or using the Sealing Kit. Do not allow resin or catalyst to come in contact with skin.

## Procedures

1. Support panel securely so it will not flex or shift during cutting.
2. Mark cuts clearly and carefully.
3. Use even steady pressure when cutting. Excessive pressure may cause heat and/or ragged edges. Replace dull blades to prevent heat buildup.
4. Sand all rough cut edges.
5. Use a seal kit to coat all cut, drilled or sanded surfaces. This is recommended to prevent water absorption and corrosive chemicals from reaching exposed fibers.
6. Carefully read and follow the instructions included with the sealing kit.

# AMICO ANC<sup>®</sup> Fence System System Components and Testing

PANELS - are manufactured from a specific resin designed to enhance the non-conductive properties. Panels are produced in the diamond pattern for added physical strength. The strands of the diamond are tapered inward to allow the Wedge Plug to seat securely into the diamond shaped opening on the attack side of the fence; allowing the threaded fastener to tighten panels to posts. Panels are available in both 3-foot and 4-foot high x 12-foot long. See table to the right for panel dimensions. Panels can be stacked to create any height barrier.



Dark Gray is the standard color for the ANC System.

POSTS are available in different shapes for specific applications.

Round and Square shapes are generally used for gate and terminal posts. T-s are used for terminating intersecting fence runs. H-type posts are the standard line posts. Round, Square, T-s and H-Type posts are available for different installation applications.

Field drilling holes for fasteners is required.

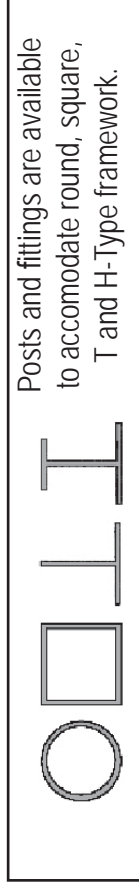
TOLERANCE - These panels are a handmade molded product with the attack side having a smooth finish surface and the inside face having a smooth painted finish.

TESTING has confirmed the value of the AMICO ANC Fence System for electric generating and substation applications. A certified test report can be provided upon request.

The ANC System has shown an improvement of radar reflectivity from 68% - 90% when tested at different incident angles and polarization. S-Band radar is the standard type of ground radar used at commercial airports.

Electric generating and distribution stations can experience arcing on a frequent basis. Testing has shown the ANC System can receive \*660,000 volts without transmitting electricity across the panel. \*The ANC System can withstand a higher voltage than what was tested.

Panel Dimensions (Nominal)				
Panel Type	Thickness	Height	Length	Weight
ANC .50-2.25	1/2"	3-ft.	12-ft.	50-lbs. ea.
	1/2"	4-ft.	12-ft.	66-lbs. ea.
ANC 1.0-1.75	1"	3-ft.	12-ft.	85-lbs. ea.
	1"	4-ft.	12-ft.	115-lbs. ea.

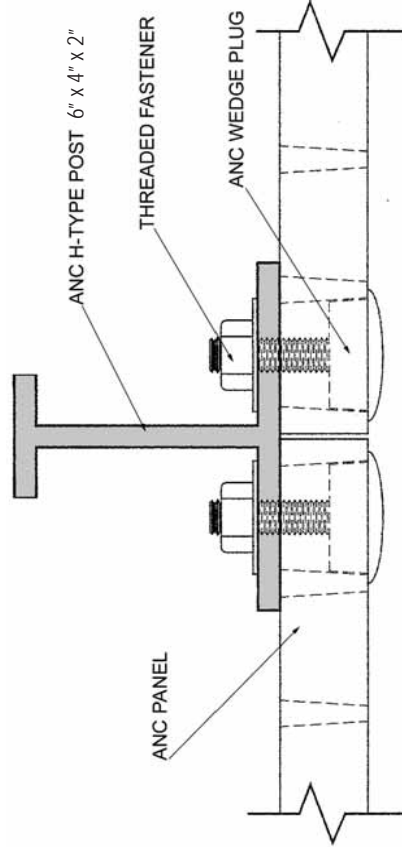
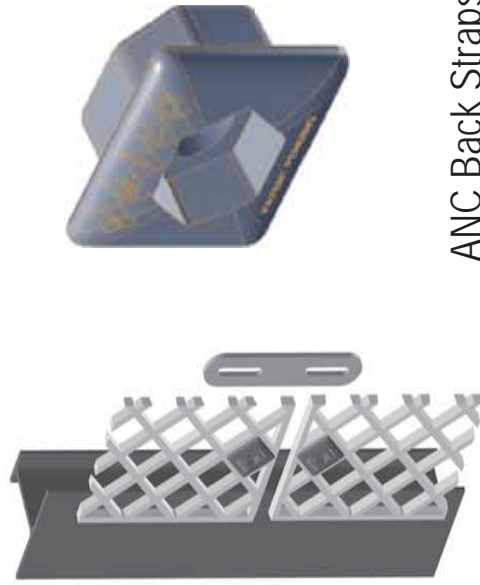


Posts and fittings are available to accommodate round, square, T and H-Type framework.

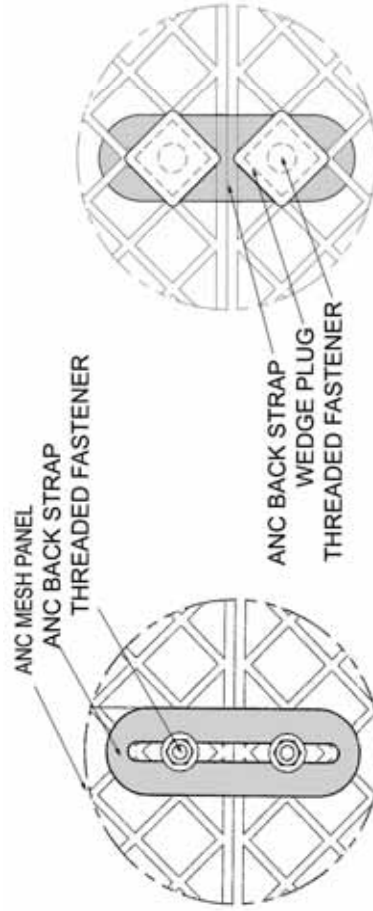
# AMICO ANC<sup>®</sup> Fence System All ANC System Components

FITTINGS are designed to secure the panels to the posts and mid-panel to mid-panel connections.

ANC Wedge Plugs are used to secure the threaded fastener from the attack side of the panel.



ANC Back Straps with Wedge Plugs secure panel to panel joints

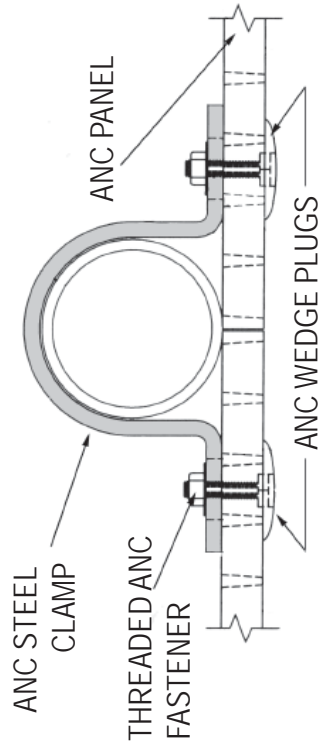


Rear Side of ANC Back Strap

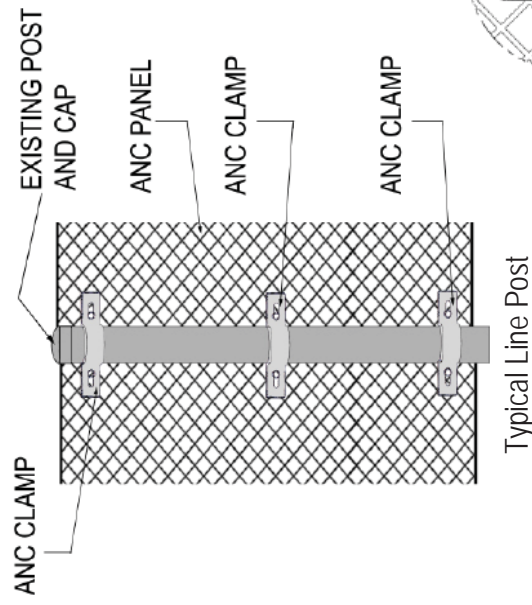
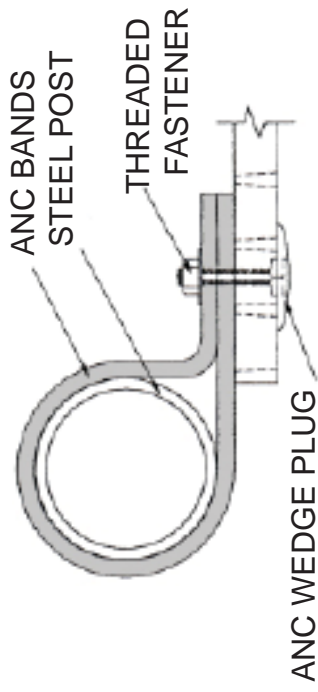
Attack Side of ANC Back Strap

Panel To Panel Connections On 8-Ft. Post Spacing						
Panel Type	Panel Thickness	Panel Height	Vertical		Horizontal	
			Joints	Joints	Joints	Joints
ANC .50 - 2.25	1/2"	3-ft.	3	3	4	4
	1/2"	4-ft.	3	3	4	4
ANC 1.0 - 1.75	1"	3-ft.	3	3	3	3
	1"	4-ft.	3	3	3	3

ANC Steel Clamps secure panels to steel line posts.

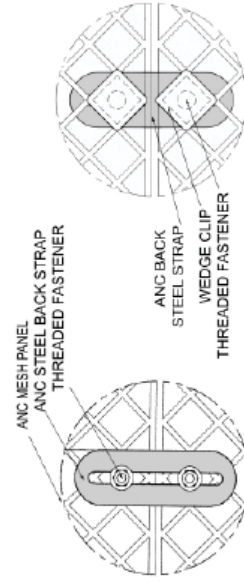
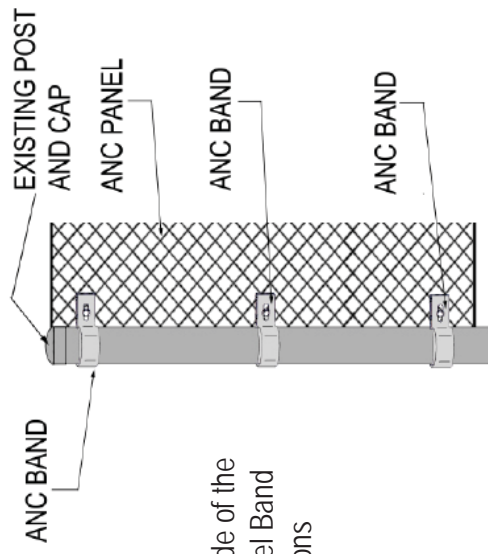


ANC Steel Bands are used to secure panels to steel terminal posts, and must be used every time the fence line changes direction. Even slight changes in direction of 10° or more.



Left - view from the inside of the panel showing ANC Steel Clamp and panel connections

Right - view from the inside of the panel showing ANC Steel Band and panel connections



Secura Side

Attack Side

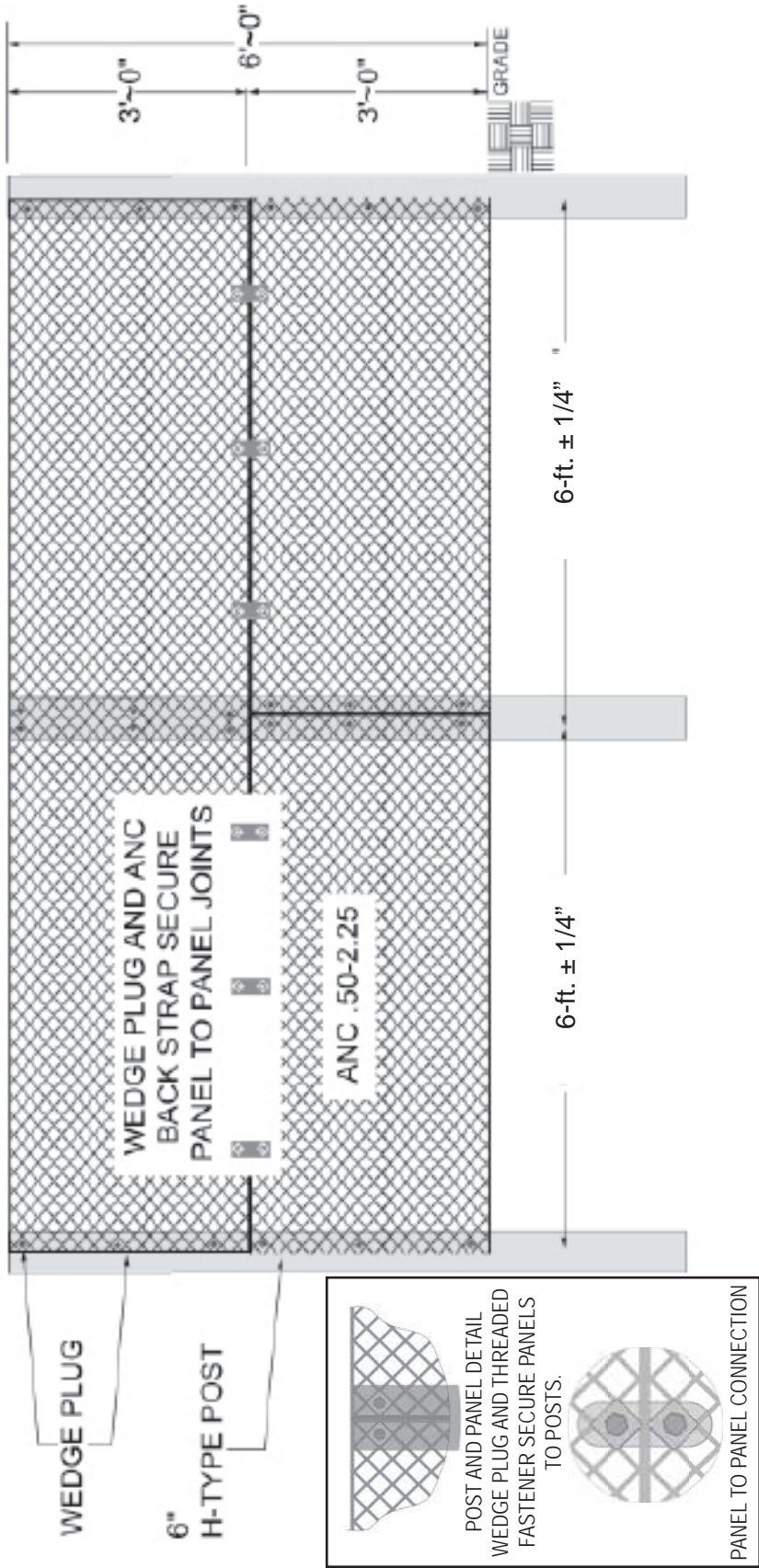
# AMICO ANC<sup>®</sup> Fence System

100% Non-Conductive Construction  
Using Non-Metallic Components

## ANC NON-CONDUCTIVE FENCE SYSTEM™

ANC .50-2.25 PANELS

New Construction  
6-Ft. High



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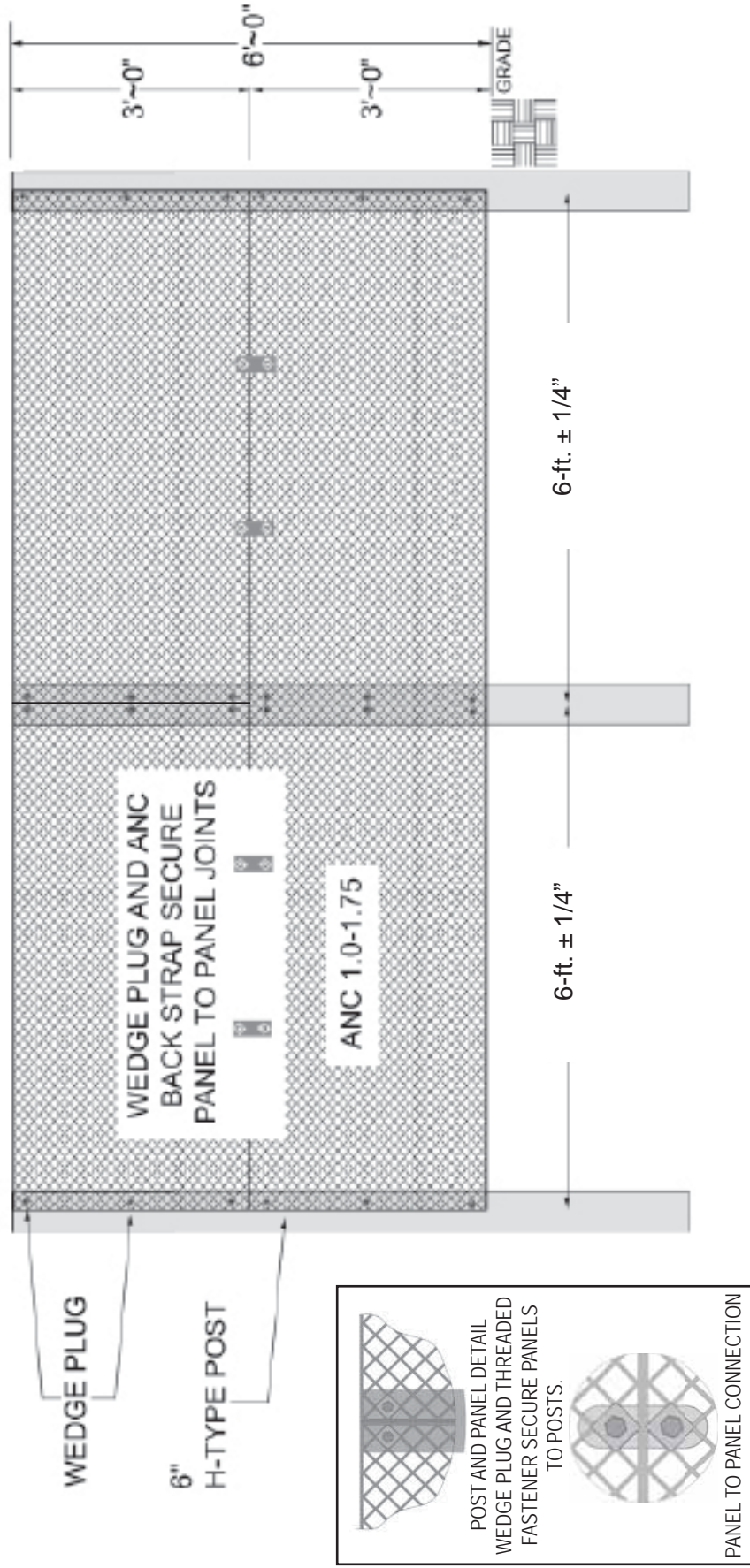
# AMICO ANC<sup>®</sup> Fence System

100% Non-Conductive Construction  
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## ANC NON-CONDUCTIVE FENCE SYSTEM™

ANC 1.0-1.75 PANELS

New Construction  
6-Ft. High



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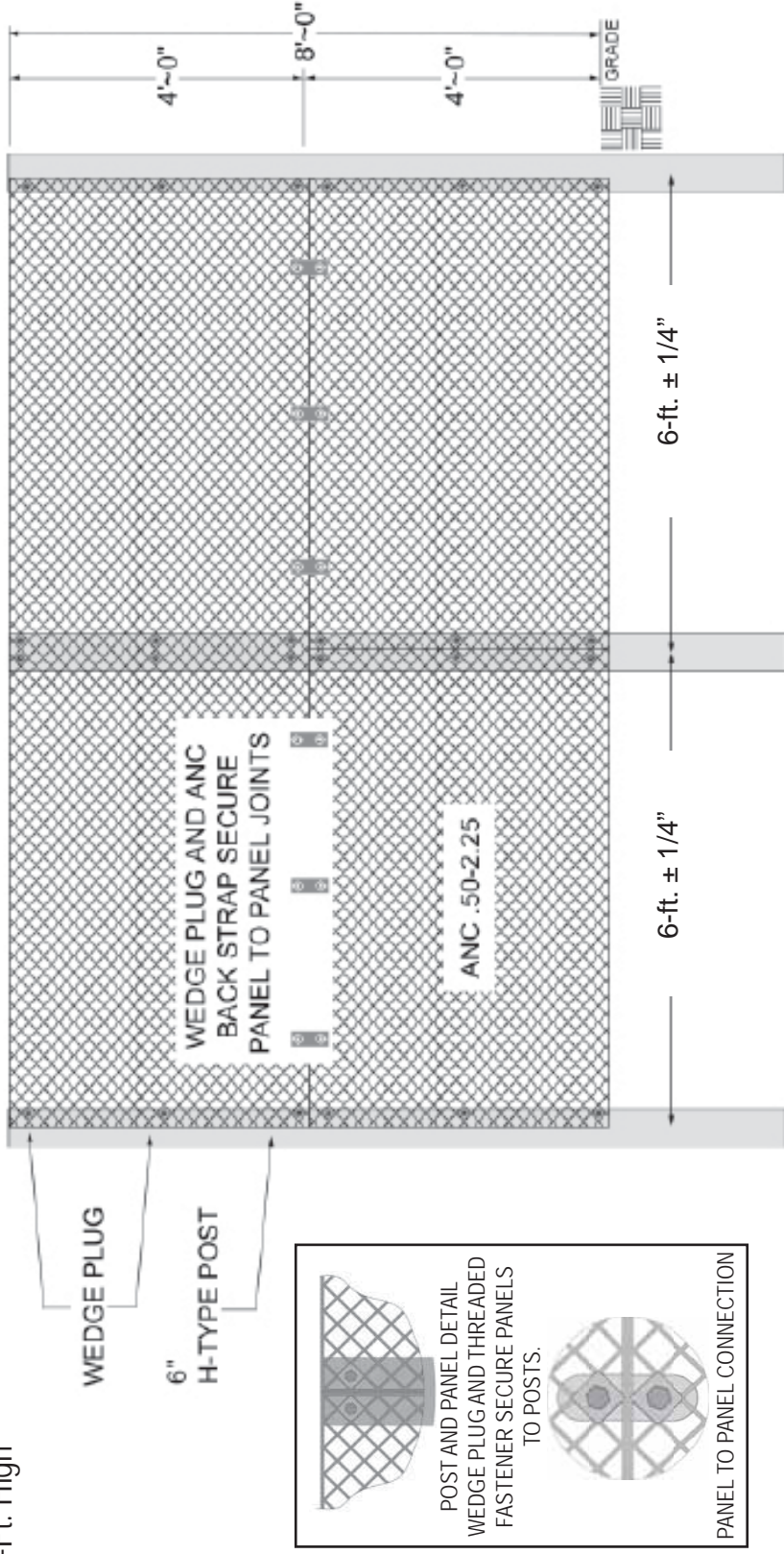


# AMICO ANC<sup>®</sup> Fence System

100% Non-Conductive Construction  
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## ANC NON-CONDUCTIVE FENCE SYSTEM™ ANC .50-2.25 PANELS

New Construction  
8-Ft. High



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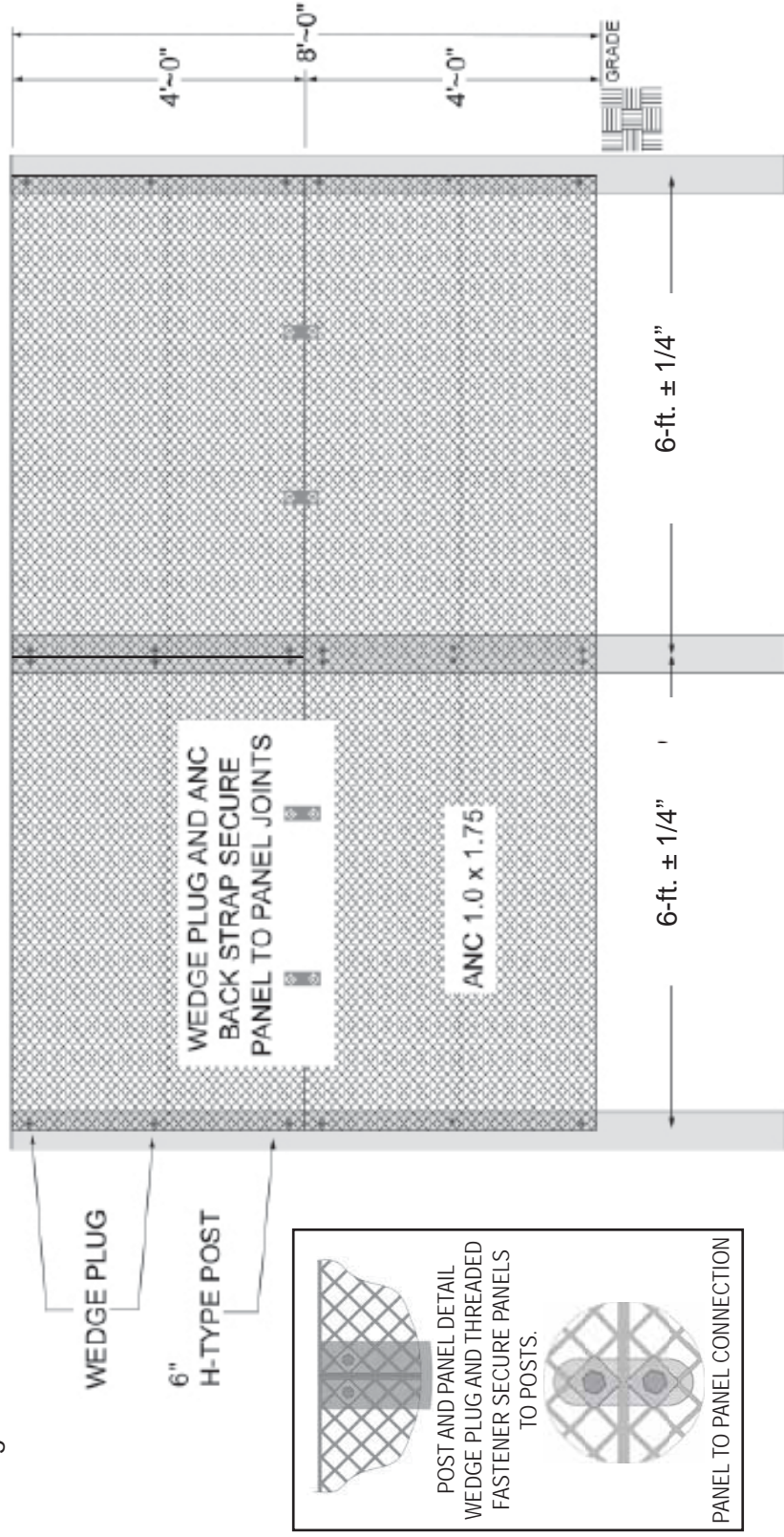
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100% Non-Conductive Construction  
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New Construction  
8-Ft. High

## ANC NON-CONDUCTIVE FENCE SYSTEM™ ANC 1.0-1.75 PANELS



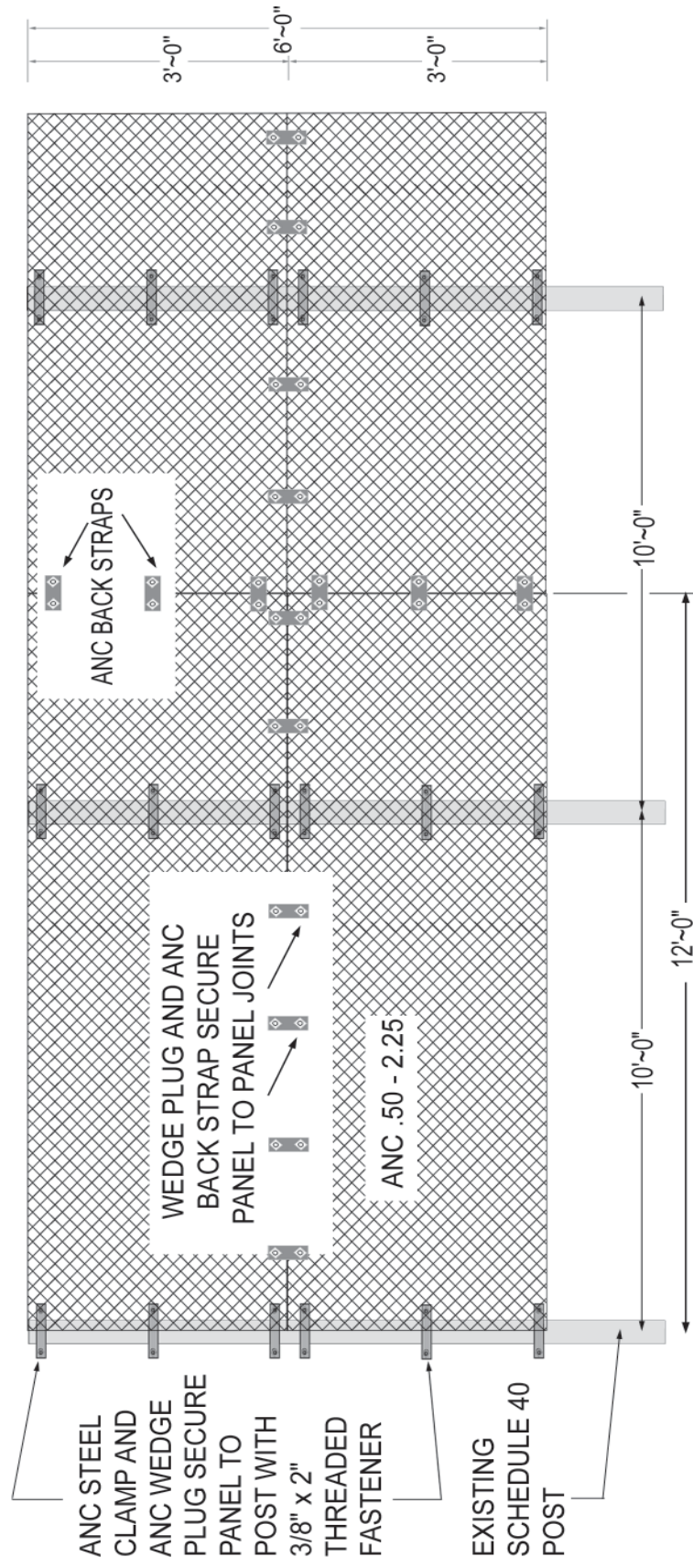
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# AMICO ANC<sup>®</sup> Fence System 6-Ft. Retrofit on Existing Steel Posts

## ANC NON-CONDUCTIVE FENCE SYSTEM™ ANC .50-2.25 PANELS

New Construction  
6-Ft. High



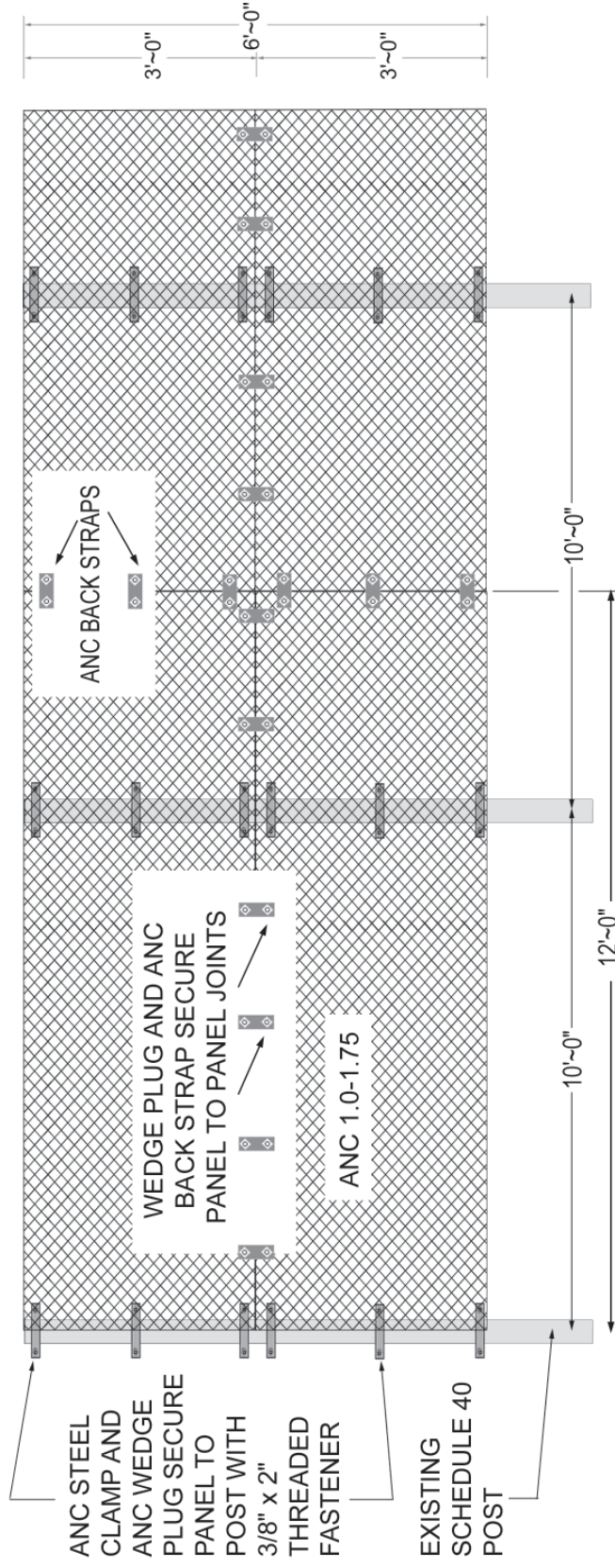
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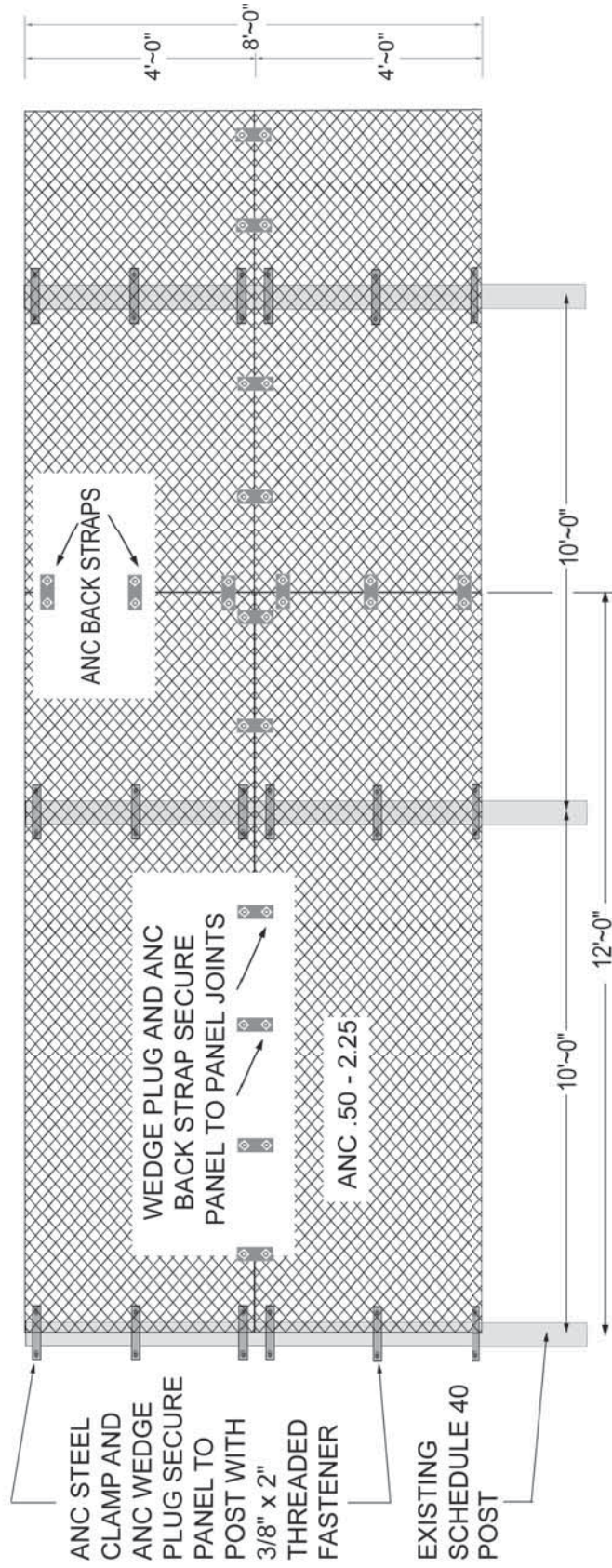


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# AMICO ANC<sup>®</sup> Fence System 8-Ft. Retrofit on Existing Steel Posts

## ANC NON-CONDUCTIVE FENCE SYSTEM™ ANC .50-2.25 PANELS

New Construction  
8-Ft. High



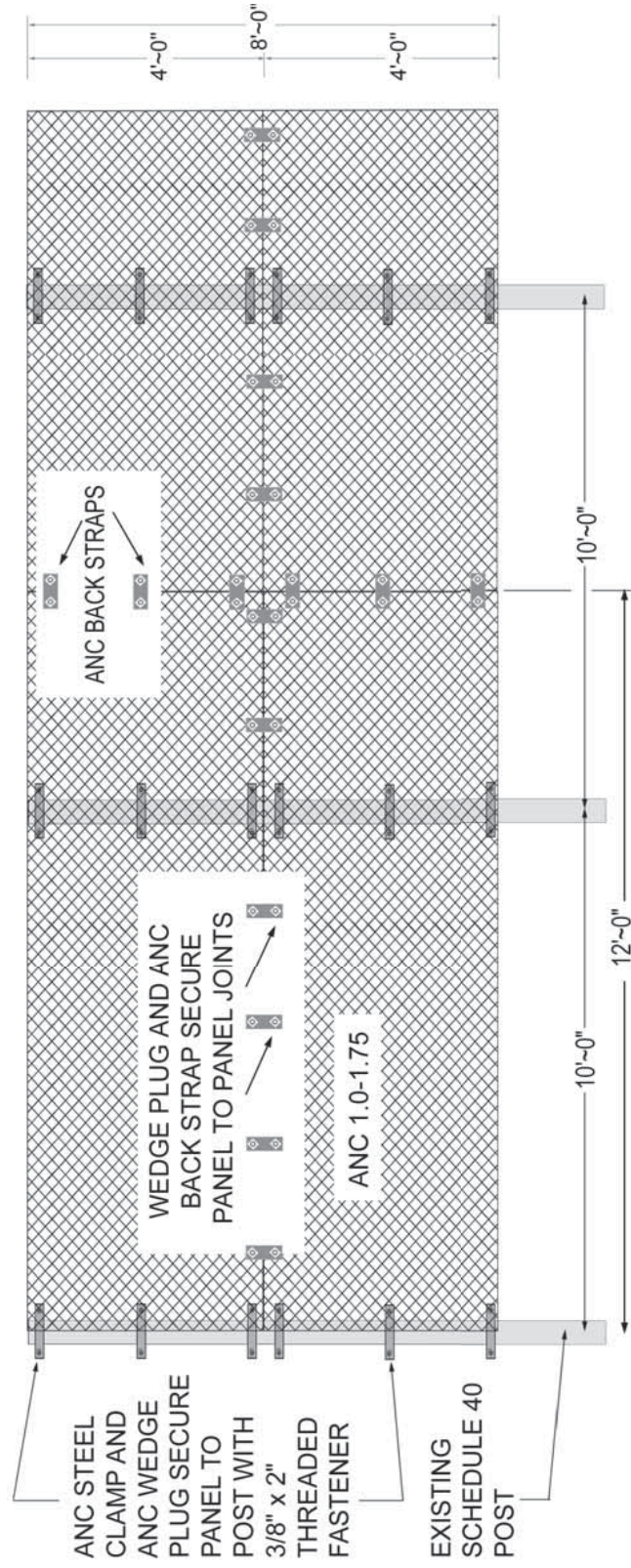
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# AMICO ANC<sup>®</sup> Fence System 8-Ft. Retrofit on Existing Steel Posts

## ANC NON-CONDUCTIVE FENCE SYSTEM™ ANC 1.0-1.75 PANELS

New Construction  
8-Ft. High



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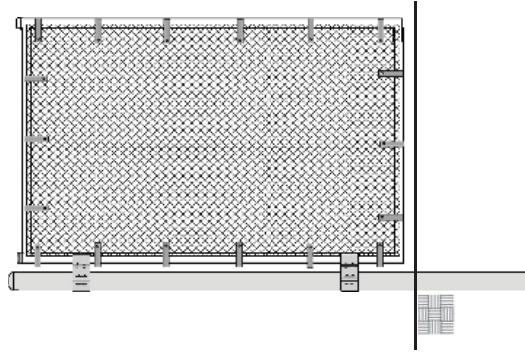
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100% ANC Non-Conductive Fence Construction.



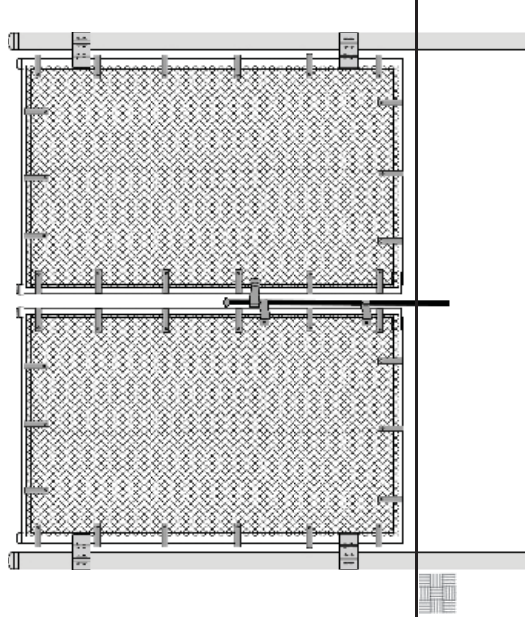
ANC Non-Conductive Gates are available in leaf widths up to 10-feet allowing a gate opening of 20-feet



Lower Left - Single leaf swing gate using steel gate frames, steel fittings and gate hinges. Available in 3-ft. and 4-ft. widths x 6-ft and 8-ft. heights. Custom sizes are available on request.

Lower Right - Double drive gates using steel gate frames, steel fittings and gate hinges. are available with leaf widths up to 8-ft. allowing 16-ft. opening e.g. 16-ft. double drive gates.

These steel frame gate design as shown must be approved by the owner's grounding engineer.



# AMICO ANC<sup>®</sup> Fence System



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Technical questions or specification assistance call 205.788.6224

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**Alabama Metal Industries Corporation**  
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