32-I-39

2014-107

40 Union St.

Plan Amendment - Substation

CMP

on spreadsheet

CENTRAL MAINE POWER

January 3, 2013

RE: Agent Authorization Letter
Various Central Maine Power Company Projects

To Whom It May Concern:

TRC Solutions, including but not limited to Mark Christopher, is hereby authorized to act as agent of Central Maine Power Company (CMP) for purposes of all federal, state, regional, and local license and permit applications.

Please call me at 626-9557 or email me at gerry.mirabile@cmpco.com with any questions. Thank you.

Sincerely,

Gerry J. Mirabile
Lead Analyst – Compliance

83 Edison Drive, Augusta, ME 04336
Telephone 207.623.3521

IBERDROLA USA

Portland, Maine — Yes. Life's good here.

Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

Notice: Your electronic signature is considered a legal signature per state law.

By digitally signing the attached document(s), you are signifying your understanding this is a legal document and your electronic signature is considered a ***legal signature*** per Maine state law. You are also signifying your intent on paying your fees by the opportunities below.

I, the undersigned, intend and acknowledge that no Site Plan or Historic Preservation Applications can be reviewed until payment of appropriate application fees are ***paid in full*** to the Inspections Office, City of Portland Maine by method noted below:

☐ Within 24-48 hours, once my complete application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☐ Within 24-48 hours, once my application and corresponding paperwork has been electronically delivered, I intend to **call the Inspections Office** at 207-874-8703 and speak to an administrative representative and provide a credit/debit card over the phone.

☒ I intend to deliver a payment method through the U.S. Postal Service mail once my application paperwork has been electronically delivered.

Applicant Signature: _____ Date: 6/13/14

I have provided digital copies and sent them on: _____ Date: 6/13/14 Via FedEx

NOTE: All electronic paperwork must be delivered to buildinginspections@portlandmaine.gov or by physical means i.e. a thumb drive or CD to the Inspections Office, City Hall, 3rd Floor, Room 315.

Level II – Preliminary and Final Site Plans
Development Review Application
Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the development review process for site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Level II: Preliminary or Final Site Plan. Please note that Portland has delegated review from the State of Maine for reviews under the Site Location of Development Act, Chapter 500 Stormwater Permits, and Traffic Movement Permits.

Level II: Site Plan Development includes:

- New construction of structures with a total floor area of less than 10,000 sq. ft. in all zones, except in Industrial Zones.
- New construction of structures with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Any new temporary or permanent parking area, paving of an existing unpaved surface parking area in excess of 7,500 sq. ft. and serving less than 75 vehicles, or creation of other impervious surface area greater than 7,500 sq. ft.
- Building addition(s) with a total floor area of less than 10,000 sq. ft. (cumulatively within a 3 year period) in any zone, except in Industrial Zones.
- Building addition(s) with a total floor area of less than 20,000 sq. ft. in Industrial Zones.
- Park improvements: New structures or buildings with a total floor area of less than 10,000 sq. ft., facilities encompassing an area of greater than 7,500 sq. ft. and less than 20,000 sq. ft. (excludes rehabilitation or replacement of existing facilities).
- New construction of piers, docks, wharves, bridges, retaining walls, and other structures within the Shoreland Zone.
- Land disturbance between 1 and 3 acres that are stripped, graded, grubbed, filled or excavated.
- A change in the use of a total floor area between 10,000 and 20,000 sq. ft. in any existing building (cumulatively within a 3 year period).
- Lodging house, bed and breakfast facility, emergency shelter or special needs independent living unit.
- Signage subject to approval pursuant to Section 14-526 (d) 8.a. of the Land Use Code.
- Any new major or minor auto service station with less than 10,000 sq. ft. of building area in any permitted zone other than the B-2 or B-5 zones.
- The creation of day care or home babysitting facilities to serve more than 12 children in a residential zone (not permitted as a home occupation under section 14-410) in any principal structure that has not been used as a residence within the 5 years preceding the application.
- Any drive-through facility that is not otherwise reviewed as a conditional use under Article III.

Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14) which is available on our website:

Land Use Code: http://me-portland.civicplus.com/DocumentCenter/Home/View/1080
Design Manual: http://me-portland.civicplus.com/DocumentCenter/View/2355
Technical Manual: http://me-portland.civicplus.com/DocumentCenter/View/2356

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8719

Office Hours
Monday thru Friday
8:00 a.m. – 4:30 p.m.

Revised: August, 2013

PROJECT NAME: Central Maine power Company Union Street Substation

PROPOSED DEVELOPMENT ADDRESS:

33-43 Union Street

PROJECT DESCRIPTION:

Minor amendment to the Level II permit, includes replacing a short section of security fence and altering the landscape plan.

CHART/BLOCK/LOT: Map 32 lot 39

PRELIMINARY PLAN _____ (date)
FINAL PLAN June 2014 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Central Maine Power Co. attn: Gerry Mirabile Business Name, if applicable: Address: 83 Edison Dr City/State : Augusta, ME Zip Code: 04336	**Applicant Contact Information** E-mail: gerry.mirabile@cmpco.com Home #: Work #: 207-626-9557 Cell #: 242-1682 Fax#: 626-4044
Owner – (if different from Applicant) Name: Address: City/State : Zip Code:	**Owner Contact Information** E-mail: Home #: Work #: Cell #: Fax#:
Agent/ Representative Name: TRC Engineers llc Mark Christopher Address: 14 Gabriel Dr City/State : Augusta Zip Code: 04330	**Agent/Representative Contact information** E-mail: mchristopher@trcsolution.com Home #: Work #: 207-620-3844 Cell #: 441-4225 Fax#: 621-8226
Billing Information Name: Central Maine Power Co. Gerry Mirabile Address: 83 Edison Dr City/State : Augusta, ME Zip Code: 04336	**Billing Information** E-mail: gerry.mirabile@cmpco.com Home #: Work #: 207-626-9557 Cell #: 242-1682 Fax#: 626-4044

Engineer	Engineer Contact Information
Name: TRC Engineers, llc Attn: Jaimey Caron Address: 6 Ashley Drive City/State : Scarborough Zip Code: Me 04074	E-mail: jcaron@trcsolutions.com Home #: Work #: 207-274-2601 Cell #: 716-6115 Fax#: 879-9293
Surveyor Name: TRC Engineers, llc Christopher Hickey Address: 6 Ashley Drive City/State : Zip Code: Scarborough, ME 04074	**Surveyor Contact Information** E-mail: chickey@trcsolutions.com Home #: Work #: 207-274-2628 Cell #: 215-1108 Fax#: 879-9293
Architect N/A Name: Address: City/State : Zip Code:	**Architect Contact Information** E-mail: Home #: Work #: Cell #: Fax#:
Attorney N/A Name: Address: City/State : Zip Code:	**Attorney Contact Information** E-mail: Home #: Work #: Cell #: Fax#:

APPLICATION FEES:

Check all reviews that apply. (Payment may be made by Credit Card, Cash or Check payable to the City of Portland.)

Level II Development (check applicable reviews)	Other Reviews (check applicable reviews)
___ Less than 10,000 sq. ft. ($400) Amendment fee: ___ After-the-fact Review ($1,000 plus applicable application fee) $250 _____ The City invoices separately for the following: • Notices ($.75 each) • Legal Ad (% of total Ad) • Planning Review ($40.00 hour) • Legal Review ($75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	___ Traffic Movement ($1,000) ___ Stormwater Quality ($250) ___ Site Location ($3,000, except for residential projects which shall be $200/lot) # of Lots ___ x $200/lot = _____ ___ Other _____ ___ Change of Use ___ Flood Plain ___ Shoreland ___ Design Review ___ Housing Replacement ___ Historic Preservation

APPLICATION SUBMISSION:

1. All site plans and written application materials must be submitted electronically on a CD or thumb drive with each plan submitted as separate files, with individual file which can be found on the **Electronic Plan and Document Submittal** page of the City's website at http://me-portland.civicplus.com/764/Electronic-Plan-and-Document-Submittal

2. **In addition, one (1) paper set of the plans (full size), one (1) paper set of plans (11 x 17), paper copy of written materials, and the application fee must be submitted to the Building Inspections Office to start the review process.**

The application must be complete, including but not limited to the contact information, project data, application checklists, wastewater capacity, plan for fire department review, and applicant signature. The submissions shall include one (1) paper packet with folded plans containing the following materials:

1. **One (1) full size site plans** that must be **folded.**
2. One (1) copy of all written materials or as follows, unless otherwise noted:
   a. Application form that is completed and signed.
   b. Cover letter stating the nature of the project.
   c. All Written Submittals (Sec. 14-527 (c), including evidence of right, title and interest.
3. A stamped standard boundary survey prepared by a registered land surveyor at a scale not less than one inch to 50 feet.
4. Plans and maps based upon the boundary survey and containing the information found in the attached sample plan checklist.
5. One (1) set of plans reduced to 11 x 17.

Please refer to the application checklist (attached) for a detailed list of submission requirements.

APPLICANT SIGNATURE:

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Planning Authority and Code Enforcement's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

This application is for a Level II Site Plan review. It is not a permit to begin construction. An approved site plan, a Performance Guarantee, Inspection Fee, Building Permit, and associated fees will be required prior to construction. Other Federal, State or local permits may be required prior to construction, which are the responsibility of the applicant to obtain.

Signature of Applicant:	**Date:**
Michael Christopher	6/13/14

PROJECT DATA

The following information is required where applicable, in order to complete the application.

Total Area of Site	21,196.3 sq. ft.
Proposed Total Disturbed Area of the Site	21,196.3 sq. ft.
If the proposed disturbance is greater than one acre, then the applicant shall apply for a Maine Construction General Permit (MCGP) with DEP and a Stormwater Management Permit, Chapter 500, with the City of Portland	
Impervious Surface Area	
Impervious Area (Total Existing)	21,196.3 sq. ft.
Impervious Area (Total Proposed)	21,196.3 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	N/A sq. ft.
Building Footprint (Total Proposed)	N/A sq. ft.
Building Floor Area (Total Existing)	N/A sq. ft.
Building Floor Area (Total Proposed)	N/A sq. ft.
Zoning	
Existing	B3: Downtown business
Proposed, if applicable	no change
Land Use	
Existing	substation
Proposed	no change
Residential, If applicable	N/A
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	N/A
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	N/A
# of Parking Spaces (Total Existing)	
# of Parking Spaces (Total Proposed)	
# of Handicapped Spaces (Total Proposed)	
Bicycle Parking Spaces	N/A
# of Bicycle Spaces (Total Existing)	
# of Bicycle Spaces (Total Proposed)	
Estimated Cost of Project	$5,000

PRELIMINARY PLAN (Optional) - Level II Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST**
X		1	Completed Application form
X		1	Application fees
X		1	Written description of project
N/A		1	Evidence of right, title and interest
N/A		1	Evidence of state and/or federal approvals, if applicable
X		1	Written assessment of proposed project's compliance with applicable zoning requirements
N/A		1	Summary of existing and/or proposed easement, covenants, public or private rights-of-way, or other burdens on the site
N/A		1	Written requests for waivers from site plan or technical standards, if applicable.
N/A		1	Evidence of financial and technical capacity
N/A		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST**
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		1	**Preliminary Site Plan including the following: (information provided may be preliminary in nature during preliminary plan phase)**
X		Proposed grading and contours;	
X		Existing structures with distances from property line;	
X		Proposed site layout and dimensions for all proposed structures (including piers, docks or wharves in Shoreland Zone), paved areas, and pedestrian and vehicle access ways;	
N/A		Preliminary design of proposed stormwater management system in accordance with Section 5 of the Technical Manual (note that Portland has a separate applicability section);	
N/A		Preliminary infrastructure improvements;	
X		Preliminary Landscape Plan in accordance with Section 4 of the Technical Manual;	
N/A		Location of significant natural features (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features) located on the site as defined in Section 14-526 (b) (1);	
N/A		Proposed buffers and preservation measures for significant natural features, as defined in Section 14-526 (b) (1);	
N/A		Location , dimensions and ownership of easements, public or private rights of way, both existing and proposed;	
N/A		Exterior building elevations.	

FINAL PLAN - Level II Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	**GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
N/A		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
N/A		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
N/A		1	* Evidence of financial and technical capacity
N/A		1	Construction Management Plan
N/A		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
N/A		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
N/A		1	Stormwater management plan and stormwater calculations, including description of project, hydrology and impervious area.
N/A		1	Written summary of project's consistency with related city master plans
N/A		1	Evidence of utility capacity to serve
N/A		1	Written summary of solid waste generation and proposed management of solid waste
N/A		1	A code summary referencing NFPA 1 and all Fire Department technical standards
N/A		1	Where applicable, an assessment of the development's consistency with any applicable design standards contained in Section 14-526 and in City of Portland Design Manual
N/A		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Applicant Checklist	Planner Checklist	# of Copies	**SITE PLAN SUBMISSIONS CHECKLIST** **(* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)**
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
		1	**Final Site Plans including the following:**
X			Existing and proposed structures, as applicable, and distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone);
N/A			Existing and proposed structures on parcels abutting site;
N/A			All streets and intersections adjacent to the site and any proposed geometric modifications to those streets or intersections;
N/A			Location, dimensions and materials of all existing and proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines;
N/A			Engineered construction specifications and cross-sectional drawings for all proposed driveways, paved areas, sidewalks;
N/A			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
N/A			Existing and proposed public transit infrastructure with applicable dimensions and engineering specifications;
N/A			Location of existing and proposed vehicle and bicycle parking spaces with applicable dimensional and engineering information;
N/A			Location of all snow storage areas and/or a snow removal plan;
N/A			A traffic control plan as detailed in Section 1 of the Technical Manual;
N/A			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
N/A			Location and proposed alteration to any watercourse;
N/A			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
N/A			Proposed buffers and preservation measures for wetlands;
N/A			Existing soil conditions and location of test pits and test borings;
X			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
N/A			A stormwater management and drainage plan, in accordance with Section 5 of the Technical Manual;
X			Grading plan;
N/A			Ground water protection measures;
N/A			Existing and proposed sewer mains and connections;
N/A			Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
N/A			Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;

- Continued on next page -

N/A		Location and dimensions of off-premises public or publicly accessible infrastructure immediately adjacent to the site;
N/A		Location and size of all on site solid waste receptacles, including on site storage containers for recyclable materials for any commercial or industrial property;
N/A		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
N/A		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
N/A		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
N/A		Location and dimensions of all existing and proposed HVAC and mechanical equipment and all proposed screening, where applicable;
N/A		An exterior lighting plan in accordance with Section 12 of the Technical Manual;
N/A		A signage plan showing the location, dimensions, height and setback of all existing and proposed signs;
N/A		Location, dimensions and ownership of easements, public or private rights of way, both existing and proposed.

TRC

21 Griffin Road North
Windsor, CT 06095

1022224

Citizens Bank
CONNECTICUT
51-7011/2111

CHECK DATE
June 10, 2014

PAY Two Hundred Fifty and 00/100 Dollars

AMOUNT
250.00

TO City of Portland Maine
389 Congress Street
Portland, ME 04101

By _____ MP
VOID AFTER 90 DAYS AUTHORIZED SIGNATURE

Security Check features included. Details on back.

⑈1022224⑈ ⑆211170114⑆ 223203710 4⑈

EMILY BUSINESS FORMS 800.392.6018 VISION

TRC

21 Griffin Road North
Windsor, CT 06095

1022224

Check Date: 6/10/2014

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
SITE AMEND APPL FEE	6/10/2014	007753965600	250.00			250.00
City of Portland Maine		TOTAL	250.00			250.00
Citizen Bank - Disbursement 2		108259				

14 Gabriel Drive
Augusta, ME 04330

207.620.3800 PHONE
207.621.8226 FAX

www.TRCsolutions.com

June 13, 2014

Shukria Wiar, Planner
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

Re: Amendment for the Level 2 Site Alteration Permit for the Central Maine Power Company (CMP) Union Street Substation, Portland, Maine
(Project Id: 2013-070; CBL: 32-I-039)

Dear Shukria:

Enclosed is the amendment of the Site Alteration permit for the CMP Union Street Substation. The City issued a Level II Site Alteration permit to CMP for the upgrade and replacement of most of the electrical components. As a component of these upgrades CMP has installed a grounding grid and will replace the chain link security fence with a nonconductive fence. These two components provide a grounding system that was designed to prevent electrical shock within the substation and outside the substation along the fence line. The replacement of the chain link security fence which encompasses the entire substation, except along two sides of the control house, was approved as part of the original Level II application. A small section of fence that encloses an area on the outside of the control house and protects the HVAC system from vandalism was not considered at that time. This area around the HVAC system can only be accessed through a gate on the outside of the substation. CMP proposes to replace the fence in place, but modify it slightly to allow access directly from the substation. CMP also proposes to replace the topsoil with the same crush rock substrate as exists in the substation yard, but will keep the same grade.

With replacement of the fence modifications to the landscaping between the existing chain link fence and the Union Street sidewalk are necessary. Trees, generally small saplings, have grown in between the fence and control house will need to be removed for security and safety reasons. Two to four other saplings will need to be removed just outside the fence line. One canopy tree will need to be removed as its roots are directly under the existing fence and will probably not survive the fence removal and installation. The landscaping plan has been revised to reflect the removal of these trees and additional plantings are proposed to improve the screening and aesthetics.

A number of attachments that document and describe the proposed work are provided below. These include:

- Attachment 1: Photos of the fenced area around the HVAC unit.
- Attachment 2: Pre-development conditions and boundary survey.
- Attachment 3: Landscape plan with ongoing the proposed site conditions.
- Attachment 4: Nonconductive fence specifications.

The following provides a summary of the development review criteria that apply to the fence replacement and landscape plan alteration.

Transportation: CMP does not propose any alterations to the surrounding streets, access and circulation, and the City public transit system. All work is confined to CMP owned property and does not extend into any public areas. The sidewalk will not be altered or blocked during or after construction.

Easements and utilities: There are no easements, above ground, or below ground utilities within the fenced area.

Oil and hazardous materials containment: The substation has been designed with oil and hazardous materials containment and the proposed fence and landscape work will not have any impact on those systems.

Natural resources: There are no natural resources on the Union Street substation site.

Landscape preservation: A number of arbor vitae saplings and one crab apple tree will be removed from within and adjacent to the fenced area. Two additional crab tree plantings will be installed along Union Street between the fence and sidewalk. There are no changes to the shrub plantings.

Water quality, stormwater management, and erosion control: No alterations to the stormwater management system are proposed. An erosion control blanket is in place around the outside of the substation which will remain in place until the landscape plantings are installed and mulch applied

Public infrastructure and community safety standards: historic resources, lighting, signage, zoning, buffering: The fence replacement and landscape alterations will not have any effect on local community and cultural resources. The proposed work will not extend into any public areas or alter any historic resources. The replacement fence has more screening qualities than the chain link fence and will help to reduce the visibility of the control house.

Thanks for your assistance with the application. Please contact me at 620-3844 with any questions or comments and I will provide you with any additional information needed.

Sincerely,

Mark W. Christopher, MS, CWB
Environmental Scientist

cc: Jaimey Caron, Gerry Mirabile, TRC File 182847

Enclosures

ATTACHMENT 1
PHOTOGRAPHS WITH DESCRIPTIVE NOTES

Photo 1. Chain link fence to be replaced with erosion controls in place between the existing landscaping and the sidewalk.

Photo 2. The tree with the rope will likely be replaced. Saplings within the fenced area and saplings immediately to the left of the fence will be removed.
Note the HVAC system on the left and vandalism on the right side of the building.

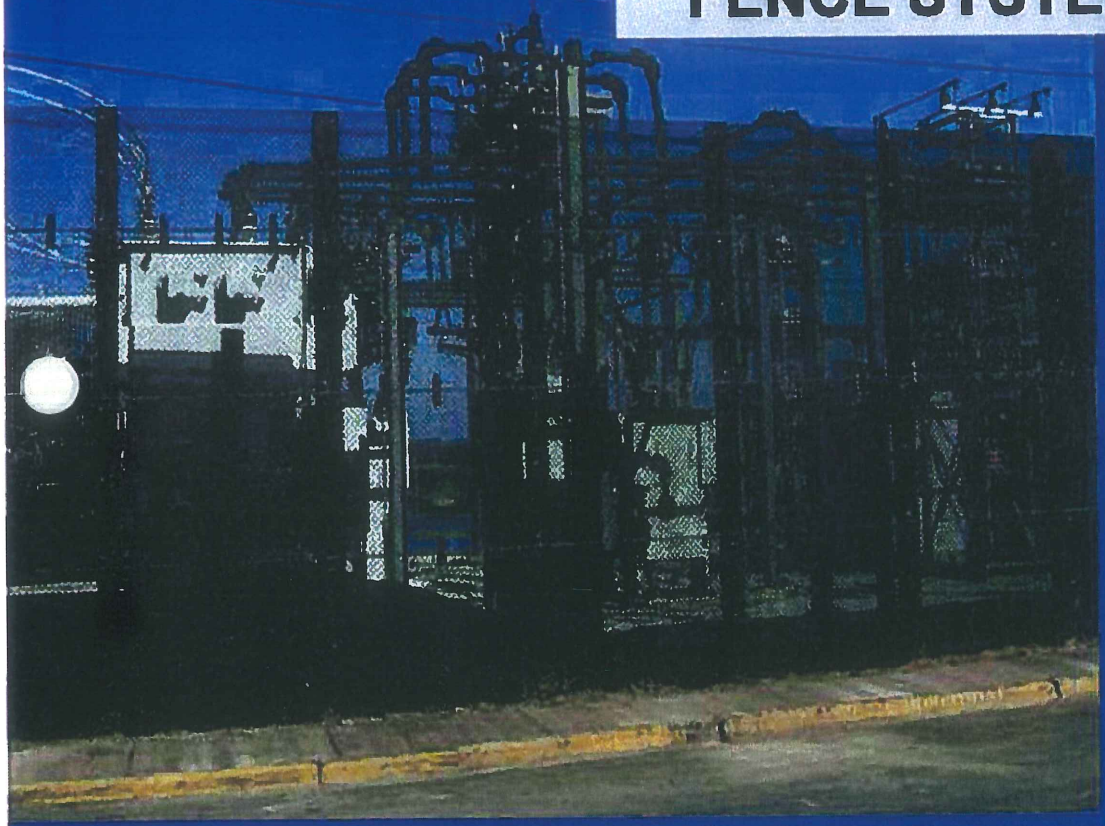
ATTACHMENT 2
PRE-DEVELOPMENT CONDITIONS AND BOUNDARY SURVEY

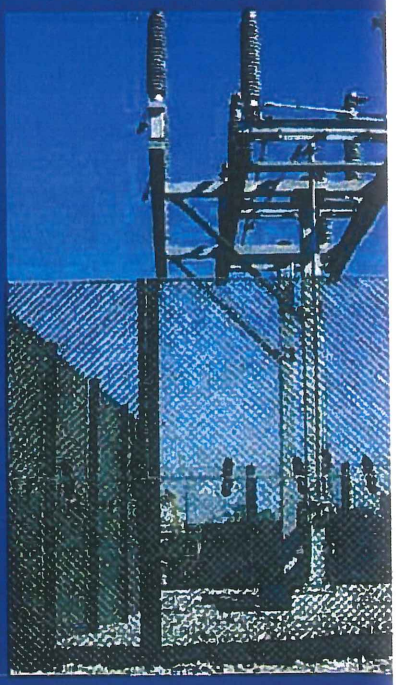
ATTACHMENT 3
LANDSCAPE PLAN WITH ONGOING AND PROPOSED DEVELOPMENT

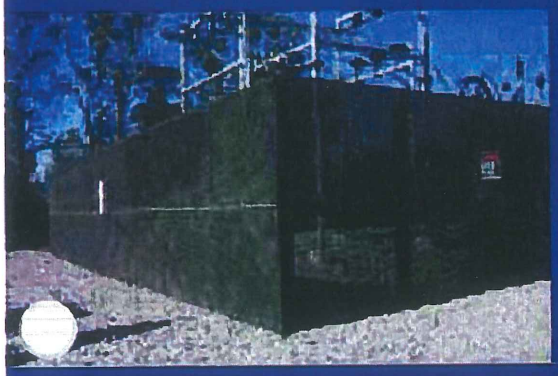
ATTACHMENT 4
NONCONDUCTIVE FENCE SPECIFICATIONS AND CHARACTERISTICS

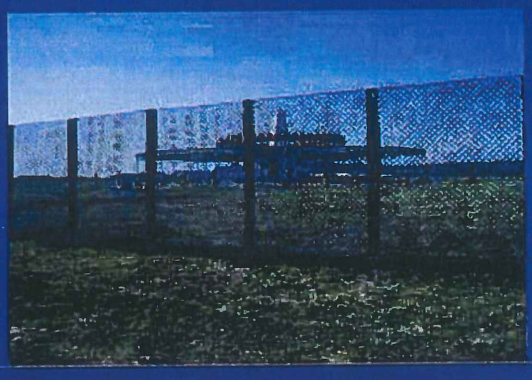
AMICO

ANC NON-CONDUCTIVE FENCE SYSTEM









ANC Composite Fence System™

Non-Conductive Fencing

Alabama Metal Industries Corporation, AMICO, produces the ANC Composite Fence System™. The ANC System™ is a revolutionary concept that allows the security barrier to be non-conductive (does not conduct electricity) and invisible to radar (microwave transmissions).

AMICO continues to introduce and improve physical security products with many added features. The ANC System is no exception. This composite fence system is also:

Non-Magnetic
Fire Retardant
CorrosionResistant

and available in either Medium or Maximum Security.

The System

For ease of new construction and the retrofit of existing fences the basic components have been designed to be similar to standard fencing. Utilizing the AMICO network of Certified and Approved Dealer/Installers we can recommend skilled installers throughout the United States and Canada. Since the system is not made of metal the weight per square foot is much lighter than steel yet almost as strong. Typical ANC Composite Panels are capable of sustaining impact loads in excess of 2,000 lbs.

Materials

The ANC Composite Fence System utilizes panels, posts, fittings and fasteners all made from materials proven to be non-conductive and invisible to microwaves.

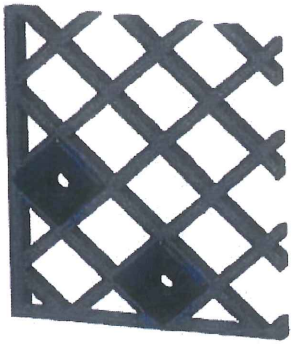
Panels

Panels are manufactured in two standard sizes; 3-ft x 12-ft long and 4-ft x 12-ft long.

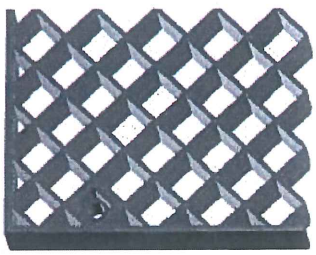
Standard Stock Panel Sizes		
Style	High	Wide
ANC 1.0-1.75	3'	12'
ANC 1.0-1.75	4'	12'
ANC .50-2.25	3'	12'
ANC .50-2.25	4'	12'

The 3 and 4-ft sizes provide barriers 6-ft high through 15-ft high. The 12-ft panel width allows ease of installation and added strength with each panel spanning on three posts.

Panels are available with diferent size openings. The different opening sizes of the panels allow for different levels of security.

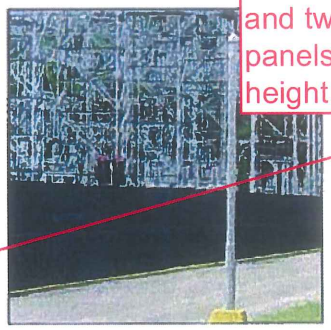


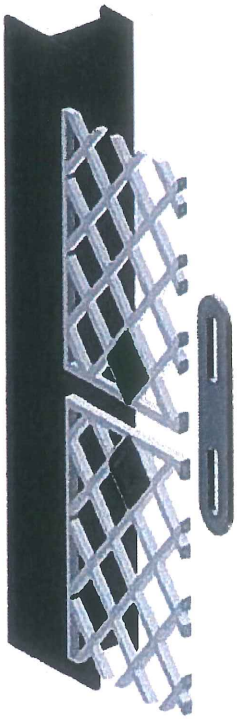
ANC .50-2.25 Medium Security



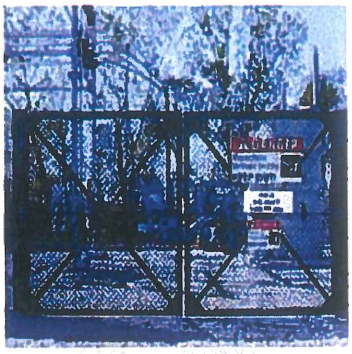
ANC 1.0-1.75 Maximum Security
Dark gray is the standard color

CMP will use this model with one 4' and two 3' tall panels for a total height of 10'.





Isometric view of H-Post, ANC Panels, Panel Plugs and Back Straps.



ANC Composite Fence System™

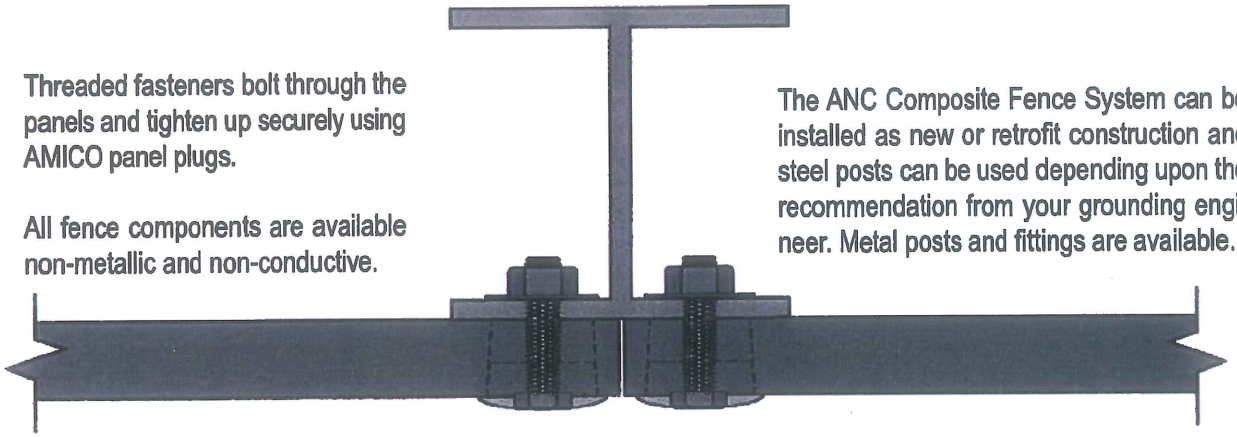
Non-Conductive Fencing

The ANC Composite Fence System™ combines non-conductivity and security into an easy to install solution for the energy industry, air and marine transportation

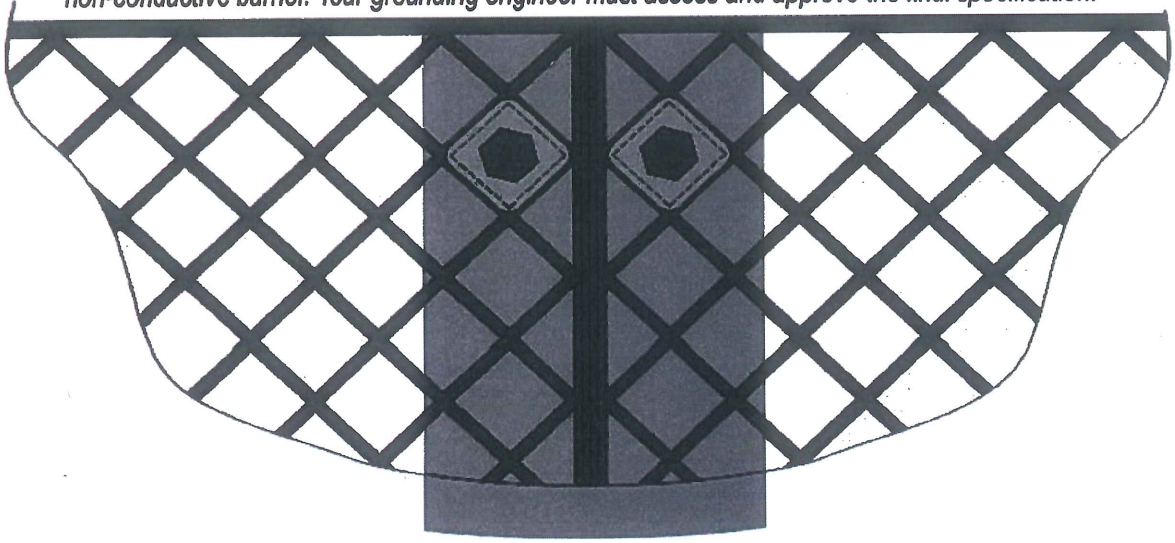
Threaded fasteners bolt through the panels and tighten up securely using AMICO panel plugs.

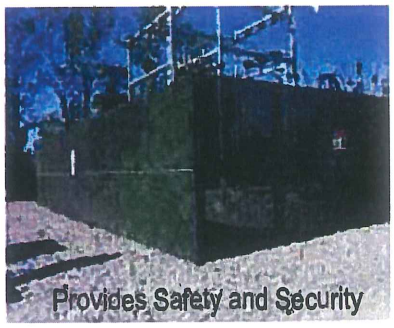
All fence components are available non-metallic and non-conductive.

The ANC Composite Fence System can be installed as new or retrofit construction and steel posts can be used depending upon the recommendation from your grounding engineer. Metal posts and fittings are available.



The materials and information contained herein are designed as a guildline for selecting and planning a non-conductive barrier. Your grounding engineer must assess and approve the final specification.





For more information on our security products, visit **www.amico-securityproducts.com** or call 800/366-2642.

ANC Composite Fence System™

Non-Conductive Fencing

PART 1 - General

1.01 DESCRIPTION OF WORK

Included work not limited to the supply and installation of an electrically non-conductive / radar invisible barrier as specified below.

1.02 SUBMITTALS

Product Data: Submit manufacturers' specifications, ANC Non-Conductive Fencing literature and samples as required prior to ordering.

1.03 QUALITY ASSURANCE

Certified and Approved Dealer / Installers shall provide experienced installation crews to install the non-conductive / radar transparent fencing system as specified.

1.04 STORAGE AND HANDLING

Materials shall be stored in such a manner to ensure proper ventilation, drainage and to protect against damage from weather, vandalism and theft. In event of any freight damage, note damage on the freight bill and contact manufacturer immediately.

PART 2 – PRODUCTS

2.01 MANUFACTURER AND ACCEPTABLE PRODUCT

The Electrically Non-Conductive mesh panels shall conform with material specifications as manufactured by Alabama Metal Industries Corporation (AMICO), Birmingham, AL. Security Products Department: Telephone 800/366-2642

2.02 MATERIALS

The materials used to manufacture the non-conductive / radar transparent fence system are not covered under any ASTM standard at this time. The materials and accoutrements for this fencing system are unique. All panels, fittings and methods of securing are of a design impletented for the purpose of creating an electrically non-conductive and or transparent to electromagnetic wave (radar transparent) barrier. All design, construction and components shall be approved by the owner's grounding engineer to meet the desired level of non-conductivity and electromagnetic wave transparency.

2.03 NON-CONDUCTIVE FENCING

A. NEW AND RETROFIT CONSTRUCTION

Depending upon grounding conditions and requirements new non-conductive fence panels may be installed utilizing either non-conductive framework or schedule 40 / SS-40 steel framework. For grounding purposes the fittings and fasteners securing panels to the framework shall be the same material as the framework; non-conductive or steel.

B. Existing metal fence framework may be incorporated into the non-conductive fence. Existing fence posts of a suitable strength and height may be reused to install AMICO non-conductive panels, metal fittings and metal fasteners. Any existing chain link fabric, barbed wire or barbed tape must be removed since these metal items will conduct electricity throughout the fence line.

2.04 RADAR TRANSPARENT FENCING

NEW CONSTRUCTION

With the intent of being invisible to radar and microwave transmissions; all panels, posts, fittings, fasteners and accoutrements shall be non-metallic.

2.05 FINISH

The thru color finish does not require painting. Standard colors are dark gray and green. The finish will not rust or corrode.

PART 3 – Execution

3.01 INSTALLATION

A. Installation and lay-out of the job shall be approved by the owner or general contractor prior to installation.
B. ANC Fencing must be installed using AMICO non-conductive panels and fittings.
C. Fence post spacing shall be spaced to allow each panel to join on a post. If two or more panels are used to attain a certain barrier height the panels ends shall be staggered for added strength and security.

ALABAMA METAL INDUSTRIES CORPORATION
3245 Fayette Avenue u Birmingham, AL 35208
800/366-2642 u Fax 205/786-6527

For information on other AMICO physical security products
Secura Fence System® - Security Mesh® - Secura Lath® - Secura Mesh Partition System® and Ornamesh®
see our website **www.amico-securityproducts.com**

ANC COMPOSITE FENCE SYSTEM™

ANC .50 - 2.25

ANC COMPOSITE FENCE SYSTEM™
Non-Conductive Fencing

Alabama Metal Industries Corporation
AMICO
January 2008

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK
Included work not limited to the supply and installation of an electrically non-conductive / reduced radar reflective barrier as specified below.

1.02 SUBMITTALS
Product Data: Submit manufacturers' specifications, ANC Non-Conductive Fencing literature and samples as required prior to ordering. Prior to ordering test certified test results shall be submitted providing the documented ability of the fence system to prevent the transmission of electricty throught the system for electric utility applications and the level of radar reflectivity for airport installation. Further, horizontal load deflection test results shall be submitted.

1.03 QUALITY ASSURANCE
Certified and Approved Dealer / Installers shall provide experienced installation crews to install the ANC Fence System as specified.

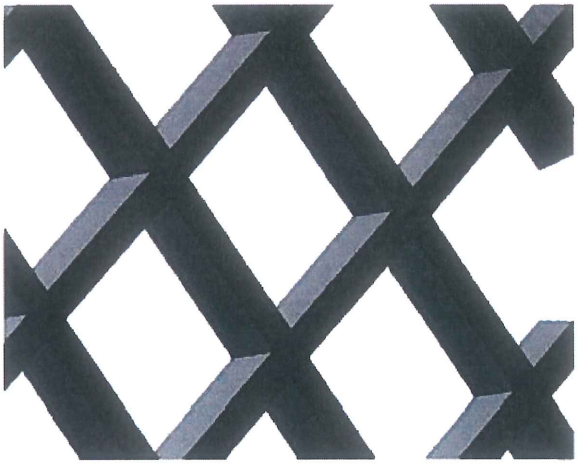
1.04 STORAGE AND HANDLING
Materials shall be stored in such a manner to ensure proper ventilation, drainage and to protect against damage from weather, vandalism and theft. In event of any freight damage, note damage on the freight bill and contact manufacturer immediately.

PART 2 – PRODUCTS

2.01 MANUFACTURER AND ACCEPTABLE PRODUCT
The Electrically Non-Conductive mesh panels shall conform with material specifications as manufactured by Alabama Metal Industries Corporation (AMICO), Birmingham, AL. Security Products Department:
Telephone 800/366-2642 or email ancfence@gibraltar1.com

2.02 MATERIALS
The materials and accoutrements for this fencing system are unique. All panels, fittings and methods of securing are of a design implemented for the purpose of creating a barrier that does not conduct electricity and greatly reduces the barriers radar signature. All design, construction and components shall be approved by the owner to meet the desired level of non-conductivity and electromagnetic wave transparency.

A. ANC COMPOSITE FENCE PANELS – ANC .50 – 2.25
The ANC Mesh used shall conform to the following specification:
1. Width of panel – 12 ft.
2. Height of panel – 3 ft and 4 ft.
3. Mesh diamond opening – 2.25 inch x 2.25 inch nominal allowing 72% open area
4. Mesh thickness – 0.500 inch nominal
5. Weight – 1.36 pounds per square foot
6. Standard Color - Dark Gray



2.03 ELECTRICAL UTILITY NON-CONDUCTIVE FENCING
A. NEW AND RETROFIT CONSTRUCTION
Depending upon grounding conditions and requirements new non-conductive fence panels may be installed utilizing either non-conductive framework or schedule 40 / SS-40 steel framework.
B. Existing metal fence framework may be incorporated into the non-conductive fence. Existing fence posts of a suitable strength and height may be retrofitted using AMICO non-conductive panels, metal fittings and metal fasteners. Any existing chain link fabric, barbed wire or barbed tape must be removed since these metal items will conduct electricity throughout the fence line.

2.04 RADAR AND AIRPORT APPLICATIONS NEW CONSTRUCTION
All panels, posts, fittings, fasteners and accoutrements used with the intent of minimizing the radar signature of the barrier shall be non-metallic.

2.05 FINISH
The thru color finish does not require painting. The standard color is dark gray. Request information on custom colors. The finish will not rust or corrode.

PART 3 – EXECUTION

3.01 INSTALLATION
A. Installation and lay-out of the job shall be approved by the owner or general contractor prior to installation.
B. ANC Fencing must be installed using AMICO non-conductive panels, fittings and installed by AMICO Certified and Approved Dealer / Installers.
C. Where possible fence post spacing shall be spaced to allow each panel to join on a post. If two or more panels are used to attain a certain barrier height the panels ends shall be staggered for added strength and security.
D. Follow the fittings useage tables for each type of application whether the application be 100% Non-Conductive non-metallic or using steel framework to assure safety and security.
E. Cutting, sealing and safety information is available upon request from the manufacturer.

ANC COMPOSITE FENCE SYSTEM™
ANC 1.0 - 1.75

ANC COMPOSITE FENCE SYSTEM™
Non-Conductive Fencing

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK
Included work not limited to the supply and installation of an electrically non-conductive / reduced radar reflective barrier as specified below.

1.02 SUBMITTALS
Product Data: Submit manufacturers' specifications, ANC Non-Conductive Fencing literature and samples as required prior to ordering. Prior to ordering test certified test results shall be submitted providing the documented ability of the fence system to prevent the transmission of electricty throught the system for electric utility applications and the level of radar reflectivity for airport installation. Further, horizontal load deflection test results shall be submitted.

1.03 QUALITY ASSURANCE
Certified and Approved Dealer / Installers shall provide experienced installation crews to install the ANC Fence System as specified.

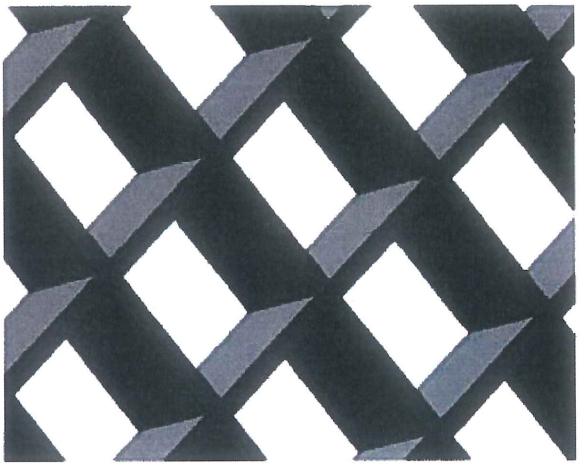
1.04 STORAGE AND HANDLING
Materials shall be stored in such a manner to ensure proper ventilation, drainage and to protect against damage from weather, vandalism and theft. In event of any freight damage, note damage on the freight bill and contact manufacturer immediately.

PART 2 – PRODUCTS

2.01 MANUFACTURER AND ACCEPTABLE PRODUCT
The Electrically Non-Conductive mesh panels shall conform with material specifications as manufactured by Alabama Metal Industries Corporation (AMICO), Birmingham, AL. Security Products Department:
Telephone 800/366-2642 or email ancfence@gibraltar1.com

2.02 MATERIALS
The materials and accoutrements for this fencing system are unique. All panels, fittings and methods of securing are of a design implemented for the purpose of creating a barrier that does not conduct electricity and greatly reduces the barriers radar signature. All design, construction and components shall be approved by the owner to meet the desired level of non-conductivity and electromagnetic wave transparency.

A. ANC COMPOSITE FENCE PANELS – ANC 1.0 – 1.75
The ANC Mesh used shall conform to the following specification:
1. Width of panel – 12 ft.
2. Height of panel – 3 ft and 4 ft.
3. Mesh diamond opening – 1.75 inch x 1.75 inch nominal allowing 68% open area
4. Mesh thickness – 1.000 inch nominal
5. Weight – 2.36 pounds per square foot
6. Standard Color - Dark Gray



2.03 ELECTRICAL UTILITY NON-CONDUCTIVE FENCING
A. NEW AND RETROFIT CONSTRUCTION
Depending upon grounding conditions and requirements new non-conductive fence panels may be installed utilizing either non-conductive framework or schedule 40 / SS-40 steel framework.
B. Existing metal fence framework may be incorporated into the non-conductive fence. Existing fence posts of a suitable strength and height may be retrofitted using AMICO non-conductive panels, metal fittings and metal fasteners. Any existing chain link fabric, barbed wire or barbed tape must be removed since these metal items will conduct electricity throughout the fence line.

2.04 RADAR AND AIRPORT APPLICATIONS NEW CONSTRUCTION
All panels, posts, fittings, fasteners and accoutrements used with the intent of minimizing the radar signature of the barrier shall be non-metallic.

2.05 FINISH
The thru color finish does not require painting. The standard color is dark gray. Request information on custom colors. The finish will not rust or corrode.

PART 3 – EXECUTION

3.01 INSTALLATION
A. Installation and lay-out of the job shall be approved by the owner or general contractor prior to installation.
B. ANC Fencing must be installed using AMICO non-conductive panels, fittings and installed by AMICO Certified and Approved Dealer / Installers.
C. Where possible fence post spacing shall be spaced to allow each panel to join on a post. If two or more panels are used to attain a certain barrier height the panels ends shall be staggered for added strength and security.
D. Follow the fittings useage tables for each type of application whether the application be 100% Non-Conductive non-metallic or using steel framework to assure safety and security.
E. Cutting, sealing and safety information is available upon request from the manufacturer.

Alabama Metal Industries Corporation
January 2008

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes
1. Fence framework, fabric, and accessories
2. Excavation for post bases
3. Concrete foundation for posts and center drop gates
4. Manual gates and related hardware

1.02 RELATED SECTIONS

A. Section 03 30 10 – Cast-in-Place Concrete

B. Section 03 41 02 – Miscellaneous Precast Concrete

C. Section 28 05 53 – Identification for Electrical Equipment Safety & Security – Substation Markers & Labels.

1.03 REFERENCES

A. Manufacturer's Certified Test Reports attesting the level of non-conductivity

1.04 SYSTEM DESCRIPTION

A. Work includes layout and installation of substation security fence and gates. Also included is miscellaneous fences and fence related appurtenances. Fencing system specifically designed and tested to be non-conductive to electricity for providing a safe and secure barrier around electrical substation locations.

B. Fence line layout, gate location and fence dimensional information is provided on the project drawings. Fence component dimension are provided in this specification and project drawings.

1.05 SUBMITTALS

A. Fence Installer Qualifications: Submit name, address, references, and general qualifications of the firm responsible for the fence installation.

B. Shop Drawings: Indicate plan layout, spacing of components, post foundation dimensions, hardware anchorage, gates, and schedule of components.

C. Placement Drawings: Include plans, elevations and sections showing construction, installation and fasteners.

D. Product Data: Submit data on fabric, posts, accessories, fittings, hardware and method of joining non-conductive materials.

E. Manufacturer's Installation Instructions: Submit installation requirements.

F. Submit As-Built details of fence, gate(s), locations & details of terminal posts (end, corner, pull and gate), and their respective foundation(s). Record and submit information as required under Section 01 00 00 - General Requirements.

1.06 QUALITY ASSURANCE

A. At time of submittal, certified test results must be presented confirming non-conductivity.

B. Field measurements shall be taken prior to submittal of final shop drawings and fabrication.

C. Each product type shall be the same and be made by the same manufacturer.

D. The Non-Conductive Fence shall be capable of sustaining a horizontal load of 1500 pounds.

E. Perform Work in accordance with State, local and Owner requirements.

1.07 COORDINATION

A. Grading-Ensure site grading is ready to accommodate fencing work before setting fence posts. Coordinate the start of the fence installation with the site work Contractor.

1.08 QUALIFICATIONS

A. Manufacturer shall be a company regularly engaged in the manufacture of fence and fence components of a non-conductive fencing system.

B. Installer shall be a company specializing in performing work of this section with minimum three (3) years experience, or having provided similar services on Owner projects and acceptable to the Owner.

1.09 DELIVERY, STORAGE AND HANDLING

A. Materials shall be protected against damage from weather, vandalism, and theft. In the event of freight damage, note freight bill and contact manufacturer immediately.

B. Care shall be taken when storing materials to insure and prevent damage from excessive or uneven storage and or damage to the finish.

C. Store fence materials in secure and dry place, off of ground and protected from weather and construction traffic.

D. Do not install damaged material.

PART 2 PRODUCTS

2.01 MANUFACTURER

A. The Electrically Non-Conductive panels shall conform to material specifications as manufactured by Alabama Metal Industries Corporation (AMICO), Birmingham, AL. Security Products Department: Telephone 800/366-2642 or approved equal.

2.02 MATERIALS

A. The materials and accoutrements for this fencing system are unique. All panels, fittings and methods of securing are of a design implemented for the purpose of creating an electrically non-conductive barrier. All design, construction and components shall be approved by the owner's grounding engineer to meet the desired level of non-conductivity. Construction and design of the fence shall comply with the non-conductive fence manufacturer's recommendations and be approved by the owner's grounding engineer. Common materials not manufactured specifically for a non-conductive fence are NOT acceptable for this work.

B. Color of materials shall be dark gray.

C. The finish shall not rust of corrode.

2.03 PANELS

A. Non-Conductive Panel Style as noted on drawing(s) (ANC 1.0-1.75).

2.04 NON-CONDUCTIVE FRAMEWORK

A. 100 percent non-conductive construction shall only incorporate non-conductive materials for posts and supports members as required. Color shall be dark gray.

B. Line posts shall be an H-Type post 6-inches x 4-inches x 2-inches with a minimum thickness of 0.375-inches.

C. Gate posts shall be 12-inches x 12-inches x 1/2-inch H-Posts.

2.05 METHODS OF ATTACHMENT

A. 100 percent non-conductive construction shall only incorporate non-conductive materials for posts, gates, supports, fittings and fasteners as supplied by the manufacturer.

2.06 SWING GATES

A. Gates shall be manufactured from the same non-conductive mesh panels and materials as specified above.

B. Gate sizes and locations shall be noted on the drawings.
C. Gate hinges and bolts securing the gate members shall be galvanized steel.

D. Gates shall be the same height as the fence.

2.06 FABRICATION

A. Exposed joints will butt tight and flush.

B. Verify dimensions on site prior to shop fabrication.

2.07 CONCRETE PRODUCTS

A. Post Foundation Concrete: Provide 3000 psi minimum 28-day compressive strength concrete for post foundations in accordance with 03 30 10 – Cast-In-Place Concrete.

B. Gate Concrete Thresholds: Contractor shall supply and install precast concrete threshold as shown on Contract Drawings & specified in 03 41 02 – Miscellaneous Precast Concrete.
1. Threshold shall include a gate stop cast integral with the unit.
2. Contractor shall provide rigid insulation and prepare site accordingly to accept thresholds.

C. Non-Shrink Grout: ASTM C1107, quick set expansive hydraulic cement grout designed for exterior post setting in rock. Free of chlorides and metallic aggregates.
1. 5000psi, 28-day minimum compressive strength as determined in accordance with ASTM C109.
2. Polymer modified or epoxy grouts designed for application may also be used with Owner approval.

PART 3 EXECUTION

3.01 PREPARATION

A. Coordinate post setting, and guidelines for installation of materials with other trades.

B. Installation and lay-out of the job shall be approved by the owner or general contractor prior to installation.

3.02 INSTALLATION

A. Install in accordance with manufacturer's drawings and direction.

B. Fit materials together to form tight joints except as necessary for expansion and change in grade.

C. Perform cutting, drilling, and fitting required for installation.

D. The ANC Fence must be installed using AMICO non-conductive panels and fittings.

E. Vertical joints must be staggered on the ANC 1.0-1.75 mesh panels.

F. Follow the cutting, sealing and safety information as recommended by the manufacturer.

G. Posts shall be plumb, spaced and installed as noted on drawings.

3.03 CLEANING

A. The contractor shall be responsible to clean up the jobsite of any unused materials and trash.

B. Post hole excavations shall be scattered uniformly away from posts.

END OF SECTION

AMICO security products

ANC Non-Conductive Fence System®

AMICO introduces the ANC Non-Conductive Fence System® that allows the security barrier to be non-conductive (does not conduct electricity or allow induced voltage) and it greatly reduces radar reflectivity (microwave transmissions). Designed for new or the retrofit of existing fencing.

Features:

- Mesh Pattern Allows for Generous Air Flow
- Mesh has minimum 70% open area
- Mesh sizes range from 1/2" - 2"
- Can provide medium / maximum level of security
- Only non-conductive components used
- Non-magnetic
- Corrosion Resistant
- Fire retardant
- Withstands ultraviolet rays
- Easy to install
- Light weight
- Low maintenance

Download brochure

ANC 1.0-1.75, ANC .50-2.25, 09206, 09 29 00