SECTION 32 31 13

CHAIN LINK FENCE

GALVANZED CHAIN LINK FABRIC ON GALVANIZED FRAMEWORK

[Provided by Master Halco]

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Galvanized (zinc) coated chain link fabric with galvanized steel framework and accessories for commercial or industrial applications.

1.02 RELATED SECTIONS [select applicable sections for project, delete those not applicable]

- 01 33 13 Certifications
 01 33 23 Shop drawings, product data
 01 43 13 Manufacturers Qualifications
 01 43 13 Installer qualifications
 01 45 00 Quality control
 01 65 00 Product delivery requirements
 03 30 00 Cast-In-Place Concrete
 25 50 00 Integrated automation, gate operators/access control
 32 31 13.23 Recreational Court Fences and Gates
 32 31 13.26 Tennis Court Fences and Gates
 32 31 13.33 Chain Link Backstops
 32 31 13.53 High-Security Chain Link Fences and Gates
- 1.03 **REFERENCES** [delete references no applicable to project]
 - A. ASTM A36 Standard Specification for Carbon Structural Steel
 - B. ASTM A121 Standard Specification for Metallic-Coated Carbon Steel Barbed Wire
 - C. ASTM A392 Standard Specification for Zinc-Coated Steel Chain-Link Fabric
 - D. ASTM A780 Standard Practice for Repair of Damaged and Uncoated Areas of Hot-dip Galvanized Coatings
 - E. ASTM A817 Standard Specification for Metallic-Coated Steel Wire for Chain Link Fence Fabric and Marcelled Tension Wire
 - F. ASTM A824 Standard Specification for Metallic-Coated Steel Marcelled Tension Wire for Use With Chain Link
 - G. ASTM B221 Standard Specification for Aluminum and Aluminum Alloy Bars, Rods, Wire Profiles and Tubes
 - H. ASTM F552 Standard Terminology Relating to Chain Link Fencing
 - I. ASTM F567 Standard Practice for Installation of Chain Link Fence
 - J. ASTM F626 Standard Specification for Fence Fittings
 - K. ASTM F900 Standard Specification for Industrial and Commercial Swing Gates

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- L. ASTM F1043 Standard Specification for Strength and Protective Coatings on Steel Industrial Chain Link Fence Framework
- M. ASTM F1083 Standard Specification for Pipe, Steel, Hot-Dipped Zinc-Coated (Galvanized) Welded, for Fence Structures
- N. ASTM F1184 Standard Specification for Industrial and Commercial Horizontal Slide Gates
- O. ASTM F1910 Standard Specification for Long Barbed Tape Obstacles
- P. ASTM F1911 Standard Practice for Installation of Barbed Tape
- Q. ASTM F2200 Standard Specification for Automated Vehicular Gate Construction
- R. UL 325 Door, Drapery, Gate, Louver and Window Operators
- S. WLG2445 Chain Link Fence Manufacturers Institute, Chain Link Fence Wind Load Guide for the Selection of Line Posts and Line Post Spacing

1.04 SUBMITTALS

- A. Changes in specifications may not be made after the bid date.
- B. Shop drawings: Layout of fences and gates with dimensions, details, and finishes of components, accessories, and post foundations.
- C. Product data: Manufacturer's catalog cuts indicating material compliance and specified options.
- D. Samples: If requested, samples of materials (e.g., fabric, wires, and accessories).

1.05 QUALITY ASSURANCE

- A. Manufacturer: Company having manufacturing facilities in the United States with a minimum 5 years experience specializing in manufacturing of chain link fence products.
- B. Fence contractor: Contractor having 5 years experience installing similar projects in accordance with ASTM F567.
- C. Tolerances: ASTM current specification and tolerances apply and supersede any conflicting tolerance.
- D. Substitutions: Alternate chain link products may be acceptable by the architect as equal if approved in writing ten days prior to bidding provided that the items submitted meet the specifications contained in this document.
- E. Single source: To ensure system integrity obtain the chain link system, framework, fabric, fittings, gates and accessories from a single source.

PART 2 - PRODUCTS

2.01 MANUFACTURER

Approved Manufacturer: Master Halco, Inc. 3010 Lyndon B Johnson Freeway Dallas, TX. 75234 Phone (800) 883-8384 www.masterhalco.com E-mail: spec@fenceonline.com

2.02 CHAIN LINK FENCE FABRIC

A. Galvanized (zinc) coated steel chain link fabric per ASTM A392

[Class 1 weight of zinc coating 1.2 oz/ft² (366 g/m²)] [Class 2 weight of zinc coating 2.0 oz/ft² (610 g/m²)] [select zinc coating class] [see Fabric Selection Table for mesh size, wire gauge, break load and selvage; knuckle (K) or twist (T), to fit application]

Size and Height: Chain link fabric (ir	า.) (mm) mesh, () gauge,	(in.) (mm) diameter
wire having a break load of () lbf	(N), mesh height	(ir	า.) (mm).	

B. Selvage of fabric _____at top and _____at bottom.

2.03 STEEL FENCE FRAMEWORK

[select post specification that best fits application]

A. Steel pipe Type I: ASTM F1043 Group IA, ASTM F1083 standard weight schedule 40 hot-dip galvanized pipe having a zinc coating of 1.8 oz/ft² (550 g/m²) on the outside surface and 1.8 oz/ft² (550 g/m²) on the inside surface. Regular Grade: Minimum steel yield strength of 30,000 psi (205 MPa) [all sizes]

Intermediate Strength Grade: Minimum steel yield strength of 50,000 psi (344 MPa) [in sizes 6.625" and 8.625" (168.3, 219.1 mm) OD only]

High Strength 83000 Grade: Minimum steel yield strength 83,000 psi (572 MPa) [all sizes up to and including 4.00" OD (101.6mm) [special order]

- B. Steel pipe Type II: Cold formed electric resistance welded steel pipe complying with ASTM F1043 Group IC having minimum steel yield strength of 50,000 psi (344 MPa). External protective coating F1043 Type B, 0.9 oz/ft² (270 g/m²) minimum hot-dip zinc coating plus a chromate conversion and a clear polymer coating. Internal coating F1043 Type D, 81% nominal zinc pigmented coating minimum 3 mils (0.0076 mm) thick or Type B, minimum 0.9 oz/ft² (275 g/m²) zinc.
- C. Formed steel "C" sections: Roll formed steel shapes complying with ASTM F1043, Group II, 50,000 psi (344 MPa) minimum steel yield strength. External coating, ASTM F1043 Type A, minimum average zinc coating of 2.0 oz/ft² (610 g/m²) in accordance with ASTM A 123.

Wind load caution: Fences containing windscreens or privacy slats, all fences greater than 12 ft. (3.7 m) in height and fences 8 feet (2.4 m) in height using 1 in. (25 mm) or smaller mesh require a wind load force analysis for post size and post spacing. A fence post wind load calculator is available at <u>www.chainlinkinfo.org</u> or <u>www.wheatland.com</u>.

[select post size and spacing from Framework Selection Table or as calculated to withstand wind load]

F	Dina Dail and Pragas, 1 660	(in OD (42.2 mm))	lbc/ft (ka/m)	
	[Alternate Line Post:] [Rolled Formed	C" (mm)	lbs/ft (kg/m)]
E.	Pipe Line Post	OD (mm)	lbs/ft (kg/m)
D.	Pipe End and Corner Post	OD (mm)	lbs/ft (kg/m)

F. Pipe Rail and Braces, 1.660 in. OD (42.2 mm) _____ lbs/ft (_____ kg/m)

2.04 FITTINGS

- A. Post caps: ASTM F626 galvanized pressed steel, malleable iron, or aluminum alloy weather tight closure cap for tubular posts. Provide one cap for each post. "C" shaped line post without top rail do not require post caps. When top rail is specified provide line post loop tops to secure top rail.
- B. Rail ends: Galvanized pressed steel per ASTM F626, for connection of rails to post using a brace band.
- C. Top rail sleeves: 7" (178 mm) galvanized steel sleeve per ASTM F626. [If expansion and contraction of the rail is of concern add a 0.137" (3.48 mm) wire diameter by 1.80" (45.72 mm) long expansion spring between the adjourning rails]
- D. Wire ties: 9 gauge (0.148") (3.76 mm) galvanized steel wire for attachment of fabric to line posts and rails. [Alternate double wrap 13 gauge (0.092") (2.324 mm) galvanized steel wire for rails and braces] Pre-formed hog ring ties to be 9 gauge (0.148") (3.76 mm) galvanized steel or aluminum for attachment of fabric to tension wire. Tie wire and hog rings per ASTM F626.
- E. Brace and tension (stretcher bar) bands: ASTM F626 galvanized 12 gauge (0.105") (2.67mm) pressed steel by 3/4" (19mm) formed to a minimum 300 degree profile curvature for post attachment. Secure bands using minimum 5/16" (7.94 mm) galvanized carriage bolt and nut.
- F. Tension (stretcher) bars: Galvanized steel one piece length equal to 2 inches (50 mm) less than full height of fabric with a minimum cross-section of 3/16" x 3/4" (4.76 mm x 19 mm) per ASTM F626. Provide tension (stretcher) bars where chain link fabric is secured to the terminal post.
- G. Truss rod assembly: Galvanized steel minimum 5/16" (7.9mm) diameter truss rod with pressed steel tightener, in accordance with ASTM F626
- H. Barbed wire supporting arms: [add when applicable] Galvanized pressed steel barb arm per ASTM F626 with provisions for attaching barbed wire. Provide arms with loop hole for applications with top rail. Arms shall withstand 250 lb. (113.5 kg) downward pull at outermost end of arm without failure. Arms provide an additional 13 in. (330 mm) in height. [Type I, 45° 3 strand single arm] [Type III 6 strand "V" arms].
- I. Carriage bolts and nuts: Galvanized of commercial quality

2.05 TENSION WIRE

A. Tension wire: ASTM A824 Type II, zinc coated (galvanized) steel wire, 7 gauge, (0.177") (4.50 mm) diameter wire having a tensile strength of 75,000 psi (517 MPa).
 [Class 4 1.20 oz/ft² (366 g/m²)] [Class 5 2.00 oz/ft² (610 g/m²)]

2.06 BARBED WIRE AND BARBED TAPE [add when application requires additional security]

- A. Barbed wire: ASTM A121 design number 12-4-5-14R, 12 ½ gauge, 0.099" (2.51 mm) Type Z Class 3, 0.80 oz/ft² (245 g/m²) zinc coated double-strand twisted line wire with 14 gauge, (0.080") (2.03 mm) Type Z Class 3, 0.70 oz/ft² (215g/m²) zinc coated 4 point barbs spaced an average of 5" (127 mm) on center.
- B. Barbed tape: Stainless steel barbed tape shall comply with ASTM F1910.

2.07 CHAIN LINK SWING GATE

- A. Swing gates [double leaf] [single leaf] ______ opening by _____ high [plus 1' 0" (304.8 mm) 3 strands barbed wire]. Fabricate chain link swing gates in accordance with ASTM F900. Gate frame to be of welded construction. Weld areas to be protected with zinc-rich paint per ASTM A780. The gate frame members are to be spaced no greater than 8' 0" (2.44 m) apart horizontally or vertically. Exterior members to be 1.900" (48.3 mm) OD pipe, interior members when required shall be 1.660" (42.2 mm) OD pipe. Pipe to be [Grade 1 ASTM F1083] [Grade 2 ASTM F1043 Group IC] per section 2.03. Chain link fabric to match specification of fence system. Fabric to be stretched tightly and secured to vertical outer frame members using tension bar and tension bands spaced 12" (304.8 mm) on center and tied to the horizontal and interior members 12" (304.8 mm) on center using 9 gauge galvanized steel ties per section 2.04.
- B. Hinges, hot dip galvanized pressed steel or malleable iron, structurally capable of supporting gate leaf and allow opening and closing without binding. Non-lift-off type hinge design shall permit gate to swing 180° (3.14 rad)
- C. Latch: Galvanized forked type capable of retaining gate in closed position and have provision for padlock. Latch shall permit operation from either side of gate.
- D. Double gates: Provide galvanized drop rod with center gate stop pipe or receiver to secure inactive leaf in the closed position. Provide galvanized pressed steel locking latch, requiring one padlock for locking both gate leaves, accessible from either side.
- E. Gate holdback: Provide galvanized gate hold back keeper for each gate leaf over 5' (1524 mm) wide. Gate keeper shall consist of mechanical device for securing free end of gate when in full open position.
- F. Gate posts: [Grade 1 pipe ASTM F1083] [Grade 2 pipe ASTM F1043 Group IC] per section 2.03, ____OD [select gate post from table below]

 Gate fabric height up to and including 6 ft. (1.2m)

 Gate leaf width
 Outside Diameter

 up to 4 ft.
 (1.2 m)
 2.375 in. (60.3 mm)

 over 4 ft. to 10 ft.
 (1.2 to 3.05 m)
 2.875 in. (73.0 mm)

 over 10 ft. to 18 ft.
 (3.05 to 5.5 m)
 4.000 in. (101.6 mm)

 Gate fabric height over 6 ft. to 12 ft. (1.2 to 2.4m)

 Gate leaf width

 up to 6 ft.
 (1.8 m)
 2.875 in. (73.0 mm)

 over 6 ft. to 12 ft.
 (1.8 to 3.7 m)
 4.000 in. (101.6 mm)

 over 12 ft. to 18 ft. (2.4 to 5.5 m)
 6.625 in. (168.3 mm)

 over 18 ft. to 24 ft. (5.5 to 7.3 m)
 8.625 in. (219.1 mm)

2.08 HORIZONTAL SLIDE GATES

- A. Type I Overhead Slide Gates: In compliance with ASTM F 1184 Type I
- B. Cantilever Slide Gates: Incompliance with ASTM F1184 Type II
 - 1. Class 1 External Roller Design: [double leaf] [single leaf] ______ opening by _____ high [plus 1' 0" (304.8 mm) 3 strands of barbed wire designed per ASTM F 1184-05 with horizontal top and bottom steel pipe "track" members to be 2.375 in. O.D. (60.3 mm), vertical and internal members 1.900 in. O.D. in compliance with <Inset gate pipe frame specification> [ASTM F1043 Group IA 1083 sch 40 pipe] [ASTM F1043 Group IC pipe.] Gate frame to be fabricated by welding, vertical and horizontal members located no greater than 8 ft. (2440 mm) apart. The length of back frame support section shall be a minimum of 40% of the opening. Welded joints are to be protected by applying zinc-rich paint in accordance with ASTM Practice A780. Gates designed to open or close by applying an initial pull force no greater than 40 lbs.(18.14 kg). Match chain link fabric to that of the fence system. Positive locking latch fabricated galvanized pressed steel. Galvanized steel drop bars provided with double gates. Gateposts, 4.00 in. OD (101.6 mm) ___lb/ft <Insert post specification and weight per foot.> [ASTM F1043 Group IA ASTM F10983 sch 40 pipe] [ASTM F1043 Group IC pipe]. Provide Load Master™ II (5 year warranty) nylon cantilever external top and bottom rollers with safety protective guards.

Safety Note: Safety posts and roller covers/guards are required.

- 2. Class 2 Internal Roller Design: Aluminum cantilever slide gate [double leaf] [single leaf] _ opening by high [plus 1' 0" (304.8 mm) 3 strands of barbed wire] shall be of the internal roller design per ASTM F1184 Type II Class 2. Cantilever slide gate to be constructed of ASTM B221 aluminum members welded and designed for maximum structural integrity. Vertical external and internal members minimum 2" (50 mm) square, spaced maximum 8' 0" (2.44 m) on center. Gates having fabric greater than 8' 0" (2.44 m) in height require a horizontal member. The top horizontal member shall be a one-piece precision extruded structural framing member having an integral enclosed track. Bottom horizontal member to be minimum 2" x 4" (50 x 100 mm). Adjustable diagonal X trusses shall be installed in each gate panel to transfer the alternating forces as the gate slides. The gate opening portion shall be filled with chain link fabric stretched taut and secured to the frame members. Chain link fabric shall match the fence system specification. The overall gate structure shall be a minimum of 40% larger than the gate opening to support the cantilevered portion of the gate in the closed position with minimum deflection per ASTM F1184. The minimum 40% back frame does not require the installation of chain link fabric for those gates not to be electrically operated. [Electrically operated gates per ASTM F2200 and UL 325 required the back frame to be filled with fabric.] Single leaf cantilever design for openings larger than 30' 0" (9.15 m) up to 40' 0" (12.2 m) shall be fabricated by welding together two horizontal top structural/track members creating a dual track system. Single track gates up to 30' 0" (9.15 m) opening require two support posts and two internal truck assemblies. Dual track gates over 30' 0" (9.15 m) up to 40' 0" (12.2 m) require two sets of dual posts and four internal truck assemblies.
- G. Internal truck assemblies shall be capable of swiveling to accommodate gate movement and ensure full contact of the four support wheels and two guide wheels to the internal track surface. The galvanized steel truck assembly post bracket, truck assembly vertical support axle as well as the support wheels shall be designed to handle static and dynamic forces required to support and operate the gate. The truck assembly, support axle and internal wheels shall be comprised of stainless steel or galvanized steel components.
- H. Galvanized steel bottom guide roller brackets containing two 3" (75 mm) rubber wheels shall be supplied to keep the bottom of the gate plumb and in proper alignment.

- I. Single gates shall be supplied with a galvanized steel latch mechanism capable of securing the gate with a padlock accessible from either side. Double gates to have galvanized drop rod to hold inactive leaf and a latch mechanism capable of securing the gate with a padlock accessible from either side. Provide drop rod receiver to engage center drop rod. [Electrically operated gates per ASTM F2200 and UL325 shall not contain any latch or locking mechanism]
- J. Cantilever gate posts shall be 4.00" (101.6 mm) OD [Grade 1 pipe ASTM F1083] [Grade 2 pipe ASTM F1043 Group IC] per section 2.03. Single leaf cantilevers up to 30' 0" (9.15 m) require three 4" (101.6 mm) OD posts, dual track single leaf cantilevers over 30' 0" (9.15 m) up to 40' 0" (12.2 m) require two sets of pre fabricated dual 4.00" (101.6 mm) OD support posts and one 4" (101.6 mm) latch post. (Gate is supported in the center of the dual posts.

SAFETY ALERT! Electrically operated cantilever slide gates are for use in controlling vehicular traffic only and are not intended to be used by pedestrians or control pedestrian traffic. Always specify a separate swing walk gate for pedestrian use. The design of electrically operated slide gates must comply with ASTM F2200 and UL 325.

2.09 POST SETTING MATERIALS

- A. Concrete: Minimum 28 day compressive strength of 3,000 psi (20 MPa).
- B. Drive Anchors: Galvanized ASTM A36 steel drive anchor angle blades, [1" x 1" (25 mm x 25 mm)] [1.25" x1.25" (31.8 mm x 31.8 mm)] x 30 " (762 mm) long secured to post with a galvanized shoe clamp. [drive anchors are limited to post size 2.785" (73.0 mm) OD or less]

2.10 ACCESSORIES

A. Privacy Slats: Slats to be manufactured from a combination of color pigments, quality high density virgin polyethylene and ultraviolet inhibitors, having a 25 year limited warranty against either color fading or breakage of slats and locking-channel used under normal climactic extremes experienced In North America and Hawaii. Color: [Beige] [Rustic Brown] [Snow White] [Black] [Redwood] [Sky Blue] [Forest Green] or [Cape Cod Gray]. Select design [Standard PDS self- locking using horizontal bottom channel locking system] [FIN/SLAT '1000' self-locking slats]

PART 3 EXECUTION

3.01 SITE EXAMINATION

- A. Ensure property lines and legal boundaries of work are clearly established.
- B. Survey of fence location to be provided by [general contractor] [fence contractor] [owner]
- C. Verify areas to receive fencing are completed to final grade.

3.02 CHAIN LINK FRAMEWORK INSTALLATION

- A. Install chain link fence system in accordance with ASTM F567 and manufacturer's instructions.
- B. Locate terminal post at each fence termination and change in horizontal or vertical direction of 30° or more.
- C. Space line posts uniformly [8' (2438 mm) on center] [maximum 10' (3048 mm) on center] [maximum _____ ft. (_____mm) on center as determined by wind load post selection calculations]

- D. Concrete set posts: Excavate holes in firm, undisturbed or compacted soil. Holes shall have diameter 4 times greater than outside dimension of post, and depths approximately 6" (152 mm) deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soils, and for posts with heavy lateral loads. Set post bottom 36" (914 mm) below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post and slope to direct water away from posts. Drive Anchor set line posts: With protective cap, drive post 36" (914 mm) into ground. Excavate a 6" (152.4 mm) diameter by 6" (152.4 mm) deep section around post to accommodate the drive anchor shoe clamp. Drive the 2 diagonal drive anchor angle blades into the soil and securely tighten the angle blades to post via the shoe clamp, backfill hole. [post setting can be a combination of both drive anchors for line posts and concrete for terminal posts, delete reference to drive anchors if not specified]
- E. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- F. Bracing: Install horizontal brace and truss assembly at mid-height or above for fences 6' (1829 mm) and over at each fabric connection to the terminal post. The diagonal truss rod is installed at the point where the brace rail is attached to the terminal post and diagonally down to the bottom of the adjacent line post. Place the truss rod in tension by adjusting the turnbuckle.
- G. Tension wire: Install tension wires so that it will be located 4" (101.6 m) up from bottom the fabric. If top rail is not specified, install the tension wire so that it will be located 4" (101.6 mm) down from the top of the fabric. Stretch and install tension wire before installing the chain link fabric and attach it to each post using wire ties.
- H. Top rail: Install in lengths of 21' (6400 mm). Connect ends with sleeves forming a rigid connection, allow for expansion and contraction.
- I. Center Rails: Install mid rails between line posts and attach to post using rail end or line rail clamps. [A center rail is required for fabric height 12' (3658 mm) and over.]
- J. Bottom Rails: Install bottom rails between posts and attach to post using rail end or line rail clamps.

3.03 BARBED WIRE AND BARBED TAPE INSTALLATION [include when specified]

- A. Uniformly space and stretch barbed wire between terminal posts. Attach barbed wire to the terminal posts using brace bands and snap and secure barbed wire into each line post barb arm slot.
- B. Install barbed tape in accordance with ASTM F1911.

3.04 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on security side, pull fabric taut; thread the tension bar through fabric and attach to terminal posts with tension bands spaced maximum of 15" (381 mm) on center and attach so that fabric remains in tension after pulling force is released. Install fabric so that it is 2" (50 mm) +/- 1" (25 mm) above finish grade.
- B. Secure fabric using wire ties to line posts at 15" (381 mm) on center and to rails and braces 24" (610 mm) on center, and to the tension wire using hog rings 24" (610 mm) on center. Tie wire shall be secured to the fabric by wrapping it two 360 degree turns around the chain link wire pickets. Cut off any excess wire and bend back so as not to protrude so as to avoid injury if a pedestrian may come in contact with the fence.

3.05 CHAIN LINK GATE INSTALLATION [add applicable gate installation section when specifying gates]

- A. Swing gates: Installation of swing gates and gate posts shall be per ASTM F567. Direction of swing shall be [inward] [outward] [as shown on drawings] Gates shall be hung plumb in the closed position with minimal space from grade to bottom of gate leaf. Double gate drop bar receiver shall be set in a minimum concrete footing 6" (152 mm) diameter by 24" (610 mm) deep. Gate leaf holdbacks shall be installed on all double gates and all gate leafs greater than 5' (1524 mm) in width. [Electrically operated gates shall comply with ASTM F2200 and UL 325]
- B. Cantilever slide gates: Install cantilever horizontal slide gates and gate posts in accordance with ASTM F567. Cantilever sliding gates shall be plumb in the closed position with minimal ground clearance and slide with an initial force of 40 lbs. (18.14 kg). Double gate drop bar receiver shall be set in a minimum concrete footing 6" (152 mm) diameter by 24" (610 mm) deep. [Install top and bottom safety roller covers and adjacent safety guide posts on ASTM F1184 Type I Class 2 external roller cantilever slide gate applications]

SAFETY ALERT! Electrically operated cantilever slide gates are for use in controlling vehicular traffic only and are not intended to be used by pedestrians or control pedestrian traffic. Always install a separate swing walk gate for pedestrian use. The design of electrically operated slide gates must comply with ASTM F2200 and UL 325.

3.06 ACCESSORIES [delete if not applicable]

A. Privacy slats: Install and lock in privacy slats in the fabric in accordance with manufacturer's instructions.

3.07 ELECTRICAL GROUNDING

A. Grounding when required shall be the responsibility of a licensed electrical contractor and included in Contract Section 33 79 00.

3.08 SITE CLEAN UP

A. Clean up area adjacent to fence line from debris and unused material created by fence installation.

END OF SECTION