

CHAIN LINK FENCES

PART I - GENERAL

- 1.01 SCOPE OF WORK: Furnish and install all labor, materials and related items necessary for the installation and completion of all Vinyl Coated Chain Link Fencing as shown on the contract drawings and as specified.
- 1.02 GENERAL REQUIREMENTS:
- A. Contractor is to maintain all existing project perimeter fencing designated to remain.
 - B. Contractor is to provide and install new fencing for ballfields shown on construction documents.
 - C. Coordinate this installation with other trades.
 - D. Investigate and verify all dimensions. Arrange the work and furnish materials to suit field dimensions.
 - E. Approval of shop drawings required prior to fabrication.
 - F. Proposals will be accepted only from those regularly engaged, for the past five years, in manufacture and installation of chain link fencing as specified herein.
 - G. Contractor to supply any and all materials needed to provide a complete and finished product.
- 1.03 LOCATION: All fencing is shown on plan. See drawings for location, extent of work and other requirements.
- 1.04 SUBMITTALS
- A. Changes in specification may not be made after the bid date unless written approval is obtained from the Owner's Representative.
 - B. Shop drawings: Layout of fences and backstops 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: Submit color selections for PVC finishes and samples of materials (e.g., fabric, wires and accessories)

PART 2 – PRODUCTS

2.01 MANUFACTURER

- A. Products from qualified manufactures or approved equal having a minimum of five years experience manufacturing thermally fused chain link fencing will be

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acceptable by the Owner's Representative as equal, approved in writing, ten days prior to bidding, and if they meet the following specifications for design, size gauge of metal parts and fabrication.

- B. Obtain chain link fences, including accessories, fitting, and fastenings, from a single source.
- C. Approved Manufacturer: Anchor Fence Division/Master Halco Inc., Baltimore, MD 212242917. Phone (410) 633-6500 Fax (410) 633-6506

2.02 CHAIN LINK FENCE FABRIC

- A. PVC coating thermally fused to metallic coated steel core wire: ASTM 668 Class 2b, 7 mil (0.17) thickness. Core wire tensile strength 75,000 psi (517 MPa), Black Color
- B. Size: Helically wound and woven to height as indicated on drawings (fence heights vary).

Backstop Roof Fabric: 2" (50 mm) diamond mesh of 9 gauge core wire with a diameter of 0.148" (3.76 mm) and a breakload of 1290 lbs. (5740 N). Color black ASTM F 934.

Backstop Side Fabric: Woven to height as indicated on drawings with 2" (50 mm) diamond mesh of 6 gauge core wire with a diameter of 0.192" (4.88 mm) and a breakload of 2170 lbs. (9650 N). Color black ASTM 934.

- C. Selvage of fabric knuckled at top and knuckled at bottom.

2.03 STEEL FENCE FRAMING

- A. Steel Pipe - Type I: ASTM F 1083, standard weight schedule 40; minimum yield strength of 25,000 psi (170 Mpa); sizes as indicated. Hot-dipped galvanized with minimum average 1.8 oz/ft sq. (550g/m sq.) of coated surface area.
- B. PVC-Coated Finish: In accordance with ASTM F1043, apply supplemental color coating of 10-15 mils (2.54 – 0.38 mm) of thermally fused PVC in black color.
- C. Backstop End and Corner Post: 4" od (101.6 mm) 9.11 lbs. per/ft (13.6 kg/m)
Backstop line (intermediate) Post: 4" od (101.6 mm) 9.11 lbs. per/ft (13.6 kg/m)
- D. Backstop Horizontal rails and roof members 1.9" od (48 mm) 2.72 lbs. per/ft (3.65 kg/m)
- E. All fencing posts and rails per construction details or manufacturer's written recommendations whichever is more stringent.

2.04 VINYL COATED ACCESSORIES

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- A. Chain Link Fence Accessories: ASTM F 626, Provide items required to complete fence system. Galvanize each ferrous metal item in accordance with ASTM A 153 and finished to match framing.
- B. Post Caps: Formed steel, cast malleable iron, or aluminum alloy weather tight closure cap for tubular posts. Provide one cap for each post (Where top rail is used, provide tops to permit passage of top rail.)
- C. Top Rail and Brace Ends: Pressed steel per ASTM F626, for connection of rail and brace to posts.
- D. Top Rail Sleeves: 7" (178 mm) expansion sleeve with spring, allowing for expansion and contraction of top rail.
- E. Wire Ties and Clips: 6 gauge [0.135" (3.43 mm)] galvanized steel wire for attachment of fabric to line posts. Double wrap 13 gauge [0.092" (2.324 mm)] for rails and braces. Hog ring ties of 12-1/2 gauge [0.0985" (2.502 mm)] for attachment of fabric to tension wire.
- F. Brace and Tension (stretcher bar) Bands: Pressed steel
- G. Tension (stretcher) Bars: One piece lengths equal to 2" (50mm) less than full height of fabric with a minimum cross-section of 3/16" x 3/4" (4.76 mm x 19 mm) or equivalent fiberglass rod. Provide tension (stretcher) bars where chain link fabric meets terminal post.
- H. Nuts and bolts are galvanized but not vinyl coated. Prime and paint all nuts and bolts black to match vinyl coating using paint system compatible with galvanized finish (submit product data).
- I. Fence Tension Wire: Thermally fused vinyl (Permafused) applied to metallic coated steel wire, 7 gauge, [0.177" (4.5 mm)] diameter core wire with tensile strength of 75,000 psi (517 Mpa).
- J. Fence Truss Rods & Tightener: Steel rods with minimum diameter of 5/16" (7.9 mm). Capable of withstanding a tension of minimum 2,000 lbs.

2.05 SETTING MATERIALS

- A. Concrete: Minimum 28 days compressive strength of 3,000 psi (20 Map)

PART 3 – EXECUTION

3.01 EXAMINATION

- A. Verify areas to receive fencing are completed to final grades and elevations.
- B. Ensure property lines and legal boundaries of work are clearly established.

3.02 CHAIN LINK FENCE FRAMING INSTALLATION

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- A. Install chain link fence in accordance with ASTM 567 and manufacturer's instructions.
- B. Concrete set all posts: Drill holes in firm, undisturbed or compacted soil. Holes should have a diameter 4 times greater than the outside of post, and depths approximately 6" (150 mm) deeper than post bottom. Excavate deeper as required for adequate support in soft and loose soil, and for posts with heavy lateral loads. Set post bottom 36" (900 mm) below surface when in firm, undisturbed soil. Place concrete around posts in a continuous pour. Trowel finish around post. Slope to direct water away from posts.
- C. Check each post for vertical and top alignment, and maintain in position during placement and finishing operations.
- D. Rail: Install single lengths between posts.

3.03 CHAIN LINK FABRIC INSTALLATION

- A. Fabric: Install fabric on field side, and attach so that fabric remains in tension after pulling force is released. Leave approximately 1" (25 mm) between finish grade and bottom selvage. Attach fabric with wire ties or clips line posts at 15" (380 mm) on center and to rails, braces and tension wire at 24" (600 mm) on center.
- B. Tension (stretcher) Bar: Pull fabric taut; thread tension bars through fabric and attach to terminal posts with bands spaced max of 15" (380 mm) on center.

3.04 ACCESSORIES

- A. Tire Wires: Bend ends of wire to minimize hazard to persons and clothing.
- B. Fasteners: Install nuts on side of fence opposite fabric side for added security.

3.05 CLEANING

- A. Clean up debris and unused material, and remove from the site.