SECTION 02 90 09

TEMPORARY FENCE

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Section includes: Erection, maintenance, dismantling, and removal of temporary fencing at construction site at areas to restrict access to work areas - as a substitute at non-pedestrian areas which do not require shed - but do require preventing resident/public access (such as planted areas or possibly recreation areas deemed by the Development Management as not being essential to have access).

B. Prior to installation, meet at Development site to review areas of placement and determine areas of potential interference and conflict. Coordinate and document fencing layout for the Authority's Representative's and Management's review and approval.

C. The scope of work of this section includes providing temporary fencing at locations as shown on drawings and as directed by Authority's Representative.

1.02 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements, for Submittal Procedures.

B. Shop drawing indicating layout of temporary fencing, location and size of gates, existing pavement and roads, access to fire hydrants and hose connections, and other site specific conditions. Prepare drawing after site survey and verification of existing conditions. Shop drawing shall be approved by Authority's Representative.

PART 2 PRODUCTS

2.01 CHAIN LINK FENCING

A. Chain link fence: New or previously used salvaged chain link fencing in good condition. Height of fence shall be as per details on Contract Drawings.

B. Fabric shall consist of steel wire helically wound and interwoven in such a manner as to provide a continuous 2" (two inch) chain link mesh with knots or ties.

C. The base metal of the fabric shall be a 11 gauge steel wire when tested in accordance with ASTM Designation E8.

D. The chain link mesh is zinc-coated by the hot-dip process after fabrication. The weight of zinc coating shall not be less than 1.2 oz. per square foot of actual surface covered when tested in accordance with ASTM Designation A90 .

E. The height of the fabric shall be the overall dimension from ends of twists or knuckles. The tolerance of the nominal height shall be plus or minus one inch.

F. The size of mesh shall be determined by measuring the minimum clear distance between the wires forming the parallel sides of the mesh, measured in either direction. The tolerance of the size or the mesh shall be plus or minus 1/8 inch.

G. The diameter of the zinc coated wire shall be determined as the average of two readings measured to the nearest 0.001 inch taken at right angles to each other on the straight portion of the parallel sides of the mesh. The tolerance in the diameter of the coated wire shall be plus or minus 0.005 inch.

H. Chain link fabric 72 inches high and over shall be furnished with twisting at the top. Twisting shall be accomplished by twisting adjacent pairs of wire ends together in a closed helix of 1-1/2 machine turns which is equivalent to three full twists, and cutting the wire ends at a sharp angle to provide sharp points. The wire ends beyond the twist shall be at least 1/4 inch long.

I. I. Tie wire shall be 9 gauge steel wire, galvanized as specified above. The wire shall be provided at intervals not to exceed 12 inches for attaching fabric to all line and corner posts, and not exceeding 18 inches when attaching fabric to top rail. Mesh shall be attached using a "wrap and wrap" tie method.

J. For additional information, refer to Temporary Chain Link Fence, details on Contract drawing.

K. All Metal Parts shall be Electrically Grounded. Provide ground electrodes.

2.02 POSTS AND RAILS

A. Posts: Galvanized steel pipe of adequate diameter to provide rigidity. Post shall be suitable for setting in concrete and asphalt substrate, driving into ground, with base frame loaded with sand bags, or inserting in precast concrete blocks.

B. Posts and rails shall be steel pipe, either Type 1, ASTM F 1083, standard weight schedule 40 minimum yield strength of 25,000 psi. with minimum average 1.8 oz. per square foot of coated surface area; or Type 11 cold formed welded steel pipe complying with ASTM F 103, Group 1C, with minimum yield strength of 50,000 psi. Protective coating per ASTM F 1043, external coating Type B, zinc with organic overcoat, 0.9 oz. per square foot minimum zinc coating with chromate conversion coating and verifiable polymer film. Internal coating Type B, minimum 0.9 oz/sq. ft. zinc or Type , zinc pigmented 81 % normal coating, minimum 3 mil thick .

C. Pipe shall be designated by their nominal diameter for the height of fence specified and in accord with the design calculations and DOB requirements.

D. Rails shall be fastened with ties to corner and line posts. Top rails shall butt together at corner posts. Sections of top rail shall be coupled with outside sleeve couplings to allow for expansion and contraction. The posts are to be truly vertical.

E. All Metal Parts shall be Electrically Grounded.

2.03 WIRE MESH FABRIC AT OTHER LOCATIONS

A. Fabric: Woven galvanized steel wire mesh. Provide in continuous lengths to be wire tied to fence posts or prefabricated into modular pipe-framed fence panels.

2.04 GATES

A. Provide personnel and vehicular access gates of the quantity and size as indicated on the shop drawings or required for functional access to site.

B. Fabricate of same material as used for fencing.

C. Vehicle gates:
   1. Minimum width: 20 feet to allow access for emergency vehicles.
   2. Operable manually by one person.

2.05 PADLOCK FOR GATES

A. Heavy Duty exterior grade Commercial " black series" padlock with molybdenum steel shackle, stainless steel body, model # Y90 SS/45/129/1 by Yale or approved equal. Stamp or cast the words "property of the NYC Housing Authority" on pad lock. Supply Heavy Duty hot dipped galvanized attaching chain, weld to padlock and door.

B. Padlocks shall have cylinders capable of being keyed individually, keyed alike, masterkeyed in sets and grandmasterkeyed. Locks shall be set up alike. Furnish five (5) keys (min.) total.

C. All keys shall be turned over to Development Manager or NYCHA representative.

PART 3 EXECUTION

3.01 LAYOUT

A. Installation of temporary fencing shall not deter or hinder access to existing and new hose connections and fire hydrants.

B. Maintain 3 feet diameter clear space around fire hydrants.

C. Where fire hydrant or hose connection is blocked by fencing, provide access gate.

D. Access: Provide gates for personnel, delivery of materials, and access by emergency vehicles.

E. Field verify location with Authority's Representative and Management.

3.02 INSTALLATION

A. Posts shall be set properly and to the specified depths in the ground or in core drilled holes in sidewalk or asphalt (parking lots) or base frame loaded with 50 pound sand bags. Posts shall be set plumb, properly aligned. After posts have been set in place, top and bottom rails shall be attached to corner and line posts. Sections of rail shall be coupled with outside sleeve couplings that allow for expansion and contraction. Rails shall be parallel to the finished grades. Top and bottom rails shall be furnished for all panels for all fences. When sidewalk or parking lot is core drilled for fence post installation, the Contractor must patch the holes with material that matches the surrounding material; once the fence is dismantled.

B. After the frame work is complete, new galvanized chain link mesh shall be installed. The galvanized fabric shall be stretched uniformly and tightly. The galvanized fabric shall then be attached to all line and comer posts with tie wires at intervals not to exceed 12 inches and to top, bottom and intermediate rails with tie wires at intervals not to exceed 18 inches. Galvanized fabric shall remain in tension after pulling force is released.

C. Chain link posts:
   1. Space 8 feet maximum.
   2. Drive posts, set in holes and backfill, or anchor in precast concrete blocks or bottom frame loaded with sufficient sand bags.
   3. For soft and unstable ground conditions, cast concrete plug around post.
   4. Posts over pavement: Use steel post plates / frame or precast concrete blocks.
   5. Gate posts: Use bracing or concrete footings to provide rigidity for accommodating size of gate.
   6. Fabric: Securely attach to posts.
   7. Gates: Install with required hardware.

3.03 MAINTENANCE AND REMOVAL

A. Maintain fencing and gates in good condition. If damaged, immediately repair.

B. Relocate with the approval or direction of the authority's representative, any sections of the fence as may be necessary to permit installation of work under this contract.

C. Remove temporary fencing upon completion of work or when no longer required. Backfill holes and compact. Holes in pavement shall be surfaced to match existing paving. Repair damage caused by installation of temporary fencing.

END OF SECTION