SECTION 607

FENCING

SECTION 607.10 CHAIN-LINK FENCE.

607.10.1 Description. This work shall consist of furnishing and erecting chain-link fence and gates as shown on the plans or as directed by the engineer.

607.10.2 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Chain-Link Fence	1043

607.10.2.1 The contractor may select either zinc-coated steel, aluminum-coated steel, aluminum alloy or vinyl-coated steel fencing material, except that the same kind of material shall be used throughout the project.

607.10.2.2 Walk gates and drive gates, if required, shall be of the same material as that selected for the fence. If the project requires an extension of an existing fence, the new fence material for the extension shall match the existing material.

607.10.3 Construction Requirements.

607.10.3.1 The contractor shall fill, cut or trench where necessary to produce a smooth and uniform ground surface so the bottom of the fabric is no more than 3 inches above the finished ground line. All posts shall be set plumb, true to line and grade. Terminal posts, defined as end, gate, corner and pull posts, shall be set in concrete. Concrete for the footings shall be Class B concrete or a commercial mixture in accordance with Sec 501. The concrete footing shall be a uniform thickness around the post and shall have a cone or dome shaped top. At the option of the contractor, line posts may be driven or placed in dug or drilled holes and set in concrete or quick-setting polyurethane foam in accordance with Sec 903.3.1.2. If the contractor elects to drive line posts, the posts shall be of the length and driven to the depth shown on the plans. If posts cannot be driven to the correct depth, the posts shall be removed and placed in dug or drilled holes and set in foam or concrete footings. Posts damaged during installation shall be removed and replaced at the contractor's expense.

607.10.3.2 Fabric shall not be attached to posts until the concrete footings have cured for at least five days. Fabric shall be securely attached to end, corner, gate and pull posts in accordance with manufacturer's recommendations. The fabric shall be attached to the tension wire with hog rings, spaced as shown on the plans. The fabric shall be attached to line posts with wire ties or bands spaced in accordance with manufacturer's recommendations. All fabric shall be taut before attaching to line posts and tension wire.

607.10.3.3 Drive gates shall have an approximate full circle opening swing. Walk gates shall have positive stops to prevent the gates from swinging into the right of way.

607.10.3.4 If the chain link fence is required to be topped with barbed wire, the barbed wire support arm shall be at a 45-degree angle, ± 5 degrees, from the vertical plane of the fence line

extended above the fence, and shall be fitted with clips, slots or other device for attaching three strands of barbed wire to the arm. The top strand shall be located 12 inches horizontally from the fence line, ± 3 inches, with the other wires spaced uniformly between the top of the fence fabric and the top outside strand of barbed wire. The barbed wire arm shall be of sufficient strength to withstand a weight of 250 pounds applied at the outer strand of barbed wire without causing any permanent deflection of the arm. Each strand of barbed wire shall be pulled taut to remove all sag before the strand is attached to the extension arm.

607.10.3.5 Post braces shall be installed for each gate, corner, pull and end post. The brace shall extend from the mid point of the gate, corner, pull and end post to the midpoint of the adjacent line post. A truss rod shall be connected to the midpoint of the line post and run back to the bottom of the gate, corner, pull and end post. The truss rod shall be equipped with a turnbuckle or other equivalent device for adjustment.

607.10.4 Method of Measurement. Measurement of chain-link fence will be made to the nearest linear foot, measured along the slope of the fabric, but shall not include gates. Measurement for gates will be made for each unit assembled, installed and complete in place. Double drive gates will be considered a single unit. Measurement for the 3-strand barbed wire extension will be made to the nearest linear foot, measured along the slope of the fence, but will not include gates.

607.10.5 Basis of Payment. The accepted quantity of chain-link fence, walk and drive gates, and barbed wire extensions, complete in place, will be paid for at the contract unit price for each of the pay items included in the contract. No direct payment will be made for concrete footings, post hole excavation or for excavation and embankment necessary to smooth the area under the fence.

SECTION 607.20 WOVEN WIRE FENCE.

607.20.1 Description. This work shall consist of furnishing and erecting woven wire fence and gates as shown on the plans or as directed by the engineer.

607.20.2 Material. All material shall be in accordance with Division 1000, Material Details, and specifically as follows:

Item	Section
Woven Wire Fence	1043.3
Wood Posts for Fencing	1050.2

607.20.3 Construction Requirements.

607.20.3.1 Posts shall be set plumb, true to line and grade. Wood corner, end, brace and pull posts shall be set in drilled or dug holes and backfilled with soil thoroughly tamped around the post. Steel corner, end, brace and pull posts and braces shall be set in concrete footings in accordance with Sec 607.10.3. Steel and wood line posts may be driven in lieu of setting the posts in drilled or dug holes. If the contractor elects to drive the line posts, the posts shall be of the length and driven to the depth shown on the plans. If the posts cannot be driven to the correct depth, posts shall be removed and placed in dug or drilled holes and set with the appropriate backfill. Posts damaged during installation shall be removed and replaced at the contractor's expense.

607.20.3.2 Wood line posts that are to be driven shall be pointed before being treated. If surfaces of treated wood posts have been damaged, or if framing at the site is required, the damaged or resulting untreated surfaces shall be field treated with two coats of commercially

available preservative of the same type used for the original treatment. The second coat shall be applied after the first coat is absorbed. Creosote preservative shall be hot when applied.

607.20.3.3 Corner post assemblies shall be set at all horizontal angle points greater than 15 degrees in the line of fence. Pull post assemblies shall be set at all vertical angle points greater than 15 degrees but at no greater than 660-foot intervals.

607.20.3.4 Fabric and barbed wire shall be pulled taut before attaching to any line post. The bottom of the fabric shall be no more than 3 inches above the ground at any point and necessary excavation along the fence shall be performed to obtain the specified clearance. Filling of depressions will not be permitted except where approved by the engineer. Spaces left by depressions shall be filled with strands of barbed wire as shown on the plans.

607.20.3.5 Walk and drive gates shall be constructed in accordance with the requirements of gates for chain-link fence, except the filler shall be woven wire fabric of the same material as used for the fence.

607.20.3.6 The contractor shall modify the typical installation for water gates to fit the conditions in the field and shall be approved by the engineer.

607.20.4 Method of Measurement. Measurement of woven wire fence will be made to the nearest linear foot, measured along the slope of the fabric, but will not include gates. Measurement for gates will be made for each unit assembled, installed and complete in place. Double drive gates will be considered a single unit.

607.20.5 Basis of Payment. The accepted quantity for woven wire fence and gates, complete in place, will be paid for at the contract unit price for each of the pay items included in the contract. No direct payment will be made for post hole excavation, backfilling, clearing of fence rows, trenching for fabric, placing extra strands of barbed wire for depressions, construction of water gates and all other incidental work or material.