# 3- or 4- Strand High Tension Cable Barrier JSP 06-07D

**1.0 Description.** This work shall consist of all labor, equipment, and materials to remove, install, repair, and replace a 3- or 4- strand cable barrier system including all hardware and appurtenances as shown on the plans or as directed by the engineer. The cable barrier system shall function in accordance with the requirements of NCRHP 350, Test Level 3, and be approved by the Federal Highway Administration. Test Level 3 acceptable products, for use as a cable barrier system, are included in the list of pre-qualified products displayed on MoDOT’s website. Acceptable products shall include galvanized high-tension wire ropes and anchorages. The cable barrier system shall be constructed as shown on the plans, with a maximum deflection of 9 feet.

**2.0 Construction Requirements.** Line posts shall be provided in accordance with the manufacture’s shop drawings and shall be placed plumb. Spacing of the posts shall not exceed 20 feet.

**2.1 Anchor Assemblies.** An anchor assembly, as specified in the manufacturer’s shop drawings, shall be constructed at each end of a cable barrier run. The anchor assembly shall function in accordance with the requirements of NCRHP 350, Test Level 3, and be approved by the Federal Highway Administration. Anchors shall be constructed on firm, stable, undisturbed soil to the minimum dimension shown on the shop drawings. Anchor bolts and anchor post slip bases shall be firmly held in position at the top by templates during concrete replacement. Backfill shall be thoroughly compacted with mechanical tampers with care taken to prevent damage to the finished concrete. Backfill shall be brought up level with the finished grade line.

**2.2 Cable.** The galvanized wire rope shall be ¾” pre-stretched 3 x 7 construction as approved by the Federal Highway Administration during the system’s acceptance testing. Threaded terminals (wedge or swaged type) shall be furnished. Swaged terminals may be shop- or field-swaged. Threaded terminals shall be right hand (RH) or left hand (LH) threaded M 24 x 3 pitch to ANSI B 1.13 M. The body of the threaded terminal shall provide a minimum of 5.9” of wire rope penetration depth. Threaded terminals shall be galvanized after threading to ASTM A 151. Turnbuckle or rigging screws shall be of the size and shape shown in the manufacturer’s shop drawings. Rigging screws shall be of a solid or closed body type with two inspection holes to determine threaded rope terminal penetration. Rigging screws shall be galvanized to ASTM A 153 after threading.

**2.3 Cable Tensioning.** The cable height above ground shall be in accordance with the manufacturer’s shop drawings. The cable shall be tensioned immediately after initial installation. Tension shall be rechecked and adjusted, if necessary, three to five days after initial tensioning on cable system sections with lengths greater than 2500 feet. A tension log form shall be completed showing: the time, date, location, ambient temperature and final tension reading, signed by the person performing the tensioning, and furnished to the engineer upon completion of the work. This form shall also include the system manufacturer’s recommended tension chart.

**2.4 Delineators.** Delineator spacing and reflector colors shall be in accordance with Sec 606.10.

**3.0 Method of Measurement.** Measurement of the cable barrier will be made from center of line posts, totaled to the nearest linear foot.

**3.1 Anchor Assemblies.** Measurement of anchor assemblies will be made per each.

**4.0 Basis of Payment.** The accepted quantities of cable barrier, anchor assemblies, cable barrier to guardrail interfaces will be paid for at the contract unit price with Item No. 606-99.03 High Tension Guard Cable (per linear foot), Item No. 606-99.02 HTGC Anchor Assembly (per each), and Item No. 606-99.02 Cable to Guardrail Transition (per each). Any anchor assembly required for cable to guardrail transition shall be considered included in the contract unit price for cable to guardrail transition. No direct payment will be made for delineators or setting post in rock.