

SECTION 02515 – PRESTRESSING REINFORCEMENT

(Follow all instructions and make all edits with “Track Changes” turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the Project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)

Replace Section 02515 of the Standard Specifications except for the Section number and title with the following:

Description

02515.00 Scope - This Section includes the requirements for seven-wire strand, high tensile strength wire, high tensile strength steel alloy bars, tendon duct and couplings.

Materials

02515.10 Seven-Wire Strand - Furnish seven-wire strand (bright wire) meeting the requirements of AASHTO M 203 (ASTM A416), Grade 270, supplement 1 (low relaxation strand), minimum ultimate strength, 270,000 psi.

02515.20 Wire, High Tensile Strength - Furnish high tensile strength wire meeting the requirements of AASHTO M 204 (ASTM A421).

02515.30 Bars, High Tensile Strength - Furnish high strength steel bars meeting the requirements of AASHTO M 275 (ASTM A722).

02515.40 Seven-Wire Strand Epoxy Coated Reinforcement - Furnish epoxy coated reinforcement meeting the requirements of ASTM A882.

02515.50 Tendon Duct - Furnish rigid galvanized steel ducts meeting the requirements of ASTM A653 with a coating weight of G90 for post-tensioned Structures. Transition couplings connecting rigid ducts in anchoring devices need not be galvanized.

Rigid ducts may be fabricated with either welded or interlocking seams. Galvanizing of the welded seam is not required. Furnish ducts with sufficient strength to maintain their correct alignment during placing of concrete and resist denting during construction.

The minimum wall thickness of ducts is 26 gauge for 2 5/8-inch diameter and smaller ducts, and 24 gauge for ducts that are larger than 2 5/8-inch diameter.

02515.60 Couplings - Furnish couplings that develop at least 95 percent of the minimum specified ultimate strength of the prestressing steel without exceeding anticipated set. Ensure the coupling of tendons does not reduce the elongation at rupture below the requirements of the tendon itself.

02515.70 Shipping Protection - Package prestressing steel to protect the steel against physical damage and corrosion. Place a corrosion inhibitor that prevents rust or other results of corrosion in the package, or use a corrosion inhibitor type packaging material, or when allowed, apply directly to the steel. Provide a corrosion inhibitor that has no deleterious effect on the steel or concrete or bond strength of steel to concrete. Immediately replace or restore damaged packaging.

Mark the shipping package with the type of corrosion inhibitor used, and the date packaged.

02515.80 Acceptance - Acceptance of pre-stressing reinforcement is according to 00165.35 and this Section.