

5.4—MATERIAL PROPERTIES

5.4.1—General

The following shall replace *A5.4.1*.

All structural concrete classes and associated material properties shall conform to Section 901 of *Standard Specifications*.

5.4.2—Normal Weight and Structural Lightweight Concrete

5.4.2.1—Compressive Strength

The following shall supplement *A5.4.2.1*.

Lightweight concrete shall not be used without prior review and approval of the Bridge Design Engineer Administrator.

5.4.2.3—Shrinkage and Creep

The following shall supplement *A5.4.2.3*.

See *D3.12.5* for additional provisions for estimating movements due to shrinkage and creep.

5.4.3—Reinforcing Steel

5.4.3.1—General

The following shall replace the first paragraph of *A5.4.3.1*.

Reinforcing bars, deformed wire, cold-drawn wire, welded plain wire fabric, and welded deformed wire fabric shall conform to the material standards specified in *Standard Specifications*, or as amended by Supplemental Specifications and/or Project Special Provisions.

Steel materials shall be Grade 60 in accordance with *Standard Specification*. Grade 75 reinforcing steel is allowed for common use in Welded Wire Fabric (WWF). Grade 40 reinforcing steel shall not be used without prior review and approval of the Bridge Design Engineer Administrator.

Epoxy coated reinforcing steel shall not be specified.

Galvanized, stainless, stainless clad, low-carbon

C5.4.1

The following shall replace *AC5.4.1*.

All materials and tests shall conform to *LADOTD Standard Specifications for Roads and Bridges*.

C5.4.2.1

The following shall replace *AC5.4.2.1*.

All materials and tests shall conform to *LADOTD Standard Specifications for Roads and Bridges*.

C5.4.3.1

The following shall replace *AC5.4.3.1*.

The general policy is to use uncoated, “black” reinforcing steel with high performance concrete with low permeability and an increased concrete cover for corrosion protection.

Additional measures for corrosion protection may be specified by the Bridge Design Engineer Administrator on a case by case basis for bridges located in coastal areas that are deemed of higher importance.