

## INSTRUCTIONS FOR USE OF WASHINGTON CONSTRUCTION SPECIFICATION (CS-41)

### REINFORCED CONCRETE

#### 1. Applicability

Construction Specification CS-41 is applicable for all reinforced concrete structures. This specification shall be used for concrete structures, regardless of size, when quality control of the concrete design mix is essential. Supplementary specifications may be required for works of a special nature, such as: placing concrete under water; pumping concrete; concrete exposed to high sulfate environments; and special finishes.

#### 2. Material Specifications

The NRCS material specifications complementary to Washington State Construction Specification CS-41 are MS-201, Concrete Aggregates; MS-202, Portland Cement; MS-203, Concrete; MS-213, Steel Reinforcement and MS-221, Preformed Expansion Joint Filler.

#### 3. Special Items to be Included on the Drawings:

- a. Engineering drawings with detail and cross-section drawings that are sufficient for describing the structure.
- b. Notation of the type and quality of concrete, including:
  - (1) 28-day compressive strength
  - (2) Type of cement
  - (3) Admixtures, type and quantity
  - (4) Nominal size and gradation of coarse aggregate
  - (5) Fineness modules of the fine aggregate
  - (6) Deviations, if any, from the air content and slump of Washington Material Specification, MS-203
- c. Reinforcement details including: size, grade, cover and development and splicing lengths.
- d. Type, size and quantity of joint filler, waterstops, shear plates and other embedments
- e. Detail joints type and dimensions
- f. Method of curing
- g. Specify method of measurement and payment, if applicable