

**SECTION 03 20 00
CONCRETE REINFORCEMENT**

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Reinforcing steel bars, wire fabric and accessories for cast-in-place concrete

1.2 REFERENCES

- A. ACI 301 - Structural Concrete for Buildings
- B. ACI 318 - Building Code Requirements For Reinforced Concrete
- C. ACI SP-66 - American Concrete Institute - Detailing Manual
- D. ASCE 7 - Minimum Design Loads of Buildings and Other Structures
- E. ASTM A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
- F. ASTM A184/A184M - Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement
- G. ASTM A185/A185M - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete
- H. ASTM A496/A496M - Standard Specification for Steel Wire Deformed for Concrete Reinforcement
- I. ASTM A497/A497M - Standard Specification for Steel Welded Wire Reinforcement Deformed for Concrete
- J. ASTM A615/A615M - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement
- K. ASTM A706/A706M - Standard Specification for Low Alloy Steel Deformed and Plain Bars for Concrete Reinforcement
- L. ASTM A767/A767M - Standard Specification for Zinc Coated (Galvanized) Steel Bars for Concrete Reinforcement
- M. ASTM A775/A775M - Standard Specification for Epoxy Coated Reinforcing Steel Bars
- N. ASTM D3963/D3963M - Standard Specification for Fabrication and Jobsite Handling of Epoxy Coated Reinforcing Bars
- O. AWS D1.4 - Structural Welding Code-Reinforcing Steel
- P. CRSI - Concrete Reinforcing Steel Institute - Manual of Standard Practice
- Q. CRSI - Placing Reinforcing Bars
- R. FBC - Florida Building Code

1.3 SUBMITTALS FOR REVIEW

- A. Section 01 33 00 - Submittals Procedures
- B. Shop Drawings: Indicate bar sizes, spacing, locations, and quantities of reinforcing steel and wire fabric, bending and cutting schedules, and supporting and spacing devices.

1.4 SUBMITTALS FOR INFORMATION

- A. Section 01 33 00 - Submittals Procedures
- B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- C. Submit certified copies of mill test report of reinforcement materials analysis.

1.5 DESIGN REQUIREMENTS

- A. Design shall comply with the FBC, ASCE 7 – Wind Loads, and ACI 318.
- B. Do not weld reinforcing steel.

1.6 QUALITY ASSURANCE

- A. Perform work in accordance with ACI 301. Maintain one copy of document on site.
- B. Design reinforcement under direct supervision of a Professional Structural Engineer experienced in design of this work and licensed in the State of Florida.

- C. Submit under provisions of Section 01 40 00 Manufacturer's Certificates, certifying welders employed to do the work, verifying AWS qualification within the previous 12 months.

PART 2 PRODUCTS

2.1 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M, Grade 60; deformed carbon steel bars, unfinished
- B. Stirrup and Tie Steel: ASTM A615/A615M, Grade 40 or 60; deformed carbon steel bars, unfinished
- C. Welded Steel Wire Fabric: ASTM A185/A185M Plain Type; in flat sheets and rolls; unfinished
- D. Steel Wire: ASTM A82/A82M, plain, cold drawn, steel

2.2 ACCESSORIES

- A. Tie Wire: Minimum 16 gage annealed type or patented system.
- B. Chairs, Bolsters, Bar Supports, Spacers: Size and shape for strength and reinforcement support during concrete placement, include load bearing pad on bottom to prevent vapor barrier puncture.
- C. Special Chairs, Bolsters, Bar Supports, and Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel type; size and shape as required.

2.3 FABRICATION

- A. Fabricate concrete reinforcing in accordance with ACI 318.
- B. Weld reinforcement in accordance with AWS D1.4.
- C. Locate reinforcing splices not shown on plans, at point of minimum stress and review with A/E.

PART 3 EXECUTION

3.1 PLACEMENT

- A. Place support and secure reinforcement against displacement, without deviating from the required position.
- B. Do not displace or damage vapor barrier.
- C. Accommodate placement of formed openings.
- D. Conform to applicable code for concrete cover over reinforcement.

3.2 FIELD QUALITY CONTROL

- A. Architect, Owner, or Building Department may request field inspections per Section 01 40 00 1.7 Inspection Services.

END OF SECTION