SECTION 03200

CONCRETE REINFORCEMENT

1. PART 1 GENERAL

1.1 SECTION INCLUDES

A. Reinforcing Steel Bars, Wire Fabric and Accessories for Cast-in-Place Concrete.

1.2 RELATED SECTIONS

A. Section 01039 - Coordination and Meetings.

B. Section 01300 - Submittals.

C. Section 01400 - Quality Control.

D. Section 02110 - Site Clearing.

E. Section 03100 - Concrete Formwork.

F. Section 03300 - Cast-in-Place Concrete.

G. Section 03370 - Concrete Curing.

1.3 REFERENCES

A. ACI 318 - Building Code Requirements For Reinforced Concrete.

B. ACI SP-66 - American Concrete Institute - Detailing Manual.

C. ANSI/ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.

D. ANSI/ASTM A184 - Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.

E. ANSI/ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.

F. ANSI/ASTM A496 - Deformed Steel Wire Fabric for Concrete Reinforcement.

G. ANSI/ASTM A497 - Welded Deformed Steel Wire Fabric for Concrete Reinforcement.

H. ANSI/AWS D1.4 - Structural Welding Code for Reinforcing Steel.

I. ANSI/AWS D12.1 - Reinforcing Steel Welding Code.

J. ASTM A615 - Deformed and Plain Billet Steel Bars for Concrete Reinforcement.

K. ASTM A616 - Rail Steel Deformed and Plain Bars for Concrete Reinforcement.

L. ASTM A617 - Axle Steel Deformed and Plain Bars for Concrete Reinforcement with Supplementary Requirements S1.

M. ASTM A704 - Welded Steel Plain Bar or Rod Mats for Concrete Reinforcement.

N. ASTM A706 - Low-Alloy Steel Deformed Bars for Concrete Reinforcement.

O. ASTM A775 - Epoxy-Coated Reinforcing Steel Bars.

P. ASTM D3963 - Epoxy-Coated Reinforcing Steel.

Q. AWS D12.1 - Welding Reinforcement Steel, Metal Inserts and Connections in Reinforced Concrete Construction.

R. CRSI - Concrete Reinforcing Steel Institute Manual of Practice.

S. CRSI 63 - Recommended Practice For Placing Reinforcing Bars.

T. CRSI 65 - Recommended Practice For Placing Bar Supports, Specifications and Nomenclature.

1.4 SUBMITTALS

A. Submit under provisions of Section 01300 - Submittals.

B. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 301, ACI SP-66, and ACI 318.

B. Maintain one copy of each document on Site.

1.6 COORDINATION

A. Coordinate Work under provisions of Section 01039 – Coordination and Meetings.

B. Coordinate with placement of formwork, formed openings and other Work.

2. PART 2 PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel Mat: ASTM A615, 60-ksi-yield grade; steel bars or rods, plain finish.

B. Welded Steel Wire Fabric: ASTM A185 Plain Type, ASTM A497 Welded Deformed Type coiled rolls; plain finish.

C. Smooth Straight Dowels: ASTM A615, 60 ksi yield grades; smooth, plain billet steel bars.

2.2 ACCESSORY MATERIALS

A. Tie Wire: Minimum 16 gauge annealed type.

B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during concrete placement conditions including load bearing pad on bottom to prevent vapor barrier puncture.

C. Special Chairs, Bolsters, Bar Supports, Spacers Adjacent to Weather Exposed Concrete Surfaces: Plastic coated steel type; size and shape as required minimum plastic thickness of 3/32 inch.

2.3 FABRICATION

A. Fabricate concrete reinforcing in accordance with ACI SP-66, ACI 318, and ANSI/ASTM A184.

B. Locate reinforcing splices not indicated on plans, at point of minimum stress. Review location of splices with Engineer.

3. PART 3 EXECUTION

3.1 PLACEMENT

A. Prior to placement, clean reinforcing steel and dowels of loose rust, scale, dirt, grease, and other materials, which could reduce or destroy bond.

B. Place, support and secure reinforcement against displacement. Do not deviate from required position.

C. Do not displace or damage vapor barrier.

D. Accommodate placement of formed openings.

E. Maintain minimum concrete cover around reinforcing as follows unless shown otherwise on the plans.

	Item	Coverage
1.	Walls (exposed to weather or backfill)	2 inch
2.	Formed Against Earth	3 inch
3.	Slab on Fill	3 inch

F. Install lapped bars with a Class B lap length and applicable modifiers for but not limited to, bar spacing and clearances as stated per references above unless shown otherwise on the plans.

3.2 FIELD QUALITY CONTROL

A. Field inspection will be performed under provisions of Section 01400 – Quality Control.

END OF SECTION