SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 SECTION REQUIREMENTS

A. Driveways: Subject to the requirements of homes with historical significance, lot fit and ability of site to accommodate, each home may have an asphalt, concrete, or brick/concrete paver driveway, from the street to the garage or carport area and at least as wide as such area. An asphalt driveway shall be a minimum of one and one-quarter (1.25") inches thick.

B. Concrete sidewalks and service walks shall be a minimum of four (4") inches thick with one-half (1/2") inch thick expansion joint not more than eighteen (18') feet apart and at curb and any other structure junctions.

C. Saw cut expansion joints every six (6') feet within twenty-four hours of pour.

D. Use wood or carpet float finish rounding al edges to one-quarter (1/4") inch radius.

E. Comply with ACI 301 unless otherwise indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Welded Wire Reinforcement: ASTM A 185, flat sheets.

B. Reinforcing Bars: ASTM A 615/A 615M, Grade 60, deformed.

C. Portland Cement: ASTM C 150, Type I or II, gray. Supplement with the following if necessary**:**

1. Fly Ash: ASTM C 618, Type C or F.
2. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.

D. Normal-Weight Aggregates: ASTM C 33, Class 4S, uniformly graded. Provide aggregates from a single source.

1. Maximum Coarse-Aggregate Size: 3/4 inch nominal.

E. Air-Entraining Admixture: ASTM C 260.

F. Chemical Admixtures: ASTM C 494. Calcium chloride shall not be used.

G. Color Pigment: ASTM C 979, synthetic mineral-oxide pigments or colored water-reducing admixtures.

H. Synthetic Fiber: ASTM C 1116, Type III, polypropylene fibers, 1/2 to 1-1/2 inches long.

I. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.

J. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, nonglazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery.

2.2 CONCRETE MIXTURES

A. Proportion normal-weight concrete mixes to provide the following properties:

1. Compressive Strength (28 Days) **3000 psi.**
2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.50.
3. Slump Limit: 4 inches, plus or minus 1 inch.
4. Air Content: 5-1/2 percent plus or minus 1.5 percent.
5. Synthetic Fiber: 1.0 lb/cu. Yd
6. **OR AS APPROVED BY NSP CONSTRUCTION MANAGEMENT**

PART 3 - EXECUTION

3.1 PAVING

A. Accurately position and support reinforcement, and secure against displacement.

B. Locate and install contraction, construction, isolation, and expansion joints as indicated or required.

C. Place concrete in a continuous operation within planned joints or sections. **Do not add water** to adjust slump.

D. Float surfaces to true planes within a tolerance of 1/4 inch in 10 feet and medium-to-fine-textured broom finish.

E. Tool edges and joints to a radius of 1/4 inch to 3/8 inch.

F. Slip-Resistive Aggregate Finish: Before final floating, spread 40 lb/100 sq. ft. of dampened, slip-resistive aggregate over paving surface in two applications.

G. Begin curing after finishing concrete. Keep concrete continuously moist for at least seven days. Remove and replace concrete paving that is broken, damaged, or defective. Remove work in complete sections from joint to joint unless otherwise approved by Architect.

H. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days.

END OF SECTION 321313