SECTION 07311

ASPHALT SHINGLES

1 PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract including General and Supplementary Conditions and Division 1 specification sections apply to Work of this section.

1.2 SECTION INCLUDES

A. Granular surfaced asphalt shingle roofing, underlayment, eave, valley, and ridge protection, metal flashings.

1.3 SUBMITTALS

A. Product Data: Provide data indicating material characteristics, and limitations.

B. Samples: Shingle samples for selection.

1.4 QUALITY ASSURANCE

A. Perform Work in accordance with NRCA Steep Roofing Manual.

1.5 WARRANTY

A. Provide 25 year warranty under provisions of Section 01001.

2 PART 2 PRODUCTS

2.1 ASPHALT SHINGLES

A. Manufacturers:

1. IKO
2. CertainTeed
3. Georgia Pacific
4. BPCO

B. **Base Bid:** Asphalt Shingles: ASTM D225, Type I uniform non-uniform thickness laminated shingles; UL Rating of C and Wind Resistance Label, fiberglass felt base, mineral granule surfaced type; 245lb/100 sq. ft. weight; self sealing type; square tab; color as selected.

1. Product: CertainTeed “Woodscape 30 AR”

C. **Alternate:** Asphalt Shingles: ASTM D225, Type I uniform non-uniform thickness laminated shingles; U.L. certified to meet ASTM D3462, U.L 2218 Class 4 Impact

Resistance Rating, UL Rating of C and Wind Resistance Label, fiberglass felt base, mineral granule surfaced type; 260lb/100 sq. ft. weight; self sealing type; square tab; color as selected. (see Schedule of Alternates Section 01001 Basic Requirements)

1. Product: CertainTeed “Landmark 40 IR”

2.2 SHEET MATERIALS

A. Eave (Ice Dam) Protection: Sheet barrier of rubberized asphalt bonded to sheet polyethylene, 40 mil total thickness, with strippable treated release paper; Ice & Water Shield manufactured by WR Grace. Provide (1) course at rakes, (2) courses at eaves, (3) courses at valleys overlapped 6”.

B. Underlayment: No. 15 unperforated asphalt saturated felts.

2.3 ACCESSORIES

A. Nails: Standard hot dipped zinc coated steel type, of sufficient length to penetrate roof sheathing.

B. Plastic Cement: Asphalt type with mineral fiber components.

C. Ridge Vent: Continuous preformed ridge ventilator providing not less than 18 sq. in. free area per linear foot.

1. Manufacturer/Product: Benjamin Obdyke Inc.: Roll Vent;.

D. Roof Vent: Low profile roof-mounted self-flashing roof vent, at locations indicated.

1. Manufacturer/Product: Master Flow by GAF, model IR-61, color as selected by architect to match shingles.

2.4 FLASHING MATERIALS

A. Sheet Flashings: ASTM B209; 0.030 inch thick aluminum.

B. Drip Edge: 0.032 inch thick aluminum, 5” width.

2.5 FLASHING FABRICATION

A. Form flashings to profiles indicated on Drawings, and to protect roofing materials from physical damage and shed water.

B. Form sections square and accurate to profile, in maximum possible lengths, free from distortion or defects detrimental to appearance or performance.

C. Form step flashings with minimum 6” vertical and horizontal legs.

3 PART 3 EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Verify that plumbing stacks and roof penetrations are flashed to deck surface.

B. Verify deck surfaces are dry, free of ridges, warps, or voids. Broom clean surfaces.

C. Fill knot holes and surface cracks with latex filler at areas of bonded eave protection.

3.2 INSTALLATION - EAVE ICE DAM PROTECTION

A. Place eave and gable edge metal flashings tight with fascia boards. Weather lap joints and seal with plastic cement. Secure flange with nails.

B. Apply rubberized asphalt/polyethylene sheet eave protection in accordance with manufacturer's instructions.

C. Extend eave protection membrane minimum 4 ft upslope beyond interior face of exterior wall.

D. Extend eave protection membrane a minimum of 18"" up face of walls and on roof surface at wall/roof intersections

3.3 INSTALLATION - PROTECTIVE UNDERLAYMENT

A. Place one ply of underlayment over area not protected by eave protection, with ends and edges weather lapped and nailed. Stagger end laps of each consecutive layer.

B. Install perpendicular to slope of roof.

C. Weather lap and seal watertight with plastic cement, items projecting through or mounted on roof.

3.4 INSTALLATION - VALLEY PROTECTION

A. Place rubberized asphalt/polyethylene sheet centered over valleys. Weather lap joints and nail in place.

B. Extend shingles on both slopes across valley in a weave pattern and fasten. Extend shingles beyond valley centerline to achieve woven valley, concealing the valley protection.

3.5 INSTALLATION - METAL FLASHING

A. Weather lap joints and seal weather tight with plastic cement. Secure in place with concealed fastenings. Extend bottom of step flashings to daylight.

B. Flash and seal work projecting through or mounted on roofing with plastic cement, weather tight.

3.6 INSTALLATION - ASPHALT SHINGLES

A. Install shingles in accordance with manufacturer's instructions.

B. Provide double course of shingles at eaves.

C. Place shingles in straight coursing pattern with required weather exposure to produce double thickness over full roof area.

D. Extend shingles 1/2 inch beyond face of gable edge fascia boards.

E. Cap hips and ridges with individual shingles, maintaining weather exposure. Place to avoid exposed nails.

F. Complete installation to provide weather tight service.

3.7 INSTALLATION – RIDGE VENT

A. Install ridge vent in accordance with manufacturer's instructions.

B. Center ridge vent over continuous 2" opening in sheathing and secure to sheathing.

C. Cap ridge vent with shingles.

…END OF SECTION