

SECTION 07315 – SLATE SHINGLES

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A.. Drawings And general provisions of the Contract, including General and Supplementary Conditions and Division Specification Sections apply to this Section.

1.2 SUMMARY

A. This Section includes the following:

1. Slate Shingles
2. Underlayment
3. Metal flashings required for a watertight slate shingle roof installation
4. Fasteners.

1.3 DEFINITION

A. Roofing Terminology: Refer to ASTM D 1079 and Glossary of NRCA’s “The NRCA Roofing and Waterproofing Manual” for definitions and terms related to roofing work in this Section.

1.4 SUBMITTALS

A. Product Data: Include slate properties, construction details, material descriptions, dimensions of individual components and profiles, and finishes for each type of slate indicated.

B. Shop Drawings: Include sections at hips, gables, ridges, valleys and eaves; component details; accessories; and attachments for other work.

C. Samples for Submittal: Manufacturer’s color charts consisting of units for sections of units showing the full range of colors, textures, shape and size specified, showing the full range of variations expected. Prepare samples from the same material to be used for the work.

1.5 QUALITY ASSURANCE

A. Source Limitations for Slate: Obtain each variety of slate from one source with recourses to provide materials of consistent quality in appearance and physical properties.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver slate shingles to Project site and store as close as possible to the point of installation to minimize damage while handling.

B. Store and handle roofing materials to prevent breakage.

PART 2 – PRODUCTS

2.1 Manufacturers

Subject with requirements, provide slate shingles by the following:

EVERGREEN SLATE COMPANY, LLC. – GRANVILLE, NY 518 642-2530

2.2 SLATE

A. Slate shingles: ASTM C406-89, Grade S1, and Federal Specification SS-S-451, Grade A, hard dense sound rock, machine punched or drilled for two nails. No broken or cracked slates, no broken exposed corners, and no broken corners on covered ends that could sacrifice nailing strength or laying of a watertight roof. No ribbons on exposed portion of shingle, and curvature not to exceed 1/8 inch per 12 inches.

1. Thickness:

Vermont Slate shall be:

Standard Thickness, ¼"	850 Pounds Per Square
¼" to 3/8" Rough Texture	1000 Pounds Per Square
3/8" to ½" Rough Texture	1500 Pounds Per Square
½" to ¾" Rough Texture	2200 Pounds Per Square
¾" to 1" Rough Texture	3000 Pounds Per Square

2. Color of slate shall be Evergreen:

- a. Vermont Semi-Weathering Gray-Green
- b. Vermont Semi-Weathering Gray
- c. Vermont Black
- d. Vermont Mottled Gray-Black
- e. Vermont Unfading Green
- f. Vermont Unfading Gray
- g. New York Unfading Red
- h. Vermont Royal Purple
- i. Vermont Unfading Mottled Green & Purple
- j. Vermont Variegated Purple
- k. Unfading Clear Black (Asian)

3. Size of Slate:

- a. Length of slate shall be _____"
- b. Width of slate shall be _____"
- c. Gaudated In Length from _____" to _____".
(If Random Widths to be used, width shall not be less than ½ the length.

2.3 METAL FLASHING AND TRIM

A. Sheet Metal Flashing and Trim: Comply with requirements in Division 7 Section "Sheet Metal Flashing and Trim".

1. Sheet Metal: Copper

B. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's Architectural Sheet Metal Manual" that apply to design, dimensions, metal and other characterizes of item.

2.4 Underlayments:

A. One layer of 30# felt paper over entire roof deck.

2.5 FASTENERS

- A. Provide 10 gauge solid copper slaters nails.
Length (formula=thickness x 2 + 1")

2.6 Elastomeric Sealant:

- A. ASTM C920 elastomeric polyurethane, polymer sealant; of Type, Grade, Class and Use classifications required to seal joints in slate shingle roofing and remain watertight. Where sealant will be exposed, provide in color matching shingle.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, areas and conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
 - 1. Examine roof deck to verify that joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 - 2. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and penetrations through roofing.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 METAL FLASHING INSTALATION

- A. General: Install metal flashings and other sheet metal to comply with requirements in Division 7 Section "Sheet Metal Flashing and Trim".
- B. Install metal flashings according to recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual".
- C. Apron Flashing: Extend lower flange over and beyond each side of down slope slate shingles and up the vertical surface.
- D. Step Flashings: Install with a 3-inch head lap extending over the underlying slateshingles and up the vertical surface. Install with lower edge of slashing just upslope of and concealed by, butt of overlying slate shingle. Fasten to roof deck only.
- E. Cricket Flashings: Install against the roof penetrating element, extending concealed flange beneath upslope slate shingles and beyond each side.
- F. Hip Flashings: Install centrally over hip with lower edge of flashing concealed by butt of overlying slate shingle. Fasten to roof deck.
- G. Open Valley Flashings: Install centrally in valleys, lapping ends at least 8 inches in direction to shed water. Fasten upper end of each length to roof deck beneath overlap.
- H. Rake Drip Edges: Install over underlayment and fasten to roof deck.
- I. Eave Drip Edges: Install beneath underlayment and fasten to roof deck.

3.4 SLATE – SHINGLE INSTALLATION

- A. Installation, General: Beginning at eaves, install slate shingles according to written recommendations of manufacturer and details and recommendations in NRCA's "The NRCA Roofing And Waterproofing Manual".
 - 1. Install shingle starter course chamfered edge down.
- B. Install first and remaining shingle courses with chamfered face up. Install full width first course at rake edge.

1. Offset joint of (random width slate) (uniform width slate) a minimum of 3 inches in succeeding courses.
- C. Maintain a 3-inch minimum head lap between succeeding shingle courses.
- D. Extend shingle starter course and first course 2 inches over facial at eaves.
- E. Extend shingle starter course and succeeding courses 1 inch over rake edge.
- F. Cut and fit slate neatly around projections through roof.
- G. Hang slate with two fasteners for each shingle with fasteners lightly touching slate. Do not drive fasteners home drawing slates downward or leave fastener head protruding enough to interfere with overlapping shingle above.
- H. Hips:
 1. Mitered Hip
 2. Saddle Hip
 3. Boston Hip
 4. Fantail Hip
 5. Copper
- I. Ridges:
 1. Saddle Ridge
 2. Strip Saddle Ridge
 3. Comb Ridge
 4. Copper Ridge
- J. Valleys:
 1. Open Valleys
 2. Closed Valleys
 3. Round Valleys
 4. Canoe Valleys

Cut slate shingles to form straight lines at open valleys, trimming upper concealed corners of shingles. Maintain uniform width of exposed open valley from highest to lowest point.

 1. Do not nail shingles to valley metal flashings.

3.5 ADJUSTING AND CLEANING

- A. Remove and replace damaged or broken slates.
- B. Remove excess slate and debris from Project site.

3.6 FINAL INSPECTION

- A. The Architect shall perform a final inspection of work and supply Contractor with Punch List if necessary. All punch list items shall be completed prior to approval by Architect of final payment.