

Asphalt Shingles

Part 1 – General

Section Includes

- A. Quality assurance
- B. Delivery and storage
- C. Warranty
- D. Materials
- E. Roof vents
- F. Examination of roof
- G. Removal of existing roof
- H. Installation
- I. Application
- J. EPDM low pitch fully adhered work – see separate specs

Related Sections

Building permits and contractor licenses must be obtained by contractors as required by all applicable codes and ordinances, and laws before work begins. Consequences of failure to do so fall completely on the Contractor.

Quality Assurance

- A. Materials and installation shall comply with all laws, codes and regulations of Federal and State authorities having jurisdiction over this part of the Work.
- B. Installer: A firm with not less than five years of experience in installation of asphalt shingles and related work required for this project and which is acceptable to/or licensed by manufacturer of primary roofing material.
- C. Sheet metal flashing and trim shall conform to the following: Recommended practices contained in “Architectural Sheet Metal Manual” Sheet metal and Air Conditioning Contractor’s National Association, Inc. (SMACNA) latest edition.

Deliver, Storage and Handling

- A. Deliver materials with manufacturer’s labels intact and legible. Deliver materials in sealed packages with Underwriter’s Laboratories, Inc., labels. Store material on raised platforms and protect by covering at outdoor locations. All storage shall comply with manufacturer’s recommendations. Roof top deliveries shall be installed immediately. Repair of any and all damages due to roof top delivery is the responsibility of the contractor and shall be completed prior to full payment for the project.

Warranty

- A. The contractor shall warrant the shingle installation to be free of faults and defects for 2 years. The warranty shall be in writing and shall be signed by the contractor and/or subcontractor.
- B. The shingles shall be warranted by the manufacturer to be weather-tight and free from manufacturing defects for a period of no less than 50 years and 5 year sure start protection.
- C. The waterproof system eave flashing shall be warranted by the manufacturer to be free of defects for a period of 5 years.

Materials

- A. Shingles: ASTM D3018-82, mineral surfaced, self-sealing, (Architectural) composition shingles, bearing UL Class "C" external fire exposure label and UL "Wind Resistant" label weighing not less than 250 lbs. per square.
 - 1. Provide GAF, Timberline, or approved equal (50 years).
 - 2. Colors as selected by Owner.
- B. Mineral Surfaced Roofing; ASTM D249-88, matching roofing, 36" wide, 90#.
- C. Asphalt Saturated Roofing Felt: ASTM D226-88 organic, unperforated, 36" wide, type 15 typical.
- D. Plastic Bituminous Cement: FS SS-C-153, Type 1.
- E. Nails: Steel, zinc coated, 11 gauge, large head, 1 ¼" long. Fasteners should penetrate ¾" into the wood deck, if there are exposed wooden soffits shorter nails should be used so they do not protrude.
- F. Staples: Not permitted.
- G. Ice and Water Shield: Bituthene Waterproofing System, minimum thickness 40 mils, or equal Ployken 640.
- H. Metal drip edge: Minimum .024" prefinished sheet aluminum, brake-formed to provide 3" roof deck flange, and 1 ½" fascia flange with 3/8" drip at lower edge. Furnish 8' or 10' lengths. Color to be selected by owner.
- I. If using coil stock it must be prefinished aluminum .024" sheet or coil materials, factory primed and finished, "Una-Clad" (Copper Sales, Inc.); "Pre-Clad" (Peterson Aluminum Corporation); "Color-Klad" (Vincent Metals, Inc.) or approved equal.
- J. Provide color-matched fasteners, where fasteners are exposed to view.
- K. Provide color-matched touch-up paint.

Roof Vents

- A. Ridge Vents
 - 1. Close existing vent holes in sheathing. Install Ridge Master Ridge Vent or approved equal to manufacturers specifications. To meet venting code and manufacturer's warranty.

Execution

Examination

- A. Examine the surface condition of the substrates to receive roofing and associated work, and notify the owner in writing of unsatisfactory conditions. The contractor upon approval shall replace any damaged and/or rotted wood boards on roof before installation of new roofing.
- B. The installer shall examine the areas and conditions under which flashing and sheet metal work is to be installed and notify the owner in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected. Photos are required to document conditions before and after corrections.
- C. Surfaces to which shingles are to be applied shall be uniform, smooth, sound, clean, dry and free of irregularities. Contractor shall notify owner immediately of any condition that would impede work and reduce finished quality.

Removal of Existing Roofing

- A. Contractor shall protect building exterior walls, windows and site vegetation from damage during the tear-off. All debris from this work shall be cleaned and removed from the site daily.
- B. Contractor shall remove all existing roofing material, shingles, felt, nails and flashing in such a manner not to damage existing substrate. Clean substrate of any projections and substances detrimental to shingling work. Cover knotholes or other minor voids in substrate with sheet metal flashing secured with roofing nails. Note: Any damage to building, windows, screens, vegetation, etc. resulting from roof removal should be repaired at no cost to the owner.
- C. All safety measures needed to protect the safety of MPHA residents are the responsibility of the contractor.

Installation

- A. Provide galvanized flashing at roof valleys to be laid over 36" wide 'Ice and Water Shield', or equivalent, adhered to the roof deck. Apply Ice and Water shield to other vulnerable areas (valleys/hips/chimneys/skylights) and where there are changes from a 4+/12 pitch roof to a lower pitched roof.
- B. Provide galvanized flashing at miscellaneous locations as detailed or as necessary to provide a water and weather tight installation. Flashing exposed to view shall be prefinished sheet metal. All flashing and counter flashing must be replaced.
- C. Provide metal reglet flashing adhered and sealed to masonry with Vulcum caulk or approved equal (Stucco or brick) at specified locations.
- D. All Chimneys shall be flashed on the 'high' side with a metal 'saddle' (cricket) or MPHA approved equal in conjunction with the reglet. (No flat flashing will be acceptable at this location).
- E. Securely fasten all materials to substrate to provide rigid installation.

- F. Provide appropriately colored 'Vulcum' polyurethane caulk sealant or MPHA approved equal at all specified locations where waterproofing and sealing are necessary.

Application

- A. Felt Underlayment and Flashing- For decks sloping 4/12" or greater.
- B. Drip Edge and Flashing.
- C. Nail metal drip edge at all roof edges.
- D. Nail wall flashing to the roof with roofing nails. Secure to vertical surfaces through slotted holes to allow for movement.
- E. Nail valley flashing to the roof with roofing nails.
- F. Eave Protection: Apply (Ice and Water Shield) waterproofing system in accordance with manufacturer's instruction beginning at the roof edge and extending up roof slope to a minimum of 24" beyond the inside wall line. Lap ends and edges a minimum of 6".
- G. Lay one layer of Type 15 felt horizontally over remainder of roof, lapping each course 2" minimum at horizontal joints, and 4" minimum at end joints, and 6" over membrane flashing.
- H. Lap felt 16" from both sides over hips.
- I. Secure underlayment to deck with sufficient fasteners to hold in place until shingles are applied.
- J. Apply Ice and Water Shield and starter row of shingles over edge flashing, roofing to overhang drip edge 1/2".
- K. Shingles- must use starter course shingles to match the field shingles
- L. Nail as specified by shingle manufacturer.

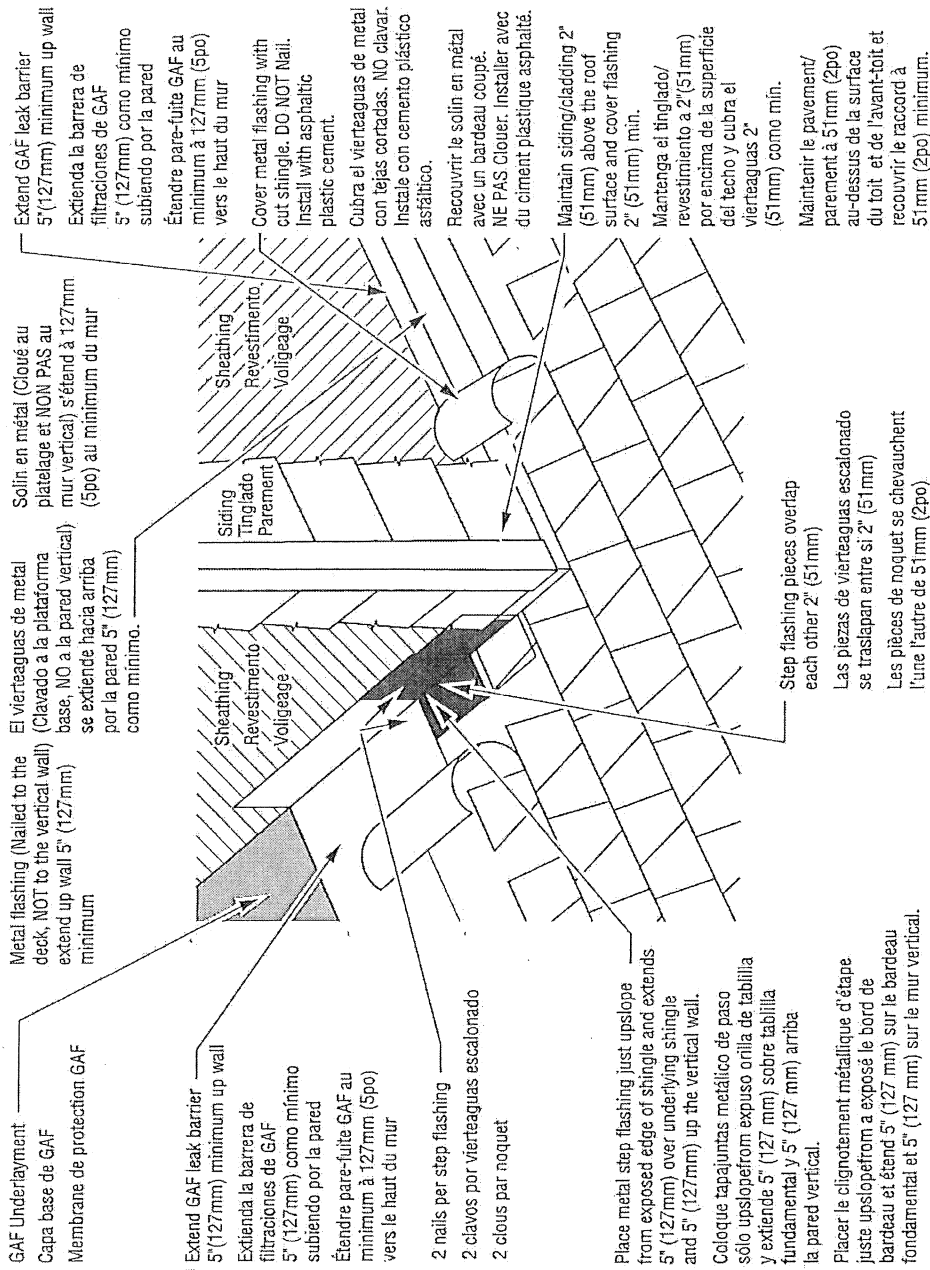
Note: No staples approved

END OF SECTION

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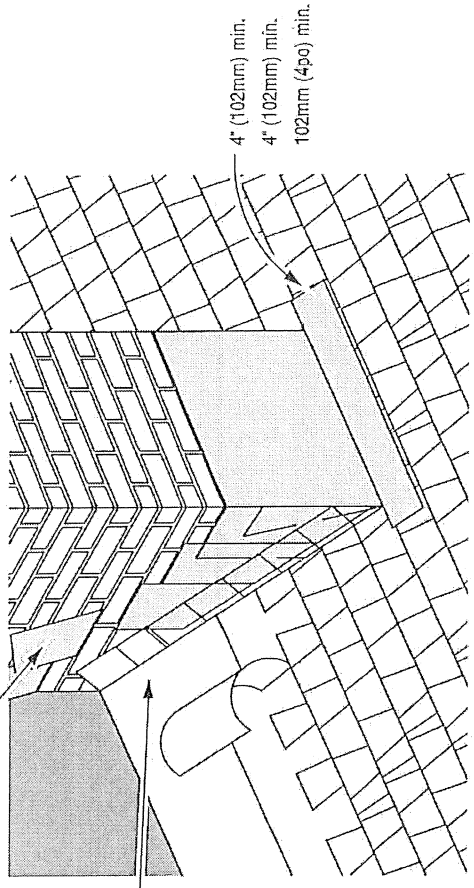
WALL FLASHING

(Sloped Roof to Wall)
VIERTEAGUAS DE PARED
(Techo en Pendiente hacia la Pared)
SOLINS MURAUX
(de Toit en Pente à Mur)



Contraviertaaguas de metal inoxidable que se extiende hacia abajo sobre el vierteaguas de base
 Contre solin en metal inoxydable approprié pour étendre vers le bas sur le solin de base

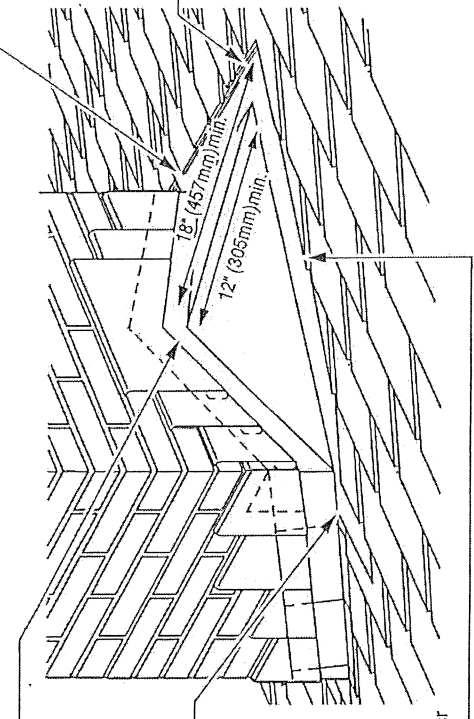
Non-corroding metal base flashing.
 One piece step flashing for each course.
 Cement in place and nail with 2 nails.
 Bond overlying shingles in asphalt plastic cement.
 Vierteaguas de base de metal inoxidable.
 Una pieza de vierteaguas para cada hilada.
 Cemente en el lugar y clave con 2 clavos.
 Curve las tejas de revestimiento en cemento plástico asfáltico
 Solin de base en metal inoxidable.
 Noquet en une seule pièce pour chaque rang. Coller en place et clouer avec 2 clous.
 Colier sur les bardeaux chevauchant dans le ciment plastique asphalté.



4" (102mm) min.
 4" (102mm) min.
 102mm (4po) min.

Seal shingles to metal flange with plastic cement
 Selle las tejas a la brida de metal con cemento plástico
 Soeller les bardeaux à la brida de metal avec du ciment plastique

Cricketer flange 18" (457mm) minimum up roof deck
 Brida del desviador en pico a 18" (457mm) como mínimo subiendo por la plataforma base del techo
 La brida du dos d'âne au minimum à 457mm (18po) du platelage de toit



Cricketer ridge 12" (305mm) minimum
 Borde del desviador en pico a 12" (305mm) como mínimo
 Pli du dos d'âne au minimum de 305mm (12po)

6" (152mm) min.
 6" (152mm) min.
 152mm (6po) min.

Shop fabricated cricket
 Desviador en pico fabricado en taller
 Dos d'âne fabriqué en usine

Top of valley 6" (152mm) wide between shingles. Widens 1/8" (3mm) per foot (305mm) towards eaves

Parte superior del valle 6" (152mm) de ancho entre tejas. Ensancha 1/8" (3mm) por pie (305mm) hacia los aleros

Haut de la noue de largeur de 152mm (6po) entre les bardeaux. S'élargit de 3mm (1/8po) par pied (305mm) vers les avant-toits

Cement 12" (305mm) minimum metal laps with asphalt plastic cement

Cemento los traslapes laterales con un mínimo de 12" (305mm) de cemento plástico asfáltico.

Coller les chevauchements de métal de 305mm (12po) avec du ciment plastique asphalté

Extend shingles 4" (102mm) min. over 20" (508mm) wide valley metal. Embed shingles in asphalt plastic

Extienda las tejas 4" (102mm) como mínimo sobre el metal del valle de 20" (508mm) de ancho. Unte las tejas en cemento plástico asfáltico en el valle

Faire dépasser les bardeaux d'un minimum de 102mm (4po) sur 508mm (20po) de large du métal de noue. Imbriquer les bardeaux dans le ciment plastique asphalté dans la noue

Center full width roll of GAF leak barrier. Do not place fasteners within 6" (152mm) of center line. Horizontal laps 6" (152mm) min.

Centre un rouleau de pleine largeur de pare-fuite de GAF. Ne pas placer les fixations à l'intérieur de 6" (152mm) de la ligne du centre. Traslapes horizontales a 6" (152mm) como mín.

Centrer un rouleau de pleine largeur de pare-fuite de GAF. Ne pas placer les fixations à l'intérieur de 152mm (6po) de la ligne du centre. Chevauchements horizontaux minimum de 152mm (6po).

Carry GAF underlayment 6" (152mm) minimum across GAF leak barrier.

Llevar la capa base de GAF 6" (152mm) como mínimo sobre la barrera de filtraciones de GAF.

Amener de la membrane de protection GAF à un minimum de 152mm (6po) sur le pare-fuite GAF.

Crop top corners of shingles 45° at valley as shown

Recorte las esquinas superiores de tejas a 45° en el valle como se muestra

Rogner de 45° les coins supérieurs des bardeaux dans la noue tel qu'illustré

