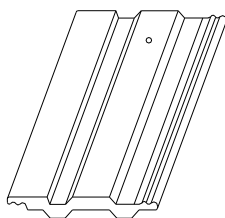


VANDE HEY RALEIGH STANDARD WEIGHT CONCRETE TILE STYLES

RIVIERA

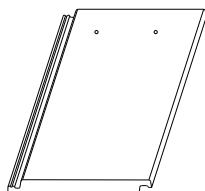
(Low profile tile)

A semi-flat tile with beveled ribs. They can be laid with waterlock to the left side if special ordered without nail holes and hand drilled.



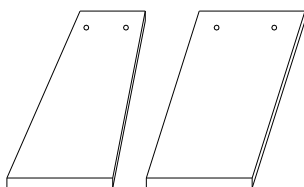
SLATE (Flat Tile)

A simple, smooth-surface tile especially attractive in natural gray and slate colors.



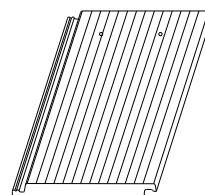
SHINGLE

A custom shingle available in turret shingles (tapered) and English shingles (non-tapered). (See page 23)



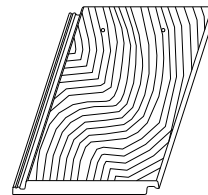
SHAKE (Flat tile)

A beautiful tile that simulates wood shakes. The top surface and exposed ends are raked in an uneven pattern creating an extreme shadow design.



CUSTOM BRUSHED (Flat tile)

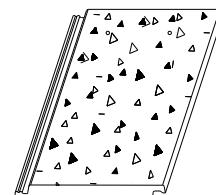
A flat tile with brushed finish to give an individual look to each tile.



COTSWOLD STONE

(Flat tile)

A unique tile with antiqued surface, emulates the centuries old and most striking slate stone roofs which adorn the limestone barns, cottages, manors and churches of Cotswold England. Especially attractive in a blend of grays, greens and browns.



TECHNICAL DATA

STYLE	DIMENSIONS	TILE PER SQUARE*	EXPOSURE PER TILE	APPROX LBS PER SQUARE*	APPROX KGS PER SQ MTR**	APPROX SQS PER PALLET	APPROX SQS + TRIM PER TRUCK (46,500 LB)
Riviera	15 3/8"x10 1/4"	138	12"x8-11/16"	1,000	48.8	2.6	38.5
Flat	15 3/8"x10 5/8"	124*	12"x9 3/4"	1,050*	51.3*	2.6	38.0
Shingle, English							
Tapered Thickness	15"x7 1/2"	315	6"x7 1/2"	2,006	97.9	1.1	
Shingle, Turret							
15x1.5-5" tapered	See p. 23	543	6"x4.3"	1,800	87.9	1.0	
15x2-4" tapered	See p. 23	646	6"x3.7"	1,800	87.9	.9	
15x3-4" tapered	See p. 23	611	6"x3.9"	1,800	87.9	.8	
15x3-6" tapered	See p. 23	434	6"x5.4"	1,800	87.9	.9	
15x5-7" tapered	See p. 23	356	6"x6.6"	1,800	87.9	.9	
15x6-7" tapered	See p. 23	346	6"x6.8"	1,800	87.9	.9	

- For tile laid in a staggered pattern with a 10" exposure (page 22) increase weight and tile required by 20% (1,260 lbs/sq or 61.6 kgs/sq).
- ♦ For Heavy Duty Tile add 100 lbs per square/4.9kgs per square meter.

All tiles are tested in accordance with and exceed minimums for strength, water absorption, freeze-thaw, dimensions and installed weight:

◇ Miami-Dade County, Florida, NOA No.: 06-0201.01, Expires 4/05/11

◇ ICBO ES Number ER 4907

◇ ASTM

◇ IRC

◇ Florida Building Code #FL6021.1

◇ UBC

◇ SBCCI

◇ Standard of Canada CAN/CSA-A220

◇ IBC

◇ City of Los Angeles

Laying pattern: Riviera tile is laid from left to right in straight joint only; flat styles are laid from right to left in random, half joint or staggered * patterns.

Minimum Slope: 3:12 in the sun belt; 4:12 in severe weather areas. On roofs below minimum slope, tile is for cosmetic purposes only—a counter batten system under a flat roof membrane is required. Specifications available upon request.

- ▲ Wind Resistance: See Figure 60.
- ▲ Withstands one inch diameter hail.
- ▲ Iron oxide coloring throughout.
- ▲ Normal efflorescence may occur.

- ▲ Minimizes ice damming.
- ▲ Class A noncombustible fire rating.
- ▲ Has an extended life expectancy complete with 50 year limited warranty. Copy available upon request.

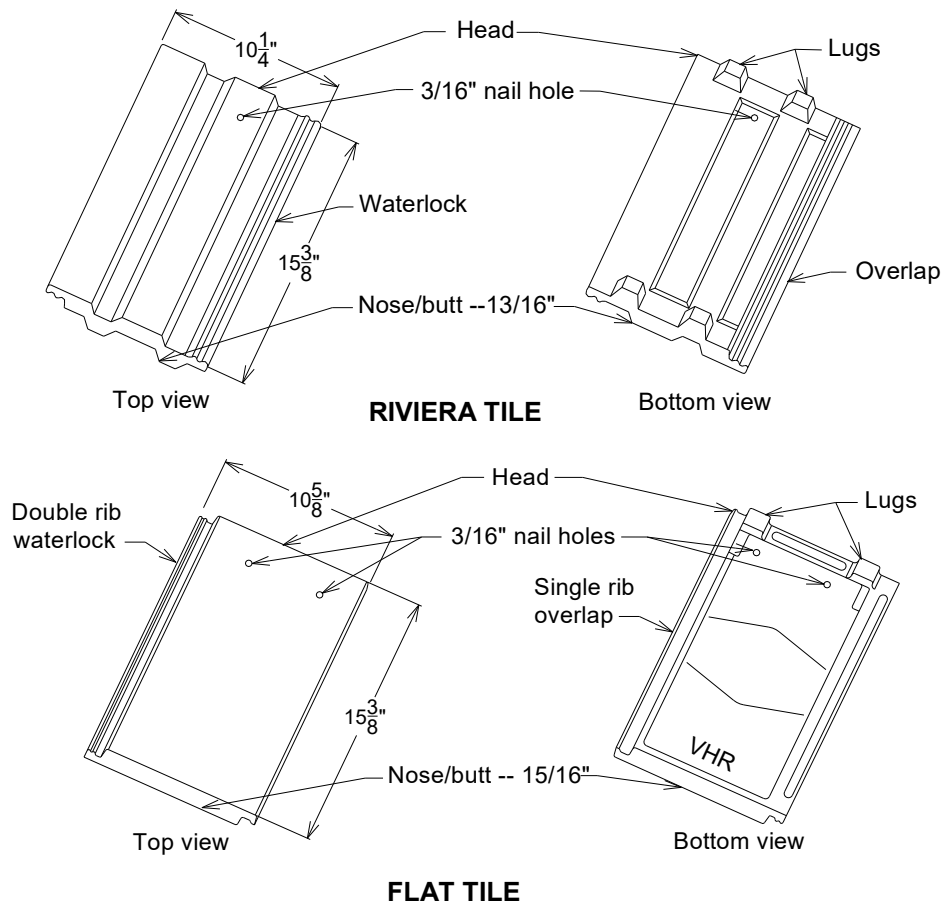
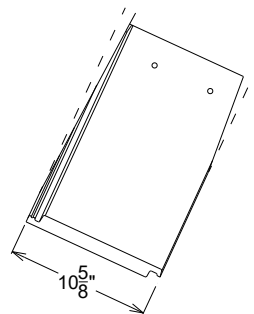


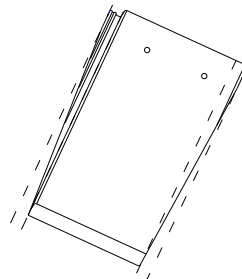
FIGURE 1. NOMENCLATURE OF VANDE HEY RALEIGH RIVIERA AND FLAT TILE



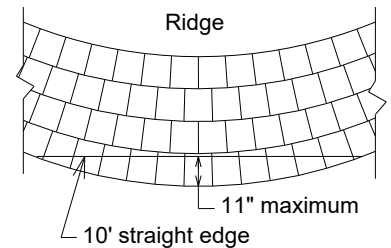
**CUSTOM MODIFIED
WATERLOCK TILE (Curved out)**



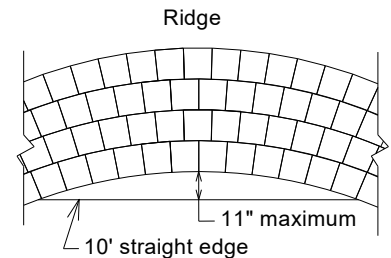
**STANDARD MODIFIED
WATERLOCK TILE (Curved out)**



**STANDARD MODIFIED
WATERLOCK TILE (Curved In)**



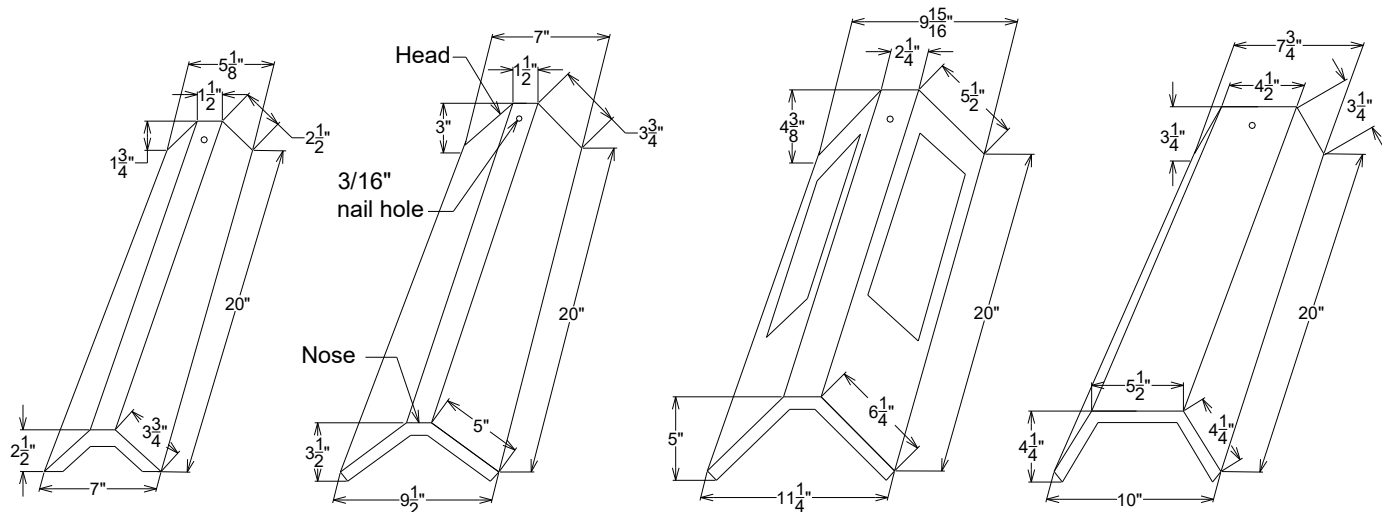
**MEASURING OFFSET
(Curved Out)**



**MEASURING OFFSET
(Curved In)**

FIGURE 1a. MODIFIED WATERLOCK TILE

Note: Standard Modified Waterlock Tile are available for special curved roof applications. To determine the taper required on Modified Waterlock Tile, measure the offset in the curve at the center of a 10 foot straight edge. (Figure 1a) 1"-7" max. is the offset the Standard Modified Waterlock Tile can accommodate. If the offset in the curve is greater than 7" and less than 11", use Custom Modified Waterlock tile. Upgraded underlayment and battens with 3/4" saw marks along the bottom edge are required. Turret shingles should be used on roofs with greater than 11" offsets.

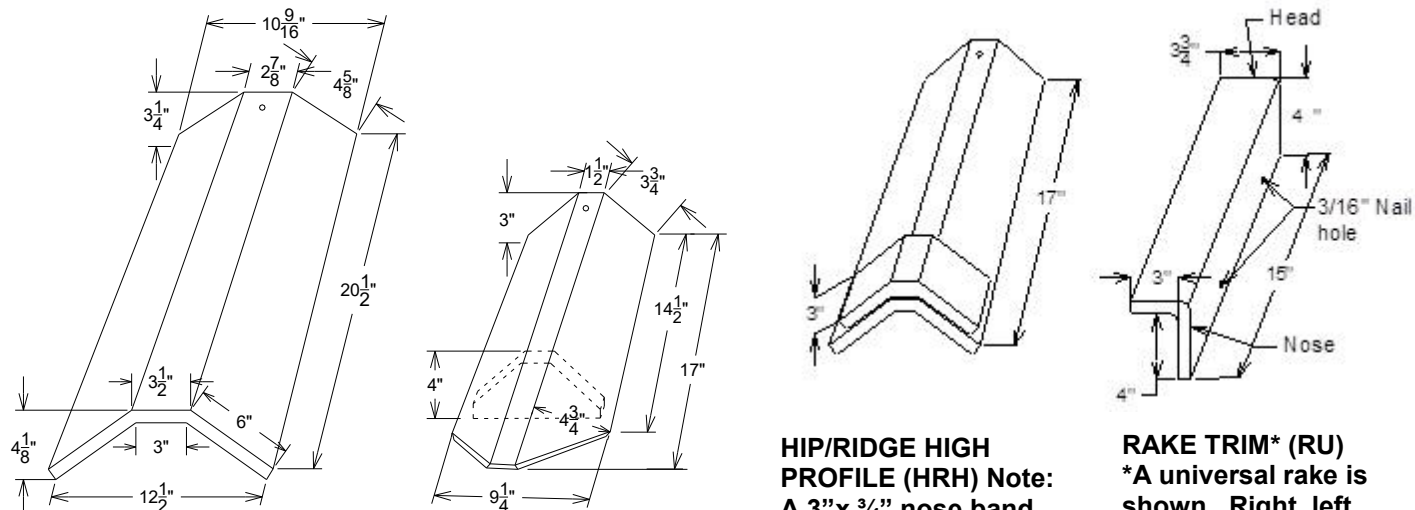


HIP/RIDGE LOW PROFILE (HTL)
Used with shingles & special applications.

HIP/RIDGE REGULAR (HRR)
Used on all hips & on ridges with 3:12 to 8:12 slopes without ridge venting.

RIDGE INTERMEDIATE (RTI)
8 1/2:12 to 16:12 & with 1 1/2" ridge venting or staggered pattern.

RIDGE STEEP (RTP)
16 1/2:12 & above.

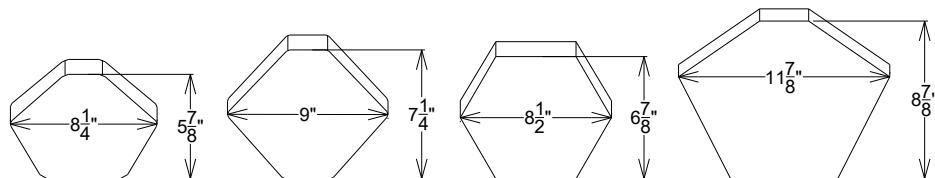


PARAPET CAP/ RIDGE TRIM (PC)
Used to cap parapet walls or with 3" ridge venting.

HIP STARTER REGULAR (HSR)

HIP/RIDGE HIGH PROFILE (HRH) Note:
A 3"x 3/4" nose band can be added to all ridge trim creating a high profile ridge with reduced exposure.

RAKE TRIM* (RU)
*A universal rake is shown. Right, left, 13", 20" and tapered rakes are available for special applications. See Paragraph 28.

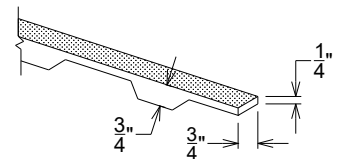


END CAP REGULAR (ECR)

END CAP INTERMEDIATE (ECI)

END CAP STEEP (ECT)

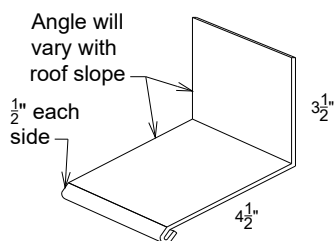
END CAP PARAPET (ECP)



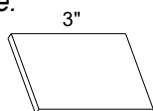
RIVIERA CLOSURE (VR350001)

FIGURE 2. TRIM PIECES OF VANDE HEY RALEIGH TILE

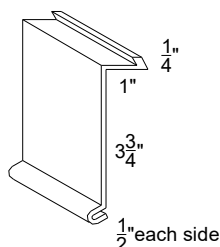
- 3a. ANGLE (headwall) FLASHING (9" girth)**
At headwalls and in front of roof protrusions.
ANGL 9 Cpr-VR320584 (A)



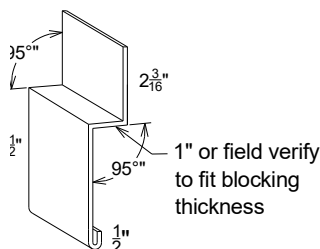
- 3b. BAT STOP FLASHING (3" girth)**
Used for reroofs when gable fascia is not raised and areas where bats reside.
(Painted aluminum/steel)
BAT STOP FL VR310112



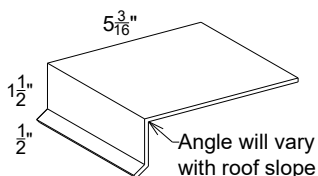
- 3c. COUNTER FLASHING (6" girth)**
At brick or masonry walls.
CNTR 6 Cpr-VR320339



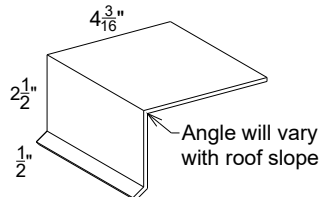
- 3d. STUCCO COUNTER FLASHING (7-3/16" girth)**
At stucco walls with new construction.
CNTR 7-3/16 STUCCO Cpr-VR320587



- 3e. NEW EAVE METAL (7-3/16" girth)**
New construction only.
EAVE Cpr-VR320104 (Alm-VR310416) (E)
New construction only, with gutters.
GUTTER EAVE Cpr-VR320421 (Alm-VR310422) (E)

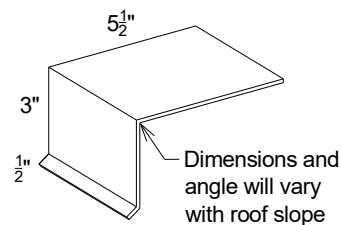


VR320104

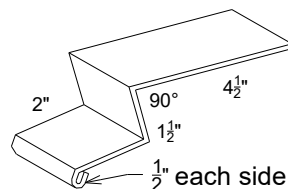


VR320421

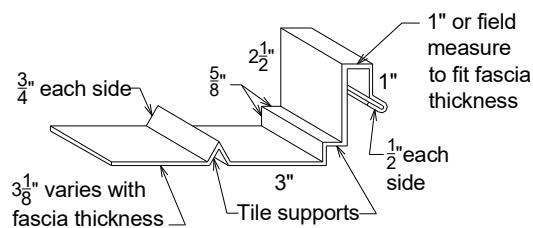
- 3f. REROOF EAVE METAL (9" girth)**
Used for reroofing with eave cant, with & without gutters.
EAVE RRFG Cpr-VR320413 (Alm-VR310065) (E)



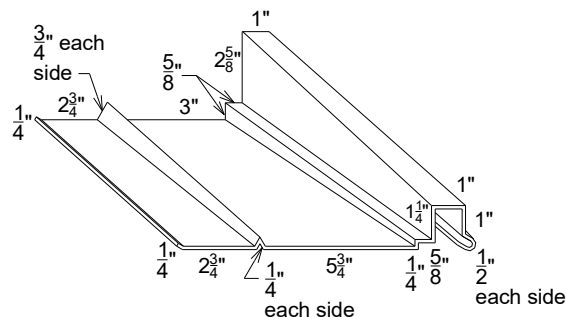
- 3g. FLAT ROOF EAVE FLASHING (9" girth)**
Where the bottom row of tile meets flat roof/saddles.
FLAT ROOF EAVE Cpr-VR320066 (Alm-VR310067) (FE)



- 3h. GABLE FLASHING (14-3/8" girth)**
In place of rake trim on regular gables.
Starters required.
GBL WO/R Cpr-VR320701 (G-Yellow)



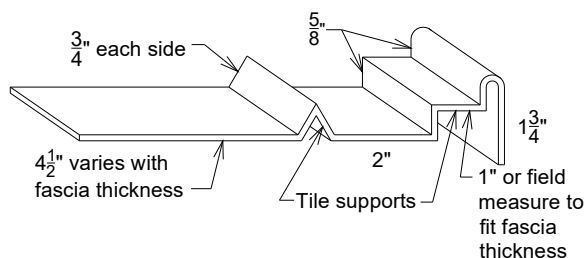
- 3h1. GABLE STARTER FLASHING (14-3/8" x 16)**
Use with Gable Flashing.
GBL STR WO/R Cpr-VR320696-Left)
GBL STR WO/R Cpr-VR320697-Right)



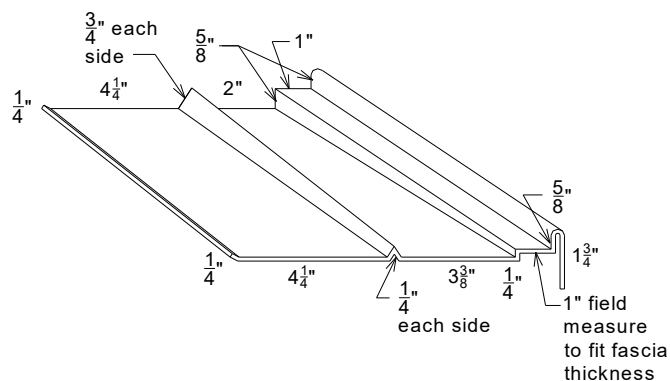
Right Starter Shown, Left Starter Opposite

FIGURE 3. STANDARD FLASHINGS FOR RIVIERA AND FLAT TILE
 Available from the manufacturer

GBL W/R Cpr-VR320517 (G-Yellow)

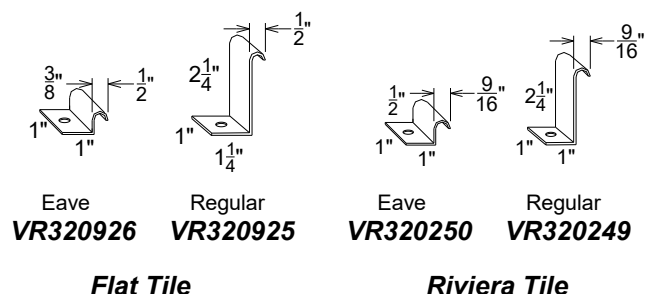


GBL STR W/R Cpr-VR320519-Right

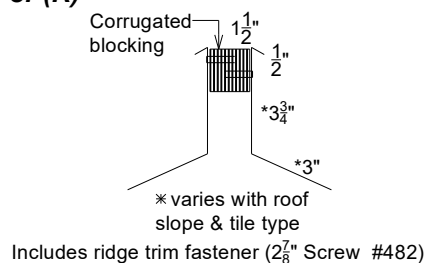


Right Starter Shown, Left Starter Opposite

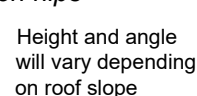
(20 oz. copper). **CLIP HRCN**



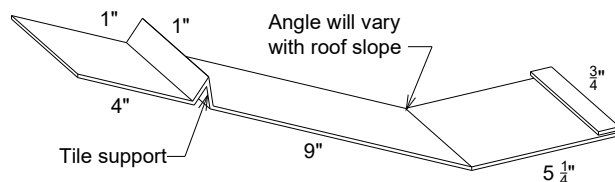
#(595) (H) or (R)



VR330574 (R)



(SHV-Light Purple)



(SSC-Light Blue)

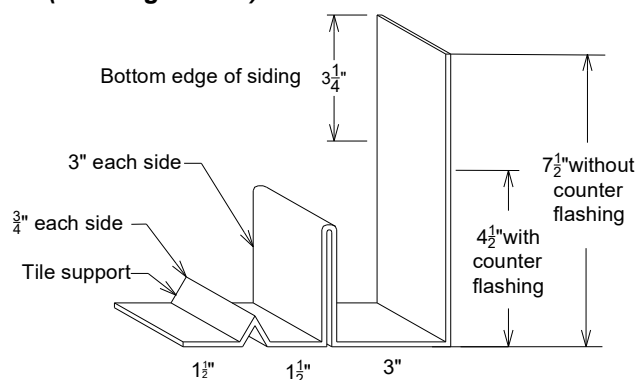


FIGURE 3. CONTINUED. STANDARD FLASHINGS FOR RIVIERA AND FLAT TILE

3n1. SIDE SADDLE CHANNEL STARTER FLASHING (18" or 21" x 17- $\frac{1}{4}$ ")

Use w/ Side Saddle Channel Flashing.

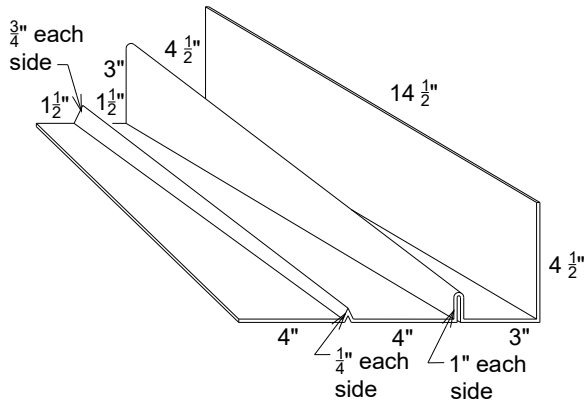
SD SDDL CH STR

Cpr-VR320500- Left 18"

Cpr-VR320501- Right 18"

Cpr-VR320223- Left 21"

Cpr-VR320224- Right 21"



Right Starter Shown, Left Starter Opposite

3o1. SIDE WALL STARTER FLASHING (12"-14" x 13- $\frac{3}{4}$ ")

Use with Side Wall Flashing.

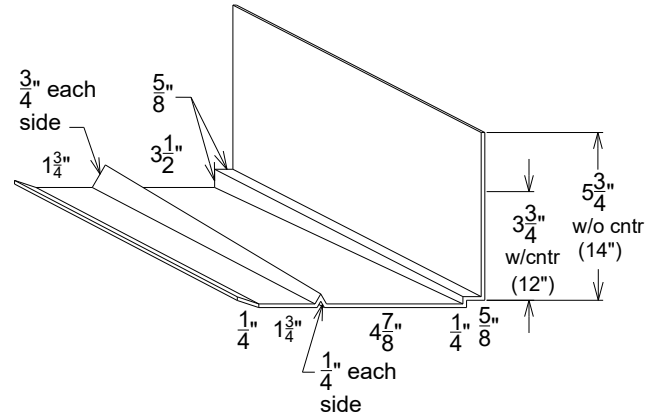
SD WL STR

Cpr-VR320349- Left 12"

Cpr-VR320375- Right 12"

Cpr-VR320082- Left 14"

Cpr-VR320080- Right 14"



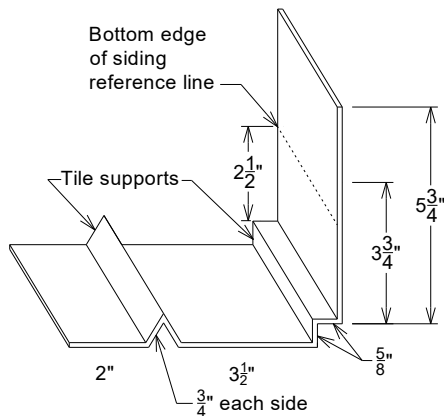
Right Starter Shown, Left Starter Opposite

3o. SIDE WALL FLASHING (12"-14" girth)

Along walls, or protrusions.

Starters required.

SD WL 12"-Cpr-VR320197 used with counter flashing, 14"-Cpr-VR320084 used with siding) (SW-Orange)



3p. SNOW GUARD

For snow areas. (38 oz Copper)

SNW GRD 38 OZ Cpr-VR320605

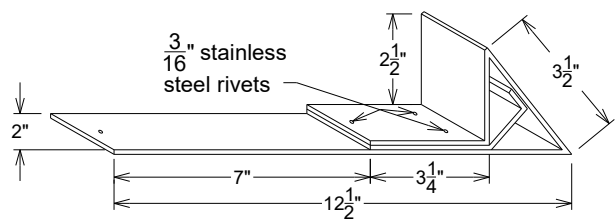
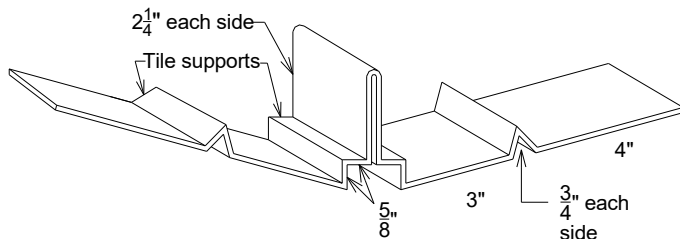
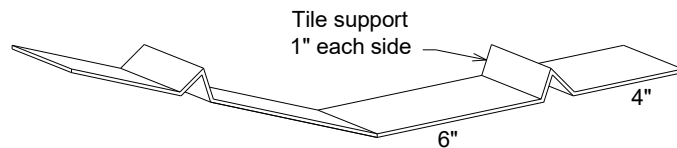


FIGURE 3. CONTINUED. STANDARD FLASHINGS FOR RIVIERA AND FLAT TILE

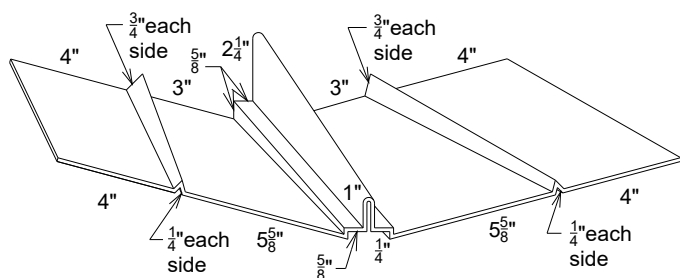
- 3q. CLOSED VALLEY FLASHING (24" girth)**
 For valleys in non-wooded areas and slopes 12:12 and above.
 Starter required.
VLLY CLOSED CPR-VR320070 (V-Purple)



- 3r. OPEN VALLEY FLASHING (24" girth)**
 Open grouted valleys in wooded areas and slopes below 12:12. Wider girth required for valleys over 30 ft.
 Starter required.
VLLY OPEN Cpr-VR320171 (V-Purple)



- 3q1. CLOSED VALLEY STARTER FLASHING (24" x 24")**
 Use with Closed Valley Flashing.
VLLY STR CLOSED Cpr-VR320593



- 3r1. OPEN VALLEY STR FLASHING (24" x 24")**
 Use with Open Valley Flashing.
VLLY STR OPEN Cpr-VR320514

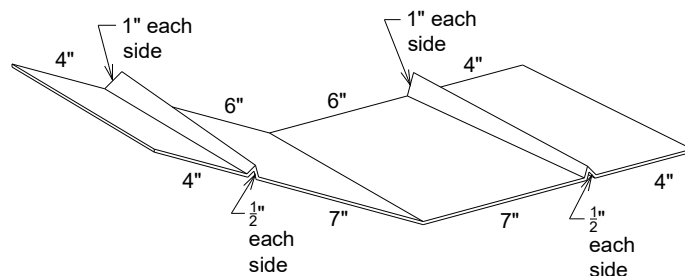


FIGURE 3 CONTINUED. STANDARD FLASHINGS FOR RIVIERA AND FLAT TILE

NOTES:

- Shop drawings and designs are available special applications.
- Lap flashings a minimum of 4" for slopes 4:12 and above and 6" for slopes below 4:12.
- Secure flashings with ringshank nails compatible with flashing material. Do not nail at overlap.
- Abbreviations are used in item descriptions on the packing list and abbreviations & color codes are used on the roof plan.
- 16 or 20 oz. Copper, Lead Coated Copper, Terne Coated Stainless Steel, 24 Ga. G90 Kynar 500 pre-finished colored steel, 26-24 Ga. G90 galvanized sheet steel or .027 Aluminum can be used for all flashings.
- Where soldering is required, be sure to use rosin paper between the flashing and a special heat resistant underlayment. Neutralize flux once joints are cool.

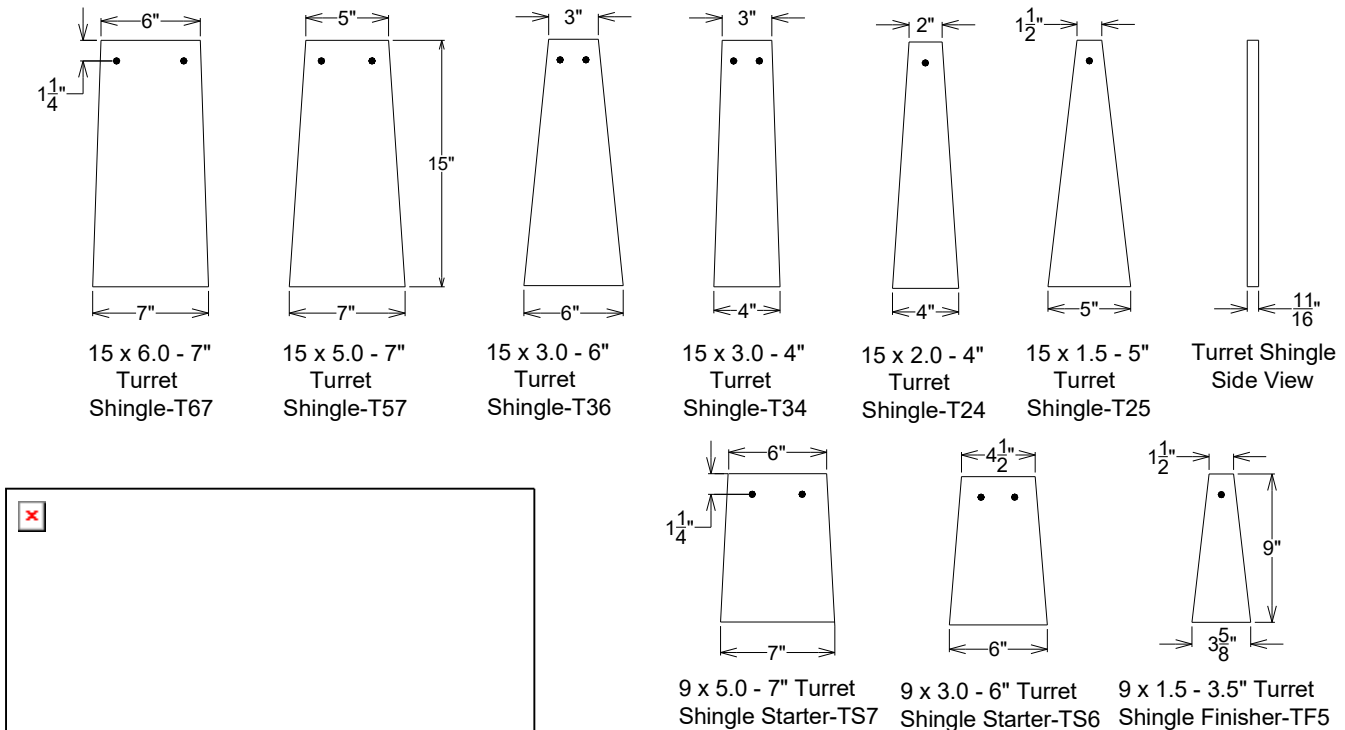


FIGURE 57. STANDARD SIZES OF TURRET SHINGLES
(11/16" thick—requires fascia raised 1/4")

41. Shingles are available in several different sizes for various applications. They are available in standard and custom colors and custom surface textures. 9" long starter/finisher pieces are used at the eave and at the top row when installing all shingles. (Figures 56-59) Shingles are not recommended on slopes below 4:12 in the sunbelt and 6:12 in severe weather areas, and require a minimum 3/4" nailable deck.

Turret shingles are available in tapered widths and are used on round turrets. Their unique design adds beauty and grace to a curved roof. (Figures 56 & 57)

The English shingle has tapered thickness and is available in 2 sizes. It can be custom sized and is especially useful in matching existing shingles on reroofs and additions. The English Shingle can also be used on small roof areas over bowed windows or as siding on dormers. (Figures 58 & 59) Complete installation specifications for all types of shingles available upon request.



FIGURE 58. ENGLISH SHINGLES ON FRONT & SIDES OF DORMER

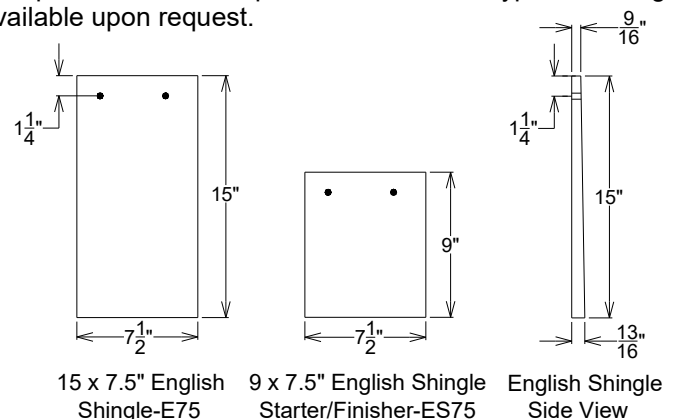


FIGURE 59. STANDARD SIZES OF ENGLISH SHINGLES (Tapered thickness)
(Requires fascia raised 3/4")

BIDDING INFORMATION

One square (100 sq. ft.) of coverage requires the following:

- A. 124 field tile (12" x 9¾" exposure) (Adjust quantity of tile and weight on the roof if installing with less than 12" exposure.)
- B. 112 linear feet of 1" x 2" notched batten strips.
- C. 1¼ lb. of 5d stainless steel nails for battens.
- D. 1¾" stainless steel nails for field tile (amount will vary with slope of roof).
- E. One 3½ gallon pail roofing mastic for 12 hip/ridge trim & 60 rakes.

ARCHITECTURAL SPECIFICATIONS

- 1. Field tile shall be Vande Hey Raleigh _____ (Riviera; Shake; Slate; Custom Brushed; Cotswold Stone) style concrete roof tiles as manufactured by Vande Hey Raleigh Mfg., Inc. Color shall be _____ (insert color or price group A - K. See price list). Trim tile to match color and style of field tile.
- 2. Field tile shall have a maximum exposure of _____ with 3" headlap (12" x 8-11/16" Riviera; 12" x 9¾" Flat).
- 3. Tile shall be laid in a _____ (random; half joint; staggered for Flat tile) (straight for Riviera tile) pattern.
- 4. Shingles shall be _____ (turret; English) style, _____ color with _____ (smooth; brushed; shake; Cotswold; custom) surface.
- 5. Contractor to submit sample to architect for style and color verification prior to shipment.
- 6. Installation shall be within accordance with _____ (city; state; etc.) building codes which require a Class _____ (A; B; C; N/A) fire rated system and according to manufacturer's specifications.
- 7. Valleys shall be laid _____ (closed; open and grouted).
- 8. Tile along ridge and hips shall be sealed with _____ (flashing; mastic; colored grout) weather block.
- 9. Exposed side/edges of tile at gables shall be covered with _____ (rake trim; gable flashing; colored grout).
- 10. Fasteners shall be _____ (copper; stainless steel)--see Paragraph 43.
- 11. Underlayment shall be _____ (See Paragraph 42-E).
- 12. Battens (optional) shall be _____ (notched 16" O.C. pressure treated 1x2's; pressure treated 1x3's/1x4's with counter batten system _____ (under/over) underlayment).
- 13. Flashings (see pages 6-7) shall be _____ (16 oz. copper; 20 oz. Copper; terne coated stainless steel; 24 Ga. G90 Kynar 500 prefinished colored steel; 26-24 Ga. G90 galvanized sheet steel; .027 colored aluminum; lead coated copper or 3# lead if environmentally acceptable) _____ (color of steel/aluminum).
- 14. Venting shall be _____ (ridge/hip/headwall; tile gravity/power vents).
- 15. Special installation procedures apply for slopes below 3:12 in the sun belt and 4:12 in severe weather areas. _____ Yes/No. Snow guards required. _____ Yes/No.
- 16. Specifications required for _____ mph winds. Specifications required for roof heights over 40 feet _____ Yes/No.
- 17. Quality Assurance:
 - A. Work must be performed by a firm with not less than 5 years of successful experience and shall have installed a minimum of five (5) projects of at least ½ the size of this project within the last five years.
 - B. **Complete quality materials package is available from Vande Hey Raleigh Mfg., Inc.**
 - C. Vande Hey Raleigh will arrange an instructor/technician for instruction or inspection to ensure proper installation. **COMPENSATION WILL BE REQUIRED.**
- 18. Warranty:
 - A. Provide a 50-year written warranty from the manufacturer.
 - B. Material and workmanship shall also be guaranteed by the installation contractor for 3 years (residential) or 5 years (commercial) from the date of substantial completion.