



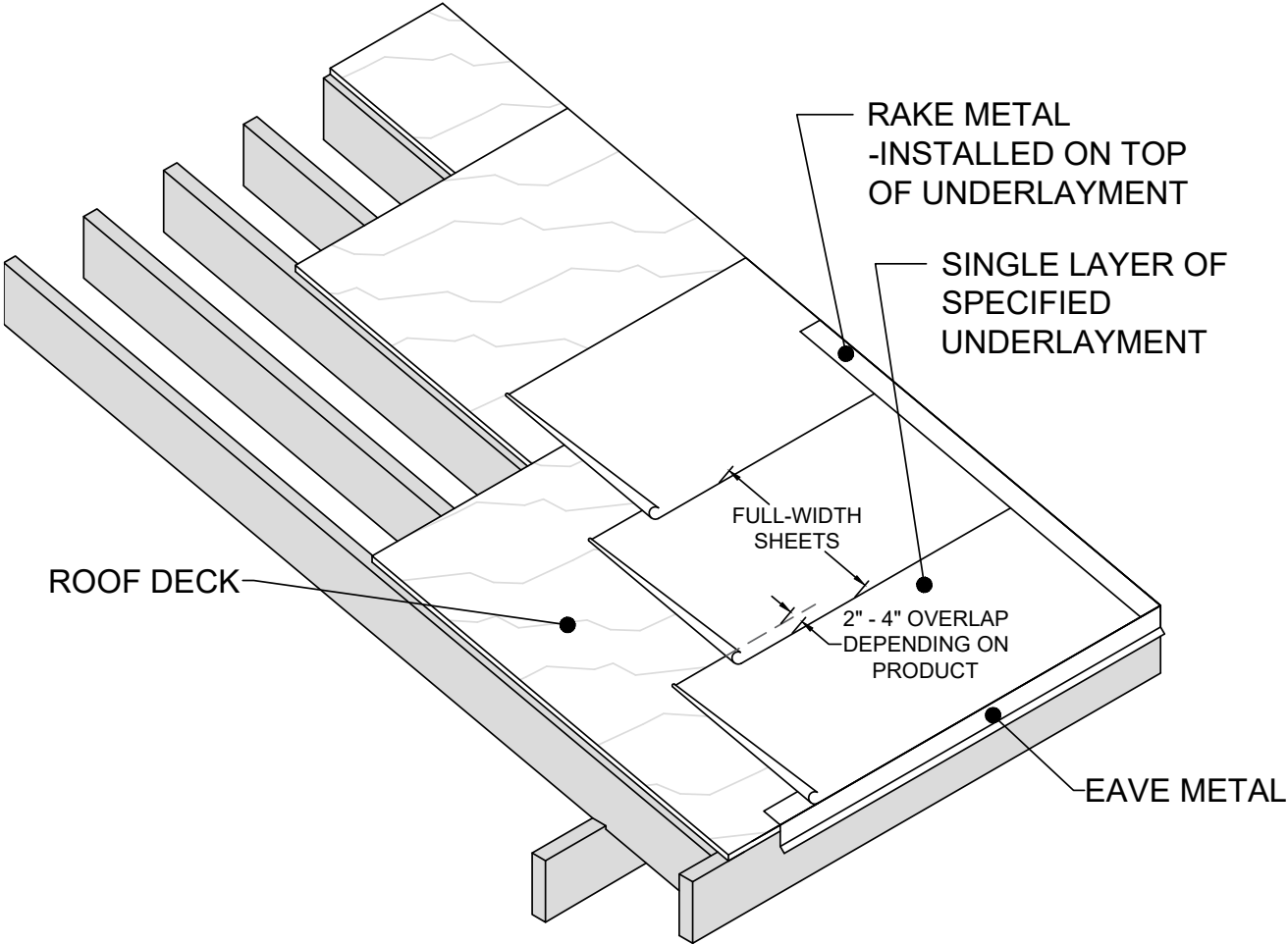
SPEC MANUAL

B.U.R., MODIFIED & SHINGLE
ROOFING SYSTEMS

Chapter 4B

Steep Slope Roofing Details

4"+ SLOPE LAYOUT NO ICE DAM PROTECTION



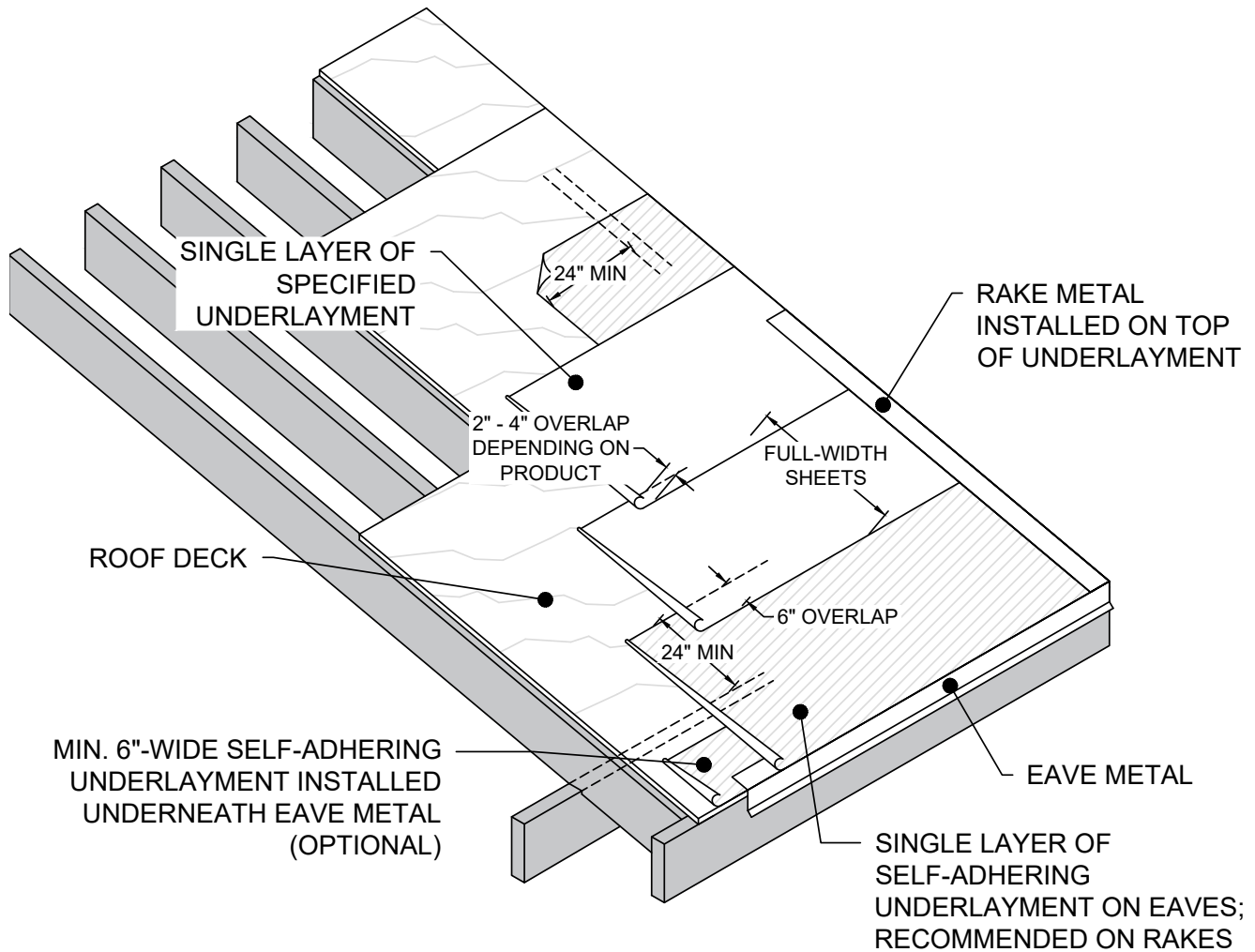
NOTES:
-USE OF MALARKEY SELF-ADHERING, ICE DAM PROTECTION UNDERLAYMENTS, ARCTIC SEAL OR SECURESTART HT, MAY BE REQUIRED AT EAVES IF LOCAL CODE SPECIFIES.

STEEP SLOPE 1

4"+ SLOPE LAYOUT NO ICE DAM PROTECTION

4B.1

4"+ SLOPE UNDERLAYMENT WITH ICE DAM PROTECTION

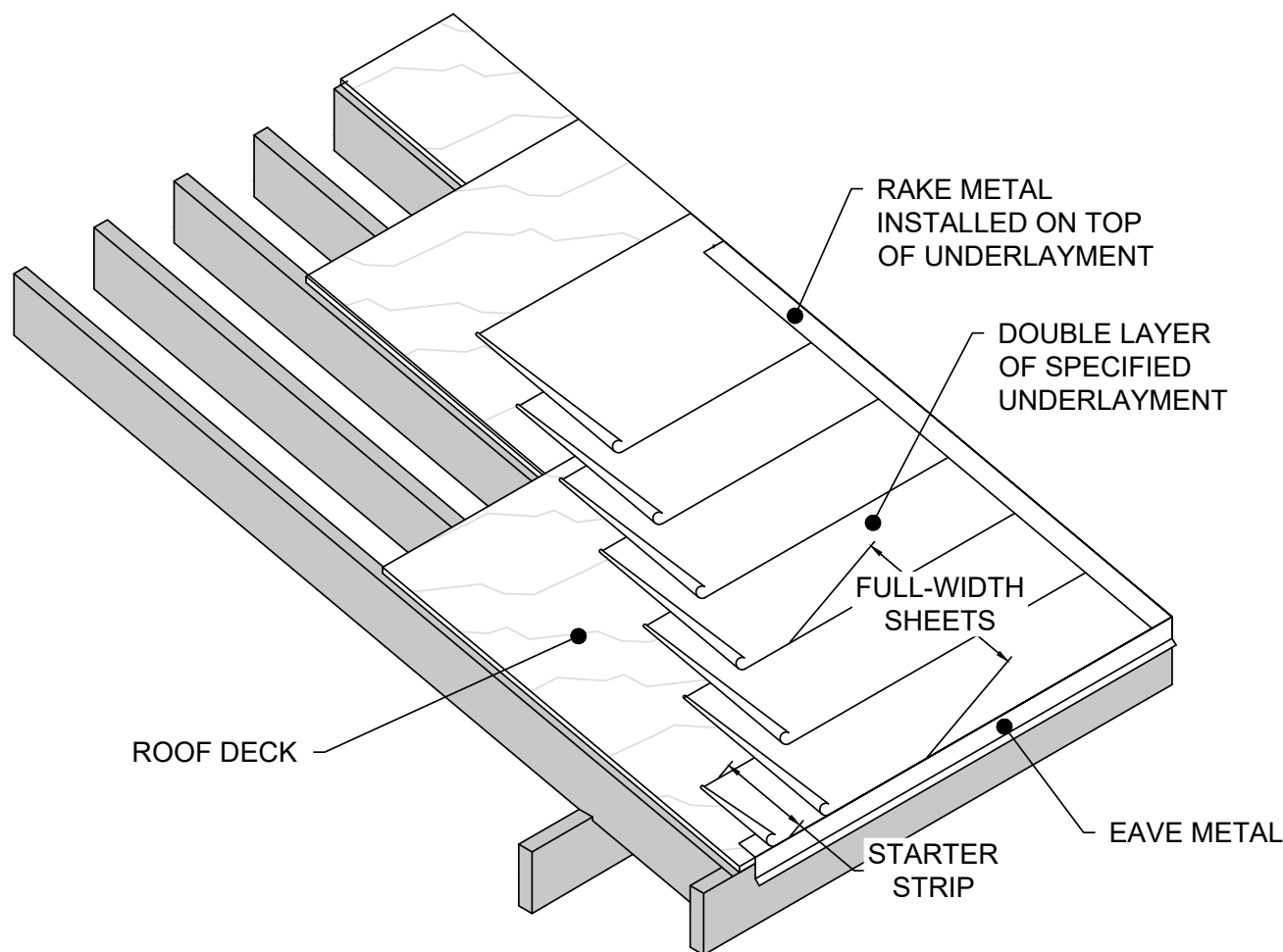


NOTES:

-MALARKEY SELF-ADHERING, ICE DAM PROTECTION UNDERLAYMENTS, ARCTIC SEAL OR SECURESTART HT, SHALL BE INSTALLED TO A POINT AT LEAST 24" OR MORE AS AMENDED BY LOCAL ORDINANCE INSIDE THE EXTERIOR WALL LINE OF THE BUILDING WHEN REQUIRED.

STEEP SLOPE 2

2"- 4" SLOPE UNDERLAYMENT NO ICE DAM PROTECTION

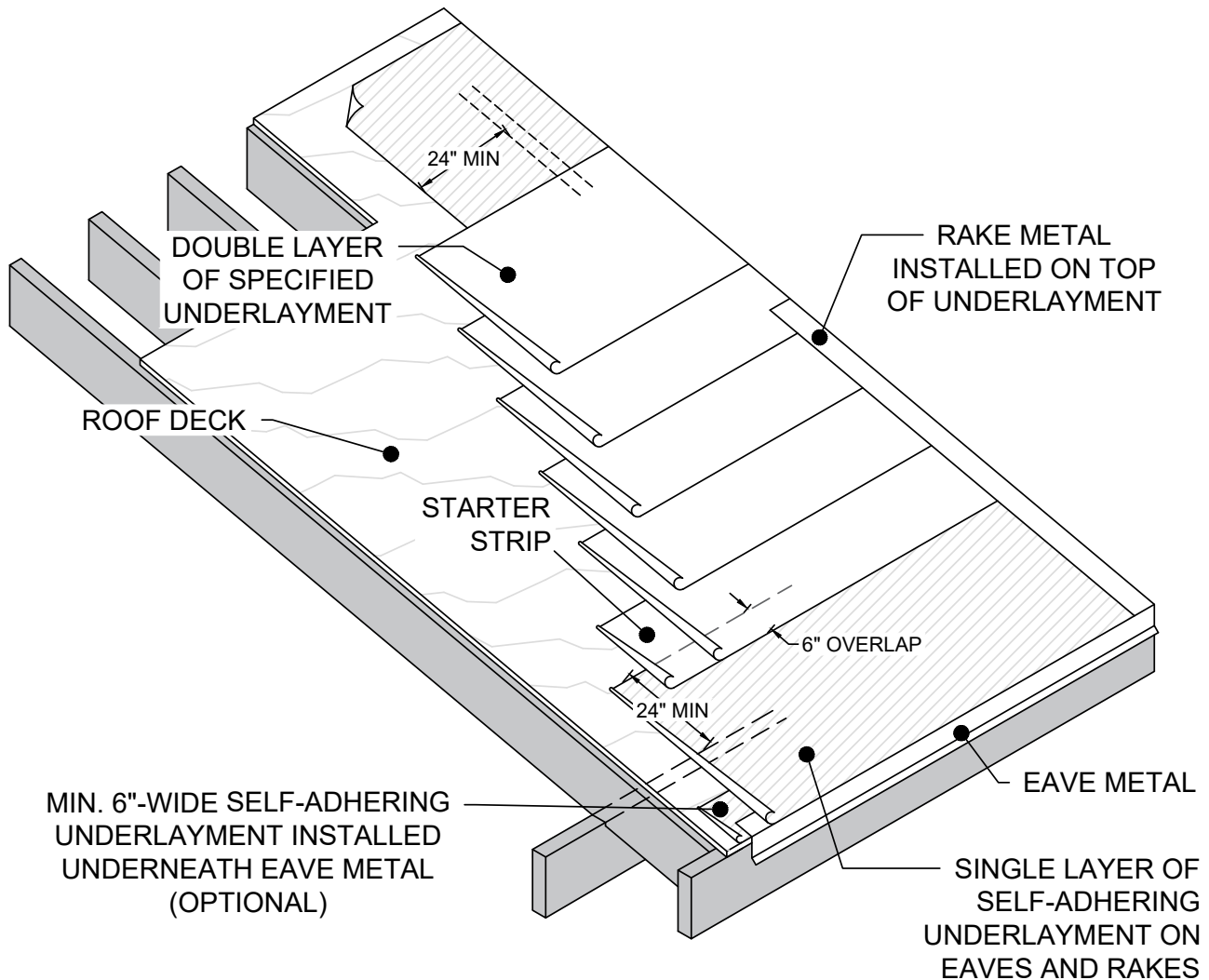


NOTES:
-USE OF MALARKEY SELF-ADHERING UNDERLAYMENTS, ARCTIC SEAL OR SECURESTART HT, MAY BE REQUIRED AT EAVES FOR ICE DAM PROTECTION IF LOCAL CODE SPECIFIES.

STEEP SLOPE 3

4B.3 2"-4" SLOPE UNDERLAYMENT NO ICE DAM PROTECTION

2"- 4" SLOPE UNDERLAYMENT WITH ICE DAM PROTECTION



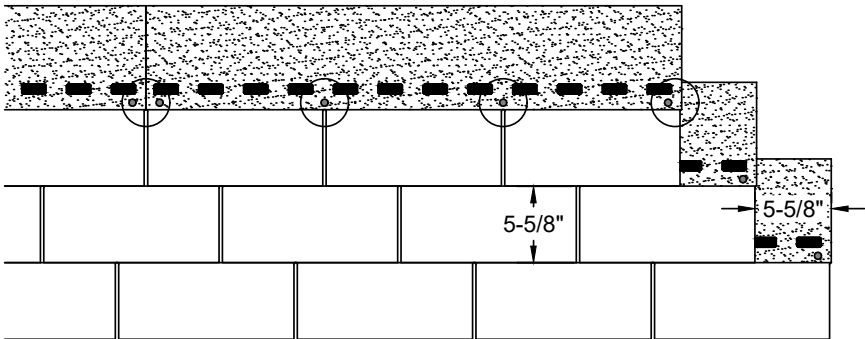
NOTES:

-MALARKEY SELF-ADHERING, ICE DAM PROTECTION UNDERLAYMENTS, ARCTIC SEAL OR SECURESTART HT, SHALL BE INSTALLED TO A POINT AT LEAST 24" OR MORE AS AMENDED BY LOCAL ORDINANCE INSIDE THE EXTERIOR WALL LINE OF THE BUILDING WHEN REQUIRED.

STEEP SLOPE 4

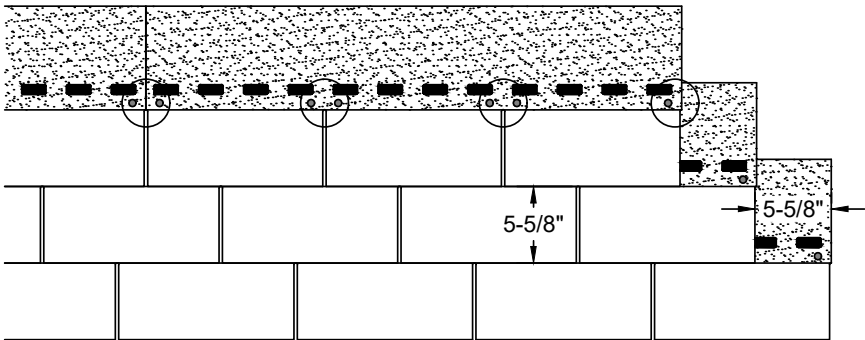
3-TAB NAILING PATTERNS

3-TAB 4 NAIL PATTERN



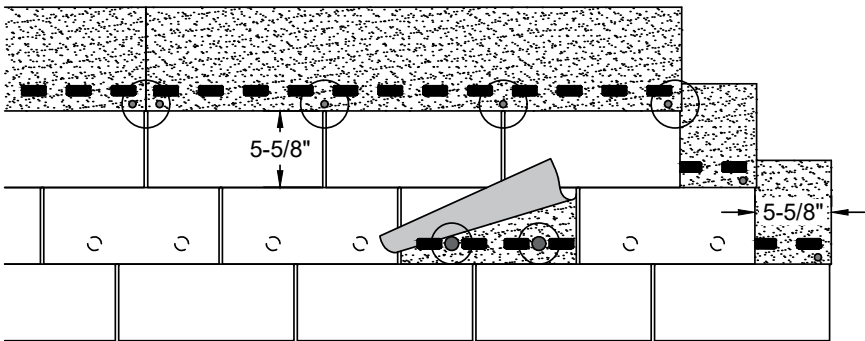
LOCATION OF FASTENERS SHOULD BE JUST BELOW THE SELF-SEAL STRIP AND CENTERED OVER THE CUTOUTS. END FASTENERS SHOULD BE PLACED APPROX. 1" FROM EACH EDGE.

3-TAB 6 NAIL PATTERN



FASTENERS SHOULD BE PLACED JUST BELOW THE SELF-SEAL STRIP WITH TWO NAILS SPACED 1" ON EITHER SIDE OF EACH CUTOUT. END FASTENERS SHOULD BE PLACED APPROX. 1" FROM EACH EDGE.

HAND-SEALING 3-TAB SHINGLES

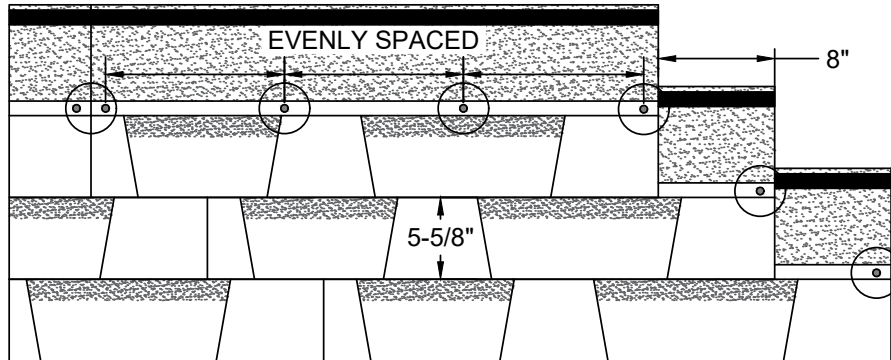


APPLY 2, 1" DABS OF SEALANT PER TAB, 6 PER SHINGLE.

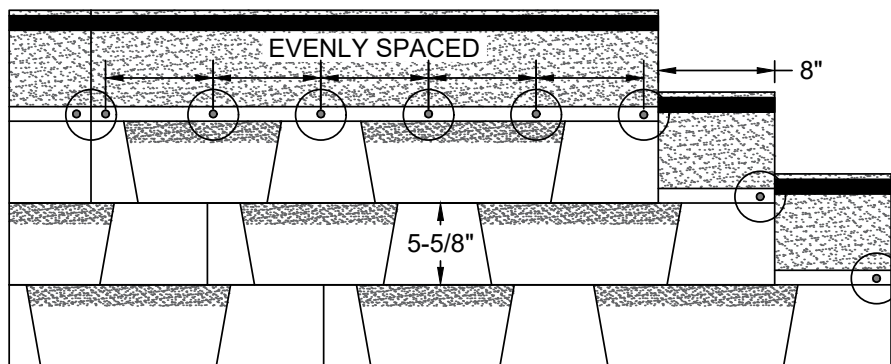
STEEP SLOPE 5

LAMINATE NAILING PATTERNS

4 NAIL

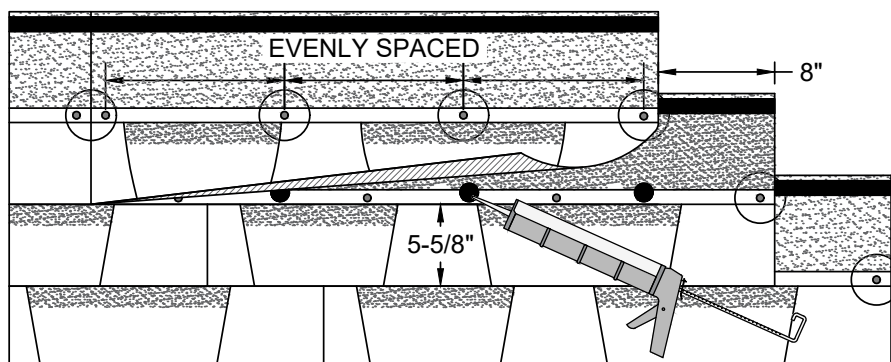


6 NAIL



-IN BOTH PATTERNS, FASTENERS SHOULD BE PLACED IN THE NAILING AREA AND END FASTENERS SET APPROX. 1" FROM EACH EDGE OF THE SHINGLE. THE REMAINING FASTENERS SHOULD BE EVENLY SPACED ON THE SAME LINE AS THE END FASTENERS.

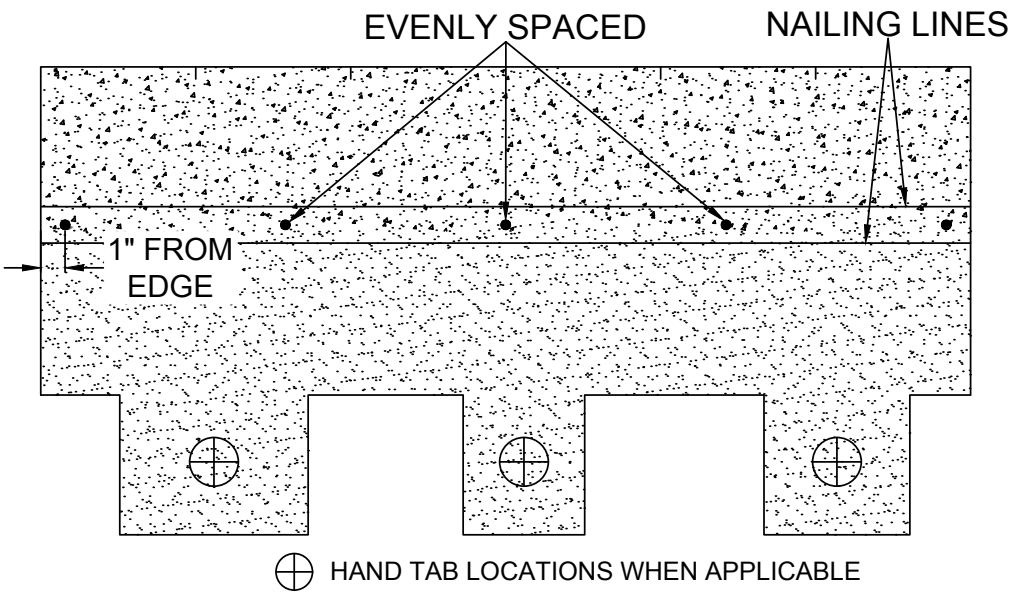
HAND-SEALING LAMINATE SHINGLES



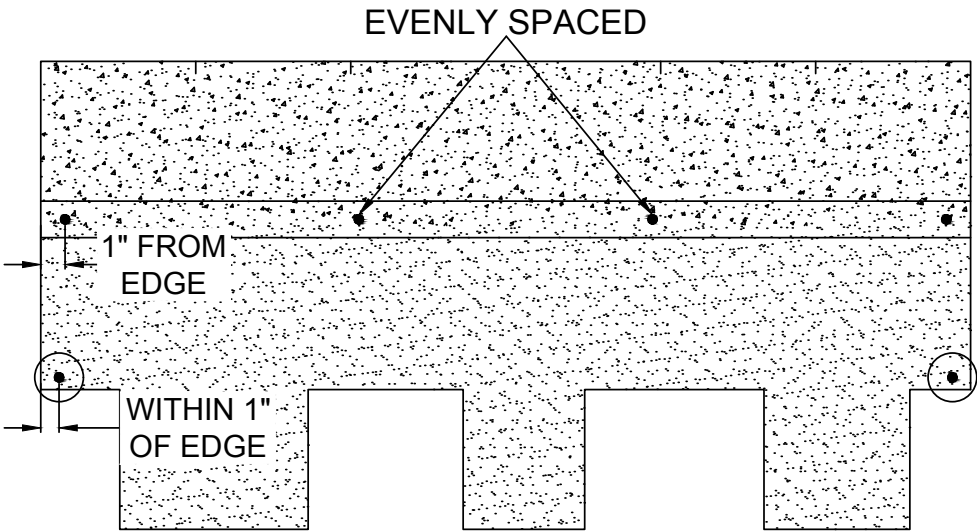
STEEP SLOPE 6

WINDSOR NAILING PATTERNS AND HAND TAB LOCATIONS

5 NAIL



6 NAIL

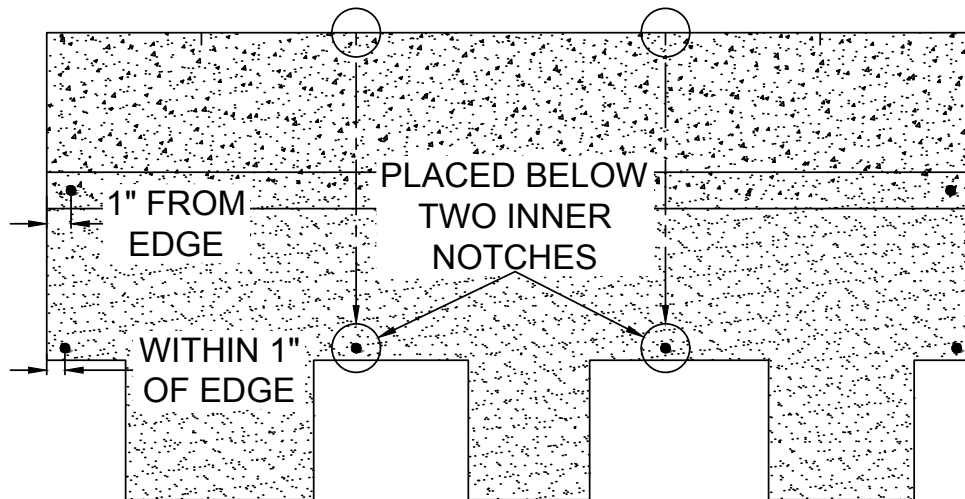


ENSURE FASTENERS IN LOWER NAILING AREA WILL BE COVERED BY TABS OF OVERLYING COURSES

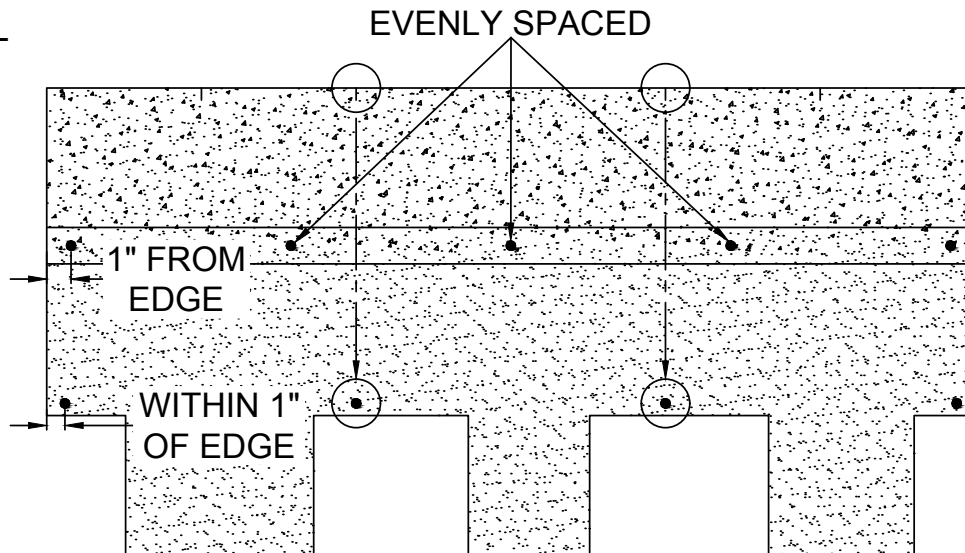
STEEP SLOPE 7A

WINDSOR NAILING PATTERNS

6 NAIL ALTERNATE



9 NAIL



ENSURE FASTENERS IN LOWER NAILING AREAS WILL BE COVERED BY TABS OF OVERLYING COURSES

STEEP SLOPE 7B

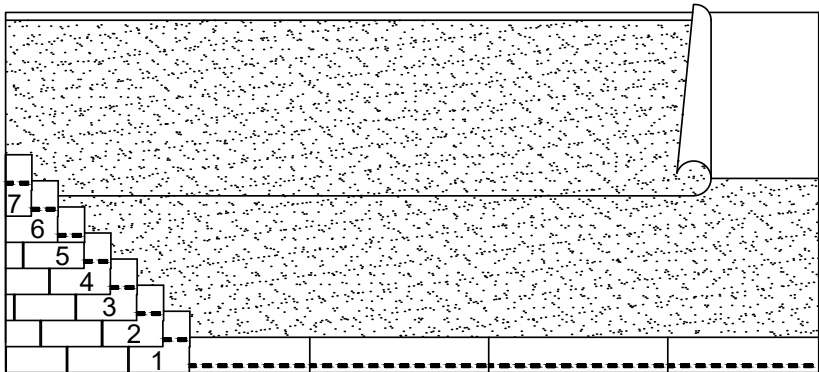
3-TAB LAYOUT PATTERN

STEP 1

COURSES 1-7

- 1: 39-3/8" LONG
- 2: 33-3/4" LONG
- 3: 28-1/8" LONG
- 4: 22-1/2" LONG
- 5: 16-7/8" LONG
- 6: 11-1/4" LONG
- 7: 5-5/8" LONG

*ALWAYS BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD. THIS HELPS MAINTAIN A STRAIGHT LAYOUT OF THE REMAINING SHINGLES.

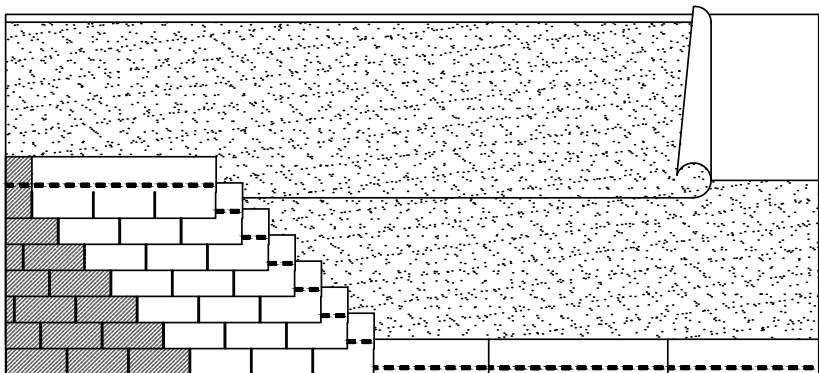


STEP 2

COURSES 1-7

*APPLY A FULL SHINGLE ADJACENT TO EACH OF THE FIRST SEVEN COURSES TO EXTEND THE PATTERN.

*ALWAYS BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD. THIS HELPS MAINTAIN A STRAIGHT LAYOUT OF THE REMAINING SHINGLES.

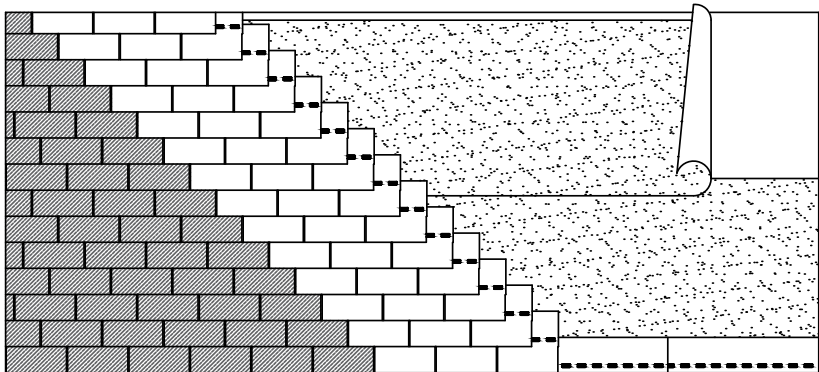


STEP 3

REMAINING COURSES

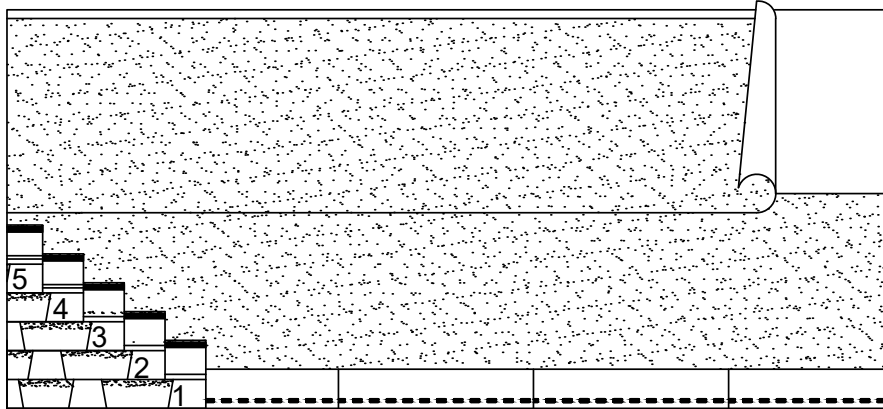
*REPEAT THE PROCESS AT COURSE 8 BEGINNING WITH A FULL SHINGLE AND CONTINUE SUCCEEDING COURSES ON UP THE ROOF.

*ALWAYS BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD. THIS HELPS MAINTAIN A STRAIGHT LAYOUT OF THE REMAINING SHINGLES.



STEEP SLOPE 8

LAMINATE LAYOUT PATTERN

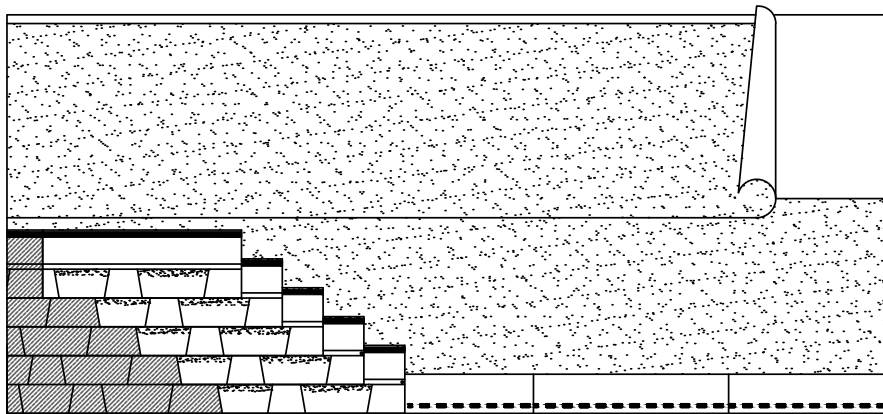


STEP 1

COURSES 1-5

- 1: FULL LENGTH
- 2-5: EACH PROGRESSIVELY 8" SHORTER (MIN 4")

*LOOSELY BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD.

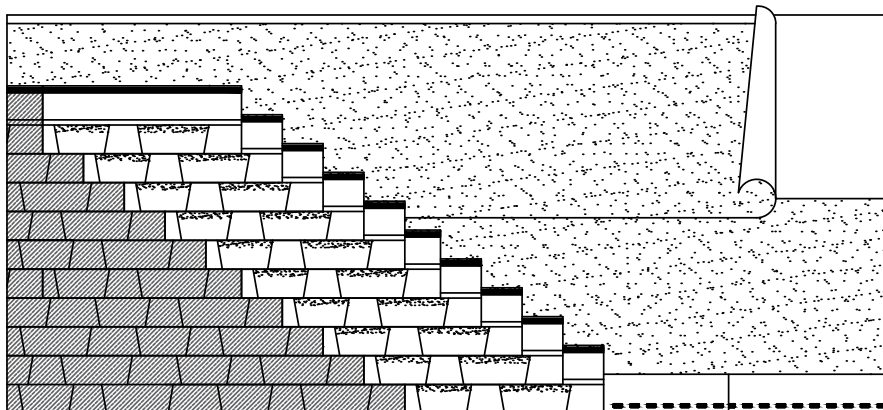


STEP 2

COURSES 1-5

*APPLY A FULL SHINGLE ADJACENT TO EACH OF THE FIRST FIVE COURSES TO EXTEND THE PATTERN.

*LOOSELY BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD.



STEP 3

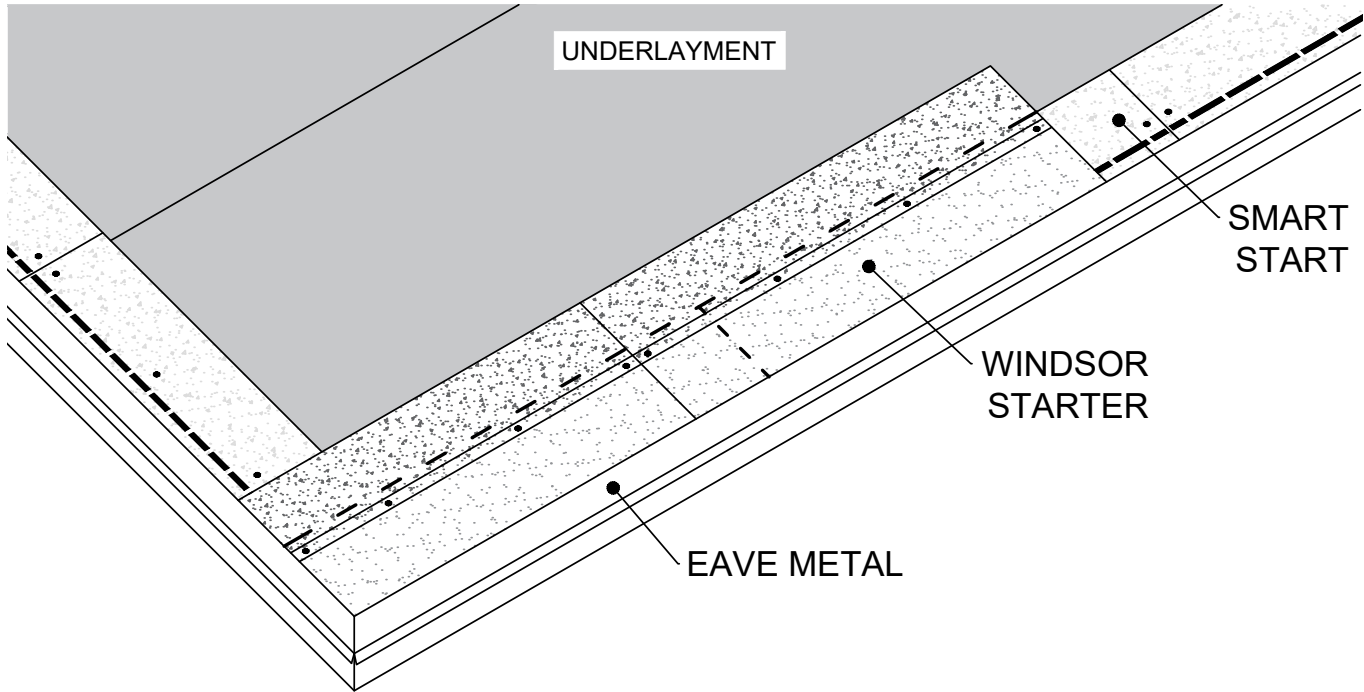
REMAINING COURSES

*REPEAT THE PROCESS AT COURSE 6 BEGINNING WITH A FULL SHINGLE AND CONTINUE SUCCEEDING COURSES ON UP THE ROOF.

*LOOSELY BUTT FACTORY EDGE TO FACTORY EDGE WHEN INSTALLING THE STAIRSTEP METHOD.

STEEP SLOPE 9

INSTALLATION OF WINDSOR STARTER

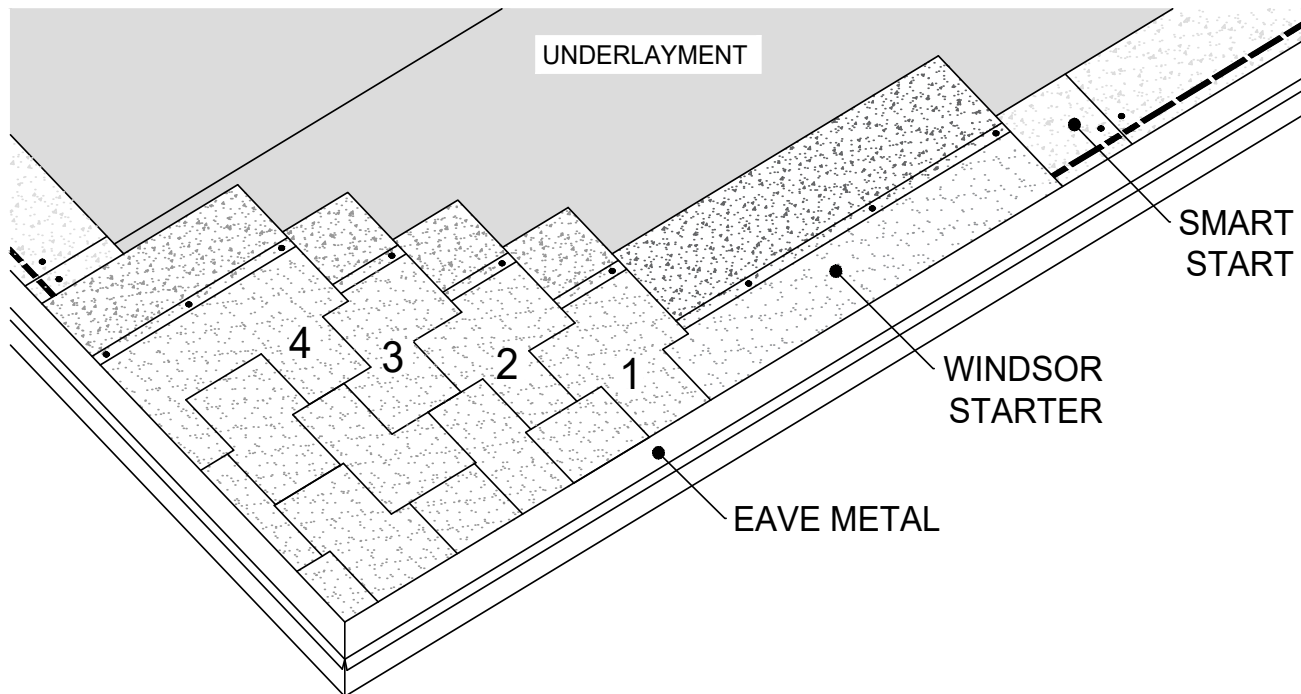


NOTES:

- SMART START STARTER SHINGLES REQUIRED ALONG EAVE; OPTIONAL ON RAKE BUT REQUIRED FOR CERTAIN WARRANTIES; OVERHANG EAVE METAL $\frac{1}{4}$ " - $\frac{3}{4}$ ".
- CUT $6\frac{3}{8}$ " FROM END OF FIRST WINDSOR STARTER; CONTINUE ACROSS ROOF WITH FULL-LENGTH SHINGLES.
- WINDSOR STARTER SHINGLES OVERHANG SMART START APPROX. $\frac{1}{8}$ ".

STEEP SLOPE 10

WINDSOR LAYOUT PATTERN



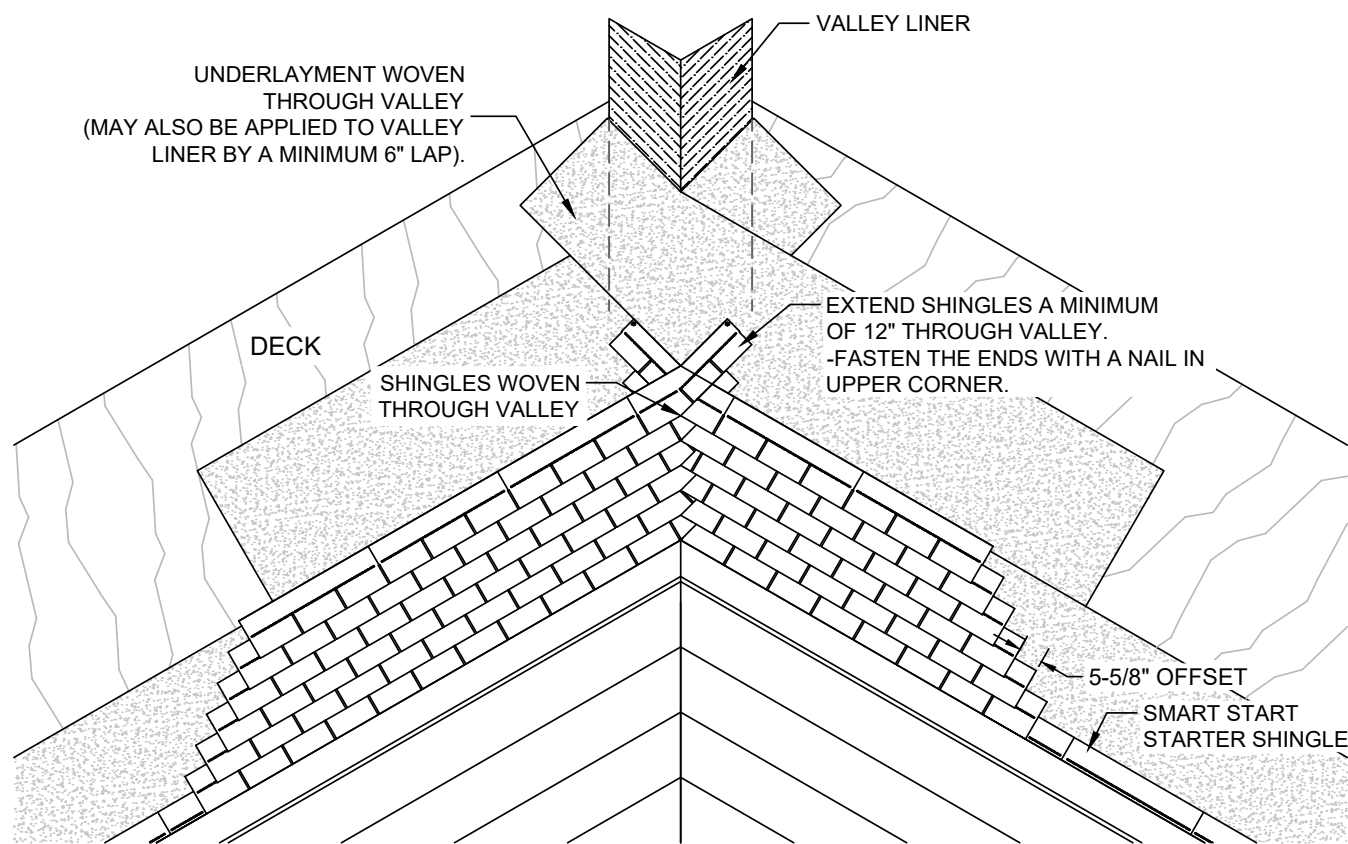
NOTES:

-WINDSOR FOUR-COURSE LAYOUT PATTERN ($6\frac{3}{8}$ " OFFSET):

- 1ST COURSE: FULL-LENGTH SHINGLE
- 2ND COURSE: CUT $6\frac{3}{8}$ " FROM FIRST SHINGLE
- 3RD COURSE: CUT $12\frac{3}{4}$ " FROM FIRST SHINGLE
- 4TH COURSE: CUT $19\frac{1}{8}$ " FROM FIRST SHINGLE
- APPLY FULL-LENGTH SHINGLES ADJACENT TO FIRST SHINGLES; CONTINUE FOUR-COURSE PATTERN UP THE ROOF.

STEEP SLOPE 10A

3-TAB WOVEN VALLEY

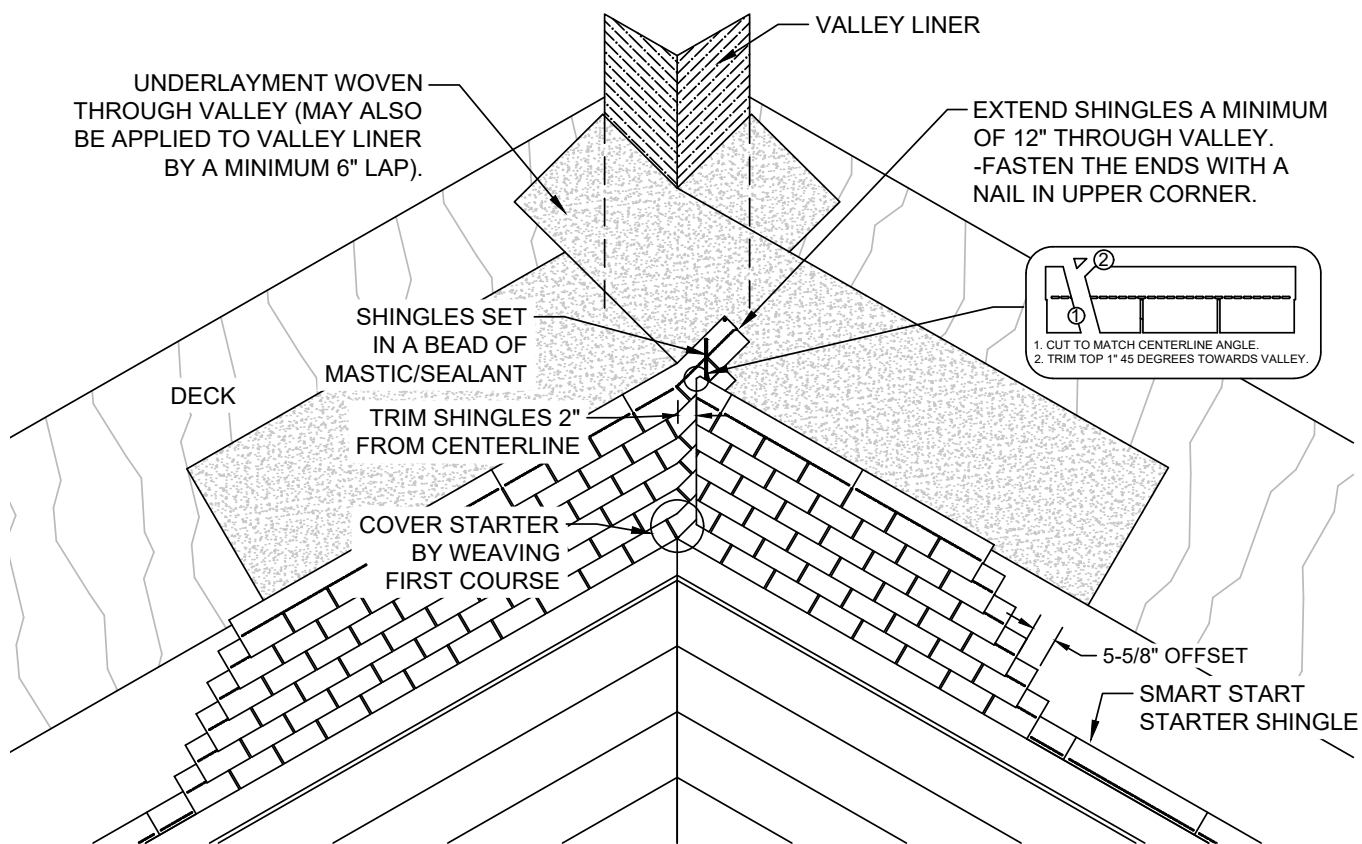


NOTES:
-NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.

STEEP SLOPE 11A

4B.11A 3-TAB WOVEN VALLEY

3-TAB CLOSED-CUT VALLEY

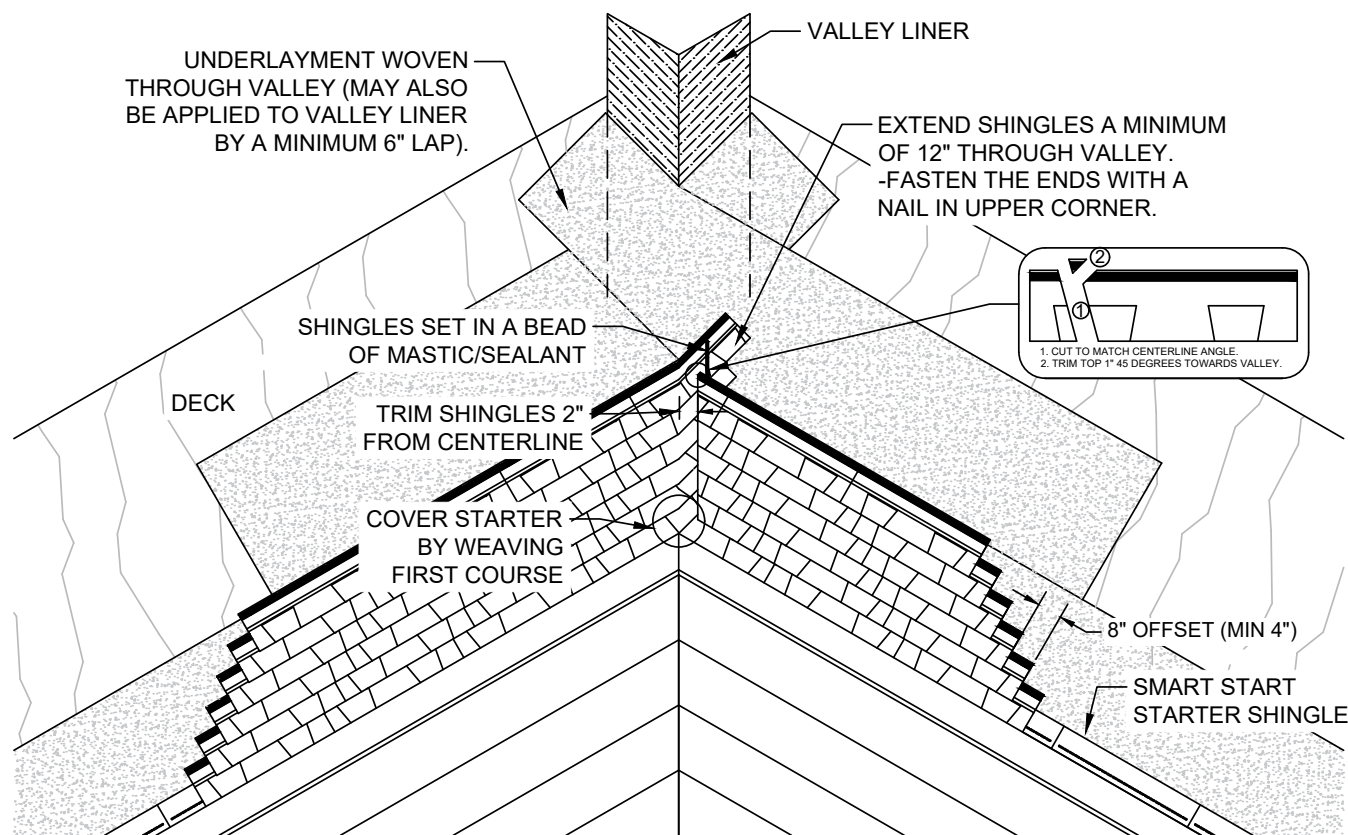


NOTES:

- NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.

STEEP SLOPE 12

LAMINATE CLOSED-CUT VALLEY

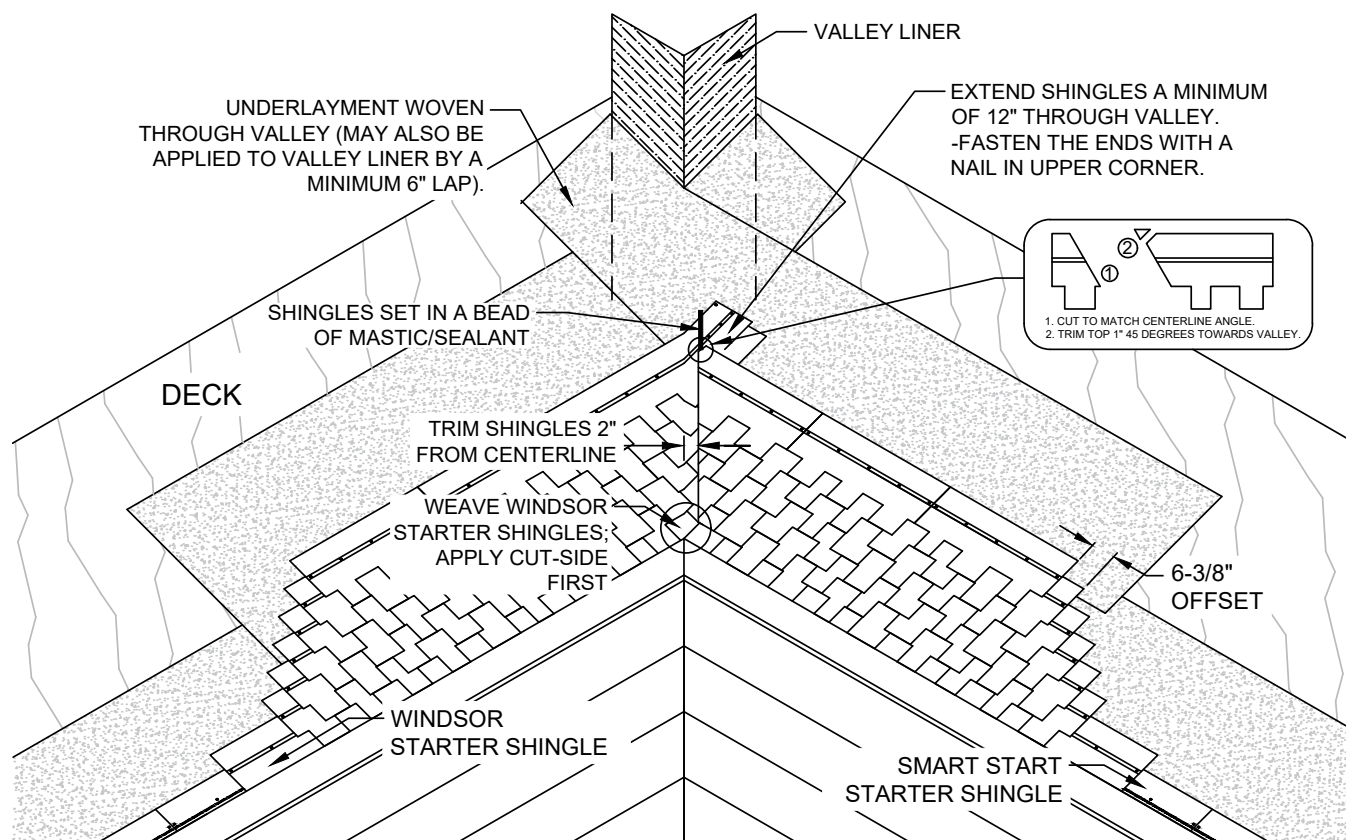


NOTES:
-NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.

STEEP SLOPE 13A

4B.13A LAMINATE CLOSED-CUT VALLEY

WINDSOR CLOSED-CUT VALLEY

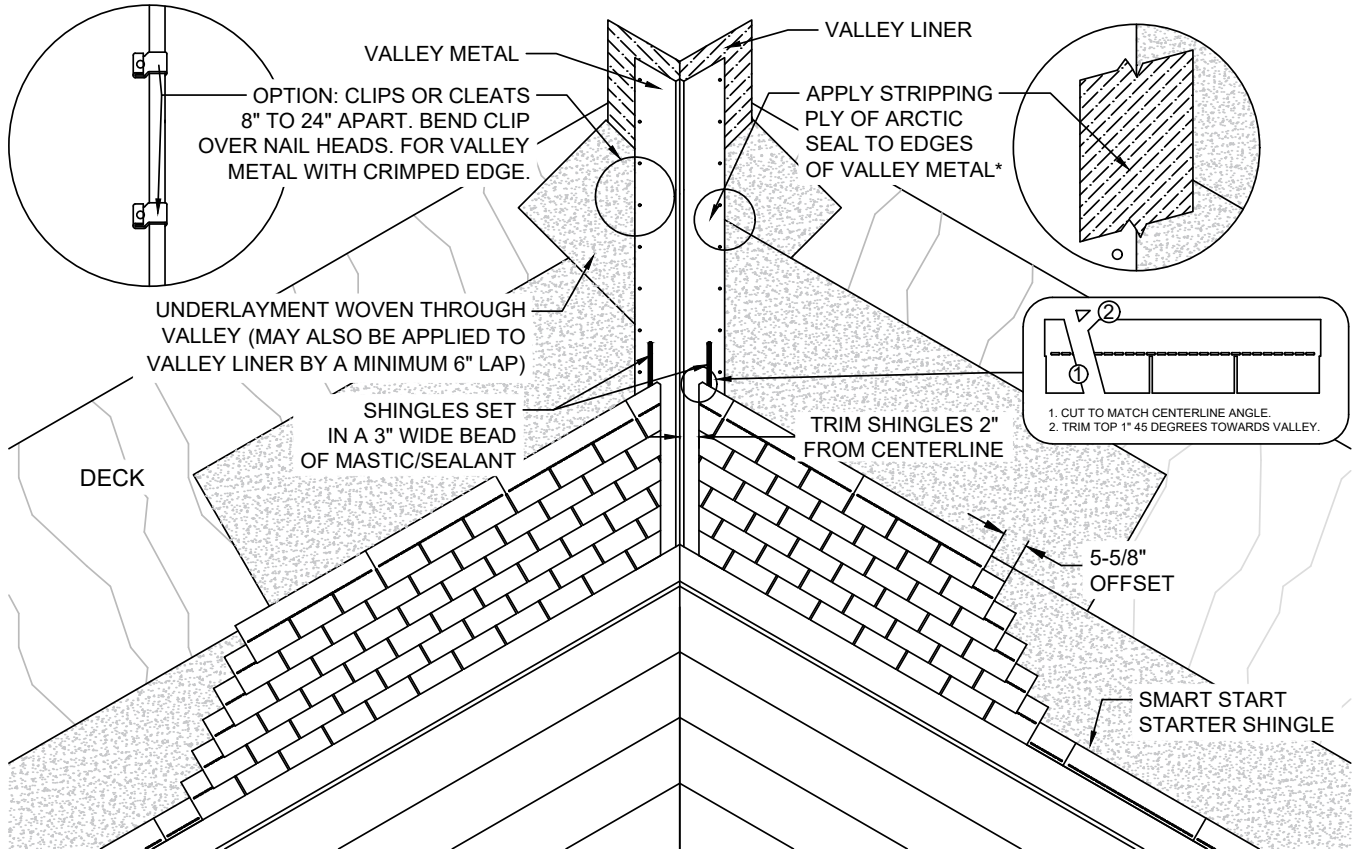


NOTES:

- APPLY CUT-SIDE WINDSOR STARTER SHINGLES ACROSS THE VALLEY FIRST, THEN WEAVE THROUGH-SIDE STARTERS OVER THEM. INSTALL THROUGH-SIDE SHINGLES NEXT.
- NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.

STEEP SLOPE 13C

3-TAB METAL "W" VALLEY

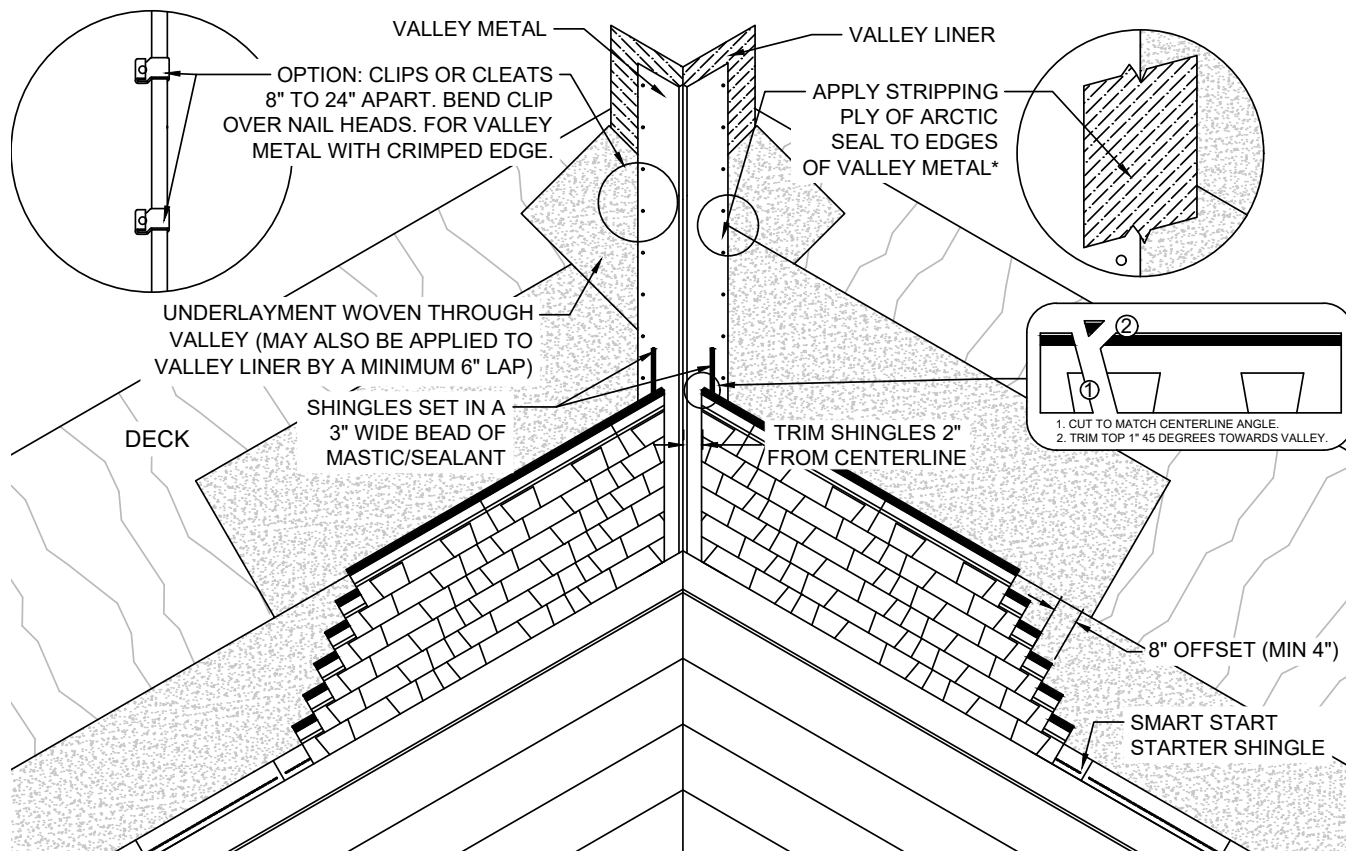


NOTES:

- VALLEY METAL FLASHING USED WITH MALARKEY SHINGLES MUST BE MINIMUM 24" WIDE AND 26 GAUGE.
- SECURE VALLEY METAL WITH FASTENERS NO MORE THAN 1" FROM THE OUTSIDE EDGES AND SPACED 10"-12" ON CENTER.
- SET OVERLAPPING ENDS OF VALLEY METAL IN A UNIFORM LAYER OF SEALANT WITH A MINIMUM 4" LAP. DO NOT FASTEN THE LAP.
- NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.
- *A CONTINUOUS, MINIMUM 6"-WIDE STRIP OF ARCTIC SEAL SHALL BE APPLIED TO BOTH EDGES OF THE VALLEY METAL FOR ADDITIONAL SEALING ON PROJECTS WITH MALARKEY NDL AND EMERALD PREMIUM WARRANTIES.

STEEP SLOPE 14

LAMINATE METAL "W" VALLEY

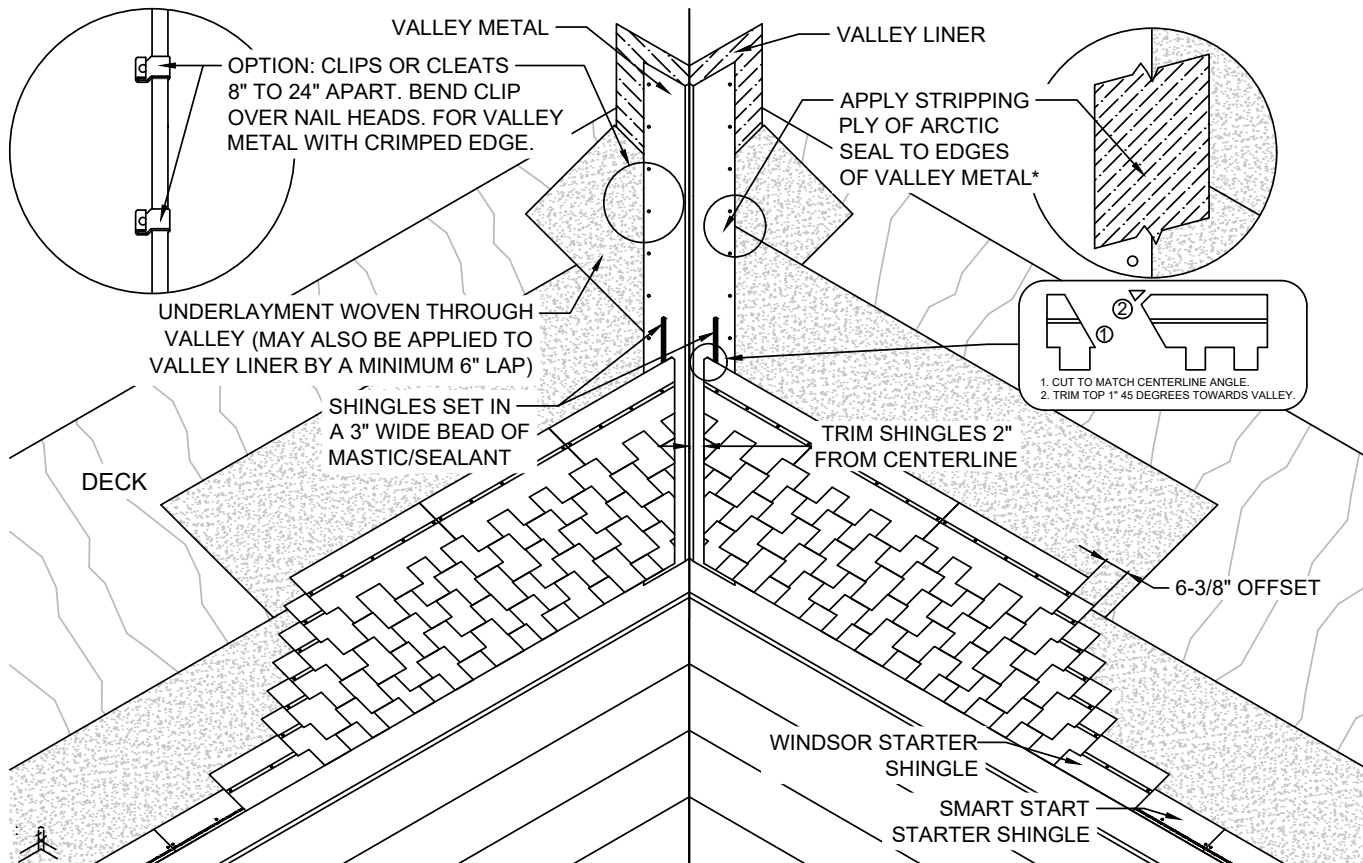


NOTES:

- VALLEY METAL FLASHING USED WITH MALARKY SHINGLES MUST BE MINIMUM 24" WIDE AND 26 GAUGE.
- SECURE VALLEY METAL WITH FASTENERS NO MORE THAN 1" FROM THE OUTSIDE EDGES AND SPACED 10"-12" ON CENTER.
- SET OVERLAPPING ENDS OF VALLEY METAL IN A UNIFORM LAYER OF SEALANT WITH A MINIMUM 4" LAP. DO NOT FASTEN THE LAP.
- NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.
- *A CONTINUOUS, MINIMUM 6"-WIDE STRIP OF ARCTIC SEAL SHALL BE APPLIED TO BOTH EDGES OF THE VALLEY METAL FOR ADDITIONAL SEALING ON PROJECTS WITH MALARKY NDL AND EMERALD PREMIUM WARRANTIES.

STEEP SLOPE 15

WINDSOR METAL "W" VALLEY

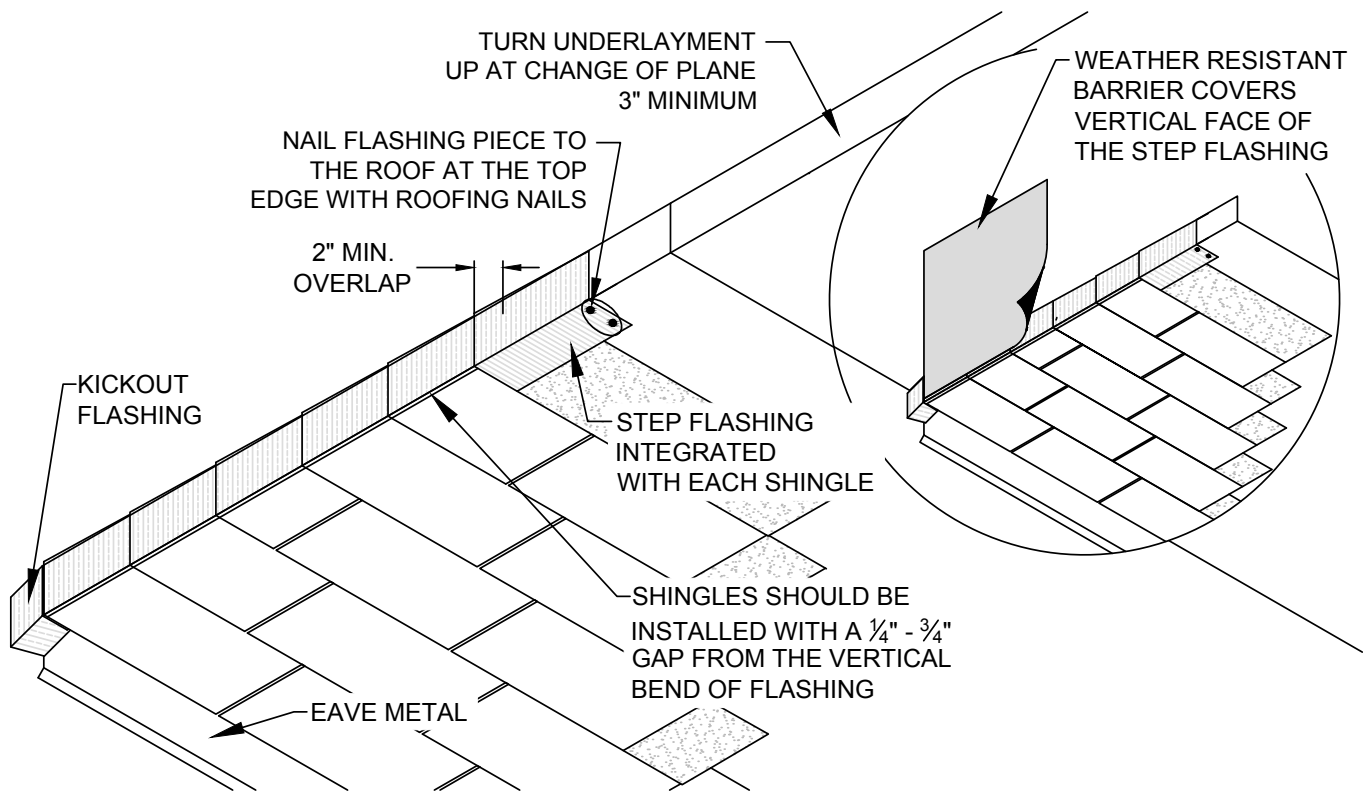


NOTES:

- VALLEY METAL FLASHING USED WITH MALARKEY SHINGLES MUST BE MINIMUM 24" WIDE AND 26 GAUGE.
- SECURE VALLEY METAL WITH FASTENERS NO MORE THAN 1" FROM THE OUTSIDE EDGES AND SPACED 10"-12" ON CENTER.
- SET OVERLAPPING ENDS OF VALLEY METAL IN A UNIFORM LAYER OF SEALANT WITH A MINIMUM 4" LAP. DO NOT FASTEN THE LAP.
- NAIL SHINGLES NO CLOSER THAN 6" FROM VALLEY CENTERLINE.
- *A CONTINUOUS, MINIMUM 6"-WIDE STRIP OF ARCTIC SEAL SHALL BE APPLIED TO BOTH EDGES OF THE VALLEY METAL FOR ADDITIONAL SEALING ON PROJECTS WITH MALARKEY NDL AND EMERALD PREMIUM WARRANTIES.

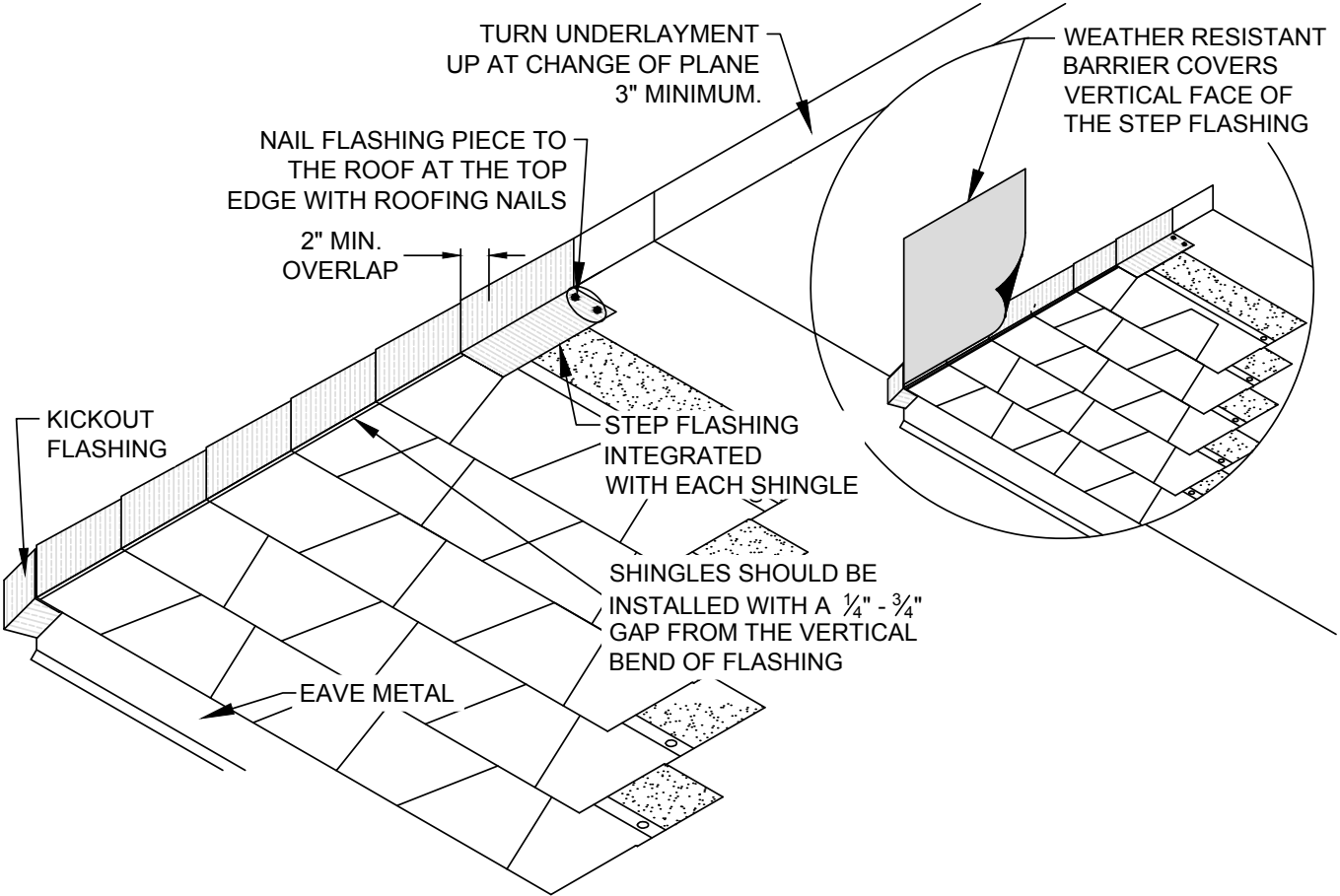
STEEP SLOPE 16

KICKOUT AND STEP FLASHING 3-TAB SHINGLE ROOF



STEEP SLOPE 17A

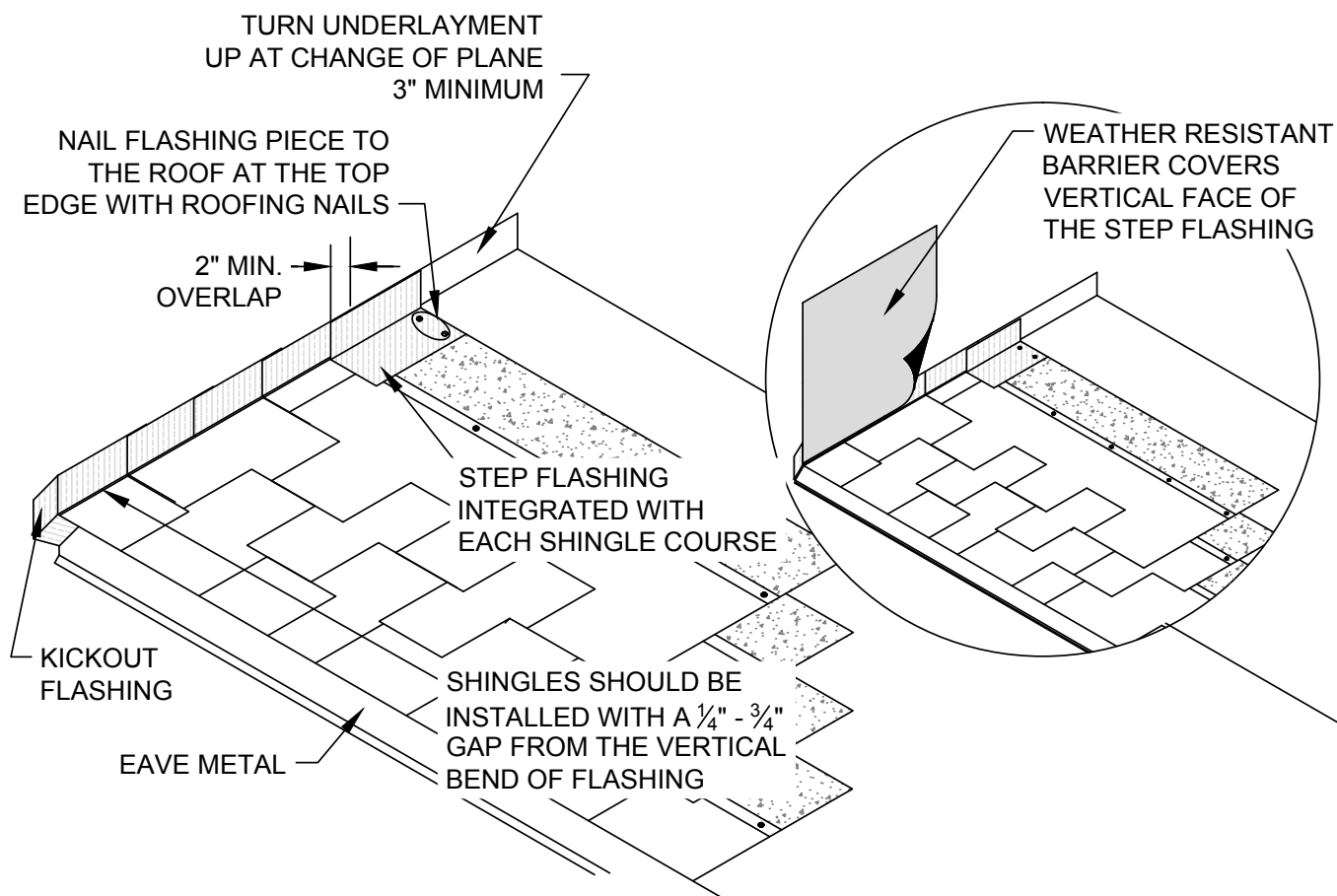
KICKOUT AND STEP FLASHING LAMINATE SHINGLE ROOF



STEEP SLOPE 17B

4B.17B KICKOUT AND STEEP FLASHING (LAMINATE SHINGLE ROOF)

KICKOUT AND STEP FLASHING WINDSOR SHINGLE ROOF

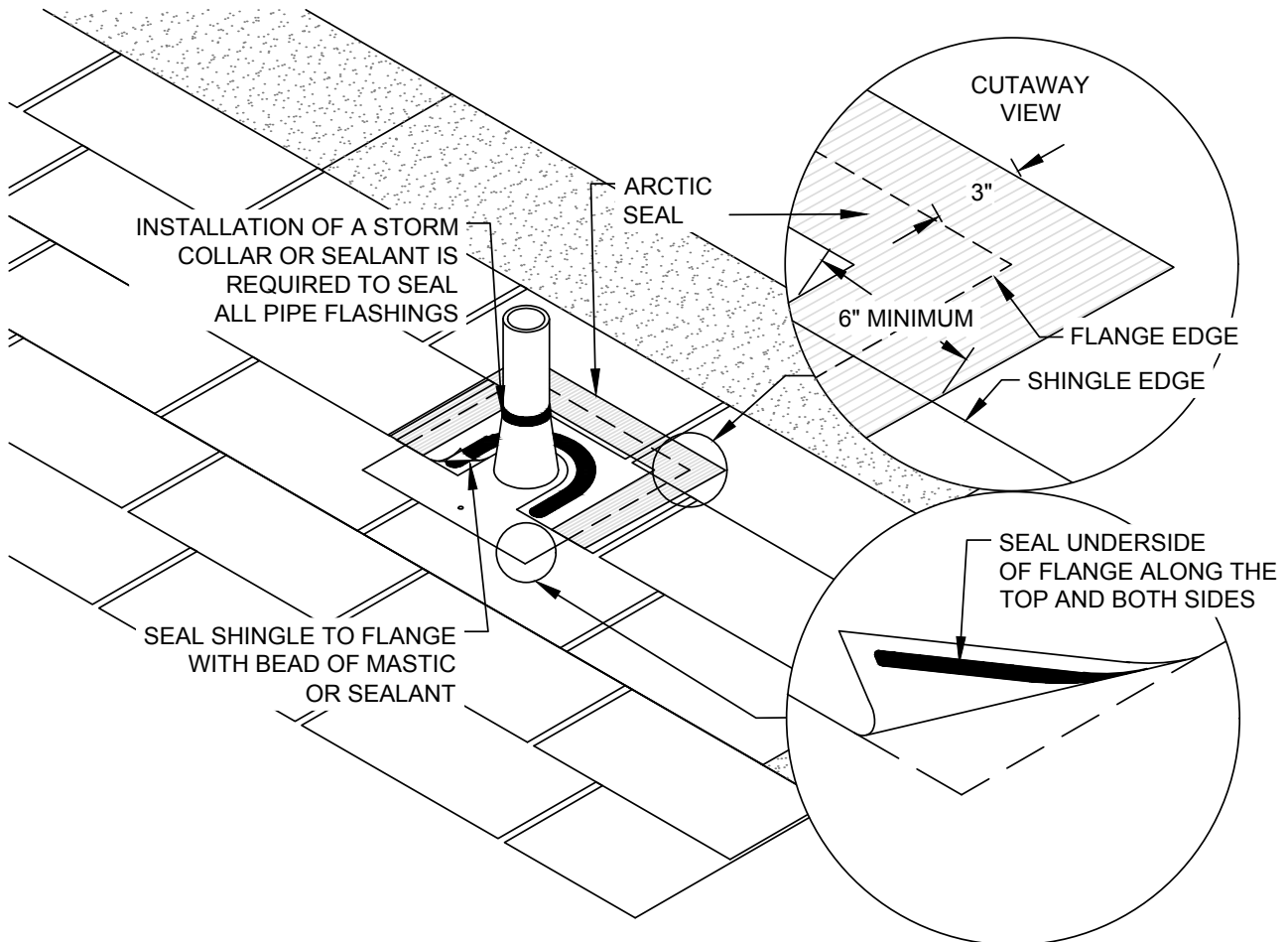


NOTES:

- DIMENSIONS OF STEP FLASHING: 4"x4"x8"
- FIRST PIECE OF STEP FLASHING IS INSTALLED UNDERNEATH THE WINDSOR STARTER.
- IF INSTALLING KICKOUT FLASHING, IT WILL NEED TO BE 12" LONG, OR USE TWO (2) 8" STEP FLASHINGS, THE SECOND OVERLAPPING THE FIRST, 4".

STEEP SLOPE 17C

PIPE FLASHING 3-TAB SHINGLE ROOF

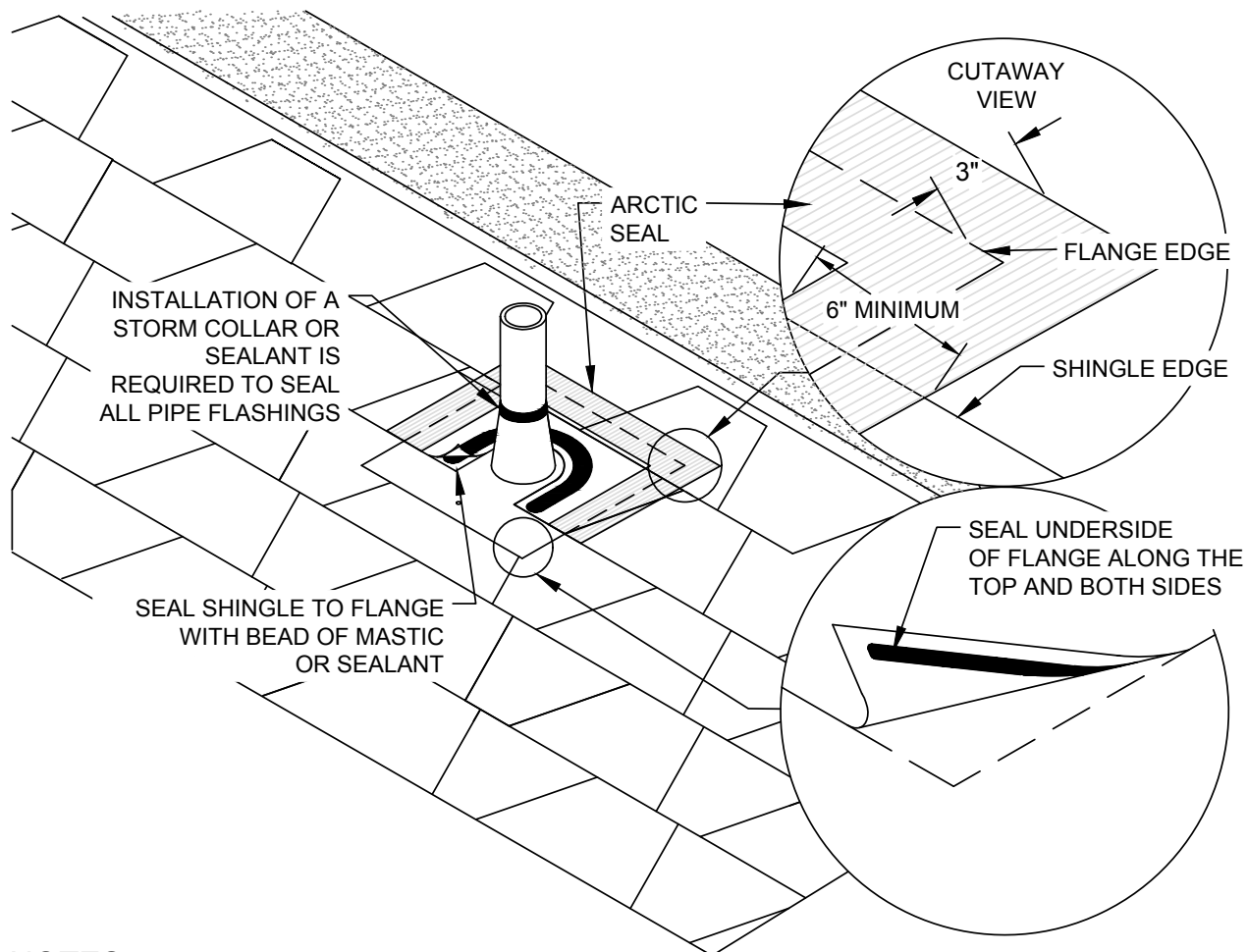


NOTES:

- FOR ADDITIONAL PROTECTION ON SLOPES 2" - 4" MALARKY RECOMMENDS THE UNEXPOSED FLANGES OF ALL VENT AND PIPE FLASHINGS BE STRIPPED-OFF (MINIMUM 6" WIDE) WITH ARCTIC SEAL SELF-ADHERING UNDERLAYMENT COVERING ALL FASTENERS USED TO SECURE THE FLASHINGS AND TYING ONTO THE FIELD UNDERLAYMENT A MINIMUM OF 3".
- SHINGLES ON TOP OF THE STRIPPING OF ARCTIC SEAL SHOULD BE SEALED DOWN WITH A BEAD OF MASTIC/SEALANT (UNEXPOSED/UNDER THE SHINGLES).

STEEP SLOPE 18A

PIPE FLASHING LAMINATE SHINGLE ROOF

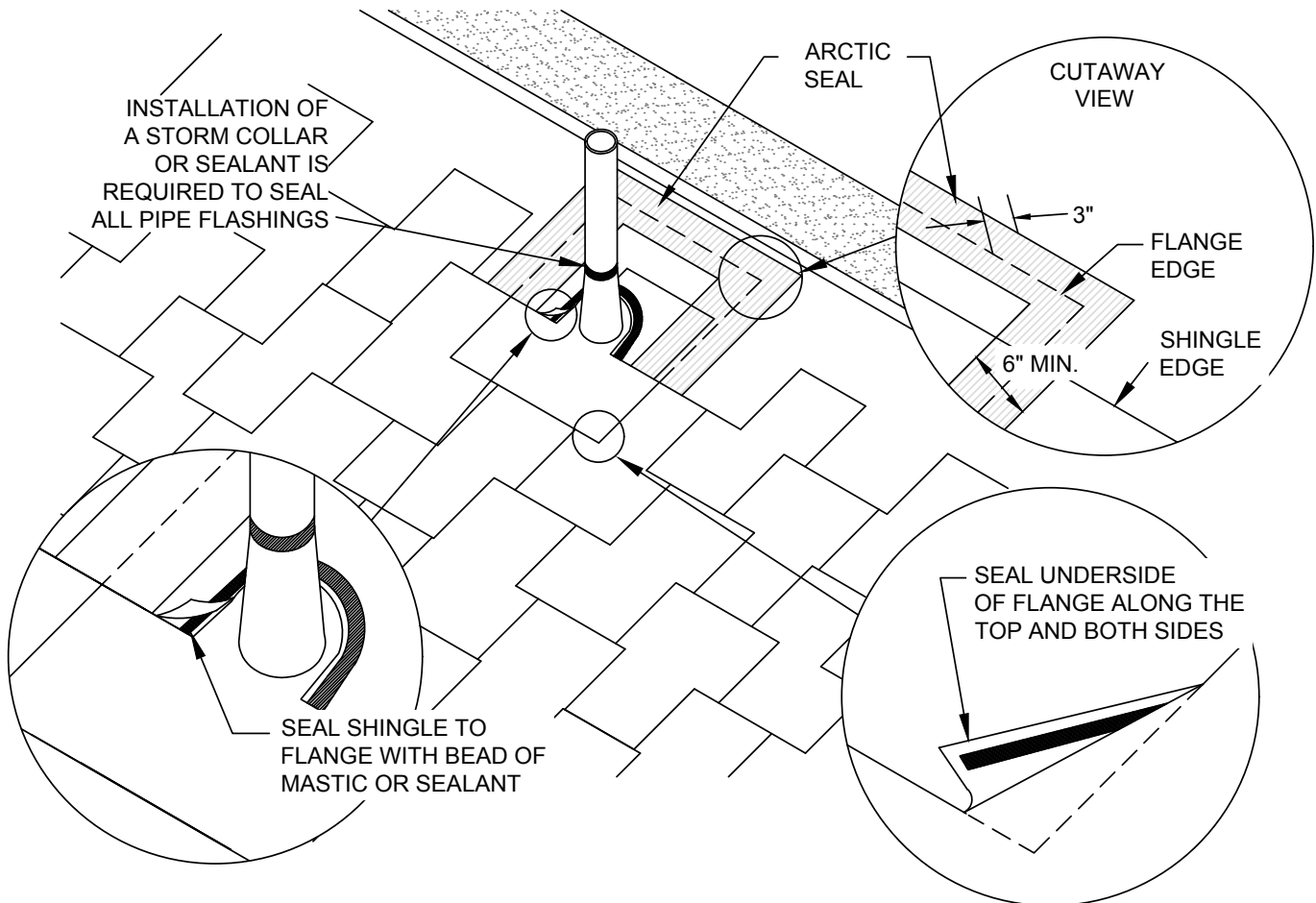


NOTES:

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- SHINGLES ON TOP OF THE STRIPPING OF ARCTIC SEAL SHOULD BE SEALED DOWN WITH A BEAD OF MASTIC/SEALANT (UNEXPOSED/UNDER THE SHINGLES).

STEEP SLOPE 18B

PIPE FLASHING WINDSOR SHINGLE ROOF

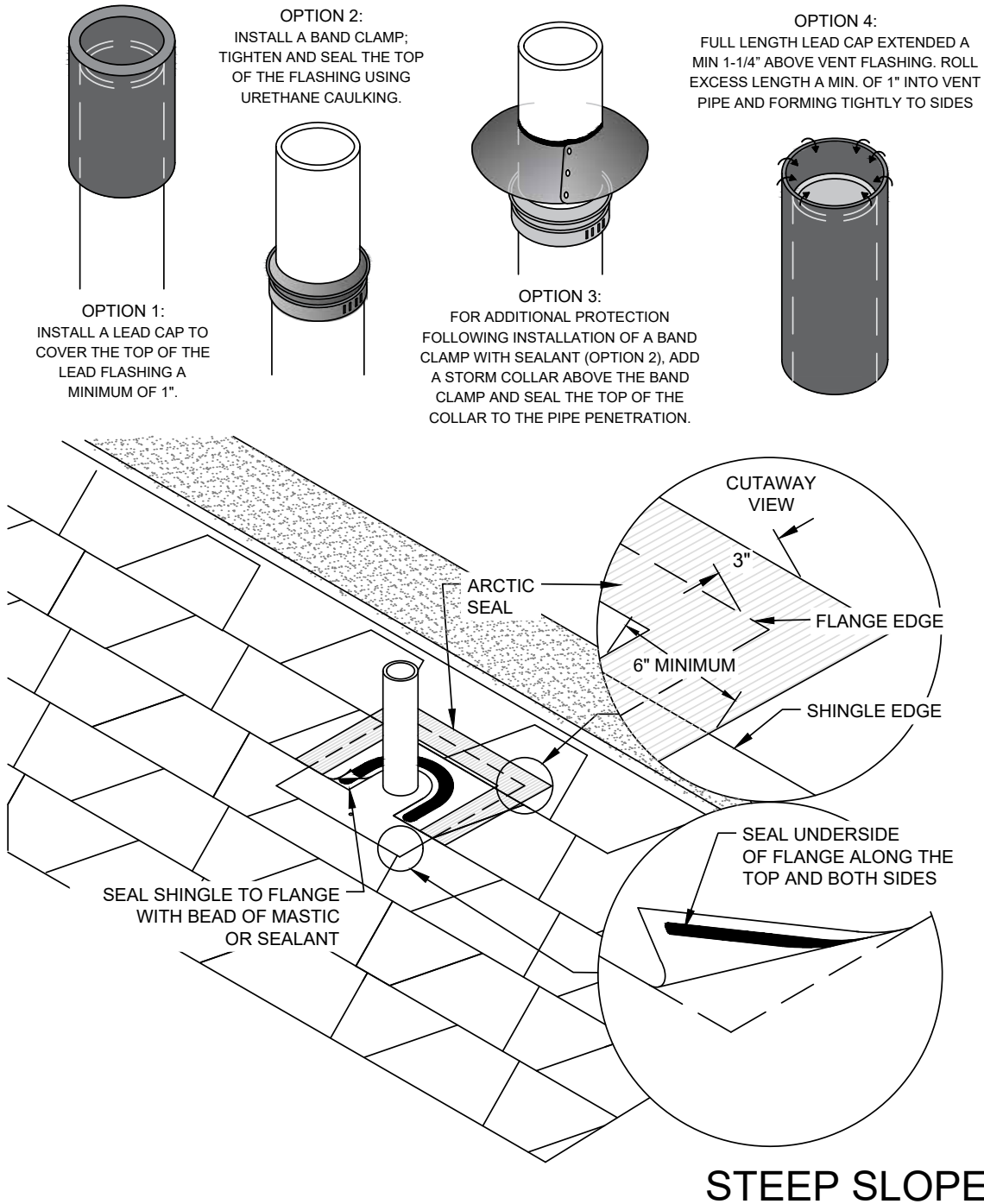


NOTES:

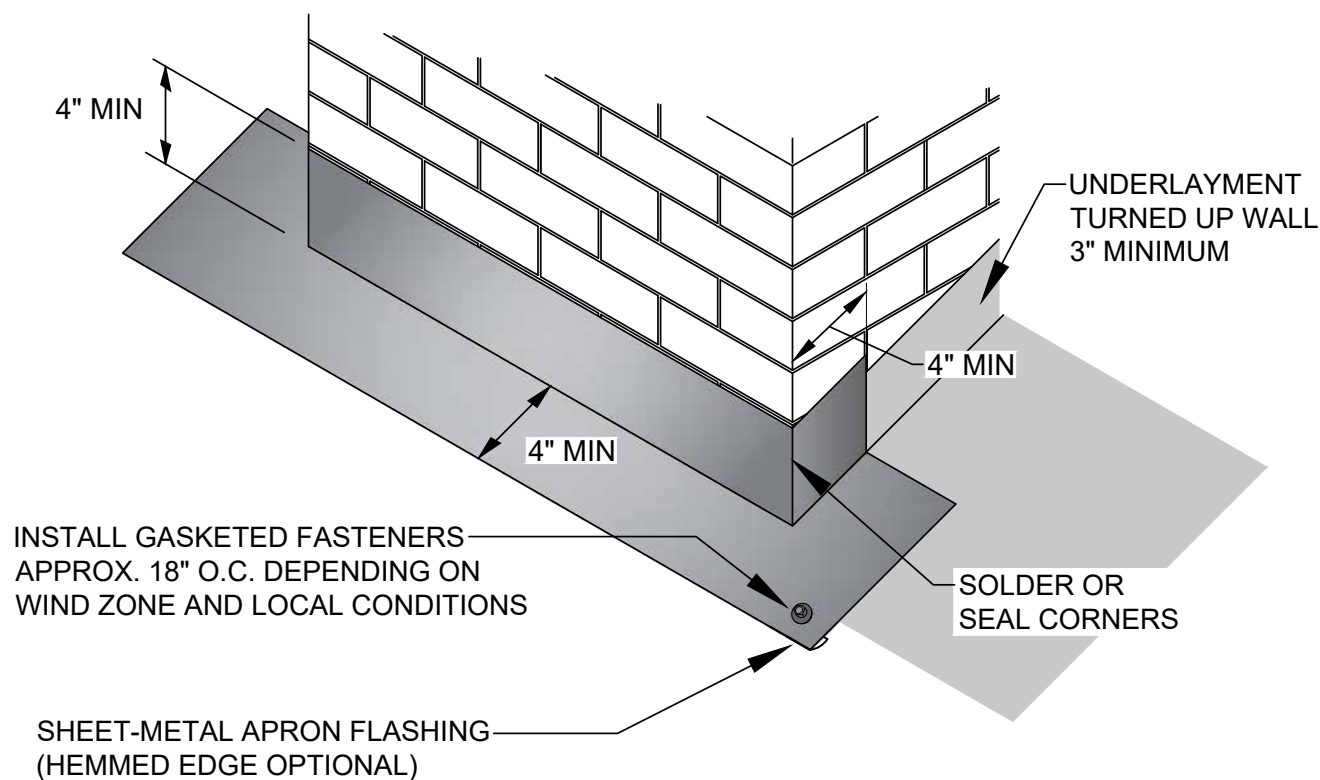
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- SHINGLES ON TOP OF THE STRIPPING OF ARCTIC SEAL SHOULD BE SEALED DOWN WITH A BEAD OF MASTIC/SEALANT (UNEXPOSED/UNDER THE SHINGLES).

STEEP SLOPE 18C

LEAD PIPE FLASHING - LAMINATE SHINGLE ROOF



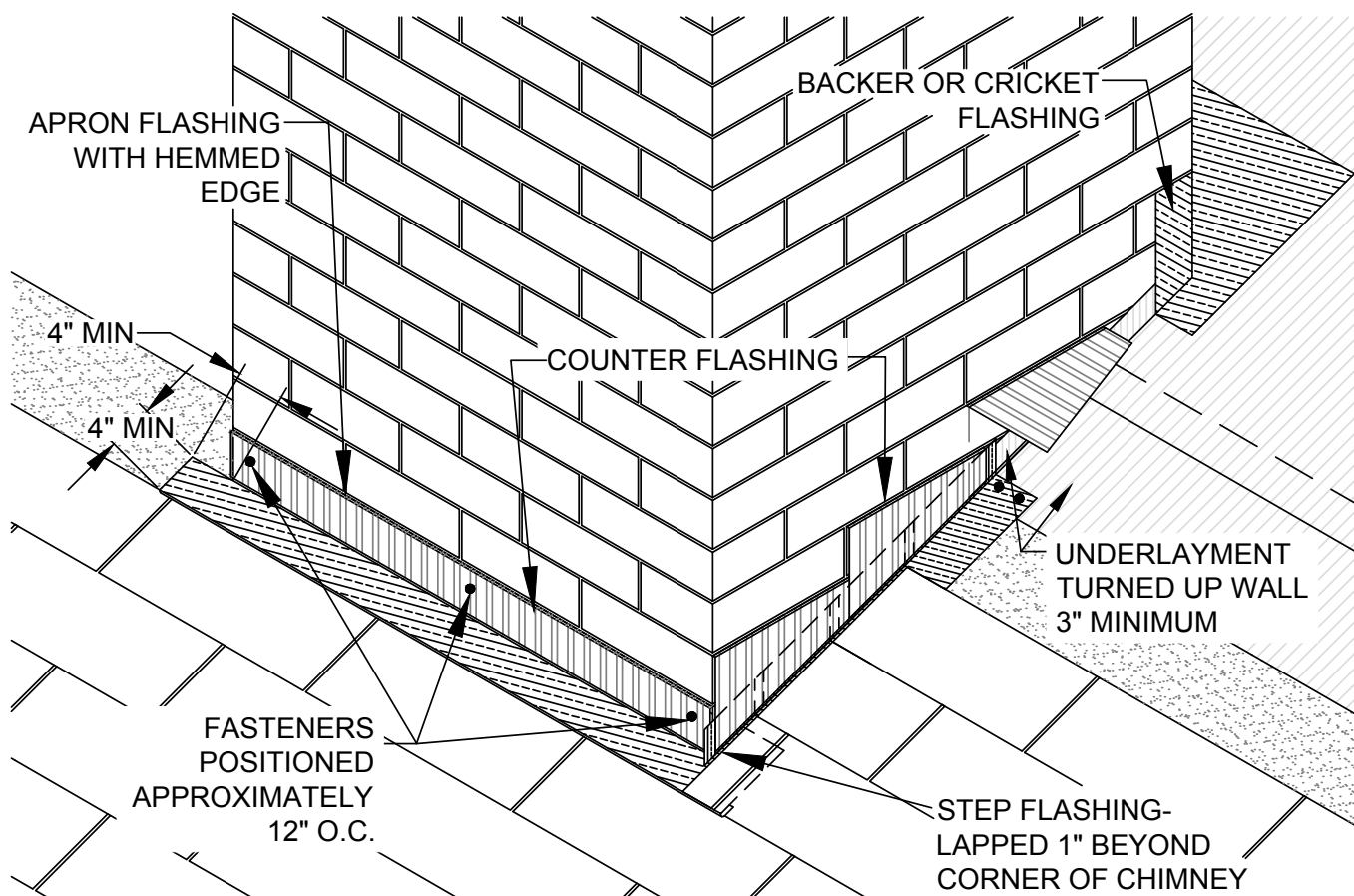
CHIMNEY APRON FLASHING



NOTES:
-ALL FLASHING TO BE MINIMUM 26 GAUGE.
-APRON WILL LATER HAVE SHEET-METAL COUNTER FLASHING INSTALLED TO
PREVENT MOISTURE INTRUSION.

STEEP SLOPE 19

CHIMNEY STEP AND APRON FLASHING 3-TAB SHINGLE ROOF

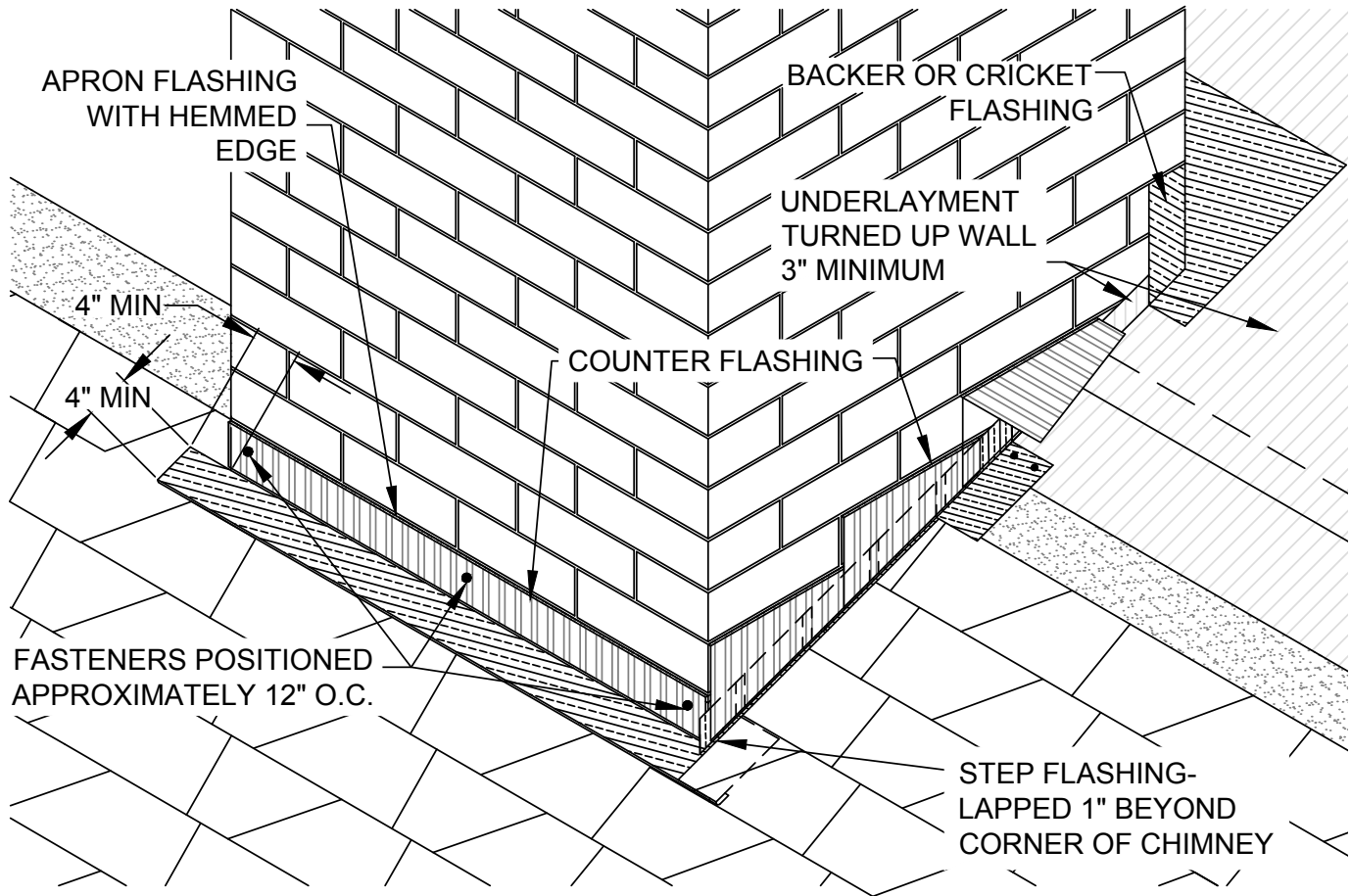


NOTES:

- ALL FLASHING TO BE MINIMUM 26 GAUGE.
- STEP FLASHING IS TO BE INTEGRATED WITH EACH COURSE OF SHINGLES.
- MAINTAIN A 1/4" - 3/4" GAP BETWEEN THE SHINGLES AND THE VERTICAL BEND OF ALL METAL STEP FLASHINGS.
- EACH PIECE OF COUNTER FLASHING LAPS OVER THE PREVIOUS AND BENDS OVER STEP FLASHING.
- APPROXIMATELY 1/2" GAP LEFT BETWEEN ROOF SURFACE AND BOTTOM OF COUNTER FLASHING.
- ANY LAPPED CHIMNEY APRON/HEADWALL FLASHING MUST BE LAPPED A MINIMUM OF 3".

STEEP SLOPE 19A

CHIMNEY STEP AND APRON FLASHING LAMINATE SHINGLE ROOF

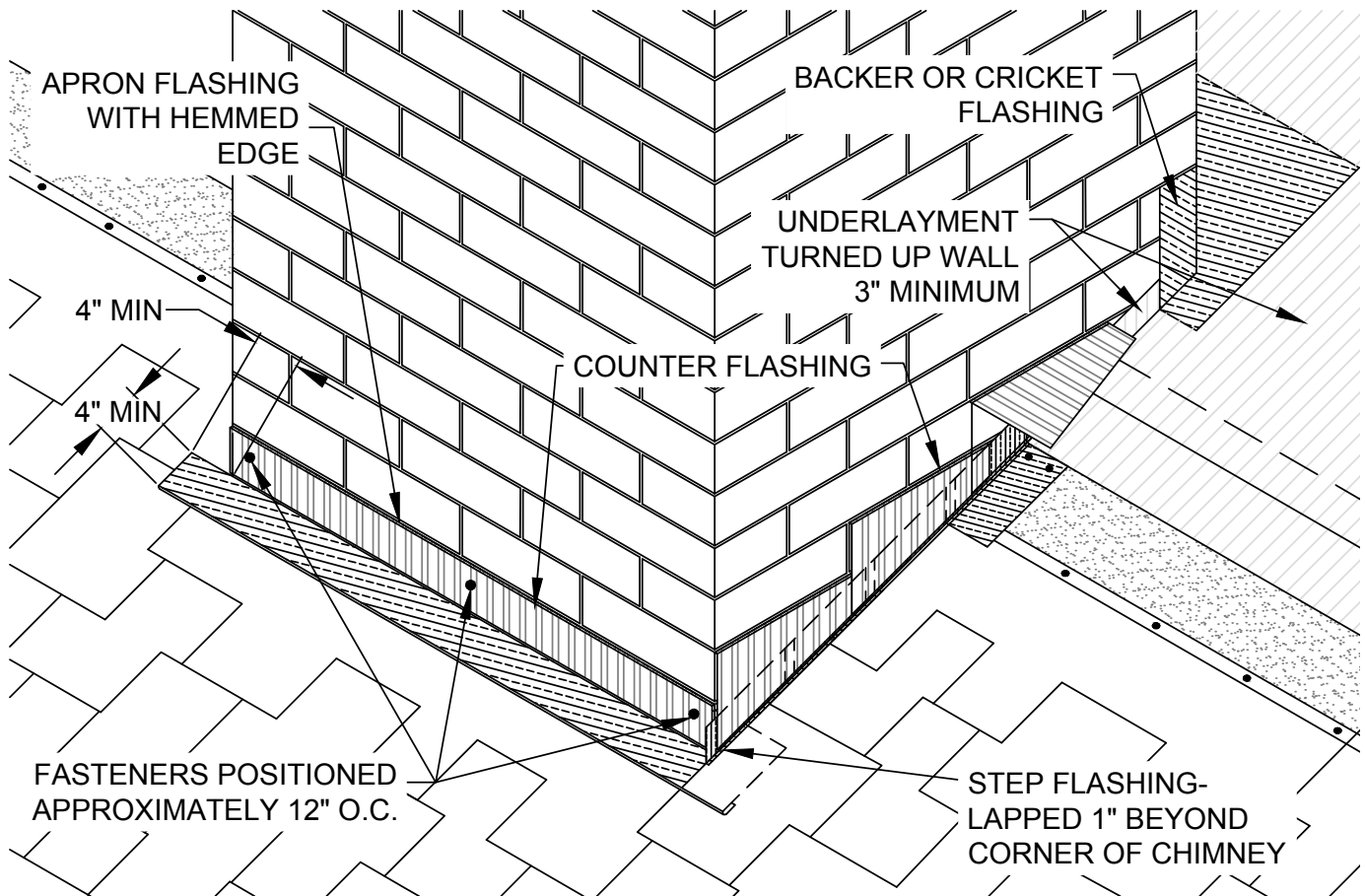


NOTES:

- ALL FLASHING TO BE MINIMUM 26 GAUGE.
- STEP FLASHING IS TO BE INTEGRATED WITH EACH COURSE OF SHINGLES.
- MAINTAIN A 1/4" - 3/4" GAP BETWEEN THE SHINGLES AND THE VERTICAL BEND OF ALL METAL STEP FLASHINGS.
- EACH PIECE OF COUNTER FLASHING LAPS OVER THE PREVIOUS AND BENDS OVER STEP FLASHING.
- APPROXIMATELY 1/2" GAP LEFT BETWEEN ROOF SURFACE AND BOTTOM OF COUNTER FLASHING.
- ANY LAPPED CHIMNEY APRON/HEADWALL FLASHING MUST BE LAPPED A MINIMUM OF 3".

STEEP SLOPE 19B

CHIMNEY STEP AND APRON FLASHING WINDSOR SHINGLE ROOF



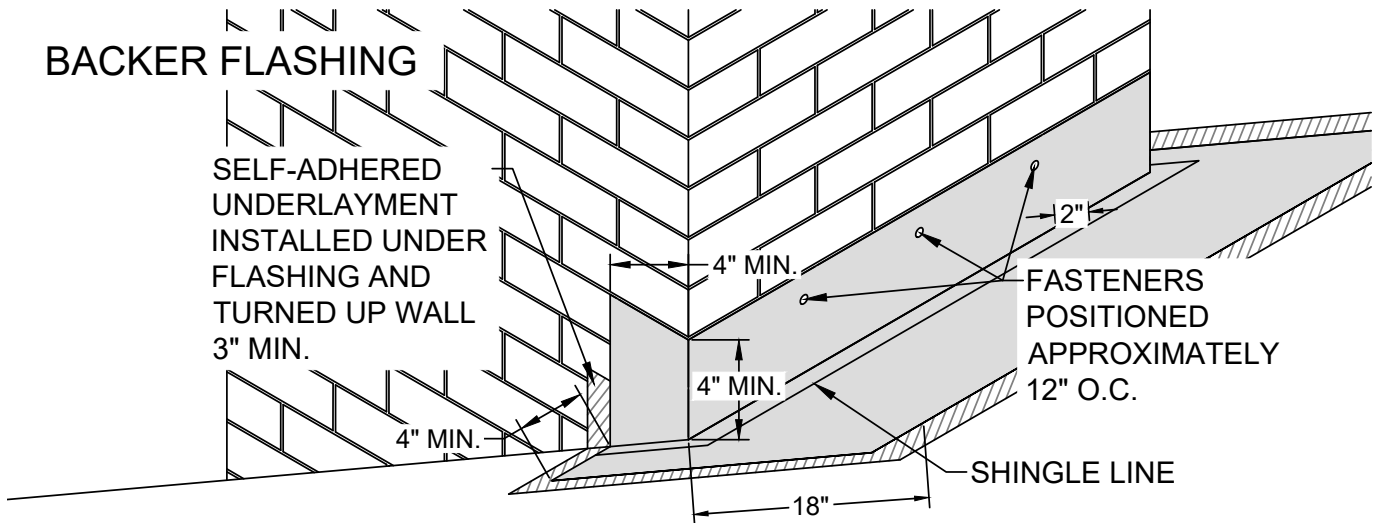
NOTES:

- ALL FLASHING TO BE MINIMUM 26 GAUGE.
- STEP FLASHING IS TO BE INTEGRATED WITH EACH COURSE OF SHINGLES.
- MAINTAIN A 1/4" - 3/4" GAP BETWEEN THE SHINGLES AND THE VERTICAL BEND OF ALL METAL STEP FLASHINGS.
- EACH PIECE OF COUNTER FLASHING LAPS OVER THE PREVIOUS AND BENDS OVER STEP FLASHING.
- APPROXIMATELY 1/2" GAP LEFT BETWEEN ROOF SURFACE AND BOTTOM OF COUNTER FLASHING.
- ANY LAPPED CHIMNEY APRON/HEADWALL FLASHING MUST BE LAPPED A MINIMUM OF 3".

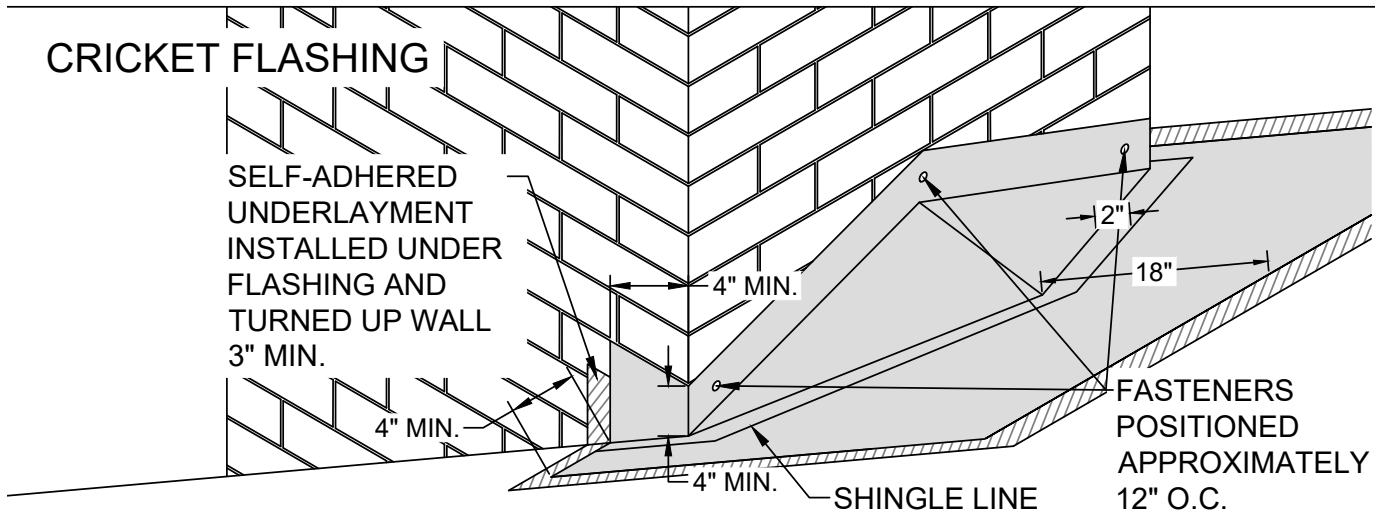
STEEP SLOPE 19C

CHIMNEY BACKER AND CRICKET FLASHINGS

BACKER FLASHING



CRICKET FLASHING



NOTES:

- FOR WIDTHS MORE THAN 30", CRICKET FLASHING IS REQUIRED.
- ALL FLASHING METAL TO BE A MINIMUM 26 GAUGE.
- A $\frac{1}{4}$ " - $\frac{3}{4}$ " GAP BETWEEN THE SHINGLE AND VERTICAL BEND OF ALL FLASHINGS IS REQUIRED.
- SHINGLES HELD BACK 2" FROM BACKER OR CRICKET, BEAD OF MASTIC APPLIED TO UNDERSIDE OF SHINGLES 1"- 2" UP FROM SHINGLE LINE.
- STRIP-OFF FLANGES (RECOMMENDED) WITH MINIMUM 6" WIDE ARCTIC SEAL.
- ROOF COVERING, STEP AND COUNTER FLASHING OMITTED FOR CLARITY.

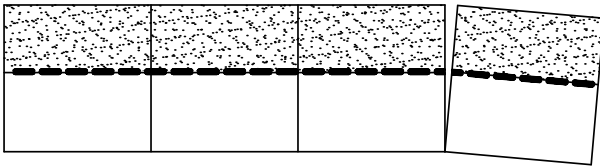
STEEP SLOPE 20

RIDGEFLEX HIP AND RIDGE SHINGLES 3-TAB SHINGLE ROOF

HIP & RIDGE INSTALLATION - APPLY MALARKEY RIDGEFLEX SHINGLES BEGINNING AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPs BEFORE RIDGES. USE TWO NAILS PER SHINGLE WITH ONE NAIL ON EACH SIDE, 1" FROM THE EDGE SO SUCCEEDING SHINGLES CONCEAL NAILHEADS.

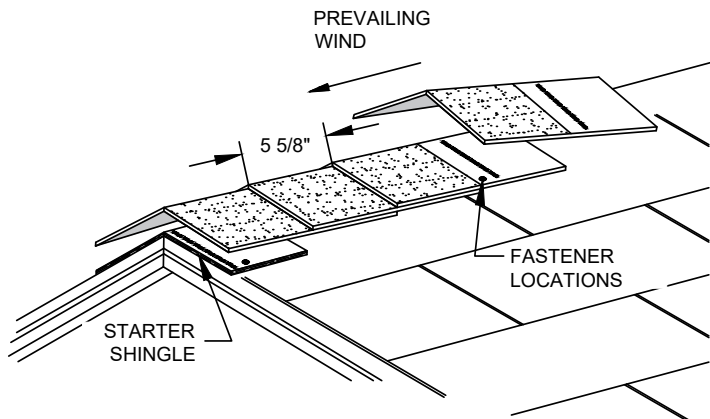
OPTION: TO ENSURE IMMEDIATE SEALING, MALARKEY RECOMMENDS EACH RIDGE SHINGLE BE SEALED DOWN WITH A QUARTER-SIZED SPOT OF SHINGLE TAB ADHESIVE ON EACH SIDE.

NOTE: EXCESSIVE USE OF MASTIC/ADHESIVE MAY CAUSE BLISTERING.



MALARKEY 10" RIDGEFLEX SHINGLES ARE PERFORATED AND SEPARATE INTO FOUR PIECES.
-12" RIDGEFLEX SHINGLES ARE THREE PER SHEET.

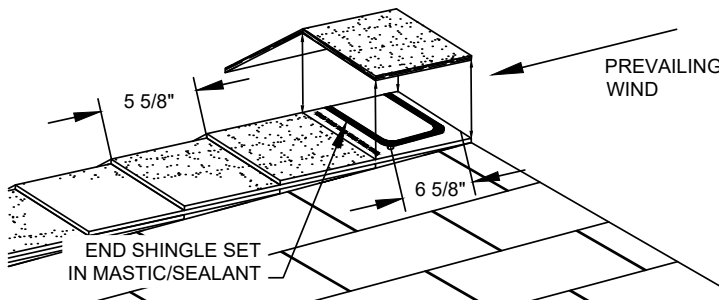
PREPARE FOR APPLICATION BY REMOVING SHINGLES FROM PACKAGING AND SEPARATING RIDGEFLEX STRIPS AT PERFORATIONS.



STARTER: CUT THE 5 5/8" EXPOSED PORTION OFF A RIDGEFLEX STRIP AND USE THE REMAINING SEAL-DOWN PORTION (7 5/8") AS A STARTER. POSITION WITH SEAL-DOWN AT ROOF'S EDGE, AND FASTEN 3" BACK FROM THE EDGE AND 1" UP FROM THE SIDE.

SHINGLE STRIPS: LAY FIRST FULL RIDGEFLEX STRIP EVEN WITH RIDGE STARTER STRIP. USE TWO NAILS PER STRIP, WITH ONE NAIL ON EACH SIDE AND 1" UP FROM THE EDGE AND 6 5/8" FROM END TOWARD PREVAILING WIND. EACH SUCCEEDING STRIP SHOULD CONCEAL NAILHEADS.

CONTINUE INSTALLING RIDGE STRIPS WITH AN EXPOSURE OF 5 5/8" AND FASTENING WITH ONE NAIL ON EACH SIDE, 1" UP FROM EACH EDGE. NAIL PLACEMENT WILL ALLOW FOR CONCEALMENT OF NAILHEADS WITH NEXT COURSE.



TRIM THE SEAL-DOWN END OF A RIDGEFLEX SHINGLE TO FIT AT THE END OF THE RIDGE, MAINTAINING THE EXPOSURE OF 5 5/8". SET STRIP IN MASTIC/SEALANT.

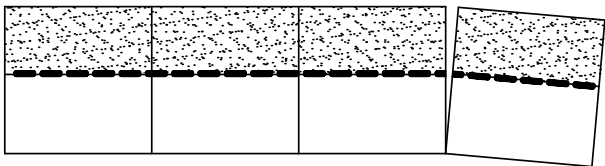
STEEP SLOPE 21A

RIDGEFLEX HIP AND RIDGE SHINGLES LAMINATE SHINGLE ROOF

HIP & RIDGE INSTALLATION - APPLY MALARKEY RIDGEFLEX SHINGLES BEGINNING AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPs BEFORE RIDGES. USE TWO NAILS PER SHINGLE WITH ONE NAIL ON EACH SIDE, 1" FROM THE EDGE SO SUCCEEDING SHINGLES CONCEAL NAILHEADS.

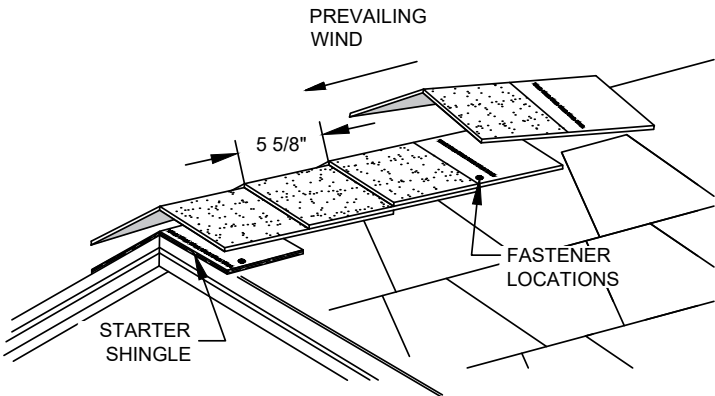
OPTION: TO ENSURE IMMEDIATE SEALING, MALARKEY RECOMMENDS EACH RIDGE SHINGLE BE SEALED DOWN WITH A QUARTER-SIZED SPOT OF SHINGLE TAB ADHESIVE ON EACH SIDE.

NOTE: EXCESSIVE USE OF MASTIC/ADHESIVE MAY CAUSE BLISTERING.



MALARKEY 10" RIDGEFLEX SHINGLES ARE PERFORATED AND SEPARATE INTO FOUR PIECES.
-12" RIDGEFLEX SHINGLES ARE THREE PER SHEET.

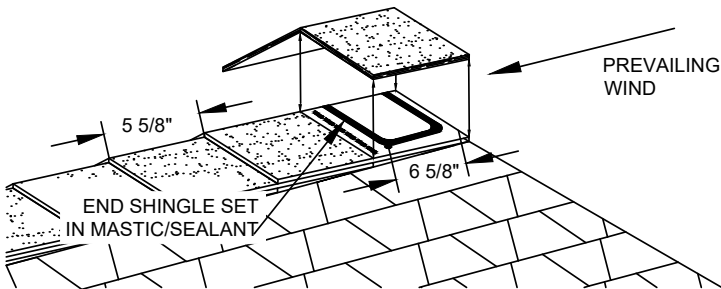
PREPARE FOR APPLICATION BY REMOVING SHINGLES FROM PACKAGING AND SEPARATING RIDGEFLEX STRIPS AT PERFORATIONS.



STARTER: CUT THE 5 5/8" EXPOSED PORTION OFF A RIDGEFLEX STRIP AND USE THE REMAINING SEAL-DOWN PORTION (7 5/8") AS A STARTER. POSITION WITH SEAL-DOWN AT ROOF'S EDGE, AND FASTEN 3" BACK FROM THE EDGE AND 1" UP FROM THE SIDE.

SHINGLE STRIPS: LAY FIRST FULL RIDGEFLEX STRIP EVEN WITH RIDGE STARTER STRIP. USE TWO NAILS PER STRIP, WITH ONE NAIL ON EACH SIDE AND 1" UP FROM THE EDGE AND 6 5/8" FROM END TOWARD PREVAILING WIND. EACH SUCCEEDING STRIP SHOULD CONCEAL NAILHEADS.

CONTINUE INSTALLING RIDGE STRIPS WITH AN EXPOSURE OF 5 5/8" AND FASTENING WITH ONE NAIL ON EACH SIDE, 1" UP FROM EACH EDGE. NAIL PLACEMENT WILL ALLOW FOR CONCEALMENT OF NAILHEADS WITH NEXT COURSE.



TRIM THE SEAL-DOWN END OF A RIDGEFLEX SHINGLE TO FIT AT THE END OF THE RIDGE, MAINTAINING THE EXPOSURE OF 5 5/8". SET STRIP IN MASTIC/SEALANT.

STEEP SLOPE 21B

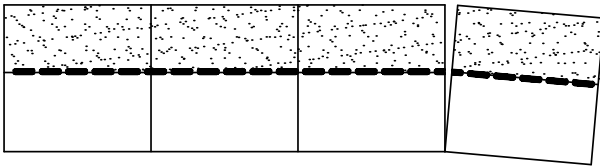
4B.21B RIDGEFLEX HIP & RIDGE SHINGLES (LAMINATE SHINGLE ROOF)

RIDGEFLEX HIP AND RIDGE SHINGLES WINDSOR SHINGLE ROOF

HIP & RIDGE INSTALLATION - APPLY MALARKEY RIDGEFLEX SHINGLES BEGINNING AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPs BEFORE RIDGES. USE TWO NAILS PER SHINGLE WITH ONE NAIL ON EACH SIDE, 1" FROM THE EDGE SO SUCCEEDING SHINGLES CONCEAL NAILHEADS.

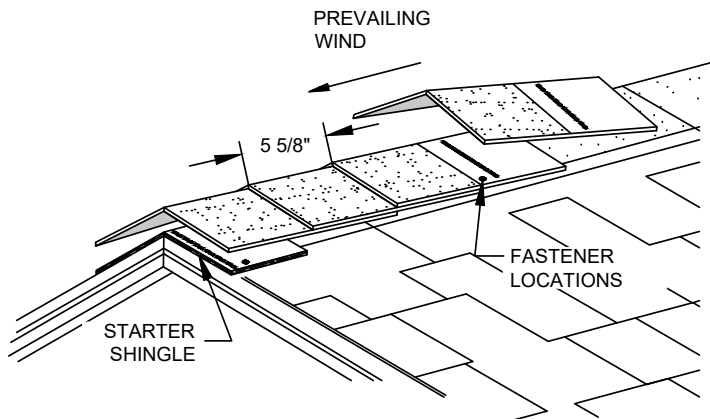
OPTION: TO ENSURE IMMEDIATE SEALING, MALARKEY RECOMMENDS EACH RIDGE SHINGLE BE SEALED DOWN WITH A QUARTER-SIZED SPOT OF SHINGLE TAB ADHESIVE ON EACH SIDE.

NOTE: EXCESSIVE USE OF MASTIC/ADHESIVE MAY CAUSE BLISTERING.



MALARKEY 10" RIDGEFLEX SHINGLES ARE PERFORATED AND SEPARATE INTO FOUR PIECES.
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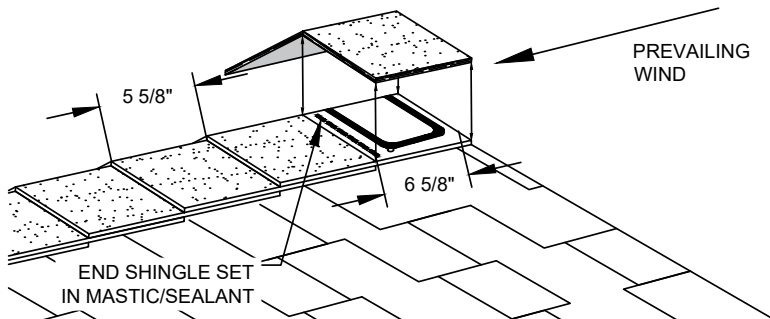
PREPARE FOR APPLICATION BY REMOVING SHINGLES FROM PACKAGING AND SEPARATING RIDGEFLEX STRIPS AT PERFORATIONS.



STARTER: CUT THE 5 5/8" EXPOSED PORTION OFF A RIDGEFLEX STRIP AND USE THE REMAINING SEAL-DOWN PORTION (7 5/8") AS A STARTER. POSITION WITH SEAL-DOWN AT ROOF'S EDGE, AND FASTEN 3" BACK FROM THE EDGE AND 1" UP FROM THE SIDE.

SHINGLE STRIPS: LAY FIRST FULL RIDGEFLEX STRIP EVEN WITH RIDGE STARTER STRIP. USE TWO NAILS PER STRIP, WITH ONE NAIL ON EACH SIDE AND 1" UP FROM THE EDGE AND 6 5/8" FROM END TOWARD PREVAILING WIND. EACH SUCCEEDING STRIP SHOULD CONCEAL NAILHEADS.

CONTINUE INSTALLING RIDGE STRIPS WITH AN EXPOSURE OF 5 5/8" AND FASTENING WITH ONE NAIL ON EACH SIDE, 1" UP FROM EACH EDGE. NAIL PLACEMENT WILL ALLOW FOR CONCEALMENT OF NAILHEADS WITH NEXT COURSE.



TRIM THE SEAL-DOWN END OF A RIDGEFLEX SHINGLE TO FIT AT THE END OF THE RIDGE, MAINTAINING THE EXPOSURE OF 5 5/8". SET STRIP IN MASTIC/SEALANT.

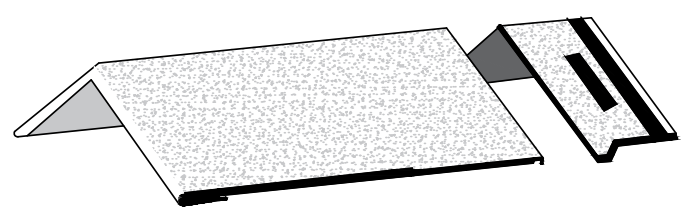
STEEP SLOPE 21C

EZ-RIDGE HIP AND RIDGE SHINGLES 3-TAB SHINGLE ROOF

EZ-RIDGE INSTALLATION - REMOVE RIDGE SHINGLES FROM CARTON AND PLACE ON ROOF RIDGE IN POSITION OVER INSTALLED FIELD SHINGLES. OVERLAP ALL RIDGES TO THE CUTOUT (ALWAYS MAINTAINING EXPOSURE OF HIP OR RIDGE AT 8 1/4"). PUSH DOWN ON CENTER OF SHINGLE AND NAIL TO FIT EXACT PITCH OF ROOF. THE ENTIRE SHINGLE SHOULD BE ALIGNED WITH THE UNDERLYING CUTOUT. BEGIN AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPs BEFORE RIDGES.

-TO ENSURE IMMEDIATE SEALING, MALARKEY RECOMMENDS EACH RIDGE SHINGLE BE SEALED DOWN UNDERNEATH WITH A QUARTER-SIZED SPOT OF SHINGLE TAB ADHESIVE ON EACH SIDE.

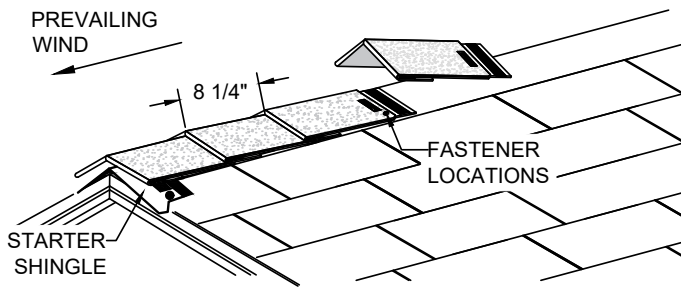
NOTE: AVOID EXCESSIVE USE OF ADHESIVE AS IT MAY CAUSE BLISTERING.



TO CREATE AN EZ-RIDGE STARTER, CUT OFF THE 8 3/4" EXPOSURE PORTION* OF AN EZ-RIDGE SHINGLE, AND USE THE 3 3/4" REMAINDER (WITH SEAL-DOWN STRIP) AS THE STARTER.

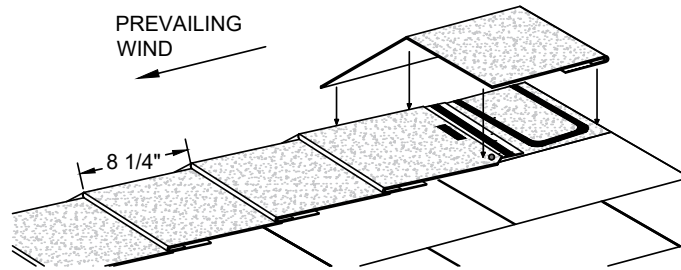
PLACE THE STARTER FLUSH TO THE RAKE AT THE PEAK, AND POSITION SO SEAL-DOWN STRIP IS NEAREST THE ROOF EDGE. FASTEN WITH TWO NAILS, ONE ON EACH SIDE, 3/4" BEHIND THE CUTOUT AND 1/2" UP FROM THE EDGE.

*SAVE THE EXPOSURE PORTION FOR USE AS THE LAST SHINGLE ON THE OPPOSITE END OF THE RIDGE.



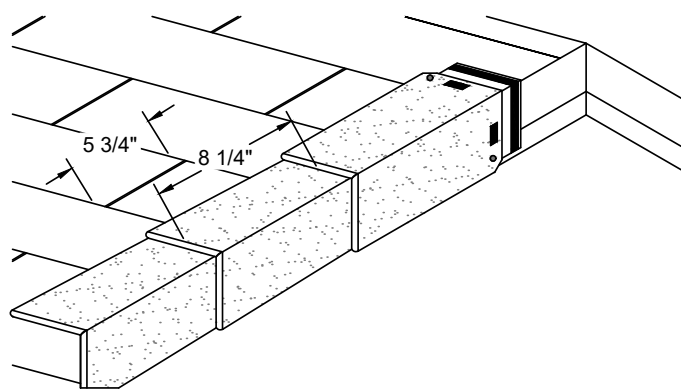
FIRST EZ-RIDGE SHINGLE COMPLETELY OVERLAPS STARTER. POSITION EACH EZ-RIDGE SHINGLE TO FOLLOW WITH AN 8 3/4" EXPOSURE BEFORE FASTENING.

SHINGLE FASTENING: INSTALL ONE NAIL ON EACH SIDE OF THE EZ-RIDGE SHINGLES, 3/4" BEHIND THE CUTOUT, AND 1/2" UP FROM THE EDGE. USE 3/8" HEADED, NON CORROSIVE ROOFING NAILS, LONG ENOUGH TO PENETRATE ALL LAYERS AND FASTEN THE SHINGLE SECURELY TO THE ROOF DECK.



FOR THE LAST SHINGLE OF THE RUN, REMOVE THE CUTOUT END OF THE RIDGE SHINGLE AND TRIM TO FIT, MAINTAINING THE 8 3/4" EXPOSURE. SET THE SHINGLE IN MASTIC.

THE LAST SHINGLE OF THE RUN CAN ALSO BE FLIPPED AROUND TO PRESERVE THE HIGH-PROFILE APPEARANCE AT THE RAKE EDGE OF THE ROOF.



RAKE EDGE INSTALLATION: EZ-RIDGE SHINGLES CAN ALSO BE INSTALLED ON RAKE EDGES. INSTALL RAKE EDGE SHINGLES BEFORE RIDGE SHINGLES.

FOLLOW EZ-RIDGE INSTALLATION INSTRUCTIONS WITH THESE EXCEPTIONS: ALWAYS START AT THE LOW END OF THE ROOF, AND POSITION THE HIGH PROFILE, FINISHED END OF THE SHINGLES IN THE LOWEST POSITION.

INSTALLATION WITH EXPOSED NAILS MAY AFFECT THE AESTHETIC APPEAL OF EZ-RIDGE SHINGLES.

STEEP SLOPE 22A

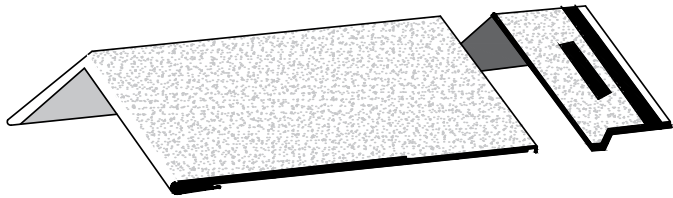
4B. 22A EZ-RIDGE HIP & RIDGE SHINGLES (3-TAB SHINGLE ROOF)

EZ-RIDGE HIP AND RIDGE SHINGLES LAMINATE SHINGLE ROOF

EZ-RIDGE INSTALLATION - REMOVE RIDGE SHINGLES FROM CARTON AND PLACE ON ROOF RIDGE IN POSITION OVER INSTALLED FIELD SHINGLES. OVERLAP ALL RIDGES TO THE CUTOUT (ALWAYS MAINTAINING EXPOSURE OF HIP OR RIDGE AT 8 1/4"). PUSH DOWN ON CENTER OF SHINGLE AND NAIL TO FIT EXACT PITCH OF ROOF. THE ENTIRE SHINGLE SHOULD BE ALIGNED WITH THE UNDERLYING CUTOUT. BEGIN AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPS BEFORE RIDGES.

-TO ENSURE IMMEDIATE SEALING, MALARKEY RECOMMENDS EACH RIDGE SHINGLE BE SEALED DOWN UNDERNEATH WITH A QUARTER-SIZED SPOT OF SHINGLE TAB ADHESIVE ON EACH SIDE.

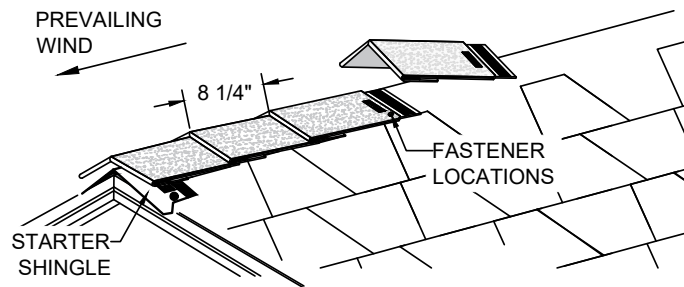
NOTE: AVOID EXCESSIVE USE OF ADHESIVE AS IT MAY CAUSE BLISTERING.



TO CREATE AN EZ-RIDGE STARTER, CUT OFF THE 8 1/4" EXPOSURE PORTION* OF AN EZ-RIDGE SHINGLE, AND USE THE 3 1/4" REMAINDER (WITH SEAL-DOWN STRIP) AS THE STARTER.

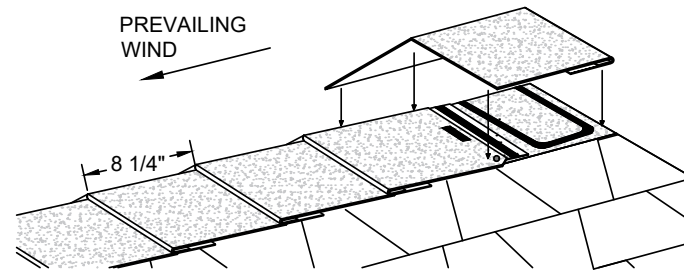
PLACE THE STARTER FLUSH TO THE RAKE AT THE PEAK, AND POSITION SO SEAL-DOWN STRIP IS NEAREST THE ROOF EDGE. FASTEN WITH TWO NAILS, ONE ON EACH SIDE. 3/4" BEHIND THE CUTOUT AND 1/2" UP FROM THE EDGE.

*SAVE THE EXPOSURE PORTION FOR USE AS THE LAST SHINGLE ON THE OPPOSITE END OF THE RIDGE.



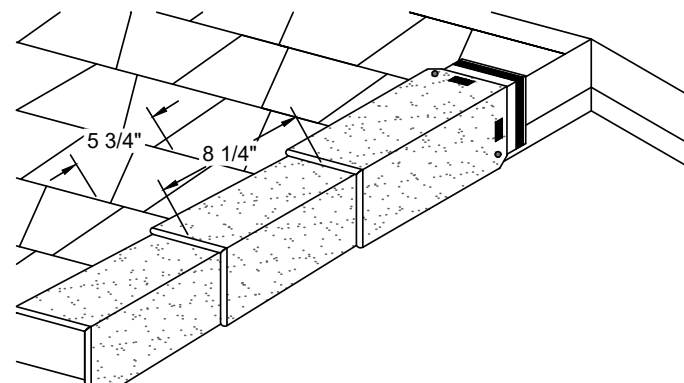
FIRST EZ-RIDGE SHINGLE COMPLETELY OVERLAPS STARTER. POSITION EACH EZ-RIDGE SHINGLE TO FOLLOW WITH AN 8 1/4" EXPOSURE BEFORE FASTENING.

SHINGLE FASTENING: INSTALL ONE NAIL ON EACH SIDE OF THE EZ-RIDGE SHINGLES, 3/4" BEHIND THE CUTOUT, AND 1/2" UP FROM THE EDGE. USE 3/8" HEADED, NON CORROSIVE ROOFING NAILS, LONG ENOUGH TO PENETRATE ALL LAYERS AND FASTEN THE SHINGLE SECURELY TO THE ROOF DECK.



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THE LAST SHINGLE OF THE RUN CAN ALSO BE FLIPPED AROUND TO PRESERVE THE HIGH-PROFILE APPEARANCE AT THE RAKE EDGE OF THE ROOF.



RAKE EDGE INSTALLATION: EZ-RIDGE SHINGLES CAN ALSO BE INSTALLED ON RAKE EDGES. INSTALL RAKE EDGE SHINGLES BEFORE RIDGE SHINGLES.

FOLLOW EZ-RIDGE INSTALLATION INSTRUCTIONS WITH THESE EXCEPTIONS: ALWAYS START AT THE LOW END OF THE ROOF, AND POSITION THE HIGH PROFILE, FINISHED END OF THE SHINGLES IN THE LOWEST POSITION.

INSTALLATION WITH EXPOSED NAILS MAY AFFECT THE AESTHETIC APPEAL OF EZ-RIDGE SHINGLES.

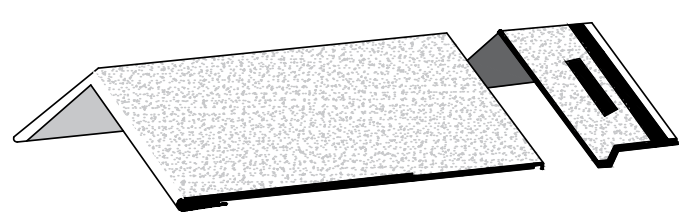
STEEP SLOPE 22B

EZ-RIDGE HIP AND RIDGE SHINGLES WINDSOR SHINGLE ROOF

EZ-RIDGE INSTALLATION - REMOVE RIDGE SHINGLES FROM CARTON AND PLACE ON ROOF RIDGE IN POSITION OVER INSTALLED FIELD SHINGLES. OVERLAP ALL RIDGES TO THE CUTOUT (ALWAYS MAINTAINING EXPOSURE OF HIP OR RIDGE AT 8 1/4"). PUSH DOWN ON CENTER OF SHINGLE AND NAIL TO FIT EXACT PITCH OF ROOF. THE ENTIRE SHINGLE SHOULD BE ALIGNED WITH THE UNDERLYING CUTOUT. BEGIN AT THE BOTTOM OF THE HIP OR AT THE RIDGE OPPOSITE THE DIRECTION OF PREVAILING WINDS. COMPLETE HIPs BEFORE RIDGES.

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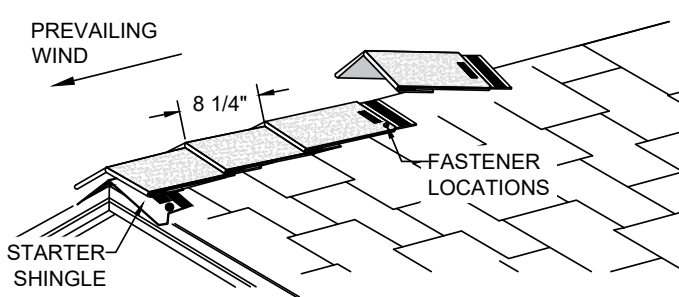
NOTE: AVOID EXCESSIVE USE OF ADHESIVE AS IT MAY CAUSE BLISTERING.



TO CREATE AN EZ-RIDGE STARTER, CUT OFF THE 8 1/4" EXPOSURE PORTION* OF AN EZ-RIDGE SHINGLE, AND USE THE 3 1/4" REMAINDER (WITH SEAL-DOWN STRIP) AS THE STARTER.

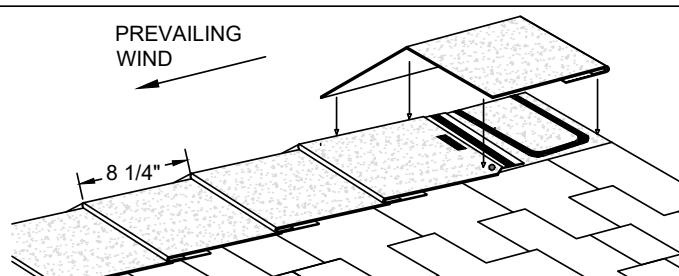
PLACE THE STARTER FLUSH TO THE RAKE AT THE PEAK, AND POSITION SO SEAL-DOWN STRIP IS NEAREST THE ROOF EDGE. FASTEN WITH TWO NAILS, ONE ON EACH SIDE, 3/4" BEHIND THE CUTOUT AND 1/2" UP FROM THE EDGE.

*SAVE THE EXPOSURE PORTION FOR USE AS THE LAST SHINGLE ON THE OPPOSITE END OF THE RIDGE.



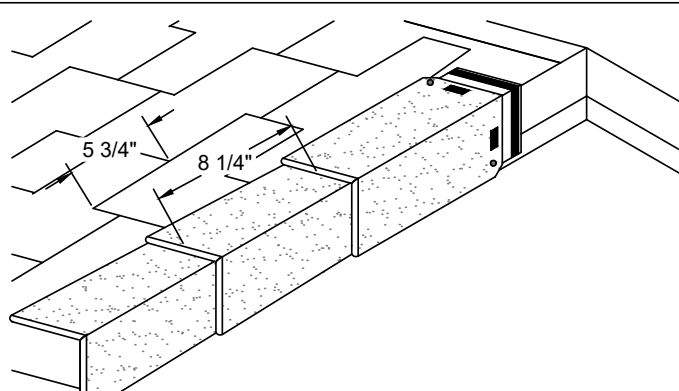
FIRST EZ-RIDGE SHINGLE COMPLETELY OVERLAPS STARTER. POSITION EACH EZ-RIDGE SHINGLE TO FOLLOW WITH AN 8 1/4" EXPOSURE BEFORE FASTENING.

SHINGLE FASTENING: INSTALL ONE NAIL ON EACH SIDE OF THE EZ-RIDGE SHINGLES, 3/4" BEHIND THE CUTOUT, AND 1/2" UP FROM THE EDGE. USE 3/8" HEADED, NON CORROSIVE ROOFING NAILS, LONG ENOUGH TO PENETRATE ALL LAYERS AND FASTEN THE SHINGLE SECURELY TO THE ROOF DECK.



FOR THE LAST SHINGLE OF THE RUN, REMOVE THE CUTOUT END OF THE RIDGE SHINGLE AND TRIM TO FIT, MAINTAINING THE 8 1/4" EXPOSURE. SET THE SHINGLE IN MASTIC.

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RAKE EDGE INSTALLATION: EZ-RIDGE SHINGLES CAN ALSO BE INSTALLED ON RAKE EDGES. INSTALL RAKE EDGE SHINGLES BEFORE RIDGE SHINGLES.

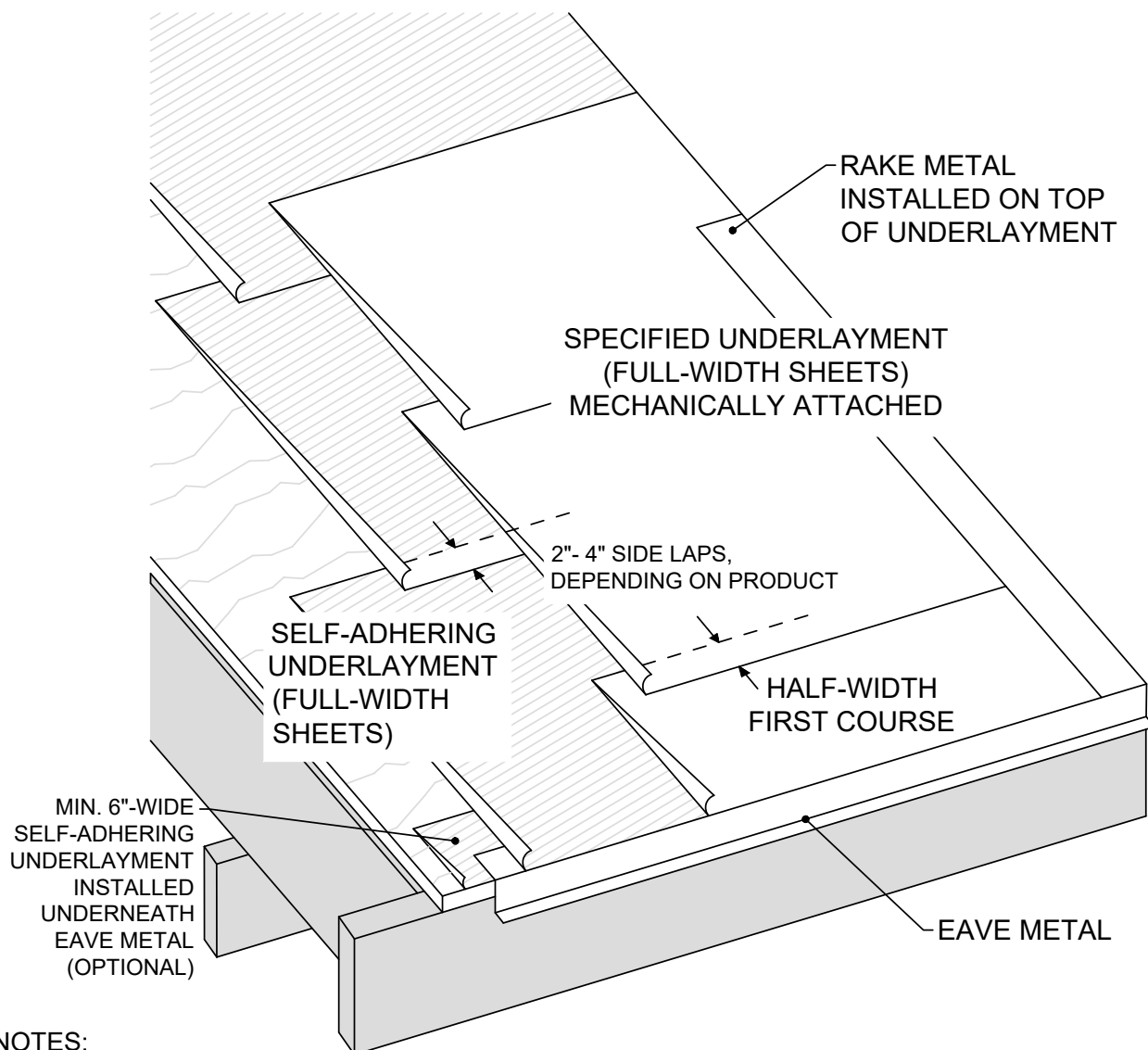
FOLLOW EZ-RIDGE INSTALLATION INSTRUCTIONS WITH THESE EXCEPTIONS: ALWAYS START AT THE LOW END OF THE ROOF, AND POSITION THE HIGH PROFILE, FINISHED END OF THE SHINGLES IN THE LOWEST POSITION.

INSTALLATION WITH EXPOSED NAILS MAY AFFECT THE AESTHETIC APPEAL OF EZ-RIDGE SHINGLES.

STEEP SLOPE 22C

4B. 22C EZ-RIDGE HIP & RIDGE SHINGLES (WINDSOR SHINGLE ROOF)

DOUBLE LAYER UNDERLAYMENT WITH SELF-ADHERING AND MECHANICALLY ATTACHED LAYERS



NOTES:

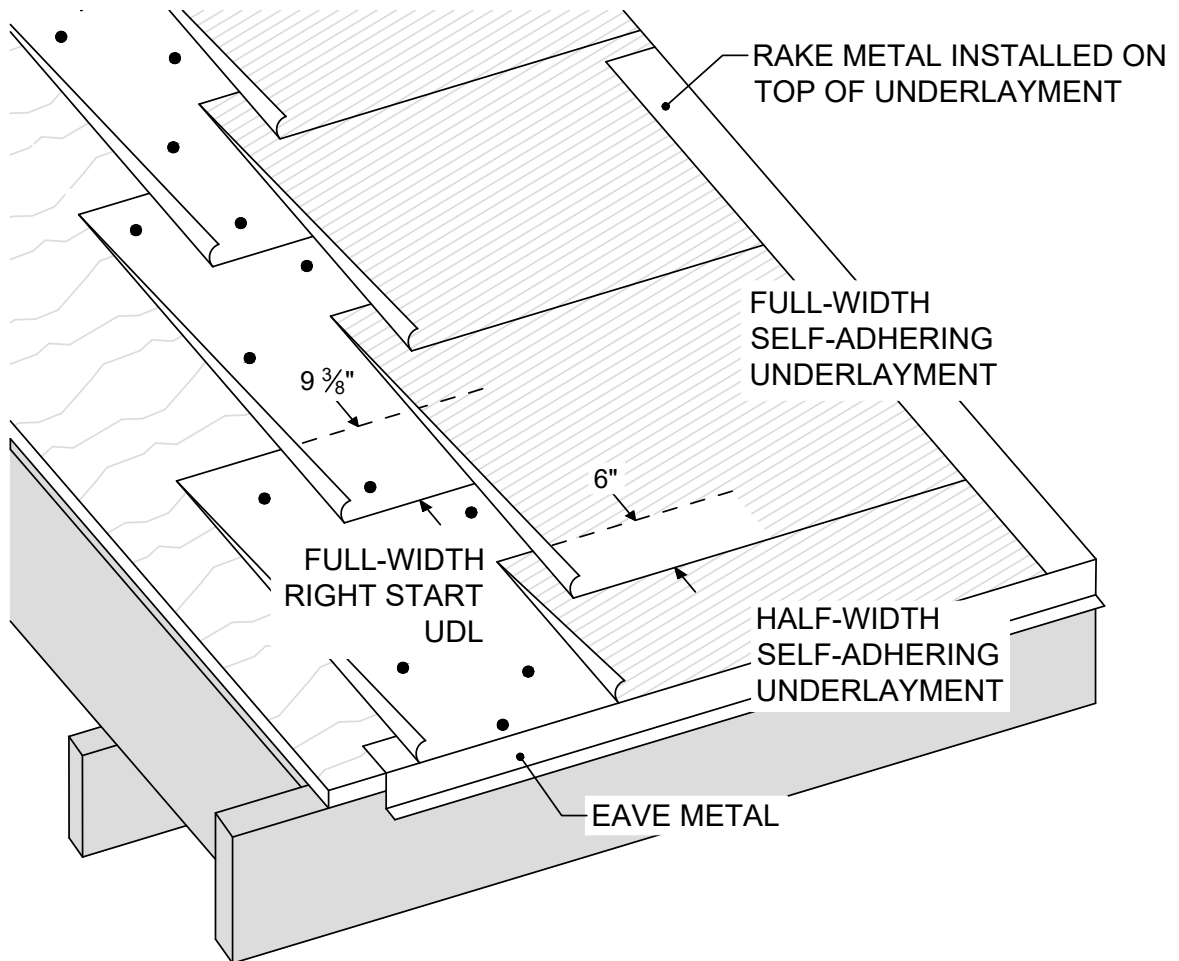
-INITIAL LAYER OF SELF-ADHERING UNDERLAYMENT: FULL-WIDTH SHEETS; 2" OR 4" SIDE LAPS FOR ARCTIC SEAL; 3" FOR SECURESTART HT

-SECOND LAYER OF SPECIFIED UNDERLAYMENT: MECHANICALLY ATTACHED - OPTIONS:

- RIGHT START UDL: HALF-WIDTH FIRST COURSE (19 $\frac{3}{4}$ "); FULL WIDTH SHEETS FOLLOW; 2" OR 4" SIDE LAPS
- SECURE START LINE OF SYNTHETIC UNDERLAYMENTS: HALF-WIDTH FIRST COURSE (24"); FULL-WIDTH SHEETS FOLLOW; 4" SIDE LAPS
- AVOID LAPS ON LAPS

STEEP SLOPE 23

DOUBLE LAYER UNDERLAYMENT WITH FIRST LAYER MECHANICALLY-ATTACHED AND SECOND LAYER SELF-ADHERING



NOTES:

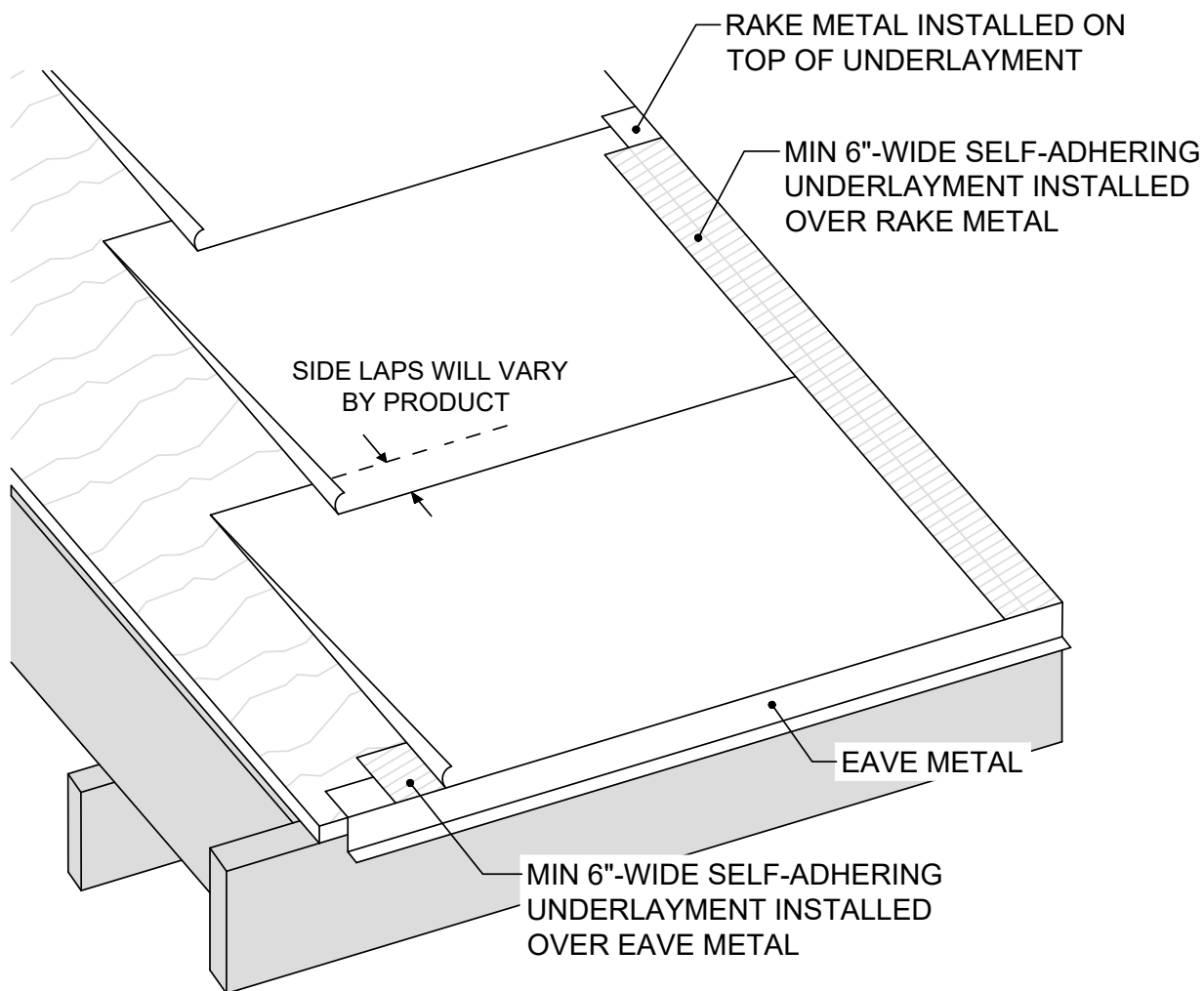
- FIRST LAYER: MECHANICALLY-ATTACHED RIGHT START™ UDL UNDERLAYMENT; FULL-WIDTH SHEETS; 9 $\frac{3}{8}$ " SIDE LAPS; 30" EXPOSURE
- INSTALL ENOUGH PLASTIC OR METAL CAPPED FASTENERS TO HOLD RIGHT START™ FIRMLY IN PLACE AND WORK SAFELY UNTIL PRIMARY ROOF COVERING INSTALLED
- SECOND LAYER: SELF-ADHERING UNDERLAYMENT; START WITH HALF-WIDTH SHEET; FULL-WIDTH SHEETS FOLLOW; 6" SIDE LAPS; 30" EXPOSURE
- 9 $\frac{3}{8}$ " AND 6" SIDE LAPS ARE REQUIRED TO MAINTAIN OFFSET LAPS BETWEEN LAYERS

STEEP SLOPE 24

DOUBLE LAYER UNDERLAYMENT WITH FIRST LAYER MECHANICALLY ATTACHED AND SECOND LAYER SELF-ADHERING

4B.24

SINGLE LAYER OF UNDERLAYMENT WITH STRIPPED-OFF PERIMETER METAL

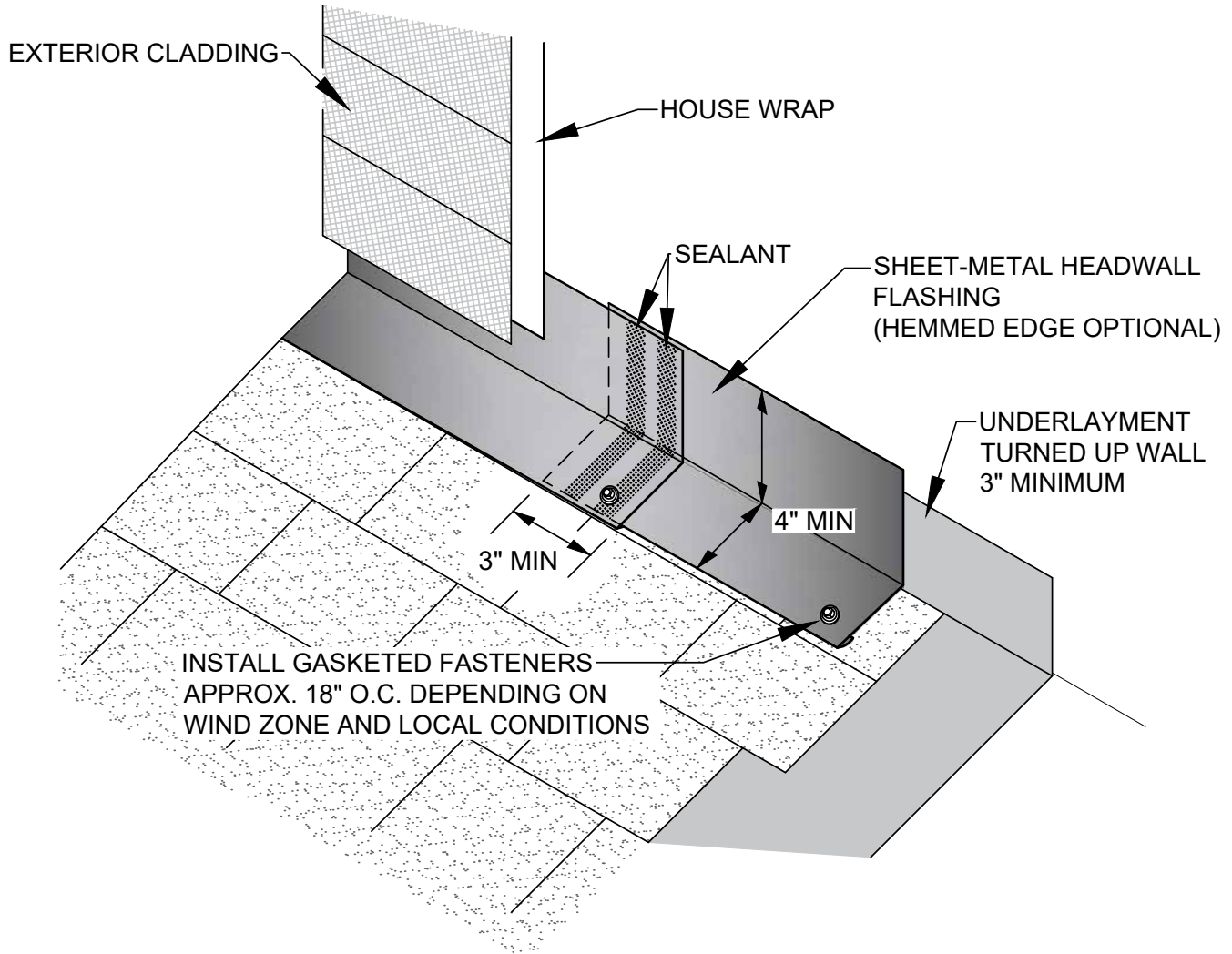


NOTES:

-WHEN REQUIRED BY SPECIFICATIONS, WEATHER, OR WARRANTY REQUIREMENTS, STRIP-OFF PERIMETER METAL WITH MIN 6"-WIDE ARCTIC SEAL SELF-ADHERING UNDERLAYMENT; 3" ON THE FLANGE, 3" ON THE FIELD

STEEP SLOPE 25

HEADWALL FLASHING

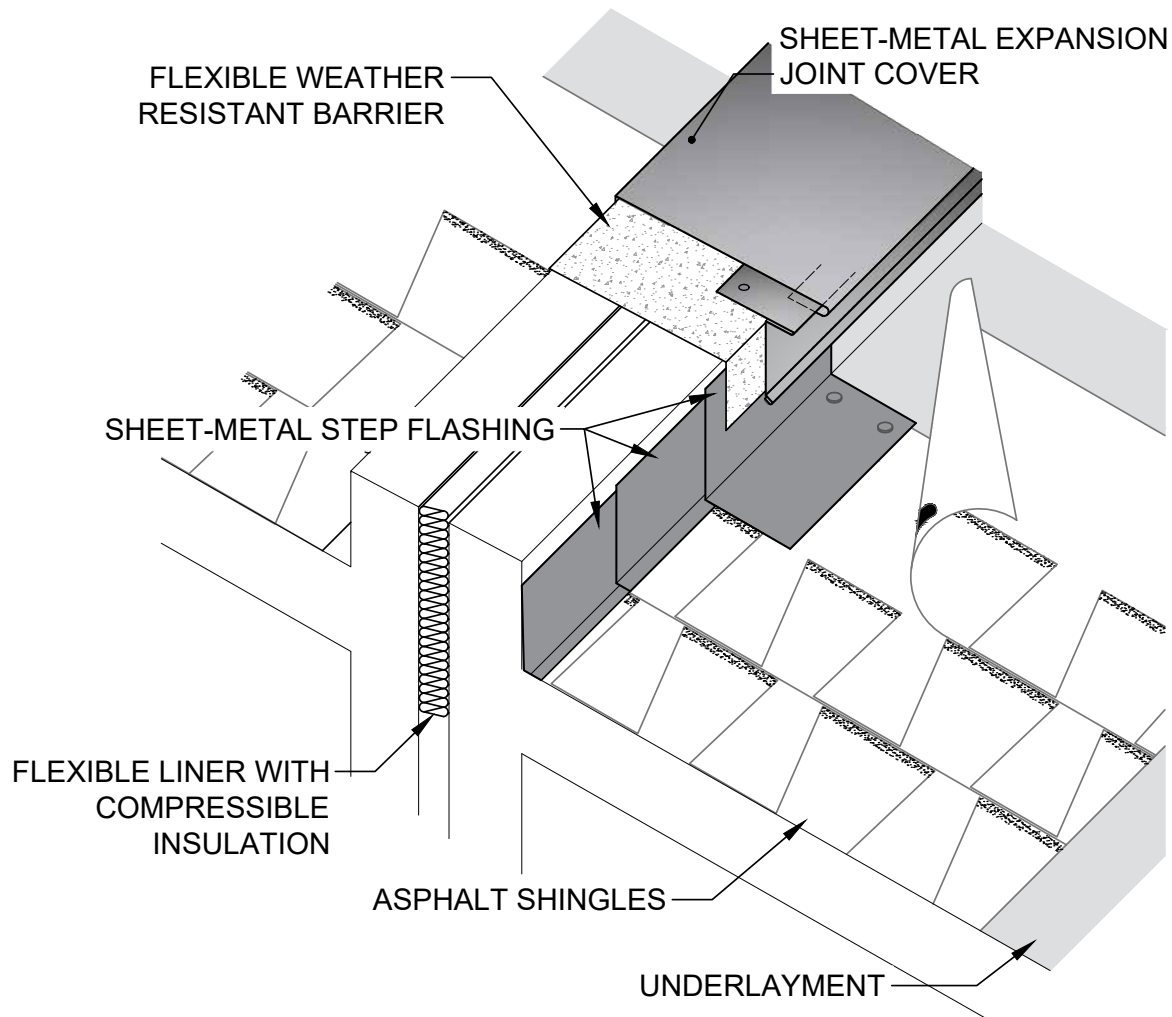


NOTES:

- FLASHING AGAINST THE HEADWALL SHOULD BE COUNTER-FLASHED A MINIMUM OF 2" WITH HOUSE WRAP OR OTHER FLASHING AND THEN COVERED WITH THE FINISH WALL CLADDING.
- LAPS IN THE HEADWALL FLASHING SHOULD BE 3" MINIMUM AND THE OVERLAPPING END SET IN A DOUBLE BEAD OF SEALANT.

STEEP SLOPE 26

STEEP SLOPE EXPANSION JOINT: CURB TO CURB

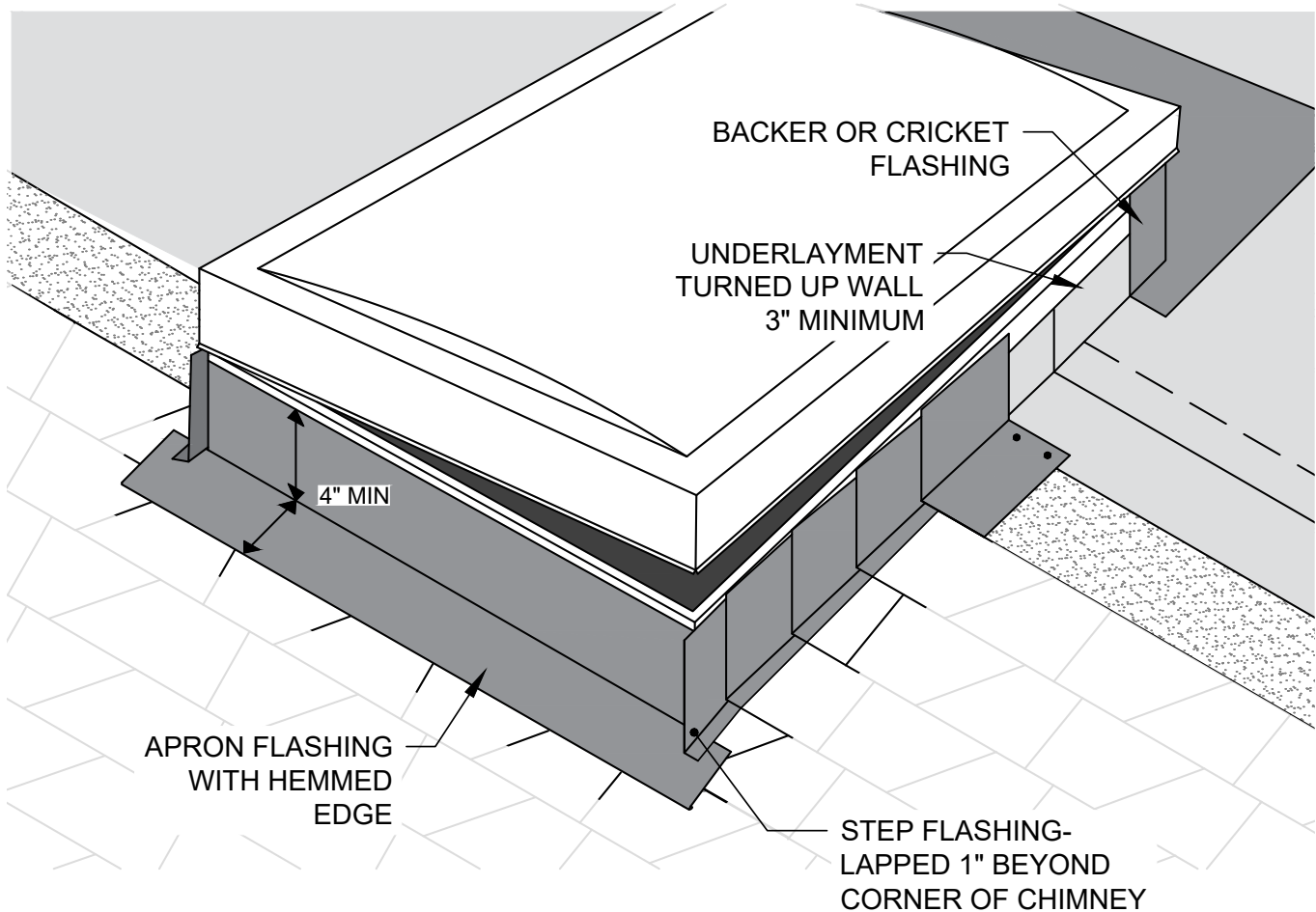


NOTES:

-FLASHING REQUIREMENTS ARE TYPICAL FOR BOTH SIDES OF EXPANSION JOINT.

STEEP SLOPE 28

SKYLIGHT FLASHING

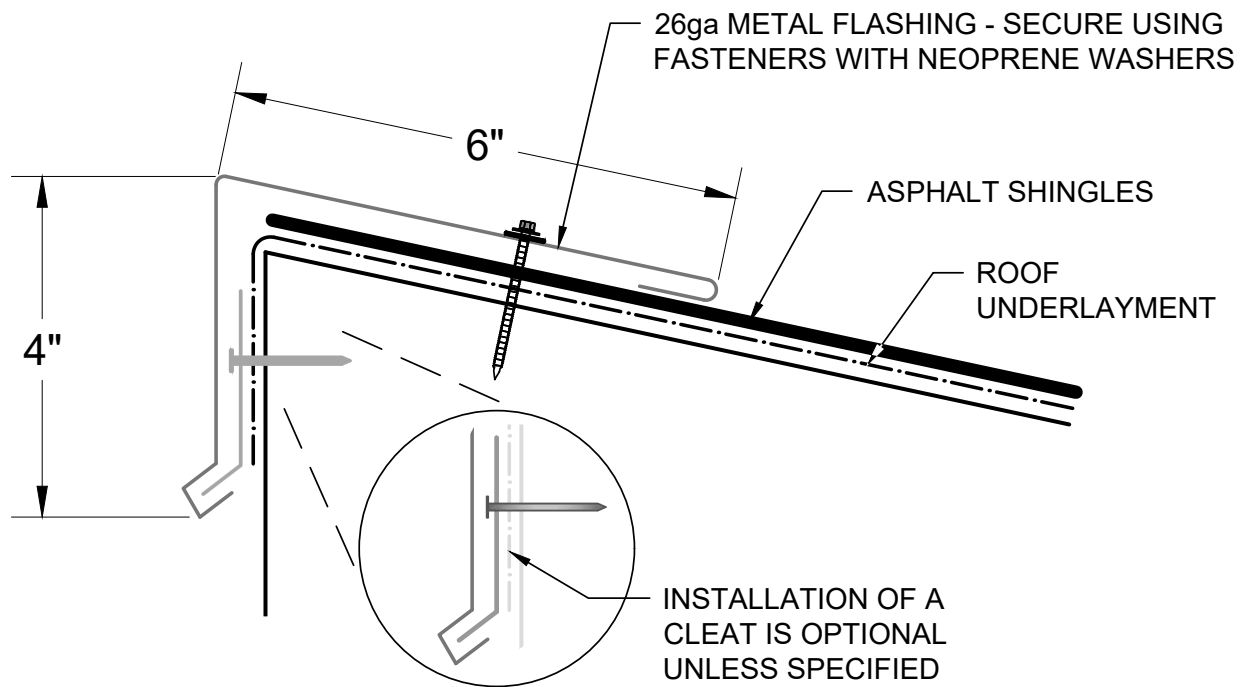


NOTES:

- ALL FLASHING TO BE MINIMUM 26 GAUGE.
- STEP FLASHING TO BE INTEGRATED WITH EACH COURSE OF SHINGLES.
- MAINTAIN A 1/4" - 3/4" GAP BETWEEN THE SHINGLES AND VERTICAL BEND OF METAL STEP FLASHINGS.
- WHEN CLOSED, THE SKYLIGHT SASH SHOULD COUNTER-FLASH THE APRON AND STEP FLASHINGS.

STEEP SLOPE 29

SHED ROOF FLASHING AT THE PEAK

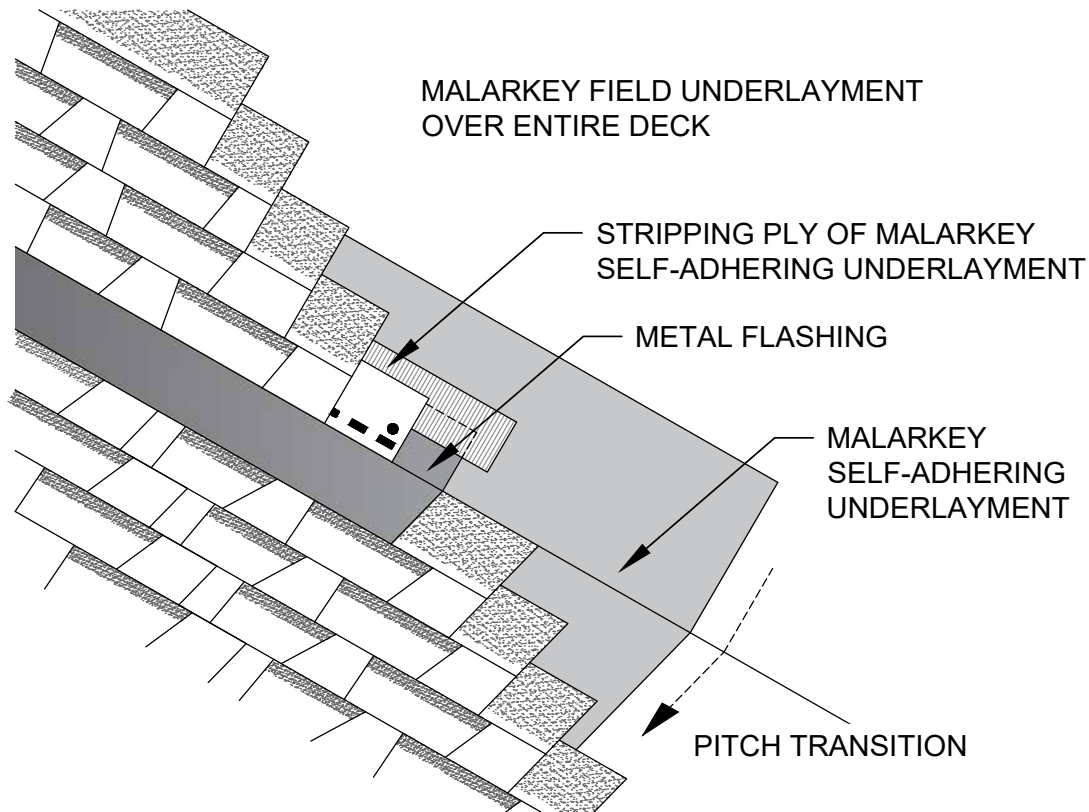


NOTES:

- INSTALL HORIZONTAL FLANGE OF METAL FLASHING ON TOP OF SHINGLES; SECURE IN PLACE BUT DO NOT OVERDRIVE THE FASTENERS AND CREATE AN INDENTATION IN THE METAL.
- LAPS IN THE FLASHING, 2" MINIMUM; APPLY SEALANT BETWEEN THE OVERLAPPING ENDS AND FASTEN TOGETHER.

STEEP SLOPE 30

FLASHING SHINGLE-TO-SHINGLE TRANSITIONS - ISO VIEW



NOTES:

-OVER TRANSITION CHANGE, INSTALL MINIMUM HALF-WIDTH, MALARKEY SELF-ADHERING UNDERLAYMENT; CENTER OVER TRANSITION BREAK.

-SHINGLE UP TO THE TRANSITION BREAK.

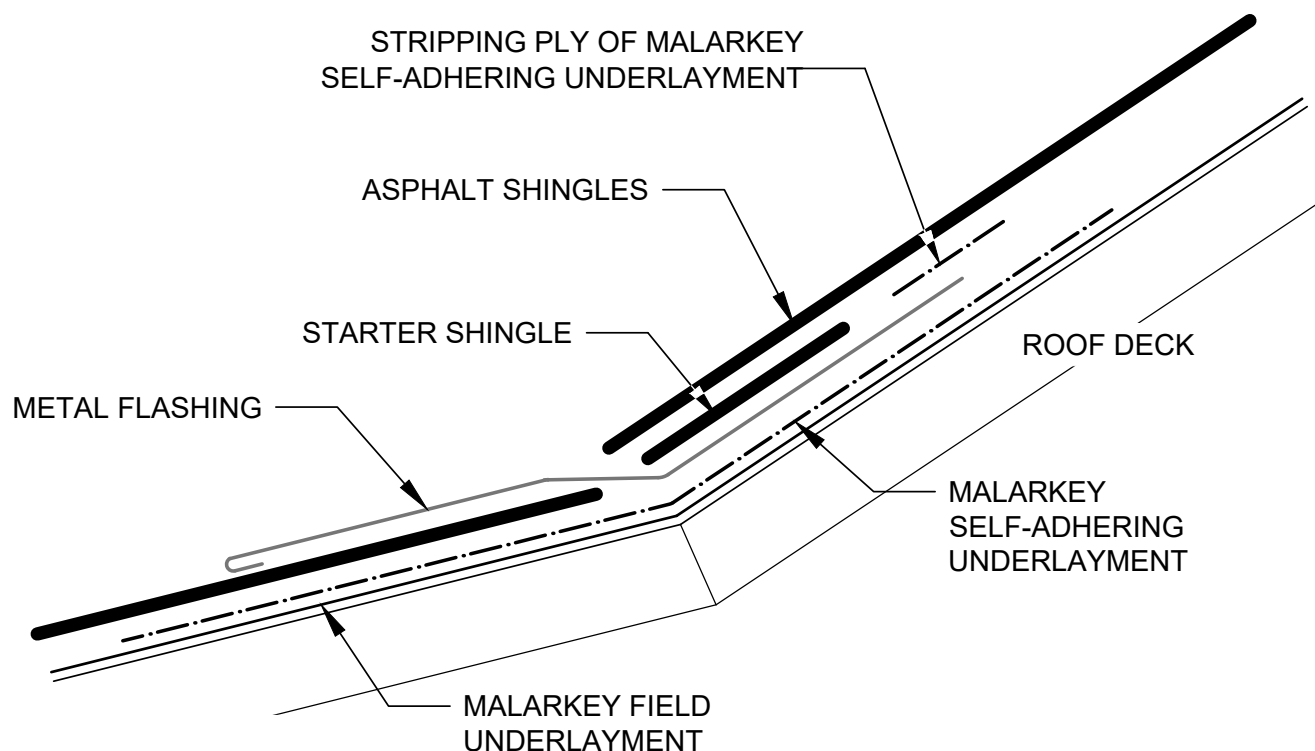
-INSTALL 26 GA. CORROSION-RESISTANT METAL FLASHING (HEMMED EDGE ON DOWN-SLOPE SIDE IS OPTIONAL):

- LAP LOWER FLANGE OVER SHINGLES ON THE DOWN-SLOPE SIDE; SECURE WITH GASKETED FASTENERS; SEAL JOINTS WITH A BEAD OF SEALANT.
- NAIL UPPER FLANGE TO THE DECK ON THE UP-SLOPE SIDE.
- STRIP-OFF UPPER FLANGE WITH MINIMUM 6"-WIDE (152 MM) MALARKEY SELF-ADHERING UNDERLAYMENT TO COVER FASTENERS: 3" (76 MM) ON THE FLANGE, 3" (76 MM) ON THE FIELD.

-RESUME SHINGLING UP THE ROOF OVER THE UPPER FLANGE OF THE FLASHING; AS YOU WOULD AT THE EAVE, BEGINNING WITH A STARTER SHINGLE.

STEEP SLOPE 31A - ISO

FLASHING SHINGLE-TO-SHINGLE TRANSITIONS - SECTION VIEW

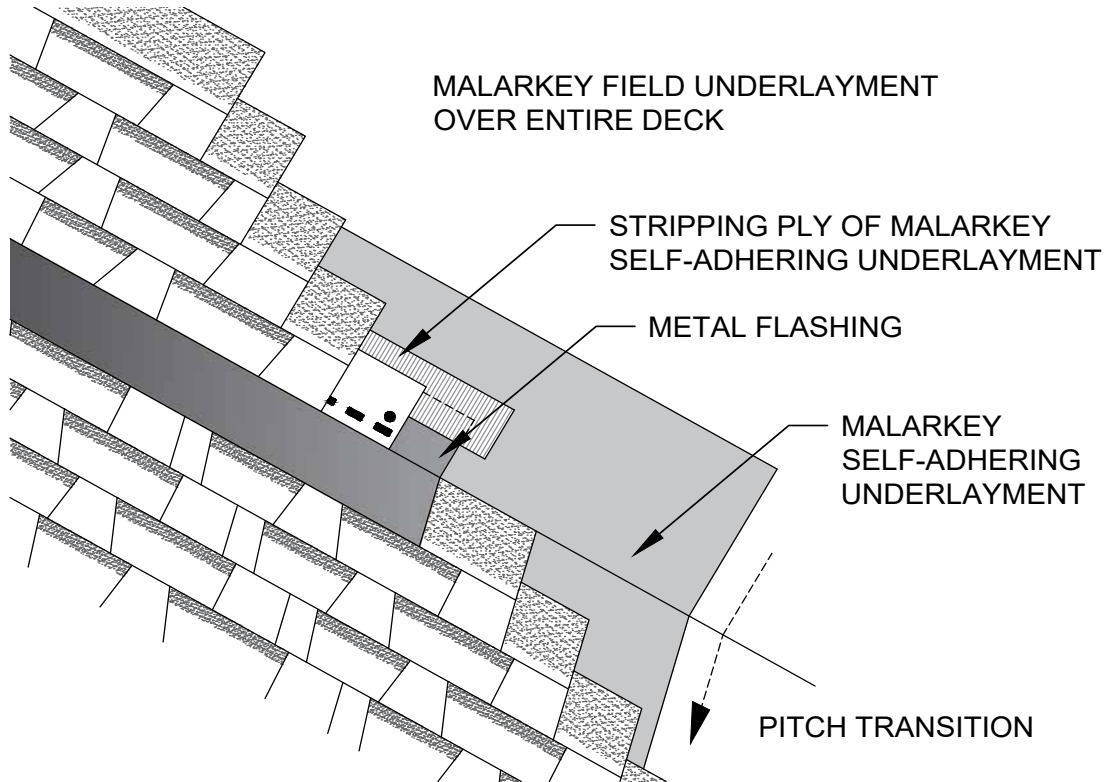


NOTES:

- OVER TRANSITION CHANGE, INSTALL MINIMUM HALF-WIDTH, MALARKEY SELF-ADHERING UNDERLAYMENT; CENTER OVER TRANSITION BREAK.
- SHINGLE UP TO THE TRANSITION BREAK.
- INSTALL 26 GA. CORROSION-RESISTANT METAL FLASHING (HEMMED EDGE ON DOWN-SLOPE SIDE IS OPTIONAL):
 - LAP LOWER FLANGE OVER SHINGLES ON THE DOWN-SLOPE SIDE; SECURE WITH GASKETED FASTENERS; SEAL JOINTS WITH A BEAD OF SEALANT.
 - NAIL UPPER FLANGE TO THE DECK ON THE UP-SLOPE SIDE.
 - STRIP-OFF UPPER FLANGE WITH MINIMUM 6"-WIDE (152 MM) MALARKEY SELF-ADHERING UNDERLAYMENT TO COVER FASTENERS: 3" (76 MM) ON THE FLANGE, 3" (76 MM) ON THE FIELD.
- RESUME SHINGLING UP THE ROOF OVER THE UPPER FLANGE OF THE FLASHING; AS YOU WOULD AT THE EAVE, BEGINNING WITH A STARTER SHINGLE.

STEEP SLOPE 31A - SEC

FLASHING SHINGLE-TO-SHINGLE TRANSITIONS, GAMBREL ROOF - ISO VIEW



NOTES:

-OVER TRANSITION CHANGE, INSTALL MINIMUM HALF-WIDTH, MALARKEY SELF-ADHERING UNDERLAYMENT; CENTER OVER TRANSITION BREAK.

-SHINGLE UP TO THE TRANSITION BREAK.

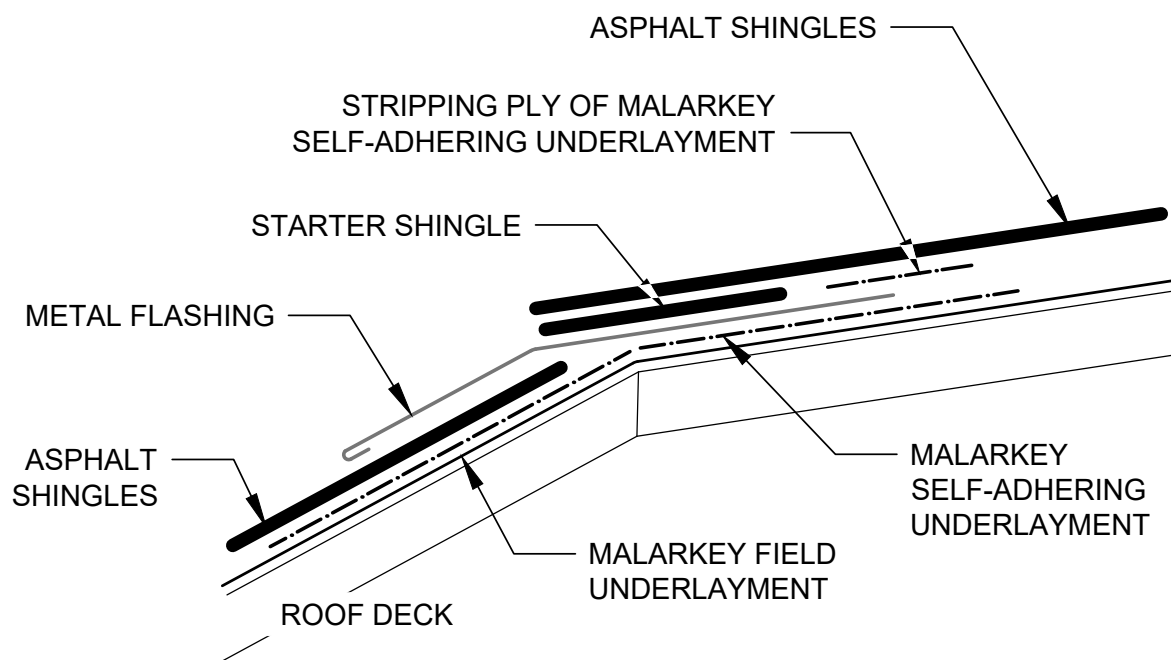
-INSTALL 26 GA. CORROSION-RESISTANT METAL FLASHING (HEMMED EDGE ON DOWN-SLOPE SIDE IS OPTIONAL):

- LAP LOWER FLANGE OVER SHINGLES ON THE DOWN-SLOPE SIDE; SECURE WITH GASKETED FASTENERS; SEAL JOINTS WITH A BEAD OF SEALANT.
- NAIL UPPER FLANGE TO THE DECK ON THE UP-SLOPE SIDE.
- STRIP-OFF UPPER FLANGE WITH MINIMUM 6"-WIDE (152 MM) MALARKEY SELF-ADHERING UNDERLAYMENT TO COVER FASTENERS: 3" (76 MM) ON THE FLANGE, 3" (76 MM) ON THE FIELD.

-RESUME SHINGLING UP THE ROOF OVER THE UPPER FLANGE OF THE FLASHING; AS YOU WOULD AT THE EAVE, BEGINNING WITH A STARTER SHINGLE.

STEEP SLOPE 31B - ISO

FLASHING SHINGLE-TO-SHINGLE TRANSITIONS, GAMBREL ROOF - SECTION VIEW



NOTES:

- OVER TRANSITION CHANGE, INSTALL MINIMUM HALF-WIDTH, MALARKEY SELF-ADHERING UNDERLAYMENT; CENTER OVER TRANSITION BREAK.
- SHINGLE UP TO THE TRANSITION BREAK.
- INSTALL 26 GA. CORROSION-RESISTANT METAL FLASHING (HEMMED EDGE ON DOWN-SLOPE SIDE IS OPTIONAL):
 - LAP LOWER FLANGE OVER SHINGLES ON THE DOWN-SLOPE SIDE; SECURE WITH GASKETED FASTENERS; SEAL JOINTS WITH A BEAD OF SEALANT.
 - NAIL UPPER FLANGE TO THE DECK ON THE UP-SLOPE SIDE.
 - STRIP-OFF UPPER FLANGE WITH MINIMUM 6"-WIDE (152 MM) MALARKEY SELF-ADHERING UNDERLAYMENT TO COVER FASTENERS: 3" (76 MM) ON THE FLANGE, 3" (76 MM) ON THE FIELD.
- RESUME SHINGLING UP THE ROOF OVER THE UPPER FLANGE OF THE FLASHING; AS YOU WOULD AT THE EAVE, BEGINNING WITH A STARTER SHINGLE.

STEEP SLOPE 31B - SEC