



Roofing

1245 West Hwy 96 Arden Hills, MN 55112

651-792-7800

www.cityofardenhills.org

This handout is intended only as a guide and is based in part on the 2020 Minnesota State Building Code, Arden Hills City ordinances, and good building practice. While every attempt has been made to insure the correctness of this handout, no guarantees are made to its accuracy or completeness. Responsibility for compliance with applicable codes and ordinances falls on the owner or contractor. For specific questions regarding code requirements, refer to the applicable codes or contact your local Building Department.

BUILDING PERMITS

Building permits are required for most projects including decks with the following exception: freestanding decks, regardless of size, if they are not more than 30 inches above adjacent grade. Freestanding decks do not require footings that extend below the frost depth.

Other projects that are exempt from permit are:

1. One story detached accessory structures that do not exceed 120 square feet in floor area.
2. Retaining walls not over 4 feet in height, measured from the bottom of the footing to top of wall.
3. Sidewalks and driveways not part of an accessible route. New driveways require a zoning permit.
4. Decks and platforms that are not part of an accessible route, less than 30" in height above adjoining grade, and not attached to a principal structure.
5. Painting, papering, tiling, carpeting, cabinets, counter tops unless it involves moving the sink.
6. Swings and other playground equipment.
7. Patios made of concrete or pavers on grade, installing gutters, counter tops
replace cabinets with-out changing the foot print.

Please note all work still needs to comply with all City code regulations.

Building permits can be obtained from the Building Department by filling out and signing an application and submitting your building plans. Building permits are typically processed within 5 -10 business days after receiving a complete set of plans. **If your application is incomplete it will delay your project.**

GENERAL NOTES

1. The stamped "Approved" plan and the Inspection Record Card shall be made available to the inspectors during their inspections. As per MN2020 IRC, in accordance with 1300.0120 Subp. 13, the building permit shall be kept on site of the work until the completion of the project. Pursuant to Minnesota Statutes, Section 15.41, It shall be posted in a prominent location in the area of construction. If the card is not on site, the inspection may be failed as per Subp. 12
2. Separate permits are required when installing electrical wiring, heating equipment, or plumbing fixtures. Contact the Building Inspection Division for information regarding plumbing and heating, or call the contracted electrical inspector for electrical information.
3. Call the Building Inspection Division between the hours of 8:00 a.m. and 4:30 p.m. to arrange for an inspection. Please provide the permit number with your request. Call the contracted Electrical Inspector between the hours of 7:00 a.m. and 8:30 a.m. to arrange for an inspection. Please provide the permit number with your request.

PERMIT EXPIRATION

If you suspend work on your project for more than 180 days since permit issuance or your last inspection, your permit will expire. If unforeseen circumstances delay construction, contact the Building Department **before** your permit expires.

PLANS

The Building Department has a handout illustrating what needs to be included on your plans. It is very important that your plans depict exactly how your project will be built. Plans must be neat and be of a scale of at least $\frac{1}{4}'' = 1'$. **Computer generated plans from home stores are not acceptable and will be returned.** Plans are reviewed for code compliance and a copy is returned to the applicant with notes to identify required corrections. The plan review can only be as good as the information provided on the plans. **PLEASE REVIEW THE PLANS WHEN THEY ARE RETURNED TO YOU SO THAT YOU WILL BE AWARE OF ANY CORRECTIONS NEEDED.** The City only maintains plans for one year after completion of a residential deck. You may wish to retain a copy of your approved plans, permits, and inspection recordcards for any future needs.

INSPECTIONS

1. Call 24 hours in advance or preferably 2 days in advance.
2. Have address, permit number, and type of inspection (ex. footing) ready.
3. Let the inspector know if you wish for an exact time and they will try to accommodate you.
4. Footing Inspection - Holes dug, loose material/water removed. Plans and record card on-site.
5. If work is approved, the inspector will sign the permit card and you may proceed with the next step.
6. Final Inspection - All work is complete plans and permit card on-site.
7. If corrections are noted, a correction notice will be left on the site. If a re-inspection is required it will be noted on the notice.

Please do not hesitate to call the Building Department at 651-792-7800. If necessary, we will be happy to meet with you on the site to help resolve any concerns or problems.

SCOPE

The scope of this handout will be limited to the installation of two types of roofing materials.

- Asphalt Shingles
- Mineral-surfaced Roll Roofing

PERMITS, INSPECTIONS, AND LICENSES

Building permits are required for all roofing projects. Permits can be obtained from the City of Maplewood, 1902 County Road B East. Permits are issued at the time of application.

The Building Department goal is to conduct one inspection for reroofing. Please provide photos of roof sheathing, underlayment, ice and water barrier, cut-in ridge vent, and any hard to see areas of flashing or roof vents. Place the photos with the permit in a visible spot for final inspection.

All contractors engaged in roofing work must have a state contractor's license and show proof of the licenseto obtain a permit. Specific questions regarding contractor licenses should be directed to the Minnesota Department of Labor and Industry, (651) 284-5069 or 1-800-342-5354.

DEBRIS

The removal of existing roofing materials often results in this debris moving about the neighborhood on windy days. Shingle wrappers and other construction debris are nuisances to other neighbors when they find this material in their yards. As you install a new roof on your dwelling, we ask that you exercise courtesy towards your neighbors by regularly policing your yard and adjoining areas for debris that mayblow around.

GENERAL

All roof covering materials must be delivered in packages bearing the manufacturers identifying marks and approved testing agency labels when required.

All asphalt shingles must be either self-sealing or interlocking.

Roof decks must be solidly sheathed for asphalt shingles or mineral-surfaced roll roofing. Solid sheathing may be plywood, OSB, or 1-inch nominal boards. Wood shingles and shakes may be applied over solid or spaced sheathing. Roof decks that are rotted or unsound must be repaired prior to reroofing.

UNDERLAYMENT PICTURES

A picture of the front of the house with the address visible and each slope is required along with flashing details such as crickets, stepped flashing.

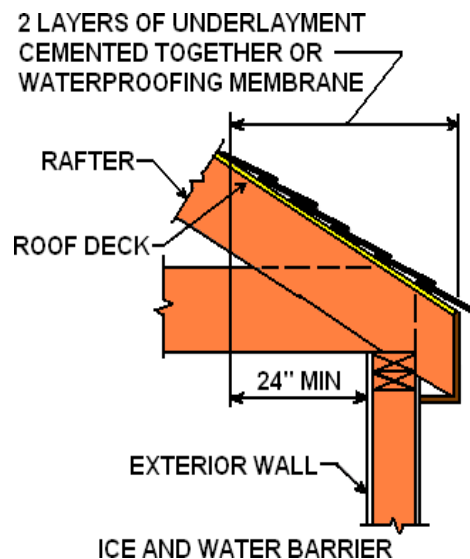
REROOFING

New roofing may be installed over an existing roof but shall be limited to a total of two layers. Existing flashing in good condition may be reinstalled. Any sheathing that is replaced must be installed and fastened according to the code.

ICE AND WATER BARRIERS

An ice and water barrier is required on all roofs except for detached accessory buildings (garages). The barrier may be at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet. There are several manufacturers who make materials specifically for this requirement that are marketed under differing trade names. The ice and water barrier must extend from the edge of the eaves to a point at least 24 inches inside the exterior wall line of the building. Ice and water barriers are not required along the rakes or in valleys.

Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane.



VALLEY LININGS

A valley lining of one of the following types shall be installed per manufacturer's installation requirements before applying shingles.

1. For open valleys: 24 inches wide, 26 gage galvanized metal or other corrosion resistant metal.
2. For open valleys: two piles of mineral surfaced roll roofing with bottom layer 18 inches wide and top layer at least 36 inches wide.
3. For closed valleys covered with shingles: one ply of smooth roll roofing at least 36 inches wide, or as described in items 1 and 2 is permitted, or one layer of self-adhering modified bitumen underlayment.

VENTILATION

Ventilation of enclosed attics and enclosed rafter spaces is required. Ventilating openings must be provided with corrosion-resistant mesh with openings of 1/8" to 1/4" inch.

For attics without ceiling vapor barriers, 1 square foot of net free ventilating area should be provided for each 150 square feet of attic area.

For attics with vapor barriers or without ceiling vapor barriers and having at least 50% but not more than 80% of the ventilating area provided by ventilators located in the upper portion of the space to be ventilated and at least 3 feet above the eave vents and the balance of the ventilation provided in the eavevents, ventilation may be 1 square foot of net free ventilating area for each 300 square feet of attic area.

DRIP EDGE/ GUTTERS

Application of roof edging must be according to shingle manufacturer requirements. In most cases, the shingle drip edge shall extend not less than 1/4 inch or more than 3/4 inch over the eaves edge.

FLASHING

Flashing is required at all wall and roof intersections wherever there is a change in roof slope or direction and around roof openings. When flashing is metal, it must be corrosion resistant metal with a thickness of not less than 0.019 inch (No. 26 galvanized sheet) (R903.2.). 4 inches high and 4 inches wide. Flashing against vertical front walls, soil stacks, vent pipes, and chimney flashing must be in accordance with the asphalt shingle manufacturer's printed instructions. Sidewall flashing may be either step flashing or continuous flashing and is required whenever wall and roof intersections occur.

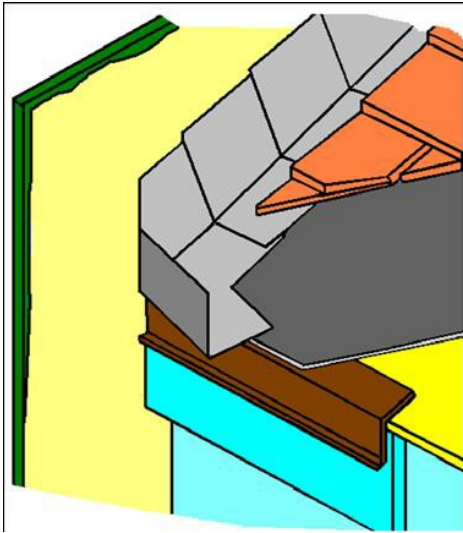
Crickets or saddles are required on the ridge side of any chimney greater than 30 inches wide. Cricket or saddle coverings must be of sheet metal or of the same material as the roof covering.

KICK-OUT FLASHING

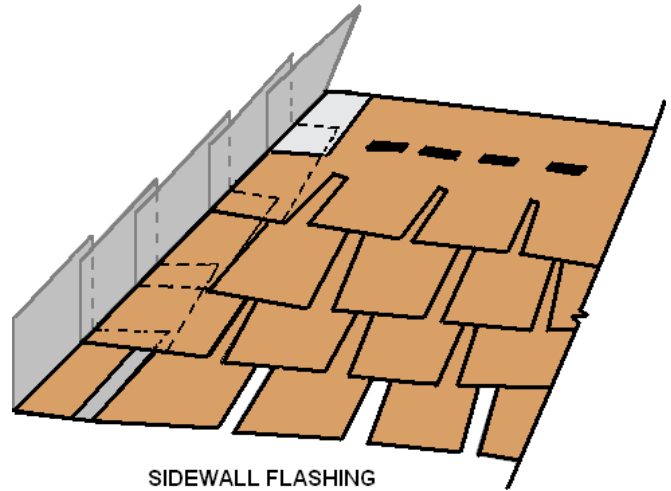
R903.2.1 Locations. Flashings shall be installed at wall and roof intersections, wherever there is a change in roof slope or direction and around roof openings. A kick-out flashing shall be installed to divert the water away from where the eave of a sloped roof intersects a vertical sidewall. The kick-out flashing on the roof shall be a minimum of 2 1/2" long. Where flashing is of metal, the metal shall be corrosion resistant with a thickness of not less than 0.019 inch (No. 26 galvanized sheet).

R903.2.1.1 Existing buildings and structures. Kick-out flashing shall be required in accordance with section R903.2.1 when simultaneously re-siding and re-roofing existing buildings and structures.

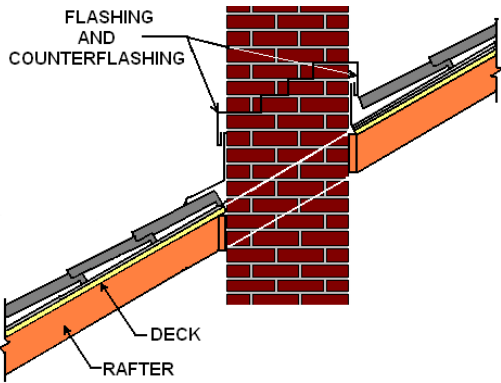
Exception: Kick-out flashings are not required when only re-roofing existing buildings and structures.



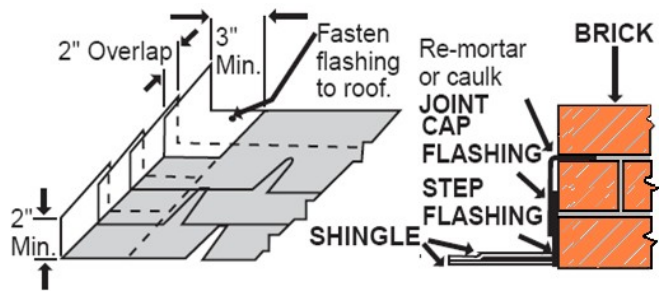
KICK-OUT FLASHING



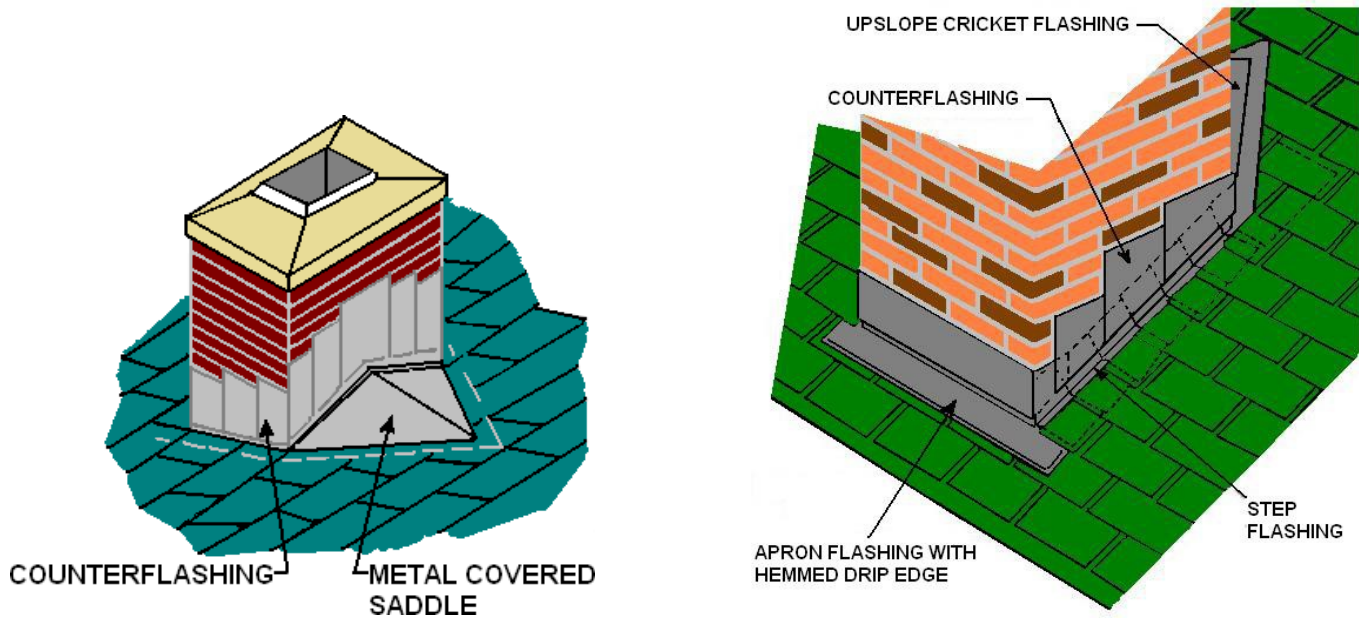
Sidewall flashing (26- Gauge)



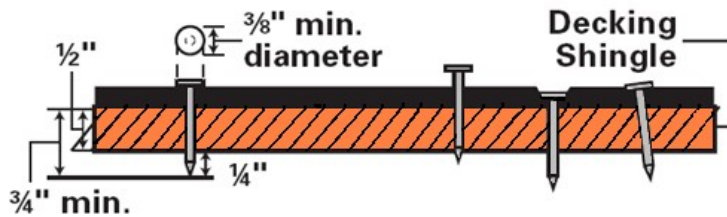
Sidewall flashing (26-Gauge)



Cricket or Saddle required if chimney is more than 30 inches wide



Properly Driven Improperly Driven



FASTENER SCHEDULE FOR ROOFING

Asphalt Shingles	Mineral-surfaced Roll Roofing	Wood Shingles	Wood Shakes
Fasteners for asphalt shingles must be galvanized steel, stainless steel, aluminum, or copper roofing nails, minimum 12 gauge shank with a minimum 3/8" diameter head and of a length to penetrate through the roofing materials and a minimum of 3/4" inch into roof sheathing or when roof sheathing is less than 3/4" thick, the fastener shall penetrate through the sheathing.	Roll roofing must be installed in accordance with the manufacturer's installation instructions.	Fasteners for wood shingles must be corrosion-resistant with a minimum penetration of 1/2" into the sheathing. For sheathing less than 1/2" in thickness, the fastener shall extend through the sheathing. A minimum of two fasteners per shingle are required.	Fasteners for wood shakes must be corrosion-resistant with a minimum penetration of 1/2" into the sheathing. For sheathing less than 1/2" in thickness, the fastener shall extend through the sheathing. A minimum of two fasteners per shake are required.

ASPHALT SHINGLES - R905.2

Asphalt shingles may only be used on roof slopes of two units vertical in 12 units horizontal (2:12) or greater. For roof slopes from 2:12 to 4:12, double underlayment is required. Underlayment must conform to ASTM D 226, Type I; ASTM D 4869, Type I; or ASTM D 6757. For slopes of 4:12 and greater, underlayment must be applied shingle fashion. Laps must be a minimum of 2-inches. End laps must be offset by at least 6 feet. For normal application, strip shingles must be fastened with a minimum of four nails. For interlocking shingles, two nails are required. See the manufacturer's installation instructions.

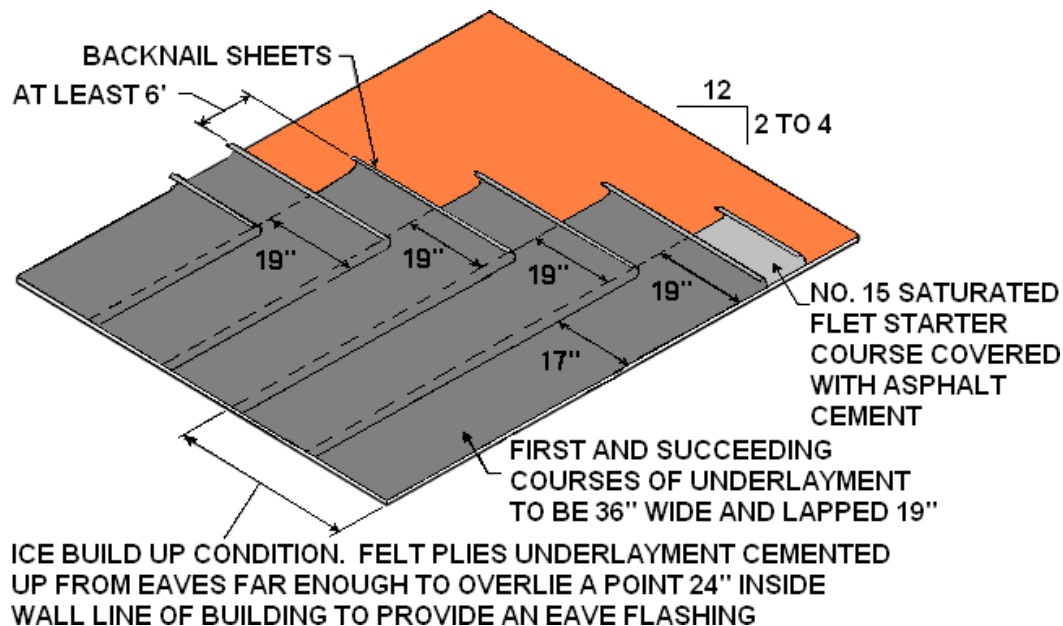
Valleys must be lined in accordance with the shingle manufacturers written instructions. In addition, valleys may be of any of the following:

- For open valleys lined with metal, the valley lining must be at least 24 inches wide and of galvanized steel of at least 26 gage or other approved materials.
- For open valleys, two plies of roll roofing may be permitted. The bottom layer must be at least 18 inches wide and the top layer at least 36 inches wide.
- For closed valleys (valleys covered with shingles), valley lining of one ply of smooth roll roofing complying with ASTM D 224 Type II or Type III and at least 36 inches wide or one of the two methods previously listed may be used.

MINERAL SURFACED ROLL ROOFING - R905.5

Mineral surfaced roll roofing may only be applied on roofs with a slope of 1:12 or greater. Mineral surface roll roofing must conform to ASTM D 3909 or ASTM D 6380, Class M.

Mineral surface roll roofing must be installed in accordance with the manufacturer's installation instructions.



NOTE: For specific code requirements, please contact the Building Inspection Division. Questions regarding design and cost should be referred to a professional builder or architect.

Building Inspector: 651-792-7818.

This handout is written as guide to common questions and problems.

It is not intended nor shall it be considered a complete set of requirements.