RE-ROOFING: ASPHALT SHINGLES

**Permit Requirements** A permit is required to reroof a residence. Permits may be obtained by either the homeowner or a contractor who is licensed by the State of Minnesota, Department of Labor and Industry.

**Building Code Authorization.** The City of Spring Lake Park has adopted the 2015 Minnesota Residential Code (MRC), effective date January 24, 2015. Chapter 9 of the 2015 MRC addresses both Roofing and Reroofing.

**Design, materials, and construction.** Section R901 of the MRC indicates that “The provisions of this chapter shall govern the design, materials, construction and quality of roof assemblies”.

**Reroofing requirements of the building code.** Chapter 9 of the 2015 MRC, Section R907.1 requires “Materials and methods of application used for recovering or replacing an existing roof covering shall comply with the requirements of Chapter 9.”

**Manufacturer’s installation instructions.** Chapter 9, Section R903.1 of the 2015 MRC requires that roof assemblies shall be designed and installed in accordance with this code and the approved manufacturer’s installation instructions. More specifically, Chapter 9, Section R905.1 requires that roof coverings be applied in accordance with this section and the manufacturer’s installation instructions.

**Number of layers of asphalt shingles allowed.** 2015 MRC, R907.3 “Condition three allows for a total of two layers of asphalt shingles before tear off is required”.

**Code requirements for 90 mph winds, 3-tab shingles, attachment, etc.** 2015 MRC, Table R301.2 (1), Basic wind speed criteria (90 mph). MRC R905.2.4.1 addresses wind resistance requirements for asphalt shingles. All asphalt shingles (including 3-tab shingles) bearing the packaging label “ASTM D 3161, Class D” are approved for 90 mph wind speeds. *Note: Class F, G, and H are approved for wind speeds greater than 90 mph.*

**Fasteners.** 2015 MRC, R905.2.6. Attachment of asphalt shingles shall be as required by the manufacturer. Attachment of wood shakes and wood shingles shall be as per the manufacturer’s installation instructions (usually a stainless steel fastener). Note: The most important factor in achieving a wind-stable roof is having the sealant strip attach the shingles together.

**Metal drip edge.** Is not required by the 2015 Minnesota Residential Building Code.

**Roof rafter space/attic ventilation.** Ventilation is required by the code to be upgraded or altered when reroofing per roofing and ice and water shield manufacturer’s warranty.
Roofing sheathing. The 2015 MRC Section R905.2.1 indicates that “Asphalt shingles shall be fastened to solidly sheathed decks or 1 inch thick nominal wood boards.”

GAF standard decks include:

- Plywood or OSB… 3/8” minimum thickness, C-D Exposure 1 APA Rated, as recommended by APA – The Engineered Wood Association.
- Wood planking… Nominal 1 inch thick minimum by 6 inch wide maximum. Wood planking, with a maximum 1/8” spacing at the ends and sides.

Note: For existing older installations, if spacing is greater than 1/8 inch and equal to or less than ¼ inch, install a double layer of underlayment. If the spacing is greater than ¼ inch, install a layer of 3/8” minimum thickness, C-D Exposure 1 APA Rated, plywood or OSB over the wood planking.

Weather factor. Temperature does play a major role in the storage and application of asphalt shingles. During cold weather as experienced here in Spring Lake Park, shingles can become brittle and even possibly crack or break when bent. They may even require to be hand sealed. Asphalt shingles should only be stored and applied as follows:

- In cold weather, for easiest handling, temperatures should be above 40° Fahrenheit.
- In hot weather, for easiest handling, temperatures should be below 90° Fahrenheit.

Asphalt roofing manufacturers. The following asphalt roofing manufacturers* are approved by the City of Spring Lake Park (ESR=Evaluation Service Report as published by the International Codes Council):

- CertainTeed
- GAF
- IKO
- Malarkey
- Owens Corning
- PABCO
- TAMKO

NOTE: The use of products manufactured by other asphalt roofing companies must be approved by the City of Spring Lake Park prior to use.

Ice barrier. (Ice and water shield) 2015 MRC R905.2.7.1 states the ice barrier shall extend from the lowest edges of all roof surfaces to a point at least 24 inches inside the exterior wall line of the building.

Exception: Detached accessory structures (garages and storage buildings) that contain no conditioned floor area are not required to have an ice barrier. MRC R907.3

Exception 4: 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 in accordance with Section R905.

Note A: Most manufacturers of ice barrier materials require a MINIMUM of two rows of ice barrier (no matter how little the roof overhang). Read the installation instructions.

Note B: Many manufacturers of ice barrier require that the ventilation of the roof rafters (or attic) be provided in accordance with Section R.905.

Low slope roofs. Asphalt shingles are not allowed on roof slopes of less than 2:12. For roof slopes from 2:12 to 4:12, two layers of underlayment or other approved material is required.
WALL TO ROOF FLASHING REQUIREMENTS

2015 Minnesota Residential Code Section R703.8 Flashing. Approved corrosion-resistant flashing shall be applied shingle-fashion in a manner to prevent entry of water into the wall cavity or penetration of water to the building structural framing components. Self-adhered membranes used as flashing shall comply with AAMA 711. The flashing shall extend to the surface of the exterior wall finish. Approved corrosion-resistant flashings shall be installed at all of the following locations:

1. Exterior window and door openings. Flashing at exterior window and door openings shall extend to the surface of the exterior wall finish or to the water-resistant barrier for subsequent drainage. Flashing at exterior window and door openings shall be installed in accordance with one or more of the following:
   a) The fenestration manufacturer's installation and flashing instructions, or for applications not addressed in the fenestration manufacturer's instructions. When flashing is not addressed in the fenestration manufacturer's instructions, it shall be installed in accordance with the flashing manufacturer's instructions;
   b) In accordance with the flashing design or method of a registered design professional.
   c) In accordance with other approved methods.
2. At the intersection of chimneys or other masonry construction with frame or stucco walls, with projecting lips on both sides under stucco copings.
3. Under and at the ends of masonry, wood or metal copings and sills.
4. Continuously above all projecting wood trim.
5. Where exterior porches, decks or stairs attach to a wall or floor assembly of wood-frame construction.
6. At wall and roof intersections.
7. At built-in gutters.
8. Where exterior material meets in other than a vertical line
9. Where the lower portion of a sloped roof stops within the plane of an intersecting wall cladding in such a manner as to divert water away from the assembly in compliance with Section R903.2.1.
10. At the intersection of the foundation and rim joist framing when the exterior wall covering does not lap the foundation insulation.

![Headwall Flashing Condition Diagram](image-url)
ROOF VENTILATION WORK SHEET

STEP 1: Determining Roof Area:
Roof area is determined by a flat, one dimensional area. There is no need to calculate cubic area or the numbers of squares. Only calculate conditioned spaces including attached garages. (Length in Feet x Width in feet = Area in square feet)

☐ Area A: Length (ft)_______ x’s Width (ft)_______ = _________ Square Feet.

☐ Area B: Length (ft)_______ x’s Width (ft)_______ = _________ Square Feet.

☐ Area C: Length (ft)_______ x’s Width (ft)_______ = _________ Square Feet.

Total Roof Area: ___________ Square Feet.

STEP 2: Determining Existing Roof Conditions:
Does the existing roof have soffit vents or gable end vents? This will determine the amount of ventilation required on the roof to meet code. (Look under the roof overhang or at the top of the triangular wall on a gable roof)

☐ The Existing Roof does not have Soffit Vents.
☐ The Existing Roof does have Soffit Vents.
☐ The Existing Gable End does not have Vents.
☐ The Existing Gable End does have Vents.

STEP 3: Determining Method of Venting Area Required:
Depending on the existing or non-existing ventilation checked on Step 2, determine the amount of roof ventilation area required.

☐ The Existing Roof does not have Gable and/or Soffit Vents:

Step 1 Area_______ (Sq. Ft.) Divided by 150 = _________ (Sq. Ft.) Total Roof Ventilation Area Required.

☐ The Existing Roof does have Gable and/or Soffit Vents:

Step 1 Area_______ (Sq. Ft.) Divided by 300 = _________ (Sq. Ft.) Divided by 2 = _________ (Sq. Ft)

Total Roof Ventilation Area Required.

STEP 4: Determining Number of Venting Fixtures:
By taking the total roof ventilation area required in Step 3, determine the number of venting fixtures required on the roof.

☐ Roof Louvers: Step 3 _______ Vent Area (Sq. Ft.) Divided by .416 = _______ Louvers Required.

☐ Turbines: Step 3 _______ Vent Area (Sq. Ft.) Divided by 4 = _______ Turbines Required.

☐ Ridge Vents: Step 3 _______ Vent Area (Sq. Ft.) Times by 8.3 = _______ Feet of Ridge Required.

I hereby testify that the above calculations are true and accurate. I have verified that any and/or all existing ventilation fixtures are in good operating order, free from obstructions, and function fully as required.

_________________________  ___________________________  ___________
Roofing Contractor/Homeowner Signature  State License Number (If Applicable)  Date
BUILDING PERMIT APPLICATION

Job Address ____________________________________________

Property Owner
Name ____________________________________________
Address ____________________________________________ Phone ________
Email ________________________________________________

Type of Property
☐ Commercial Property
☐ Industrial Property
☐ Mobile Home Property
☐ Multi-Family Property
☐ Public Property
☐ Single Family Property

Contractor
Name ____________________________________________
Address ____________________________________________ Phone ________
Email ________________________________________________

State License # __________________ Exp. Date __/__/______ Lead Cert. Date __/__/______

Type of Work
☐ Addition__________ ☐ Mobile Home
☐ Alteration _______ ☐ New ________
☐ Accessory < 200 Sq. Ft. ☐ Pool ________
☐ Basement Finish ☐ Remodel ________
☐ Concrete Work ☐ Repair ________
☐ Deck ________ ☐ Replace ________
☐ Demolition ________ ☐ Roofing ________
☐ Door Replacement ☐ Shed < 200 Sq. Ft. ________
☐ Dumpster Enclosure ☐ Siding ________
☐ Egress Window ☐ Structural Work ________
☐ Gypsum Board ☐ Window Replacement ________
☐ Insulation ________ ☐ Other ________
☐ Masonry Work

Applicant Same as ☐ Property Owner ☐ Contractor
Name ____________________________________________
Address ____________________________________________ Phone ________
Email ________________________________________________

Describe Work

___________________________________________________

Value of Work Including Labor _________________________ Start Date __/__/______ Estimated Completion Date __/__/______

Commercial/Industrial Submit two plan sets and specifications for commercial or industrial work.
Describe Building Use and/or Changes in Use

___________________________________________________

Notice
Separate permits are required for electrical, plumbing, heating, ventilating, and air conditioning. This permit becomes null and void if work or construction authorized is not commenced within 180 days or work is suspended or abandoned for a period of 180 days at any time after work is commenced.

I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provisions of any other State or local law regulating construction or the performance of construction. Initial here ______

☐ Contractor Signature ____________________________ Date of Application __/__/______

☐ Homeowner Doing Work in Homestead Signature __________________________ Date of Application __/__/______

If application is not fully completed, it will be denied at time of processing. Please verify that all necessary information is legible and plans are included with job cost estimates. Contact Permit Technician to verify all necessary information is provided before submitting.

Payment: We accept cash, checks payable to City of Spring Lake Park, or credit cards (with additional processing fees), at the front counter only.
Building Permit Applicant: Property Owner

I understand that the State of Minnesota requires that all residential building contractors, remodelers and roofers obtain a state license unless they qualify for a specific exemption from the licensing requirements. By signing this document, I attest to the fact that I am building or improving this house myself. I hereby claim to be exempt from the state licensing requirements because I am not in the business of building on speculation or for resale and that the house for which I am applying for this permit, located at __________________________ is the first residential structure I have built or improved the past twenty-four (24) months. I also acknowledge that because I do not have a state license, I forfeit any mechanic’s lien rights to which I may otherwise have been entitled under Minnesota Statute 514.01. In the event that I do construct or improve another residential structure in the next 24 months, I will not do so until I obtain the required state license, per Minnesota Statute 326.84, understanding that failure to do so is a misdemeanor under state law.

Furthermore, I acknowledge that I may be hiring independent contractors to perform certain aspects of the construction or improvement of this house and I understand that some of these contractors may be required to be licensed by the State of Minnesota. I understand that unlicensed residential contracting; remodeling and/or roofing activity is a misdemeanor under Minnesota Statute 326.92, subdivision 1, and that I would forfeit my rights to reimbursement from the Contractor’s Recovery Fund in the event that any contractors I hire are unlicensed.

I also acknowledge that as the contractor on this project, I am solely and personally responsible for any violations of the state building code and/or city ordinance in connections with the work performed on this property.

_________________________________________
Signature of Property Owner

date ___________ dd/mm/yr