

CODE CHANGE PROPOSAL FORM

(Must be submitted electronically)

Author/requestor: [Greg Olson](#)

Date: [7/28/25](#)

Email address: golson@olsonassociatesconsulting.com

Model Code: [2024 IRC](#)

Telephone number: [651-301-2107](#)

Code or Rule Section: [R908.5](#)

Firm/Association affiliation, if any: [SEMCO](#)

Topic of proposal: [Reuse of asphalt](#)

[shingles](#)

Code or rule section to be changed: [R908.5](#)

Intended for Technical Advisory Group ("TAG"): [Residential 1309 TAG](#)

General Information

Yes No

- | | | |
|--|-------------------------------------|-------------------------------------|
| A. Is the proposed change unique to the State of Minnesota? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| B. Is the proposed change required due to climatic conditions of Minnesota? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| C. Will the proposed change encourage more uniform enforcement? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| D. Will the proposed change remedy a problem? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| E. Does the proposal delete a current Minnesota Rule, chapter amendment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| F. Would this proposed change be appropriate through the ICC code development process? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Proposed Language

1. The proposed code change is meant to:

☒ change language contained the model code book? If so, list section(s).

[R908.5](#)

☐ change language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

☐ delete language contained in the model code book? If so, list section(s).

☐ delete language contained in an existing amendment in Minnesota Rule? If so, list Rule part(s).

☐ add new language that is not found in the model code book or in Minnesota Rule.

2. Is this proposed code change required by Minnesota Statute? If so, please provide the citation.

No

3. Provide *specific* language you would like to see changed. Indicate proposed new words with underlining and ~~striketrough~~ words proposed for deletion. Include the entire code (sub) section or rule subpart that contains your proposed changes.

R908.5 Reinstallation of materials. Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Any existing flashings, edgings, outlets, vents or similar devices that are a part of the assembly shall be replaced where rusted, damaged or deteriorated. Aggregate surfacing materials, which include asphalt shingles, shall not be reinstalled. Aggregate ballast roof material is permitted for reinstallation when the aggregate material in question complies with ASTM C-33 requirements.

4. Will this proposed code change impact other sections of a model code book or an amendment in Minnesota Rule? If so, please list the affected sections or rule parts.

No

Need and Reason

1. Why is the proposed code change needed? Please provide a general explanation as well as a specific explanation for any changes to numerical values (heights, area, etc.)

[Please see attached Letter of Opinion.](#)

2. Why is the proposed code change a reasonable solution?

[Codifies States outlined position in Inquiry #2009-02](#)

3. What other factors should the TAG consider?

Cost/Benefit Analysis

1. Will the proposed code change increase or decrease costs? Please explain and provide estimates if possible.

[No change in cost per Inquiry #2009-02](#)

2. If there is an increased cost, will this cost be offset by a safety or other benefit? Please explain. If the benefit is quantifiable (for example energy savings), provide an estimate if possible.

No

3. If there is a cost increase, who will bear the costs? This can include government units, businesses, and individuals.

NO

4. Are there any enforcement or compliance cost increases or decreases with the proposed code change? Please explain.

No

5. Will the cost of complying with the proposed code change in the first year after the rule takes effect exceed \$25,000 for any one small business or small city ([Minn. Stat. § 14.127](#))? A small business is

any business that has less than 50 full-time employees. A small city is any statutory or home rule charter city that has less than ten full-time employees. Please explain.

NO

Regulatory Analysis

1. What parties or segments of industry are affected by this proposed code change?

All residential licensed categories and the insurance industry.

2. Can you think of other means or methods to achieve the purpose of the proposed code change? What might someone opposed to this code change suggest instead? Please explain what the alternatives are and why your proposed change is the preferred method or means to achieve the desired result.

No

3. What are the probable costs or consequences of not adopting the code change, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals?

If not adopted, there will be continued pressure by insurance companies to reduce their payout at the expense of the code and durability of the residential house being repaired.

4. Are you aware of any federal or state regulation or requirement related to this proposed code change? If so, please list the federal or state regulation or requirement and your assessment of any differences between the proposed code change and the federal regulation or requirement.

No

***Note: The information you provide in this code change proposal form is considered Public Data and used by the TAG to consider your proposed modification to the code. Any code change proposal form submitted to DLI may be reviewed at public TAG meetings and used by department staff and the Office of Administrative Hearings to justify the need and reasonableness of any proposed rule draft subject to administrative review and is available to the public.

***Note: Incomplete forms will be returned to the submitter with instruction to complete the form. Only completed forms will be accepted and considered by the TAG. The submitter may be asked to provide additional information in support of the proposed code change.

Date: 10/9/2024

Reason for Retention of Services

Olson Associates Consulting, LLC (hereafter "OAC") has been asked to opine on behalf of licensed residential contractors, licensed residential remodelers, and licensed residential roofers (hereafter "Contractor") on State Farm Insurance's position on the removal of exposed roof valley metal and the reuse of existing shingles that have been removed from a roof deck as these actions relate to the Minnesota Residential Building Code and manufacturers specifications.

I. Summary of Conclusions

- A. As written, State Farm Insurance's scope of work which directs a licensee to remove and reuse installed shingles is in violation of the 2020 Minnesota Residential Building Code.
- B. Any person who performs the work as directed by State Farm Insurance's scope of work would be in violation of the Minnesota Residential Building Code and as such in jeopardy of enforcement action from the enforcement division of the Minnesota Department of Labor and Industry.

II. My Qualifications

I hold or have held the following license or designations.

- A. MN LBO776568, this license is granted to individuals who have passed the MN Building Official Limited Exam allowing the licensee to perform code administration for one- and two-family dwellings, their accessory structures, and "exempt classes of buildings" as provided in Minnesota Rules, part 1800.5000, of the Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design, and "facilities for persons with physical disabilities" that are governed by the State Building Code.
- B. MN QB702200, this designation is granted by the Minnesota Department of Labor and Industry to individuals who have sat for and passed the MN State Residential Contractors Exam.
- C. MN DLI S1656014, this designation is granted to Entities by the Minnesota Department of Labor and Industry to provide Continuing Education training to licensed Building Officials, Residential Contractors, Residential Remodelers, Residential Roofers, and Manufactured Housing Contractors.
- D. Omaha Class A Construction License 1800584, this is a "heavy" commercial license granted after successfully passing the International Code Council W11-National Standard General Building Contractor (A) Exam.
- E. WI DCQ897172, this designation is granted by the Wisconsin Department of Safety and Professional Services to individuals who have attended a WI DSPS approved course of study and passed a WI DSPS approved Residential Contractors Exam.
- F. WI DSPS ID 1278293, this designation is granted to Entities by the Wisconsin Department of Safety and Professional Services to provide Continuing Education training to licensed Residential Contractors.
- G. Vice President and member in good standing of the Southeast Minnesota Code Officials, and provides MN DLI approved continuing education to its members.

My full CV is attached to this document as Appendix A.

III. Law, Rule, and Code in effect at time of the proposed Work for Insurance Proceeds.

- A. OAC reviewed two State Farm Insurance Documents (Appendix B), one for repair work for a client named HOME OWNER 1 (hereafter "HOME OWNER 1") and one for HOME OWNER 2 (hereafter "HOME OWNER 2") for repair work to their respective home that are covered by State Farm Insurance. The HOME OWNER 1 document is dated 9/2/24 and the HOME OWNER 2 document is dated 8/25/23 Making the 2020 Minnesota Residential Code (hereafter "Code") the applicable Code.

- B. MN Rule 1309.0010 Subpart 1. states the following.

The 2018 edition of the International Residential Code ("IRC") as promulgated by the International Code Council, Inc. ("ICC"), Washington, D.C., is incorporated by reference and made part of the Minnesota State Building Code except as qualified by the applicable provisions in Minnesota Rules, chapter 1300, and as amended in this chapter.

- C. MN Rule 1300.0030 Subpart 2. A. states the following.

The State Building Code is the standard that applies statewide for the construction, reconstruction, alteration, and repair of buildings and other structures of the type governed by the code.

- D. MN Rule 1300.0040 Subp. 2., Compliance states the following.

Structures classified under part 1300.0070, subpart 12b, as IRC-1, IRC-2, IRC-3, and IRC-4 occupancies not more than three stories above grade plane in height with a separate means of egress shall comply with Chapter 1309 and other applicable rules.

- E. MN Rule 1300.0110 Subp. 13, Alternative materials, designs, and methods of construction and equipment, states the following.

The code is not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by the code, provided that any alternative has been approved. An alternative material, design, or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the code, and that the material, method, or work offered is, for the purpose intended, at least the equivalent of that prescribed in the code in quality, strength, effectiveness, fire resistance, durability, and safety. The details of any action granting or denying approval of an alternate shall be recorded and entered in the files of the Department of Building Safety. The permit applicant may request written documentation of the denial, including the reasons for the denial.

- F. 1300.0120 Permits Subp. 14, Responsibility states the following.

Every person who performs work for the installation or repair of building, structure, electrical, gas, mechanical, or plumbing systems, for which the code is applicable, shall comply with the code. The person, firm, or organization securing the permit is responsible for code compliance for the work being performed.

- G. MN Rule 1300.0140 Violations states the following.

It is unlawful for any person, firm, or corporation to erect, construct, alter, extend, repair, move, remove, demolish, or occupy any building, structure, or equipment regulated by the code, or cause any of those actions, in conflict with or in violation of the code. The building official may serve a notice of violation or order on the person responsible for the erection, construction, alteration, extension, repair, moving, removal, demolition, or occupancy of a building or structure in violation of the code, or in violation of a permit or certificate issued under the code. The order shall direct the discontinuance of the illegal action or condition and the abatement of the violation.

- H. MN Rule 1300.0150 Violations, Penalty states the following.

A violation of the code is a misdemeanor under Minnesota Statutes, Section 326B.082.

- I. MN Rule 1300.0230 Subp 5. Final interpretive authority states the following.

In accordance with Minnesota Statutes, Section 326B.127, subdivision 5, the commissioner has final interpretive authority to all codes adopted as part of the State Building Code, except for the State Plumbing Code, the State Electrical Code, and the State High Pressure Piping Code.

- J. MN Rule 1300.0070 Subp. 24. State Building Official states the following.

"State Building Official" means the person who, under the direction and supervision of the commissioner, administers the code.

- K. MN Statute 326B.805 Licensing Requirements.

Subdivision 1. Persons required to be licensed. A person who meets the definition of a residential building contractor as defined in section 326B.802, subdivision 11, must be licensed as a residential building contractor by the commissioner. A person who meets the definition of a residential remodeler as defined in section 326B.802, subdivision 12, must be licensed by the commissioner as a residential remodeler or residential building contractor.

- L. 326B.802, subdivision 11 Residential building contractor.

Subd. 11. Residential building contractor. "Residential building contractor" means a person in the business of building residential real estate, or of contracting or offering to contract with an owner to build residential real estate, by providing two or more special skills as defined in this section. A residential building contractor may also contract or offer to contract with an owner to improve existing residential real estate.

- M. 326B.802, subdivision 12 Residential remodeler.

Subd. 12. Residential remodeler. "Residential remodeler" means a person in the business of contracting or offering to contract with an owner to improve existing residential real estate by providing two or more special skills as defined in this section.

- N. MN Statute 326B.84 Grounds for Sanctions, Subd. (6) states the following.

(6) has been convicted of a violation of the State Building Code or has refused to comply with a correction order issued by a certified building official, or in local jurisdictions that have not adopted the State Building Code has refused to correct a violation of the State Building Code when the violation has been documented by a certified building official;

- O. R905.2.8.2 Valleys.

Valley linings shall be installed in accordance with the manufacturer's instructions before applying shingles. Valley linings of the following types shall be permitted:

1. For open valleys (valley lining exposed) lined with metal, the valley lining shall be not less than 24 inches (610 mm) wide and of any of the corrosion-resistant metals in Table R905.2.8.2.

- P. R908.3 Roof Replacement states the following.

Roof replacement shall include the removal of existing layers of roof coverings down to the roof deck.

Exception: 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.

- Q. R908.5 Reinstallation of materials.

Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Any existing flashings, edgings, outlets, vents or similar devices that are a part of the assembly shall be replaced where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled.

IV. Observations.

A. Index of reviewed items.

1. The 2020 Minnesota Residential Code.
2. Minnesota Department of Labor and Industry. (2009, May). *Reinstallation of Aggregate Surfacing Materials* (Inquiry No. 2009-02).
3. GAF Pro Field Guide vs 2.
4. GAF Technical Advisory Bulletin, TAB-R-136, Valley Flashing Options.
5. GAF Technical Advisory Bulletin, TAB-R-149 California Valleys-Open.
6. Owens Corning Technical Bulletin, TB-10024108, Owens Corning's Recommendations and Details for Installation of Open Valleys.
7. Gibraltar Building Products, Installation Guidelines, #V24G, W-Valley Flashing
8. HOME OWNER 1 INSURANCE CARRIER Insurance Eagle View Scope of Work.
9. HOME OWNER 2 INSURANCE CARRIER Insurance Structural Damage Claim Policy.
10. Emails From INSURANCE CARRIER addressing HOME OWNER 1 Work for Insurance Proceeds.

B. Summary of the Scope of Work authorized by INSURANCE CARRIER Insurance.

1. HOME OWNER 1 Scope.

- a) The HOME OWNER 1 Scope of Work is an incomplete document as it only contains the Eagle View Roof & Walls portion of the full document. However, this page does itemize the work to be performed, specifically where State Farm Insurance directs the contractor to "Detach shingles along the valley and install the same shingles on the valley." three times in this document. See the referenced excerpt below.

The following items are to perform the repairs on the valley metal. Detach shingles along the valley and install the same shingles on the valley.

4. Remove 3 tab - 25 yr. - composition shingle roofing - incl. felt

3.88 SQ	83.30	0.00	323.20			323.20
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The following items are to perform the repairs on the valley metal. Detach shingles along the valley and install the same shingles on the valley.

5. R&R Valley metal - (W) profile

97.08 LF	9.71	26.99	969.64	16/35 yrs Avg.	(443.27) 45.71%	526.37
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6. Install 3 tab - 25 yr. - composition shingle roofing - incl. felt

3.88 SQ	219.79	0.00	852.79			852.79
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The following items are to perform the repairs on the valley metal. Detach shingles along the valley and install the same shingles on the valley.

7. Roofer - per hour

4.85 HR	194.60	0.00	943.81			943.81
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Labor to manipulate shingles to facilitate valley metal and Self-Adhered Waterproof Membrane

2. HOME OWNER 2 Scope.

- a) The HOME OWNER 2 document appears to be the complete Structural Damage Claim Policy. On page 5 is the allowance for replacement of 5 metal roof vents, 96 linear feet of W style valley metal, and three hours labor. There is no allowance for new shingles.

This scope of work, while not stating it directly, implies that the contractor is to reuse the existing shingles as no new shingles are accounted for in the document.

C. Manufacturers Specifications.

1. GAF.

- a) Install WeatherWatch® or StormGuard® over the entire valley length and then install Roof Deck Protection with a minimum 6" (152 mm) overlap into the valley.
- b) Center valley metal (aluminum, galvanized steel, or copper, 24-gauge minimum thickness) in the valley and nail the metal on the edges... place nails so nailheads hold the metal but do not puncture the metal. Metal must be a minimum of 20" (508 mm) wide and wide enough so that the vertical shingles installed at the eave edge overlap the metal by at least 4" (102 mm). (See step #3)
- c) Snap a chalk line 3" (76 mm) back from the valley centerline at the top and widening 1/8:12 to the eave edge on each side of the valley centerline.
- d) Install one row of shingles, end-to-end, with the butt edge towards the valley, along each chalk line (see Fig.1).
- e) Fasten the two rows of shingles in the valley with 4 nails per shingle along the nail line.
- f) To complete the valley, start from the valley and work towards each rake edge. Position each shingle starting a course with the tip of the shingle at the butt edge of the vertically installed shingle. Fasten shingles as usual with the exception of staying 6" (152 mm) away from the valley centerline. Start the first course with a full length shingle; the second course with enough trimmed off of the shingle to maintain a 6" (152 mm) offset from the first course; the third course trimmed to maintain a 5" (127 mm) offset from the second course; the fourth course trimmed to maintain a 6" (152 mm) offset from the third course; and the fifth course should start the pattern over again with a full shingle.

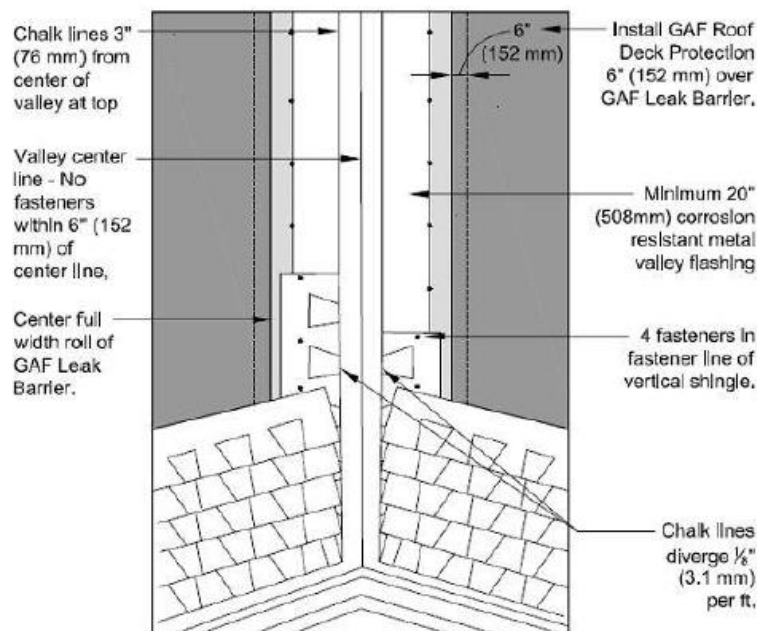
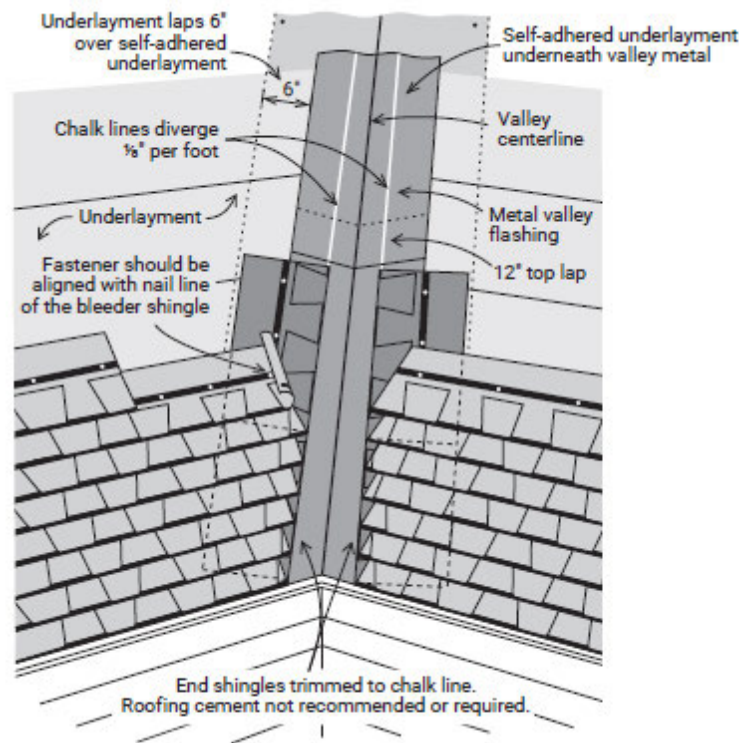


Figure 1: California Open Valley

2. Owens Corning, Open Valleys.

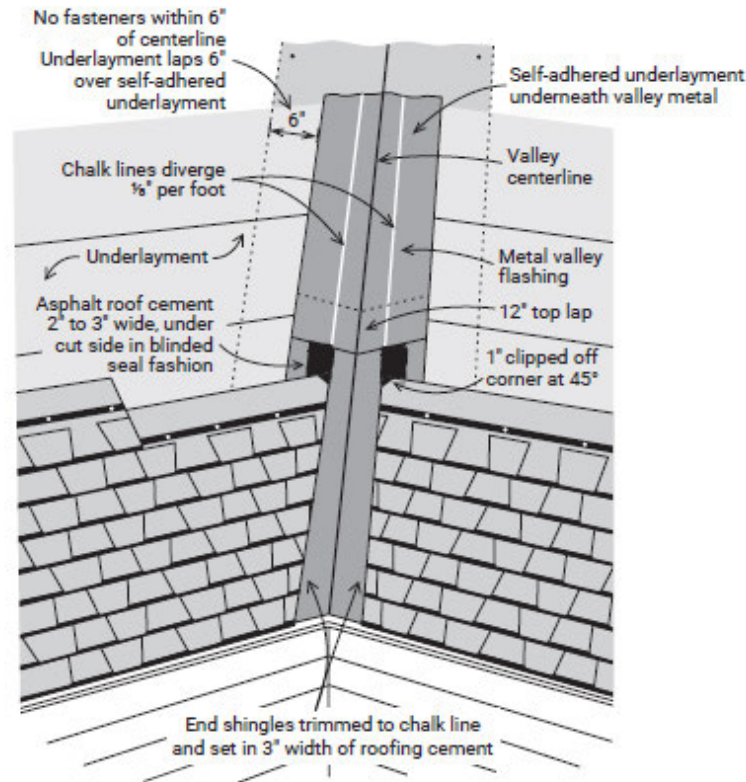
- a) The valley must be covered with a self-adhered underlayment that is a minimum of 36 inches wide. The self-adhered underlayment must meet ASTM D1970. Center the self-adhered underlayment in the valley, securing with only enough nails to hold it in place. All end laps should overlap 6 inches.
- b) Install a minimum 26-gauge metal flashing that is at least 24 inches wide. Center the metal flashing in the valley. Trim the lower edge flush with the eave drip edge. If two or more pieces of flashing are required, lap the upper piece over the lower so that drainage will be carried over the joint, not into it. The overlap should be at least 12 inches and fully bonded with ASTM D4586 roofing cement. Nails should be placed 8 to 12 inches apart, and 1 inch from the edge. Start on one side and work all the way up. Then return to nail the other side, pressing the flashing firmly into the valley at the same time.
- c) It is recommended to snap a chalk line 3 inches on either side of the valley from top to bottom, diverging an 1/8 inch per foot. Install a bleeder shingle along the chalk lines, with the head lap away from the chalk line. Install with a standard nailing pattern. Install full shingles with the bottom corner to the edge of the bleeder shingle. Use the standard nailing pattern, except for the nail closest to the valley. Install this nail in the nail line of the bleeder below.
- d) Roofing cement is not recommended or required with this application. Installing roofing cement can trap water at bleeder end joints if installed incorrectly. If roofing cement is installed under the bleeder shingles, it must be installed at or above the nail line.
- e) Keep in mind, with certain roof pitches, running the book pattern from the bleeder can affect shingle offset. Shingle offset can be no less than 4 inches for correct installation.



3. Owens Corning, Open Valley Alternate Method.

- a) It is recommended to snap a chalk line 3 inches on either side of the valley from top to bottom. Diverge an 1/8 inch per foot, top to bottom.

- b) Install a 3 inch to 4 inch wide bed of ASTM D4586 roofing cement along the chalk line. The bed of roofing cement should be about 1/8 inch thick. Too much roofing cement can blister the shingles. The roofing cement prevents water from washing under the cut shingles, and provides wind resistance.
- c) Install full shingles in a book like pattern, lining up the top corners with the chalk line. Install with the standard nailing pattern. Hold nails back at least 6 inches from the center line. Make sure there is an offset greater than 4 inches on the shingle below, and install with the standard nailing pattern. Hold nails back at least 6 inches from the centerline of the valley.
- d) The corners must be clipped. Cut the top point of each shingle one to two inches back at a 45 degree angle. Clipping the corners will allow water traveling down the valley to be deflected back into the valley.



V. Summation and Opinion.

- A. It is my opinion that this Opinion Letter did not need to be drafted as the question of whether or not an asphalt shingle is permitted to be reused after it has been removed from a residence was answered in 2009 by then Minnesota State Building Official Stephen Hernick in answering the question, "When reroofing, what does the code mean by the provision; "Aggregate surfacing materials shall not be reinstalled.""

Hernick's summary statement clearly states that asphalt shingles are not to be reused.

*In summary the only roof surfacing materials permitted for reinstallation include slate, clay or cement tile when not damaged, cracked or broken associated with the whole roof surface area (**asphalt shingles are not permitted to be reinstalled**). Aggregate ballast roof material is permitted for reinstallation when the aggregate material in question complies with ASTM C-33 requirements. (Emphasis mine)*

This above quote added the statement, "*asphalt shingles are not permitted to be reinstalled*" to further clarify that Minnesota Residential Code, R908.5 Reinstallation of materials' when discussing that "*Aggregate surfacing materials shall not be reinstalled*" includes asphalt shingles.

- B. While Hernick does not need me to opine on his clarification of R908.5 to include asphalt shingles, State Farm Insurance has brought this closed issue back to the forefront in Minnesota by providing a scope of work for insurance proceeds which is in violation of MN Code as clarified by Hernick.

In State Farm Insurance's scope of work for the HOME OWNER 1 claim, they require that the existing shingles be reused with the following statement, *"Detach shingles along the valley and install the same shingles on the valley"*. As pointed out above in this document regarding the HOME OWNER 2 scope of work, State Farm Insurance does not include replacement shingles, only metal valley flashing.

When pressed by the contractor of record on this issue during a phone call, it has been relayed to me that a State Farm Insurance representative responded that it is possible not only to reuse the existing shingles, in some cases it is possible to remove and replace the valley flashing without opening up the existing shingles.

Additionally, State Farm Insurance Claim Specialist Johnny Fluitt in an email states that *"Per our conversation I have not received supporting evidence from [a] building code inspector, on letter head pertaining to the specific address that you are referencing. State Farm Insurance maintains its position on the repair of the valley metal. Any documentation sent to the claim will be reviewed."*

It is my opinion that it is not possible to replace the valley metal while leaving the existing shingles in place without potentially damaging these shingles and creating a source of water intrusion in an already susceptible location on the roof deck. Depending on the age of the structure, not only would the water intrusion happen during the warm months, but damage to the shingles in valleys would open the roof up to greater risk of water intrusion due to ice dams in the cold months of the year.

I base this opinion on the above manufacturers specifications for installing valley flashing and the nailing requirements contained in these specifications. A graphic representation of where these nails are located, and how many shingles this would affect was presented to State Farm Insurance by the contractor of record. The contractor of record expertly diagrams on top of the shingles not only the nail placement in the shingles, but shows the extent of how much of the roof surface would need to be opened up to facilitate replacing the valley flashings. Below are some of the images with narrative from the contractor of records letter.

10



Remove and replace all connecting shingles including ridge shingles highlighted.

24" valley metal is 10-3/4" on each side of "W" style center.

Minnesota code requires min 36" underlayment ice and water barrier underneath the valley metal with overlapping felt BEFORE the new valley metal is secured in place.

Project: [REDACTED]
 Date: 9/30/2023, 3:30pm
 Creator: [REDACTED]

11



Remove and replace highlighted "RR". Ice and water barrier required with roofing felt 6" overlap.

Project: [REDACTED]
 Date: 3/12/2024, 11:57am
 Creator: [REDACTED]

12



the Starter shingle is laminated. Roofing style coined "Open Valley California Cut". This row must be removed to access any remaining nails into metal flashing itself.

Project: [REDACTED]
 Date: 3/12/2024, 11:58am
 Creator: [REDACTED]

15



Project: [REDACTED]
 Date: 3/12/2024, 12:05pm
 Creator: [REDACTED]

During the valley metal replacement, the shingles will need to be replaced.



Project: [REDACTED]
 Date: 3/12/2024, 12:05pm
 Creator: [REDACTED]

Furthermore, as State Farm Insurance is calling for the replacement of the valley metal this is a partial roof replacement under R908.3 Roof Replacement, and as such any existing ice barrier would need to be removed if possible and if not, a new layer would need to be installed over the top of the existing ice barrier. Examination of both provided State Farm Insurance's Scope of Works does not appear to provide for new ice barriers under the valley flashing as required by Code.

- C. It is my opinion that if the contractor of record, or any Contractor were to proceed as directed by State Farm Insurance they would be in violation of MN Rule 1300.0150 which states that a violation of the code is a misdemeanor under Minnesota Statutes, Section 326B.082, and would be in jeopardy of enforcement action by the enforcement division of the Minnesota Department of Labor and Industry.
- D. It is my intention as a voting member of the Department of Labor and Industry's Technical Advisory Group for the Adoption of the 2024 International Residential Code to put forth an amendment to the Minnesota Residential Code to codify in Code Stephen Hernick's 2009 code opinion with the following.

Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Any existing flashings, edgings, outlets, vents or similar devices that are a part of the assembly shall be replaced where rusted, damaged or deteriorated. Aggregate surfacing materials, which include asphalt shingles, shall not be reinstalled. Aggregate ballast roof material is permitted for reinstallation when the aggregate material in question complies with ASTM C-33 requirements.

I give permission to any Minnesota Department of Labor and Industry staff member, Minnesota licensed building official, Minnesota licensed contractor, Minnesota licensed remodeler, Minnesota licensed roofer, or Minnesota registered contractor use of this Opinion Letter.

I express these opinions to a reasonable degree of certainty based on my fields of expertise as a licensed building official, construction consultant, and former licensed contractor.

Respectfully,

A handwritten signature in black ink, appearing to read 'G. Olson', with a stylized flourish at the end.

Greg Olson

Owner

Olson Associates Consulting, LLC

Licensed MN Building Official, LB776568

golson@olsonassociatesconsulting.com

olsonassociatesconsulting.com

Appendix A,
Greg Olson's CV

[REST OF PAGE LEFT INTENTIONALLY BLANK]

Greg Olson

29491 Hay Creek Trail

Red Wing, MN 55066

651-301-2107

golson@olsonassociatesconsulting.com

Education

BS, Education, University of Wisconsin, River Falls WI, Spring 1990

Professional Qualifications**Licensed MN Building Official: MN LBO776568 (Current)**

This license is granted to individuals who have passed the MN Building Official Limited Exam allowing the licensee to perform code administration for one- and two- family dwellings, their accessory structures, and "exempt classes of buildings" as provided in Minnesota Rules, part 1800.5000, of the Board of Architecture, Engineering, Land Surveying, Landscape Architecture, Geoscience, and Interior Design, and "facilities for persons with physical disabilities" that are governed by the State Building Code.

Omaha Class A Construction License 1800584 (Held)

This is a "heavy" commercial license granted after successfully passing the International Code Council W11-National Standard General Building Contractor (A) Exam.

MN Qualifying Builder: MN QB702200 (Current)

This designation is granted by the Minnesota Department of Labor and Industry to individuals who have sat for and passed the MN State Residential Contractors Exam.

MN Continuing Education Provider: MN DLI S1656014 (Current)

This designation is granted to Entities by the Minnesota Department of Labor and Industry to provide Continuing education training to licensed Building Officials, Residential Contractors, Residential Remodelers, Residential Roofers, and Manufactured Housing Contractors.

Wisconsin Qualifier: WI DCQ897172 (Held)

This designation is granted by the Wisconsin Department of Safety and Professional Services to individuals who have attended a WI DSPS approved course of study and passed a WI DSPS approved Residential Contractors Exam.

WI Continuing Education Provider: WI DSPS ID 1278293 (Current)

This designation is granted to Entities by the Wisconsin Department of Safety and Professional Services to provide Continuing Education training to licensed Residential Contractors.

Cases Testified In

Case # 01-22-0001-9061, Van Riper v. Omni Home Services, LLC. 2/2/2023.

Billing Rates

Principal Consultant

- One hundred seventy dollars (\$170.00) an hour for work performed not involving travel.
- One hundred ninety-five dollars (\$195.00) an hour for site consultations, inspections or on-site work including travel to and from principal office.
- Two hundred twenty-five dollars (\$225.00) an hour for testimony or preparation to testify.

Consultant

- One hundred fifty dollars (\$150.00) an hour for work performed not involving travel.
- One hundred seventy-five dollars (\$175.00) an hour for site consultations, inspections or on-site work.

Managerial/Office work

- Sixty dollars (\$60.00) an hour.

Miscellaneous Services

- FedEx, USPS, UPS, and other courier services; document, or photographic copies, as well as parking fees will be billed out at cost of services plus 20%.
- Guest lodging accommodations and commercial travel expenses such as airfare, train fees, bus fees, and taxi or Uber fees will be billed out at cost.

Interest rate

- An interest rate of 1.5% (or the maximum allowable rate, if lower) per month will be charged on any unpaid past due invoice.

Work History

CEO/ Owner

Olson Associates Consulting LLC, Red Wing MN, Fall 2016- present

CEO/ Owner

Professional Education Resource LLC, Red Wing MN, Fall 2012- present

Regulatory Compliance

Detail Homes, 719 Syndicate St. S., St. Paul MN 55116, Spring 2023-present

Regulatory Compliance

Refined Homes, 1430 Concordia Ave, St. Paul MN 55104 Summer 2022 - present

Regulatory Compliance

Regency Homes Inc., 650 Bunker Lake Blvd NW, Anoka MN Spring 2022 - present

Regulatory Compliance/Human Resources

Phase One Enterprises, Inc. Shoreview MN, Spring 2020 - present

Regulatory Compliance

W. A. Kreofsky Construction, Plainview MN, Spring 2019 – Fall 2023

CEO/ Home Inspector

All American Home Inspections LLC, Holmen WI/ Red Wing MN, Fall 2012 - Spring 2020

Regulatory Compliance/Human Resources

Chandler Companies, Red Wing MN, Spring 2017 to Spring 2019

National Manager/ MN Manager/ Instructor

Contracting and Home Inspection, Kaplan Professional Schools, MN & WI Corporate, 2007-2012

Managing Partner/ Residential Contractor

Olson Associates of Red Wing, Red Wing MN, 1992-2010

Steering Committee member

- Minnesota Department of Health Rule Making Committee for the Renovation, Repair, and Painting Certification.
- Minnesota Department of Health Rule Making Committee for Licensing of Radon Testers and Radon Mitigation.
- MN Department of Labor and Industry Residential Building Code Technical Advisory Group for adoption of the 2024 IRC Residential Building Code.
- MN Department of Labor and Industry Residential Energy Code Technical Advisory Group for adoption of Chapter 11, Energy Efficiency, of the 2024 IRC Residential Building Code.

Professional Membership

Vice President and a member in good standing of the Southeast Minnesota Code Officials, and provides MN DLI approved continuing education to its members.

Seminars Authored and Delivered

Education Courses for Professional Education Resource LLC. All listed titles reviewed and approved by MN Department of Labor and Industry for continuing education credit hours for licensed contractors and building officials. Course titles with “Combo” or “Update” in them are written with new content for each year.

- Annual Institute of Building Officials Legal aspects of Code Enforcement
- Annual Institute of Building Officials Lead abatement and how to protect yourself and your family
- Greg Olson & Barry Stranz’s 2025 Contractor Update
- Scherer Brothers Lumber Education Seminar 2024
- Houses From Grade to Gable: The Structure
- Greg Olson & Barry Stranz’s 2024 Contractor Update
- Scherer Brothers Lumber Education Seminar 2023
- Contractor / Remodeler Update 2023
- Braced Wall Design Southeast Minnesota Code Officials 2022
- Scherer Brothers Lumber Education Seminar 2022
- Contractor / Remodeler Update 2022
- Contractor / Remodeler Update 2021
- Contractor / Remodeler Update 2020
- Contractor Survival Guide Three: The Business of Running a Minnesota Construction Business
- OSHA and the Employees you didn’t know you had
- The Misclassification of Employees
- Contractor / Remodeler Update 2019

- Houses: From Grade to Gable
- ProEd's Contractor Survival Guide: Course Two, The MN Residential Building Code
- Contractor Update 2018
- Remodeler Update 2018
- ProEd's Contractor Survival Guide: Course One, The Laws that Govern Us
- Contractor Update 2017
- Remodeler Update 2017
- 2016 Contractor Combo
- 2015 MN Building Code and Remodeling Issues
- Contractor / Remodeler Combo 2015
- Arrow Building Center Education Seminar 2015
- Arrow Building Center Education Seminar 2014
- Contractor Combo 2014 Metro
- Contractor Combo 2014 Outstate
- Contractor Combo 2013

Seminars Attended

- 2018 IBC Fire and Smoke Protection Features, Dec. 2023.
- Building Science Fundamentals, Building Science Corporation, Sept. 2023.
- 2018 IBC Apartment Buildings, International Code Council, Dec. 2022.
- Mixed Occupancies A Design Option, SEMCO, 2022.
- Analysis of IRC Changes 2012-2018, SEMCO, March 2019.
- 2018 IBC Means of Egress and Mixed Occupancies, International Code Council, Dec. 2019.
- 2018 Fire and Life Safety, International Code Council, May 2018.

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Olson Associates Consulting LLC.
29491 Hay Creek Trail, Red Wing MN
55066

In January of 1992, Greg Olson sat for and passed the Minnesota Contractor's licensing Exam and became the 1442nd licensed contractor in the State of Minnesota where he performed work which included roofing, remodeling, additions, and new construction until 2007.

In 2007 Mr. Olson took an offer of employment from ProSource, a Minnesota based education company which provided Minnesota state approved continuing education for licensed contractors where he acted as the MN Manager for the Construction division. In 2009 Mr. Olson was promoted up to ProSource's parent company Kaplan where he acted as the National Manager for the Contracting and Home Inspection Divisions and was responsible for all in-person courses, online courses, and textbook editing and publication for exam prep and continuing education as they related to requirements of the construction and home inspection professions. During this time, the Architect, Contractor, and Engineering division (Kaplan ACE) reached out to Mr. Olson to develop an Engineering in Training Exam Prep Course for engineers and a LEED (leadership in Energy and Environmental Design) Exam Prep Course for architects and engineers.

In 2012 Mr. Olson left Kaplan to start two companies, All American Home Inspections, LLC and Professional Education Resources, LLC. As the CEO of All American Home Inspections, Mr. Olson performed both real estate point of sale inspections for both buyers and sellers, as well as investigative inspections to determine cause and effects of improper construction methods on behalf of both builders and home owners.

As the CEO of Professional Education Resources Mr. Olson became a Minnesota Department of Labor and Industry (DLI) approved Continuing Education Sponsor (ID #51656014) as well as a DLI Approved Course Instructor (Instructor ID #1656017). To this date, Mr. Olson has been teaching contractor education to satisfy the continuing education requirements for Minnesota licensed residential contractors and building officials, which requires Mr. Olson to develop and teach courses to licensed residential contractors and building officials on a range of subject matter relating to Building and Energy Code compliance, which includes proper building methods and techniques, and safety. All of Mr. Olson's education courses must be approved by DLI's subject matter experts in order to satisfy the continuing education requirements and during his tenure as a continuing education instructor.

In 2016 Mr. Olson created Olson Associates Consulting LLC to focus on performing inspections for both home owners and builders regarding claims of non-code compliant and defective work, which included providing opinions on the work, its effects, and necessary repairs.

In 2020, Mr. Olson was personally encouraged by Charlie Durenberger, who at the time was the Director of licensing and Enforcement for DLI to obtain his licensed building official designation based upon Mr. Olson's years of experience as a consultant advising licensed residential contractors that were under investigation by DLI. Mr. Olson was issued a Minnesota Building Officials license (LB776568) after successfully passing the building officials exam. Mr. Olson completes 35 hours of continuing education every two years to maintain this license. Mr. Olson is empowered to interpret and enforce the Minnesota State Building Code, including the Minnesota Energy Code, which addresses moisture control in home construction. Mr. Olson would be empowered to permit construction assemblies that vary from the strict letter of the building code based upon his judgement and experience that it meets the intent of the code. Mr. Olson is a member in good standing with the Southeast Minnesota Code Officials association and is currently serving as their Vice President and teaches DLI-approved continuing education courses to its members.

More recently, Mr. Olson has begun serving as a regulatory compliance officer for various residential contractors because of his recognized experience and knowledge in code enforcement, proper building methods and techniques, safety, and general construction.

Based on my background as a licensed builder, state approved education provider and instructor, and my standing as a licensed state building official I have formed the opinions and conclusions in my reports and letters of opinions with a reasonable degree of certainty.

Greg Olson
CEO Olson Associates Consulting, LLC
MN Building Official Limited LB776568
MN QB 702200 | WI DCQ 897172
Cell | 651 301 2107
olsonassociatesconsulting.com

Appendix B,
Reinstallation of Aggregate Surface Materials (Inquiry No. 2009-02)
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Inquiry: #2009-02

Subject: Reinstallation of Aggregate Surfacing Materials

Code: 2007 Minnesota State Building Code
2006 International Residential Code
2006 International Building Code

Submitted By: Titus N. Winger, Titus N. Winger Contracting, Inc

Approved By: Stephen P. Hernick, State Building Official

Issue Date: May 2009

Question: When reroofing, what does the code mean by the provision; “Aggregate surfacing materials shall not be reinstalled.”

Answer: Section R907.5 of the 2006 IRC and Section 1510.5 of the 2006 IBC include the statement “Aggregate surfacing materials shall not be reinstalled”. IBC Section 1510.5 was amended to reference an ASTM standard to address the reinstallation of aggregate materials used as ballast for roofing systems. It should be noted that the term “aggregate” has more than one meaning when reading these sections. One aspect refers to aggregate as a stone or rock surfacing material and second the term refers to the total or whole roof area in question.

IRC Section R907.5 and IBC Section 1510.5 permit the reinstallation of certain roof coverings such as slate, clay or cement tile when not damaged, cracked or broken. These code sections also allow the reinstallation of certain roofing components as vent flashing, metal edging, drain outlets, collars and metal counterflashings when the component is not rusted, damaged or deteriorated.

Minnesota Rule Chapter 1305.1510 Section 1510 “Reroofing” amends IBC Section 1510.5 to permit the reinstallation of aggregate surfacing materials when in compliance with ASTM C-33, Standard Specification for Concrete Aggregate. This amended language was added to permit the reinstallation of aggregate material when used as ballast in conjunction with membrane type roofing systems. In these applications the ballast material typically not been contaminated by other roofing materials or components. Aggregate surfacing materials used in conjunction with built-up roofing systems often times become contaminated with asphalt roofing products.

In summary the only roof surfacing materials permitted for reinstallation include slate, clay or cement tile when not damaged, cracked or broken associated with the whole roof surface area (asphalt shingles are not permitted to be reinstalled). Aggregate ballast roof material is permitted for reinstallation when the aggregate material in question complies with ASTM C-33 requirements.