11/25/2024

John Dreist

Roof Inspection

Sent via email.

Ref: Roof Inspection Report

Project: Duplex
Address: 1045 Carriage Court, Palmyra, WI

Inspector: Ron Dorszynski, RRO
Inspection Date: 11/19/2024
Others Present: John Dreist
Conditions: Partly Cloudy

Dear John,

At your request, an inspection was performed of the attic and roof to assess conditions and to provide recommendations of repairs or alterations if needed. This report was based on our discussions and my observations on site.

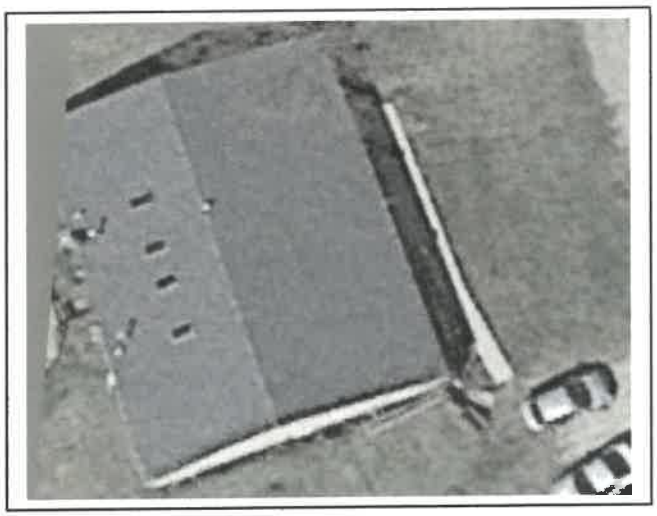
The evaluations of existing construction details and roof conditions were based on material manufacturer's specifications, industry recommendations, and in some cases may be affected by field conditions and structural limitations. A list of industry resources accompanies this report.

Background

Basic Construction: One-story, wood frame two-family dwelling with no garage. The front of the house is considered to be facing east.

The current roof was relatively new.

Aerial View



Roof Construction

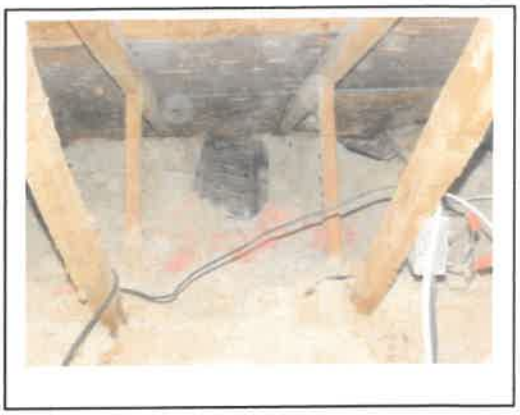
Roof Deck: Plywood with a primary roof pitch of 5/12
Underlayment: Unable to check without removal of roofing
Ice & Water Barrier: Unable to check without removal of roofing
Roof System: Fiberglass-based dimensional asphalt composition shingles
Roof Ventilation: Ridge vent(s)
Eave Ventilation: Intermittent perforated soffit panels (Front side only)
Roof Drainage: 5" K-style seamless aluminum box gutters with 3" x 4" aluminum downspouts
Other Features: Skylights

Findings

1- Ventilation
   a. Plastic vent chutes were observed along the front side of the attic at the eaveline. The chutes are intended to provide a space between the underside of the roof deck and the insulation for inlet airflow to the attic. Some of the chutes were plugged with insulation and /or out of position. There should be a chute for every soffit vent and the chutes need to be properly positioned and be free of any blockage.
   b. There was no inlet venting from the rear of the building. With no overhanging eave for soffit vents, a roof edge vent needs to be installed with baffles to provide the balanced airflow needed for proper attic ventilation.
   c. Both individual roof vents and a ridge vent were present. With the roof vents directly adjacent to the ridge vent, there is a short circuiting of the airflow rather than airflow from the eaves to the ridge vent. Additionally, the ridge vent utilized on this roof had less airflow than the other readily available shingle-over ridge vents. The individual roof vents should be removed, the openings in the roof deck should be plugged and the more effective type of ridge vent should be installed.
   d. Interior exhaust fans had not been properly vented to the exterior of the building. The ducts from these fans needed to be connected to new exterior roof caps (roof vents with duct fittings and dampers) so the moist exhaust air would get vented to the outside.
2- Roof Deck
   a. Dark staining, likely from microbial growth, was noted on the underside of portions of the plywood roof decking. The affected sheathing needed to be remediated or replaced.
   b. Portions of the roof deck had been replaced as a part of the recent roof replacement.
   c. Visually one can see some waviness in the roof deck between the rafters. Walking over the roof revealed considerable softness in various portions of the decking.
   d. With microbial growth being present on portions of the roof deck on the rear roof slope, and with sagging and softness observed in the south slope roof decking, the replacement of roof decking not previously replaced is recommended. This will require the removal and replacement of the existing roofing on the south roof slope. A new full length seamless gutter should then be installed.
3- Skylights
   a. The skylights on the rear roof slope were old, in poor condition and had not been properly flashed when the recent roof had been installed. The replacement of these old skylights with new skylights is recommended.

Observations & Commentary

Observation #1 - The existing vent chutes were blocked and /or out of position There should be a chute for every soffit vent and the chutes need to be properly positioned and be free of any blockage.



Observation #2 - A new roof edge type inlet vent should be installed along the lower edge of the rear roof slope.



Observation #3 - The individual roof vents short circuit airflow at the ridgeline. These vents should be removed and the openings in the roof deck should be filled in.

The ridge vent should be replaced with a more effective ridge vent.



Observation #4 - Considerable waviness and softness was noted in the deck of rear roof slope.

Similar conditions were not noted in the front roof slope.



Observation #5 - The skylights were old, inefficient and not properly installed. New skylights should be installed.



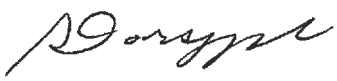
Conclusions

Performing the above repairs and alterations should help to provide more effective ventilation and the performance that would be more in line with what one would expect with a new roof. The roofer remains responsible for providing watertight conditions. In the event that other issues or conditions are discovered by the roofer during his performance of the work that require different or additional corrective measures, it will remain his responsibility to perform that additional corrective work. All repairs should be performed by skilled and experienced roofers.

I offer these professional opinions to you and to others, with the representation that they are opinions which I hold to a reasonable degree of certainty. I reserve the right, however, to reconsider any of these professional opinions if additional, relevant information is made available to me.

Please feel free to call with any questions on this report.

Sincerely,



Ron Dorszynski, RRO

Feel free to visit our website at www. skylinetechnical.com

Sources of Industry Technical Information

ARMA – Asphalt Roofing Manufacturers Association
NRCA – National Roofing Contractors Association Roofing & Waterproofing Manual
NRCA Architectural Sheet Metal & Metal Roofing Manual
SMACNA – Sheet Metal & Air Conditioning Contractors National Association
APA – The Engineered Wood Association

Limitations

This report is based on conditions that were readily observable at the time of the inspection. Invasive testing and inspections were performed only as described in this report. Skyline Technical LLC does not accept responsibility for deficiencies not evident during an investigation of this type.

This report is intended to inventory existing conditions of the observed areas. Repair recommendations provided in this report are conceptual in nature and are not intended for construction. Skyline Technical LLC can provide construction details and specifications for repair at your request. Any cost estimates are advisory only and fixed contractor pricing is recommended.

Conditions observed on the date of investigation may change if noted deficiencies are not corrected.