Catlin + Petrovick Architects PC

Jaffrey Meetinghouse
Roof Condition Assessment
December 11, 2015

The current wood shingle roof is approximately 20 years old. The shingles, installed over skip sheathing, appear to be 18" cedar, which are siding shingles more than roofing shingles, were installed with nails into the skip sheathing.

In spring 2015 water stains were discovered on the interior ceiling immediately below the south-facing roof slope. Further inspection of the roof by the architect and two roofing contractors have determined the roof is in the early stages of failure. The leaks on the south roof slope appear to be due to trapped water from melting snow caused by heating of the sun. While no further visible signs of further leaking occurred through the summer and fall of 2015, depending upon the severity of the future winters, the roof shingles may periodically leak under certain circumstances. The problem is like to worsen over time, depending upon the severity of weather, and in particular, winter snow-pack.

While there can be no guarantee, under normal conditions, it is estimated the existing roof should be able to continue in service for the next two years with minimal leaking. It should be noted that the roof should be monitored closely during throughout the year to insure water infiltration is properly managed to reduce the risk of damage to the historic structure.

The architect recommends the town plan on replacing roof no later the end of 2018 to avoid the risk of major damage to the historic meetinghouse.

The architect is recommending three options for roof replacement:

1. Red cedar roof shingles, 24" minimum with 3/4" minimum butt ends and installed with 6" maximum exposure. This material more closely resembles the original wood shingles installed when the building was constructed. This roof would could be installed over the existing skip sheathing, however modern installation methods include the addition of horizontal nailer boards which provide an airspace beneath the shingles. The cost for a new wood shingle roof will be approximately $100,000.

2. An alternative to wood shingles are composite architectural roof singles such as GAF Timberline or IKO Cambridge may be used as an alternative to wood. It should be noted that the *Secretary of the Interior's Standards for the Treatment of Historic Buildings*, NH LCHIP and NH Historic Resources, prefer traditional 3-tab composite shingles to architectural-style shingles. It is the opinion of these agencies not to use artificial materials in place of historically accurate materials. Installing composite shingles would require the installation of an underlayment such as plywood or OSB. The cost approximate cost to install a composite shingle roof would be $50-60,000.

3. The third alternative would be to install standing seam metal roofing. This material would likely not be supported by NH LCHIP. While durable, metal roofing is not historically accurate. The approximate cost to install standing seam metal roofing would be $100-125,000.