



February 9, 2024

Birgitte Ryslinge, Ph.D.
President
Oregon Coast Community College
400 SE College Way
Newport, OR, 97366

Re: OCCC Central Reroof

Birgitte,

During the facilities assessment we made an assumption that the OCCC Central Campus building would be re-roofed with an asphalt (composite) shingle product. Our recommendations and the cost information we provided were based on that assumption. After thorough review of the roof structure, it has come to our attention that the existing steel straps that are attached to the plywood roof sheathing are not compatible with the installation of an asphalt roof shingle product for the following reasons:

- The steel straps create a hump in the roof just below the shingles.
- The straps are wide enough that they interfere with the nails that fasten the shingles to the plywood roof deck.
- The proper solution for fastening would be to pre-drill and screw the shingles in place through the straps, which is time consuming and, depending on the roofing manufacturer, may not be a warrantable practice.
- The straps cannot be removed since they provide resistance to the wind forces that the building resists on a regular basis. GLAS worked with our structural engineer to evaluate other options, but the work necessary to change the location and/or type of straps are both time and cost prohibitive.
- It is likely that the current shingles were secured with roofing cement or sealant which serves as a dam and prevents water from running off of the roof.

As a result, we are recommending moving to a standing seam metal roof instead. Standing seam metal roofs are held in place with clips that can be mounted above and below the horizontal straps, allowing the metal roof panel to span over the top of the straps.

There are other advantages to a metal roof:

- Longevity: The reroof cycle for a metal roof is at least twice as long as an asphalt shingle roof (40 to 50 years vs 20-25 years).



- Water tightness: Standing seam metal roofs rely on the panel joint being up out of the water intrusion plane, thereby providing a water-tight roof whereas asphalt shingles rely on a series of layers that shed the water while allowing partial water intrusion.
- Wind driven rain intrusion: Metal roofs are much better than asphalt roofs at preventing wind driven rain intrusion since there are far fewer places for the intrusion to occur.
- Metal roofs can be installed at roof slopes as low as 1:12. While the Central Campus roofs are typically 4:12 slope, it is a benefit to have a slope that is steeper than the minimum recommended by the roofing manufacturer. (Asphalt shingles have a typical minimum slope of 4:12).

Disadvantages to a metal roof system:

- Cost: RLB (our cost estimator) provided the following cost comparison (please note that the costs include installation, but exclude rot repair, flashing replacement, and underlayment, but we expect those costs to be the same for both systems):
 - Asphaltic (composite) shingle roof: \$14-\$18 per square foot.
 - Standing seam metal roof with a fluoropolymer finish: \$23-\$29 per square foot.
- Ease of travel on the roof: the fall protection system will need to be modified since metal roof panels are slippery in wet conditions.

The cost estimate for asphalt shingles above is in line with our original estimate, so our expectation is that the construction cost for a metal roof will be approximately \$2M. While it is a significantly larger up-front cost, we expect that the metal roof system will provide a much better long-term solution for the college.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Walkup".

Christopher Walkup, AIA
Principal | Member

Cc: Chris Rogers, Robin Gintner, Lori Temple