

H-CAD, INC

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Chadbourne Residence Hall Building 0557 Roof Area - Two Wing
May 7, 2016 **University of Wisconsin - Madison**

3 Wing area= approx. 9,914 sq.ft.
Penthouse area = approx. 863 sq.ft.
Elev. / Stairwell area= approx.. 803 sq.ft.

Nuclear Scan Report

Area scanned. 6,738 sq. ft. 2584 sq. ft. wet or 37.8% of total roof area scanned.

Concrete deck structurally flat.

1/8" per foot tapered polyisocyanurate insulation. Ave R = 22.4

3/4" perlite insulation overlay. Ave R= 2.08

Multiple ply BUR roof with gravel surface. Total Ave R= 24.48

I scanned the roof on Fri April 29, 2016 and found 2 large areas that were wet.

Wing Area 1 is where the cores were made. My first core the perlite insulation and the top of the Polyisocyanurate insulation were wet and the bottom of the insulation was dry. As I scanned closer to the area that was repaired my readings got higher so I think the repair area was filling up with water and wicking out. I also got high readings around the penthouse where the majority of duct work is.

I cannot locate the actual spot of water entry because my gauge can't detect water it only detects density (which means a wet insulation is denser than a dry insulation.)