



# 2014 Winter Newsletter



## Meeting Maintenance Challenges in Winter Weather

Harsh winter weather can take its toll on any roof system. This is especially true if regular maintenance practices are avoided and extreme weather precautions are not taken. An unpredictable freeze/thaw cycle, snow accumulation, and high winds are just a few factors that can adversely affect the unprepared roof.

As always, make sure all drains and scuppers are clear of any debris that could impede the proper flow of water off of the roof system. This is important year-round, but can be more difficult to accomplish on a frozen roof.

Keep roofs clear of any loose equipment, tools, or materials. Extreme winds can turn loose articles into potentially dangerous, membrane damaging projectiles.

Have a snow removal plan in place. A basic understanding of the snow load capacity of your roof/structure is valuable knowledge to possess. Know when your roof is approaching its load limit and have only qualified professionals perform snow removal.

Be prepared for the spring thaw. Movement in a roof system caused by the freeze/thaw cycle can exacerbate existing moisture infiltration issues or even create new ones.

Maintaining a roof during the winter can prove to be a challenge, but it is a crucial step in allowing your roof system to perform to its full potential.

**Michael P. Fastner, RRO**  
**Senior Consultant**



## Gibbs Farm Museum

**G**ibbs Farm Museum is a Historic Farm site managed by Ramsey County and the Ramsey County Historic Society. AMBE LTD. completed design and project management for the replacement of the Gibbs Farm House Roof.

**T**he structure is the centerpiece of the Historic Museum Farm Site. Original construction was completed in several phases around 1850 and the Farm House is thought to be the oldest remaining dwelling in Minnesota.

**C**hallenges of this project included meeting modern building codes while complying with the owners requirement of using materials and construction methods similar to original construction. The age of the existing material and condition required true craftsmanship to prevent damage to the structure, and replacement with repurposed materials when needed.

**D**ue to careful coordination, the site remained open to the public during the restoration. This roof replacement project required the full engagement of the Designer and Project Manager, Ramsey County Property Management Division, Berwald Roofing, and the Site Management Team.

**AMBE LTD. Project Consultant:**  
**Wendell Finken, RRC, RRO, Vice President**

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## Let's Talk About... Cool Roofs

**C**ool Roofing is a subject everyone is talking about but know there is no clear guidance being provided.

**M**anufacturers and contractors are marketing roof systems that they do not fully understand based simply on the fact that they are "reflective", or "white". The assumption is that because it is reflective it will save energy and is therefore good for the environment. This is not necessarily true and varies greatly by climate and building.

**R**eflectively is a great idea for buildings in southern states where less insulation is required and energy costs for cooling are high. For buildings in colder climates reflectively has little or no overall effect on cooling buildings. In the north, far more energy is required for heating, which increases the need for insulation, and reduces the need for reflectivity.

**M**ore recent studies are also finding links between "white" roofs and condensation. There are many factors that affect moisture levels in roofs and causes condensation. White roofs are not necessarily the direct cause, but if it's not providing a benefit, and is contributing to a potential problem, the installation of a white roof should be closely reviewed.

**L**EED points are often a motivation for considering a Cool Roof system. LEED is a complex matter that should be carefully considered and implemented with common sense and good intentions. The actual benefits of roof reflectivity should be considered, not just the number of LEED points it is eligible for.

**T**he benefits of a well designed and properly installed roof system greatly outweigh the benefits of reflectivity. Select the right roof for your building, and then check what colors are available.

## INTRODUCING OUR NEW STAFF MEMBERS

**In our continued growth, AMBE LTD. welcomed four new staff members in 2013.**

**R**ob Johnston is a Senior Envelope Consultant with more than 20 years of experience. Rob has extensive experience in Building Envelope Design and Assessment, with an emphasis on Walls and Window Investigation, Below Grade Waterproofing, and is a qualified Infrared Consultant. Rob will design and manage roof replacement, waterproofing, and wall restoration projects and assist clients with management of the complete building envelope.

**J**amie LaVanier is our new Senior Cad Specialist with an AAS in Applied Sciences from MSD. Jamie is a trained CAD operator with 17 years of experience in Building Envelope Design and is also a Certified Infrared Thermographer. Past experience in Project Design and Specification Development allows Jamie to bring technical expertise paired with a common sense approach to detailing our roof, wall, and waterproofing designs.

**J**ohn Peterson is our new Roofing and Building Envelope Inspector. John brings over 17 years of experience in Roof Construction Observation and will provide on-site inspections during construction. John will also be involved in the Building Envelope Assessment and Management Programs provided by AMBE LTD. John also brings extensive experience in leak investigation and is a Certified Infrared Consultant.

**R**yan Wagner is an Assistant Project Manager who will be working in Roof Design, Project Management, Roof Assessment and Management Programs for clients. Ryan has over 10 years of experience in Roof Design and Drafting.

**T**his brings our total staff to twelve, including three Registered Roof Consultants and three Registered Roof Observers. Other staff certifications include Hagg Certified Hail Inspectors, Certified Infrared Consultants, and Below Grade Waterproofing experts.