Michael Dandurand, P.E. 637 East Willow Street Gardner, Kansas 66030 www.RoyalInspectionsKC.com



Foundation Certifications FHA / HUD Certifications Engineering Consultations Licensed in Missouri & Kansas

# ATTIC INSULATION

We recommend a minimum of 12 inches of insulation in all attic spaces and upwards of 16-24 inches is becoming more common. Placing ridged foam board insulation on top of the attic hatch and weather stripping around the perimeter will help prevent a 'sink' where significant air transfer (loss of insulating efficiency) occurs. We recommend securing a plywood walkway across the joists to minimize the potential for falling through the ceiling; be sure to insulate between the joists under the plywood. Always wear proper protective equipment when performing home improvement tasks, in this case at a minimum of safety glasses, dust mask, gloves, long sleeve shirt and long pants. Below are the general steps that are recommended for insulating an attic space with no insulation; however the recommendations below can still apply when adding supplemental insulation.



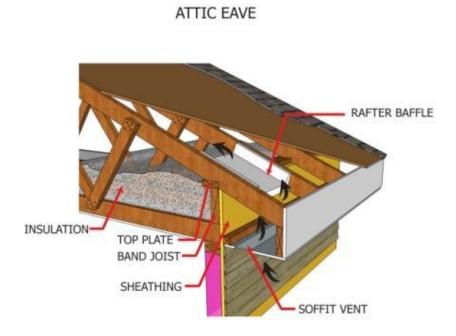
# **Seal Gaps**

Seal all cracks, gaps, holes or other locations where air may leak between your homes conditioned space and attic. There are several types of expanding spray foam that can be used depending on the size and location of the leaking area. If you plan to insulate around wires, electrical fixtures or exhaust fans we recommend using fire resistant materials. For gaps around gas appliance flues or chimneys we recommend high-temperature caulk or other material specifically rated for use in these high heat locations.



## **Install Roof Baffles**

It is important maintain the free flow of outside air through the attic and out the upper roof vents. We recommended that polystyrene or plastic roof baffles be installed where the joists meet the rafters. These should be stapled or otherwise secured into place.



# **Place Baffles Around Electrical Fixtures**

Provide a buffer around light fixtures or other heat generating devices (i.e. can lights) that protrude into the attic space. Many of these are not rated for zero clearance to insulation. Generally the fixture and insulation you choose will dictate the required clearance. Recessed light covers can be purchased for less than \$10.00.



your local hardware store. Typical your local

Typical rafter baffle available for purchase at your local hardware store.

# **Apply the Insulation**

We recommend loose-fill insulation, either fiberglass or cellulose, when the attic space has no finished area. We do not recommend using attic spaces for storage or occupancy unless they have been specifically designed for that purpose. We recommend installing a blocking around the attic entrance location ensure you can achieve the recommended insulation depth without significant loss of material down the entrance location. You can use 2x4s and plywood to build a box around the entrance, while leaving to top open for access as needed. Install the insulation by working around the perimeter of the attic towards your access location. To achieve proper density and minimize settlement of insulation after installing we recommend holding the blower hose parallel to the attic. You can staple depth guides to the rafters around the attic to help gauge uniform depth and ensure you have provided adequate coverage.



This shows a typical form for placing the<br/>loose-fill insulation using a blower machine<br/>and hose.This shows ridged foam board to install<br/>over your access hatch. You may also<br/>use fiberglass batts.

If you plan to use fiberglass batt insulation begin by cutting long strips and lay them in between the joists. Do not bunch or compress the material; this will reduce the insulating quality. When installing the second layer of insulation place it perpendicular to the first layer to help minimize air leakage by 'short circuiting' or air leakage between the joist and the insulation.

