

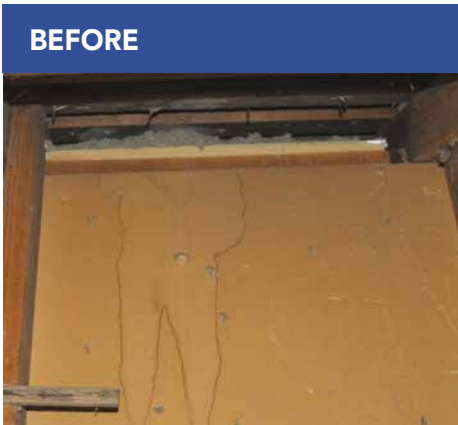


Air Seal Above the Knee Wall

Job Aid for Seal and Insulate Knee Walls Badge

Aligns With Standard Work Specifications 3.0101.1, 3.0102.11

BEFORE



Knee walls often define the thermal and pressure boundary. Above the knee wall is often an open roof rafter cavity, which may need blocking or the knee wall could be missing a top plate.



After clearing away debris, measure gap above knee wall in line with pressure boundary.



Cut blocking material (extruded polystyrene, wood, gypsum board) to fit gap.



Securely fit infill or blocking material in place and seal around the edges.



An alternative method to steps 1-3 is to bring rigid foam or house wrap material up to the roof decking to block the opening and create an air seal when the edges of the material are sealed to the framing.



If a top plate is required, secure wood in place with mechanical fasteners.



Seal blocking with mastic, caulk, or one-part foam to maintain the pressure boundary and prevent air movement within the cavity.



Air sealing the top of a knee wall continues the pressure boundary while supporting additional insulation from the knee wall or roof rafter above.



Checklist

Seal and insulate knee walls

DESIRED OUTCOME

Knee walls framed to prevent thermal bypass and sealed to prevent air leakage between conditioned and unconditioned space.¹

Air sealing (check prior to insulation):

- ☐ Existing insulation was removed or adjusted to allow access to top and/or bottom of knee wall.
- ☐ Rigid blocking or other durable material installed:
 - ☐ Beneath the knee wall (floor running under knee wall) and
 - ☐ Above the knee wall (ceiling cavity/ventilation chute/top plate).
- ☐ Installed blocking will stop airflow and support insulation.
- ☐ All joints, cracks, and penetrations, including connection between interior surface and framing, are air sealed.

Insulation:

- ☐ Install fabric or rigid backing material to enclose knee wall cavity in a durable, permanent way.
- ☐ Install insulation to manufacturers' specifications/ proper density.
- ☐ Ensure that insulation has no gaps, voids, compression, or misalignment.
- ☐ Seal holes in backing material as needed.
- ☐ Fill out applicable sections of house-wide insulation certificate with coverage area, thickness, and R-value.
- ☐ Clean work area.

1. Relevant Standards: 3.0101.1, 3.0102.11

