ThermalStar®
Rigid Insulation

ATLAS

HOMEOWNER INSTALLATION INSTRUCTIONS

RIGID BOARD INSULATION

HOMEOWNER INSTALLATION INSTRUCTIONS

The following instructions are provided to homeowners for the installation of ThermalStar rigid board insulation. The instructions herein provide general guidance only and do not cover all aspects related to the installation or use of insulation in a home.

Before starting installation, ensure that the installation complies with the applicable building code requirements. The building code may have requirements for thickness and R-value of the insulation, vapor retarders, interior thermal barriers and finish materials, exterior weather resistive barriers and claddings, ventilation, insulation in adjacent areas, caulking and sealing, and other items.

As the Homeowner, you are solely responsible for the proper installation of all materials, following product label instructions and for using proper safety precautions during installation to avoid potential injury. Atlas Roofing Corporation is not responsible for building design and accepts no responsibility for the performance of its products resulting from improper building design, construction faults, or defective installation workmanship.

TOOLS NEEDED:

- Tape Measure
- Utility Knife
- Straightedge or 2x4 (for cutting insulation)
- Cordless Drill
- Saw
- Hammer

PROTECTIVE GEAR:

- Work Gloves
- Loose-fitting, long-sleeved shirt
- OSHA-approved safety glasses
- Disposable dust respirator (NIOSH- or MSHA-approved)

WARNING: This product is combustible and will burn. Maximum use temperature is 165°F. Care must be taken to maintain separation distance from ignition and heat sources, furnace ducts, chimneys, hot water pipes, etc as provided for combustible materials in the building codes. Consult local code requirements for specific restrictions. This product is a foam plastic product and must be separated from the interior occupied space by an approved thermal barrier such as ½" gypsum sheathing, except as specifically permitted without a thermal or ignition barrier as described in Underwriters Laboratories evaluation report ER.16529-01. Local codes and Authorities Having Jurisdiction (AHJ) should be consulted and have ultimate determination of product fitness for use and restrictions that may apply.

APPLICATION OF THERMALSTAR EPS BOARDS TO EXTERIOR OF A WOOD FRAMED WALL.

1. Remove any obstacles or debris from the wall and area of work that may interfere with the attachment of the boards
   Note: The wall to receive the board must be braced or sheathed in compliance with the applicable building code prior to installing the ThermalStar EPS.

2. Seal on the interior side for air leakage at all penetrations, especially large penetrations like windows. The best practice for accomplishing this sealing is to use expanding foam sealant or caulk to get maximum thermal performance.

3. Cut the boards to match the wall height.
   Note: Cut the boards as needed to fit tightly around pipes, ducts, vents, openings, or similar objects.

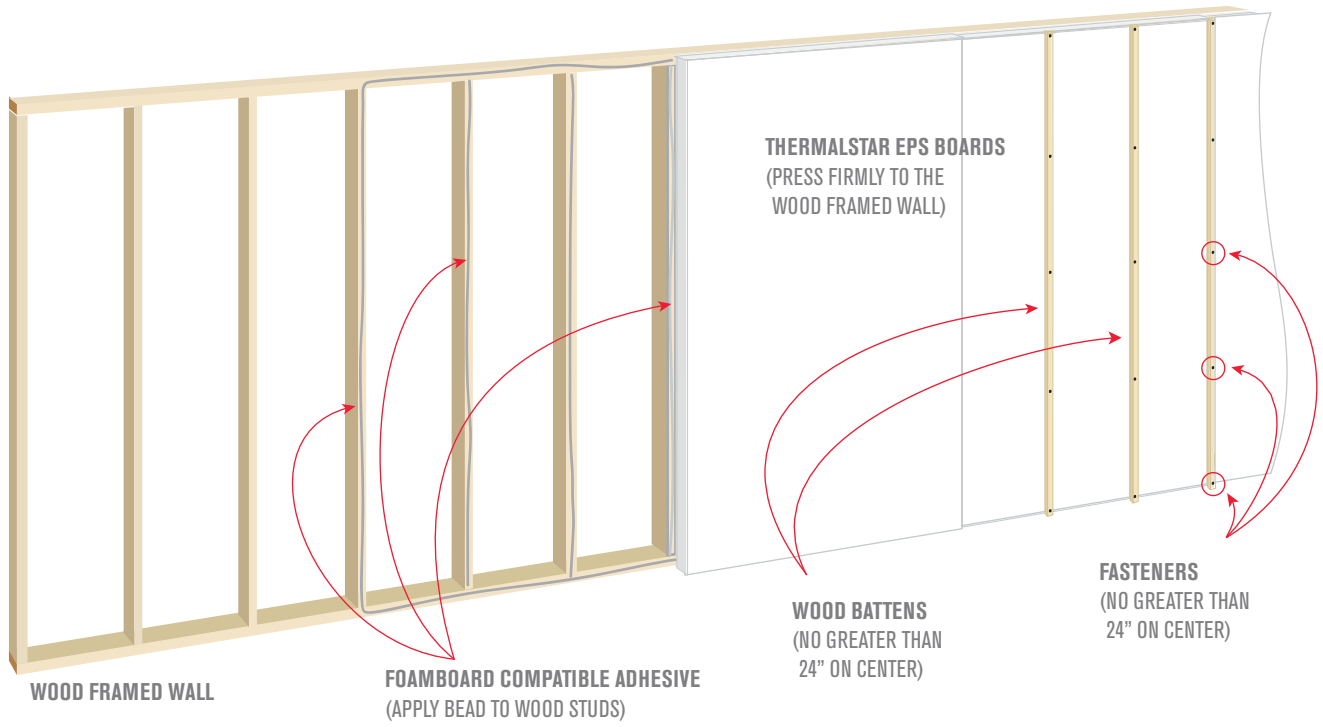
4. Using foamboard compatible adhesive, apply adhesive to the wood studs.

5. Press the board firmly to the wall.
   Note: All vertical edges of the ThermalStar EPS must be supported by the wood studs.

6. Position wood battens aligned with the location of the underlying wood studs and attach using fasteners through the battens and insulation that are long enough to penetrate studs ¾" minimum when the fastener head is flush with the ThermalStar surface. Fastener spacing must be no greater than 24" on center along the length of all wood battens.

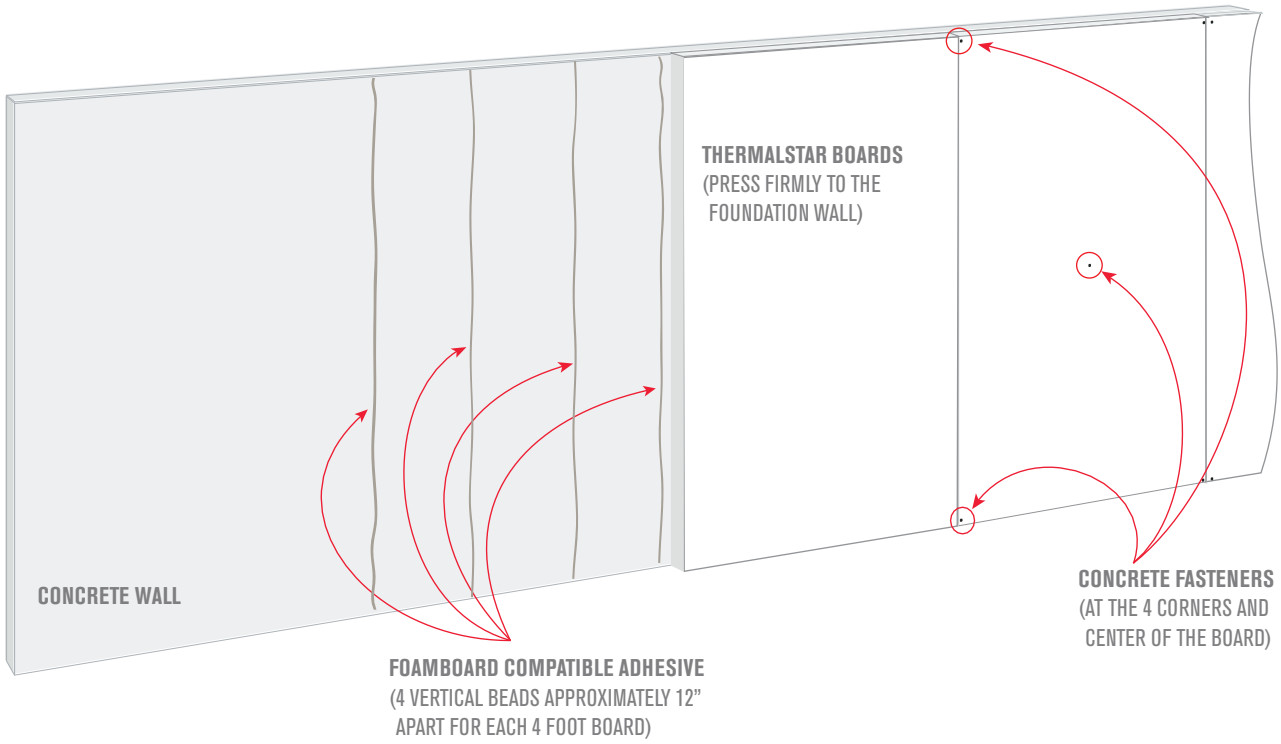
7. Inspect ThermalStar rigid board insulation for damage.
   Use ThermalStar rigid board insulation and sheathing tape to repair and seal damage.

8. Install a code compliant weather resistive barrier and weather resistive exterior cladding in compliance with the applicable building code.



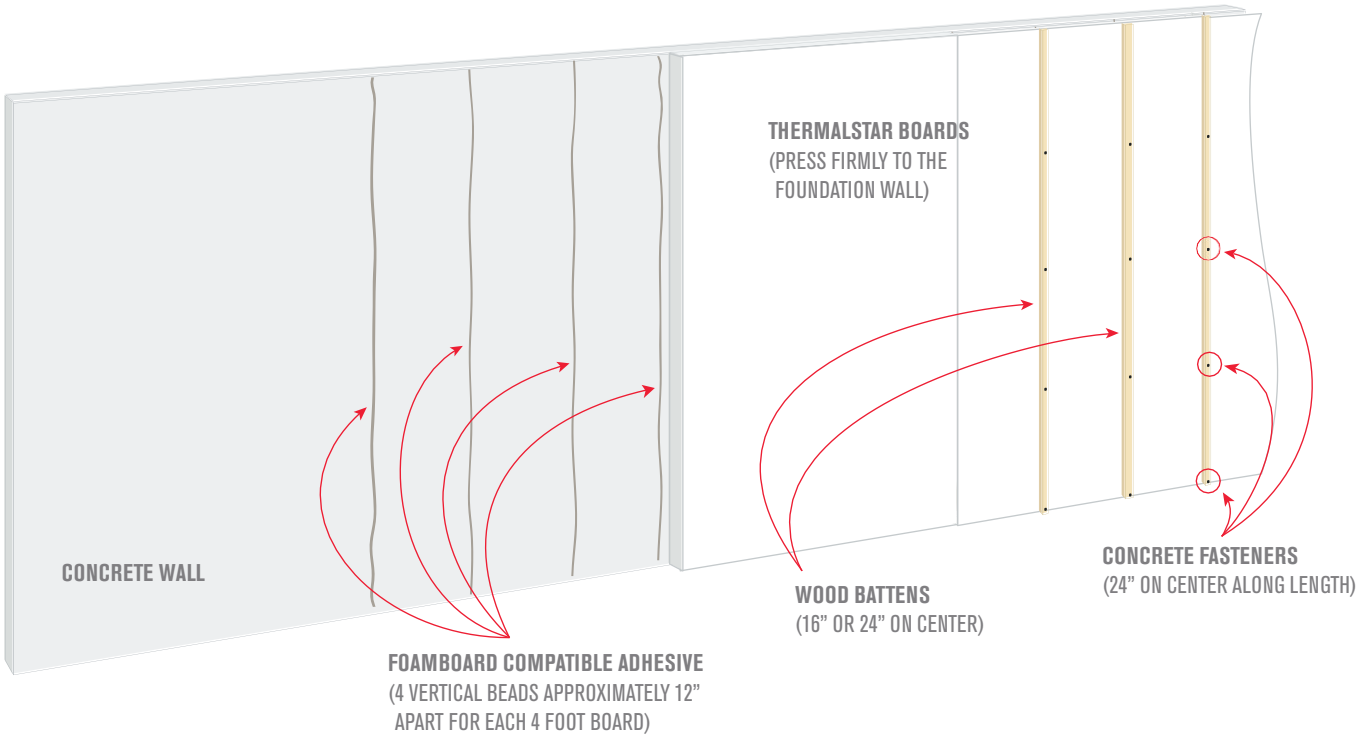
APPLICATION OF THERMALSTAR EPS BOARDS TO INTERIOR OF A CONCRETE CRAWL SPACE WALL.

1. Remove any obstacles or debris from the wall and area of work that may interfere with the attachment of the boards.
2. Seal on the interior side for air leakage at all penetrations, especially large penetrations like windows. The best practice for accomplishing this sealing is to use expanding foam sealant or caulk to get maximum thermal performance.
3. Cut the boards to match the wall height.
   Note: Cut the boards as needed to fit tightly around pipes, ducts, vents, openings, or similar objects.
   Note 2: Ensure a minimum 3-inch termite inspection gap at the top of the wall vapor retarder and masonry wall in areas where the probability of termite infestation is 'very heavy,' as required by code.
4. Using foamboard compatible adhesive, apply the adhesive to the wall, or directly to the board, in 4 vertical beads approximately 12" apart for each 4 foot board.
5. Press the board firmly to the wall.
6. Install concrete fasteners through the insulation into the wall at the 4 corners and center of each board.
7. Inspect for ThermalStar rigid board insulation for damage.
   Use ThermalStar rigid board insulation and sheathing tape to repair and seal damage.

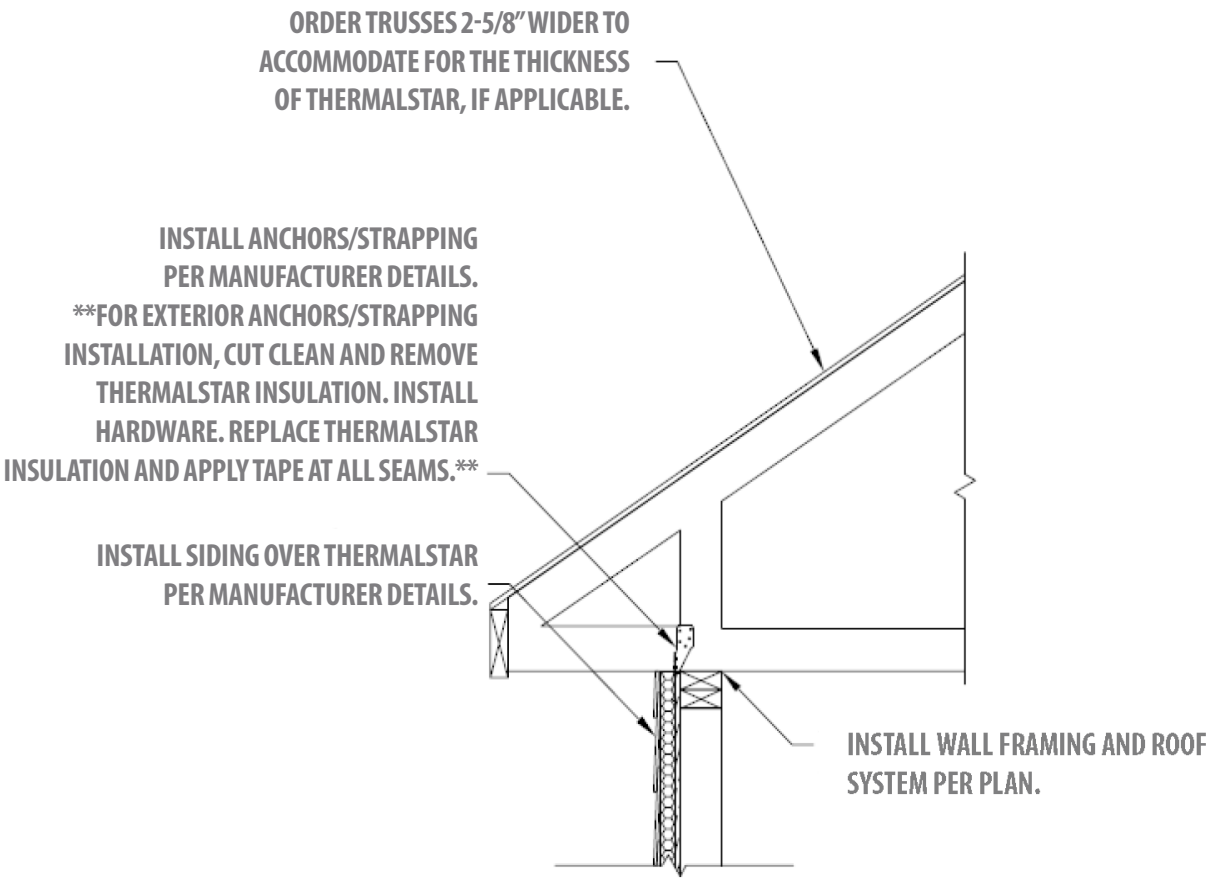


APPLICATION OF THERMALSTAR EPS BOARDS TO INTERIOR OF CONCRETE BASEMENT WALL.

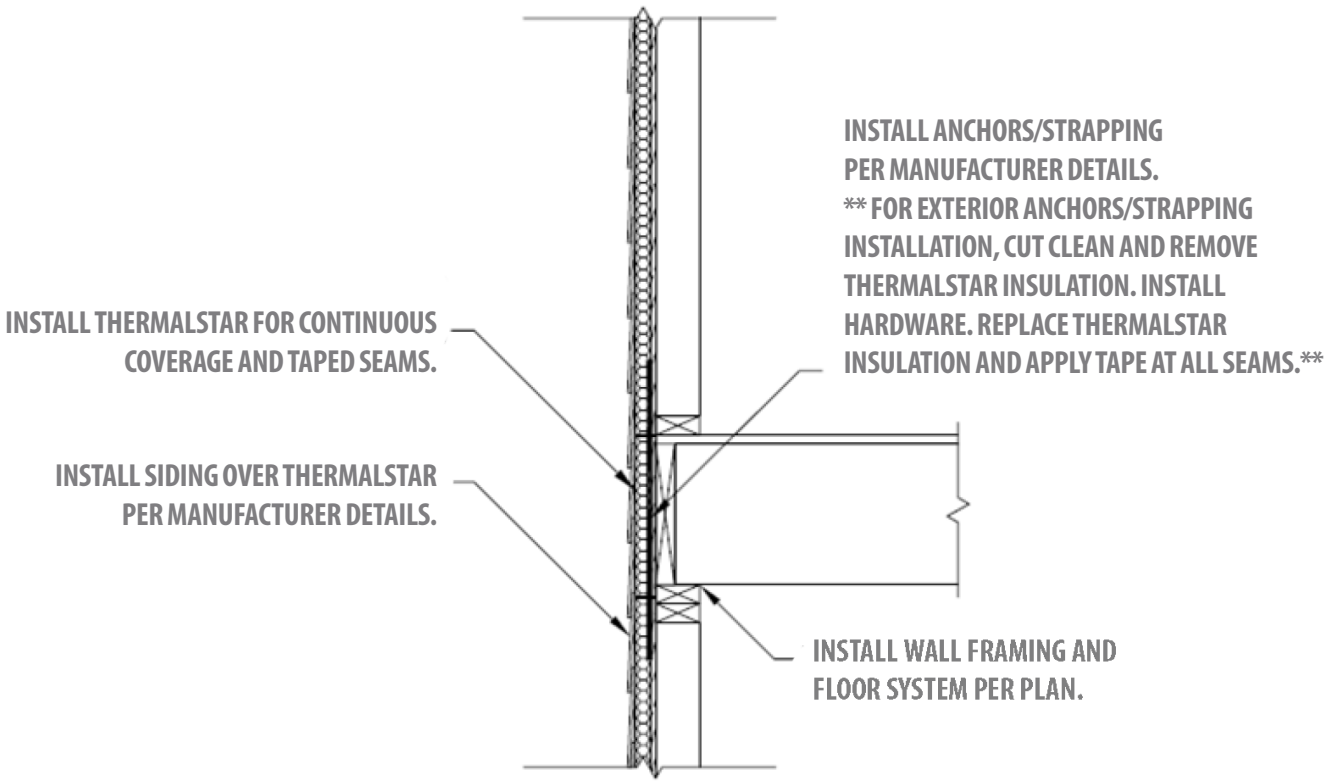
1. Remove any obstacles or debris from the wall and area of work that may interfere with the attachment of the boards.
2. Seal on the interior side for air leakage at all penetrations, especially large penetrations like windows. The best practice for accomplishing this sealing is to use expanding foam sealant or caulk to get maximum thermal performance.
3. Cut the boards to match the wall height.
   Note: Cut the boards as needed to fit tightly around pipes, ducts, vents, openings or similar objects.
4. Using foamboard compatible adhesive, apply the adhesive to the wall, or directly to the board, in 4 vertical beads approximately 12" apart for each 4 foot board.
5. Press the board firmly to the wall.
6. Position wood battens at 16" or 24" on center spacing (vertically or horizontally) over the boards and install concrete fasteners through the battens and insulation into the foundation wall. Fastener spacing must be 24" on center along the length of all wood battens.
   Note: Wood battens must not be in contact with concrete.
7. Inspect for ThermalStar rigid board insulation for damage.
   Use leftover ThermalStar rigid board insulation pieces and sheathing tape to repair and seal damage.
8. Install vapor retarder, as required, in compliance with the applicable building code.
9. Install a code compliant thermal barrier, such as 1/2" moisture resistant gypsum board, to the battens per the requirements of the applicable building code.



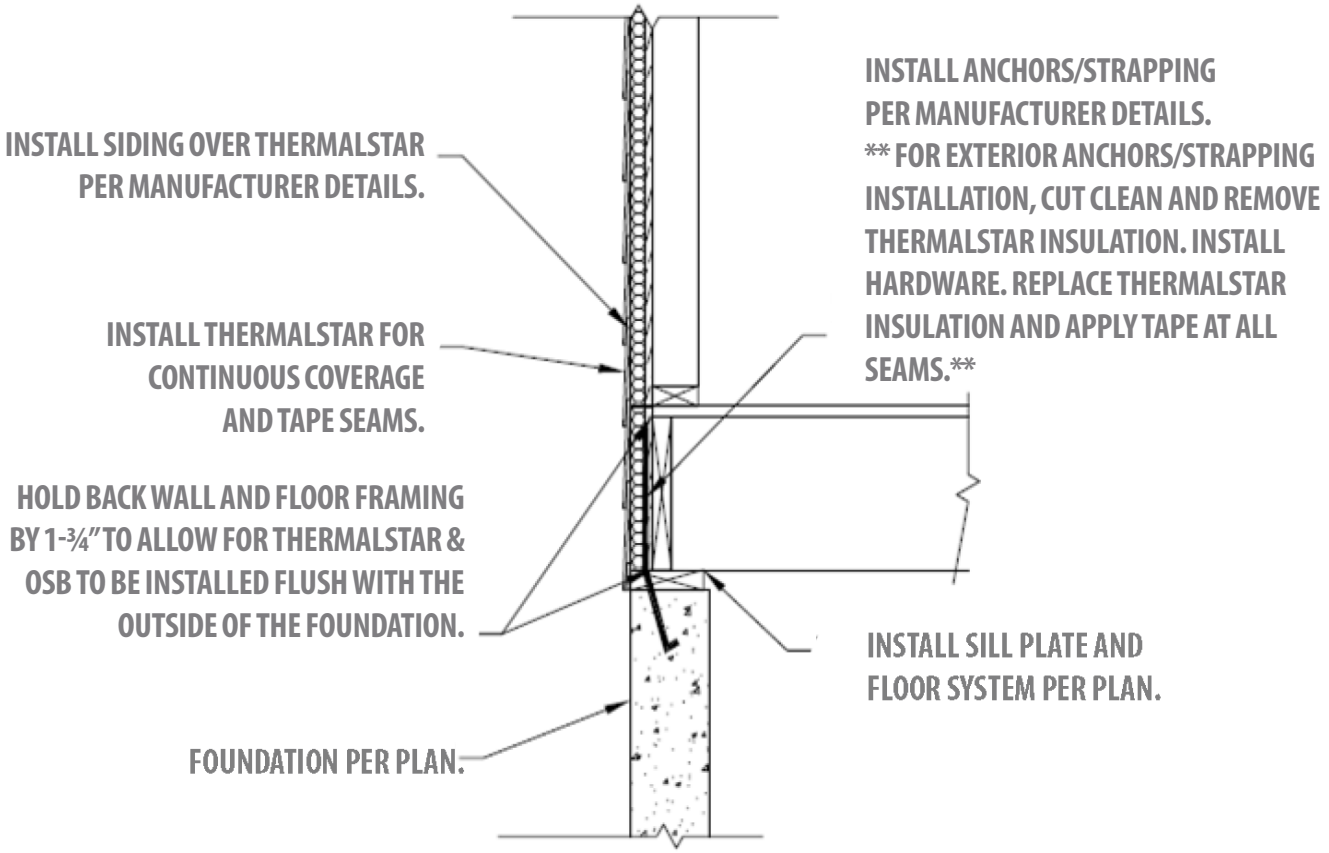
DETAIL 1: TYPICAL WALL SECTION AT ROOF TRUSS WITH SIDING



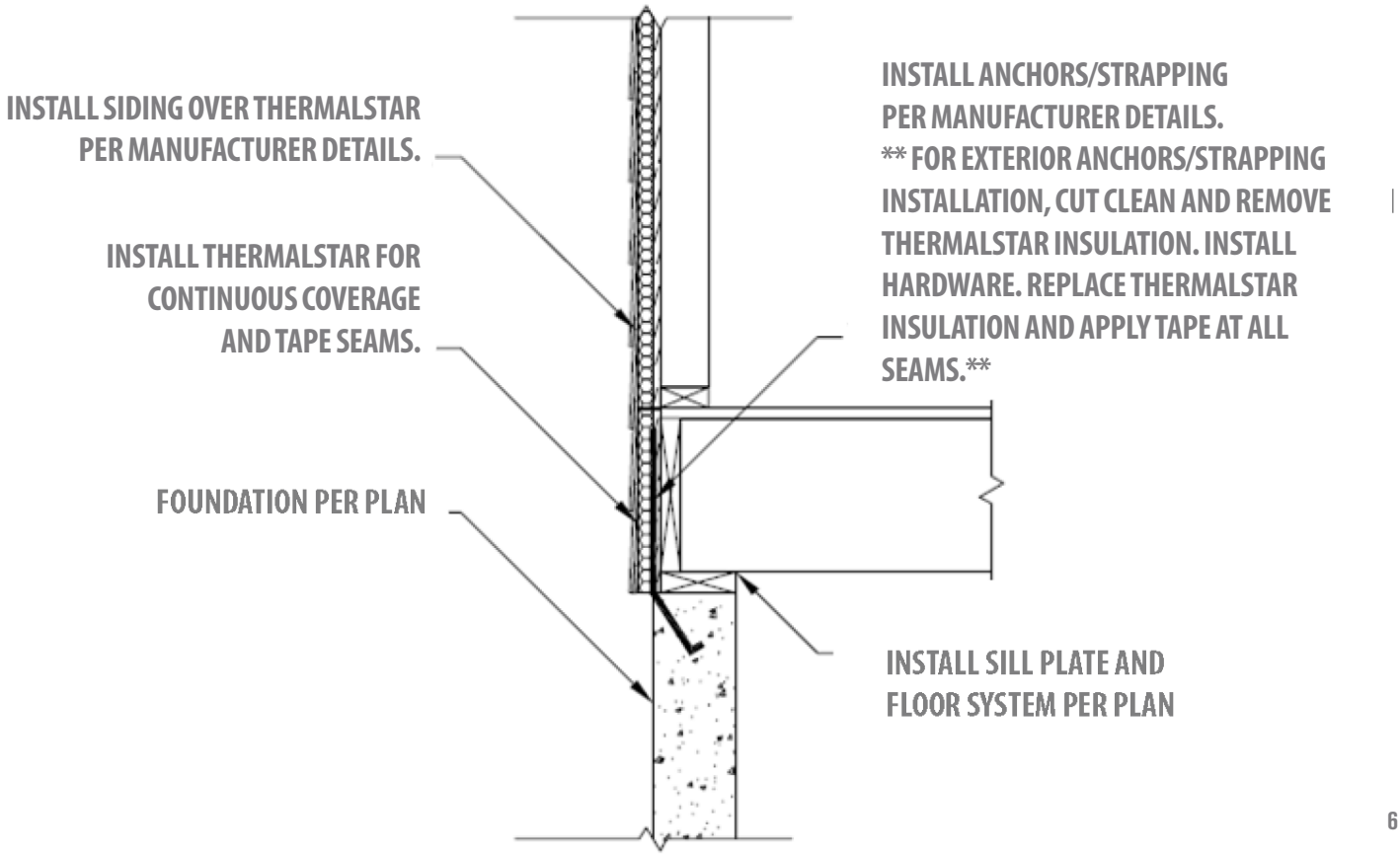
DETAIL 2: TYPICAL WALL SECTION AT FLOOR DECK WITH SIDING



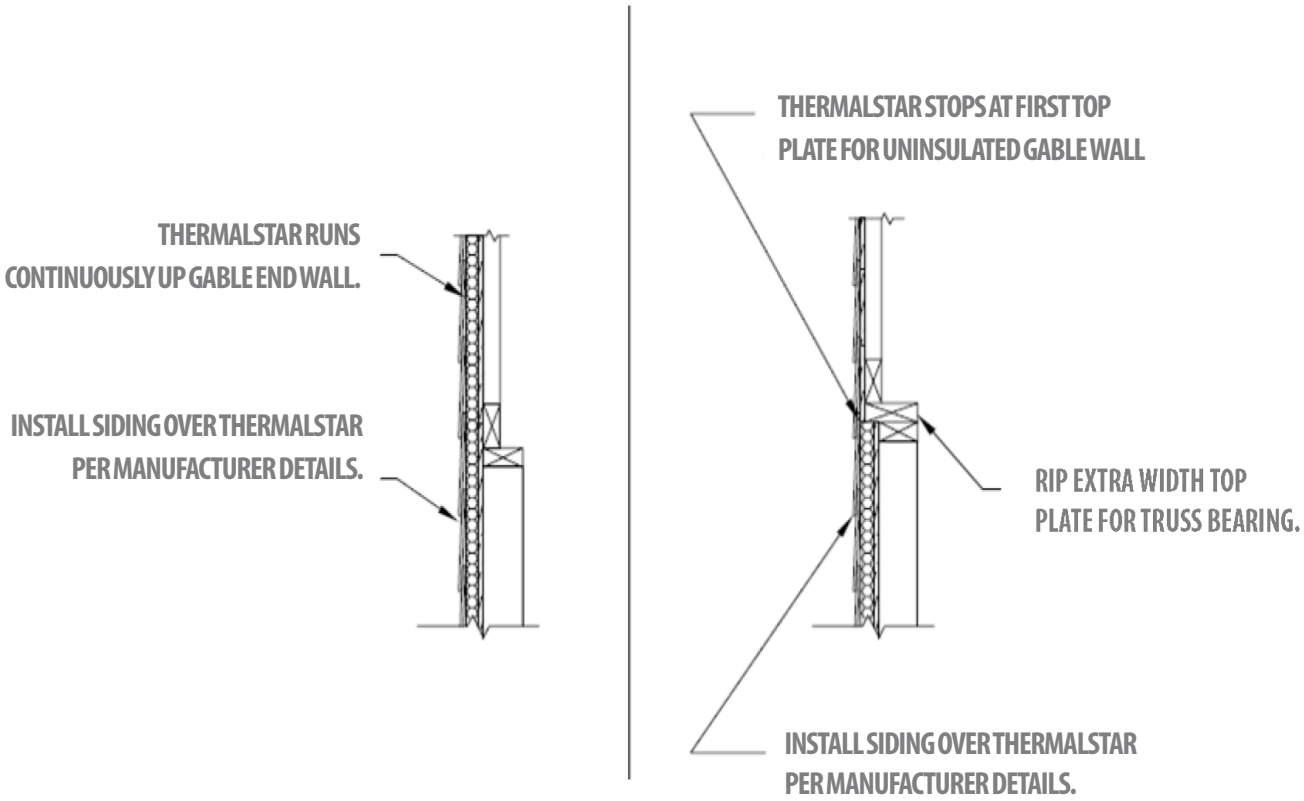
DETAIL 3: TYPICAL WALL SECTION AT FOUNDATION SIDING FLUSH WITH FOUNDATION



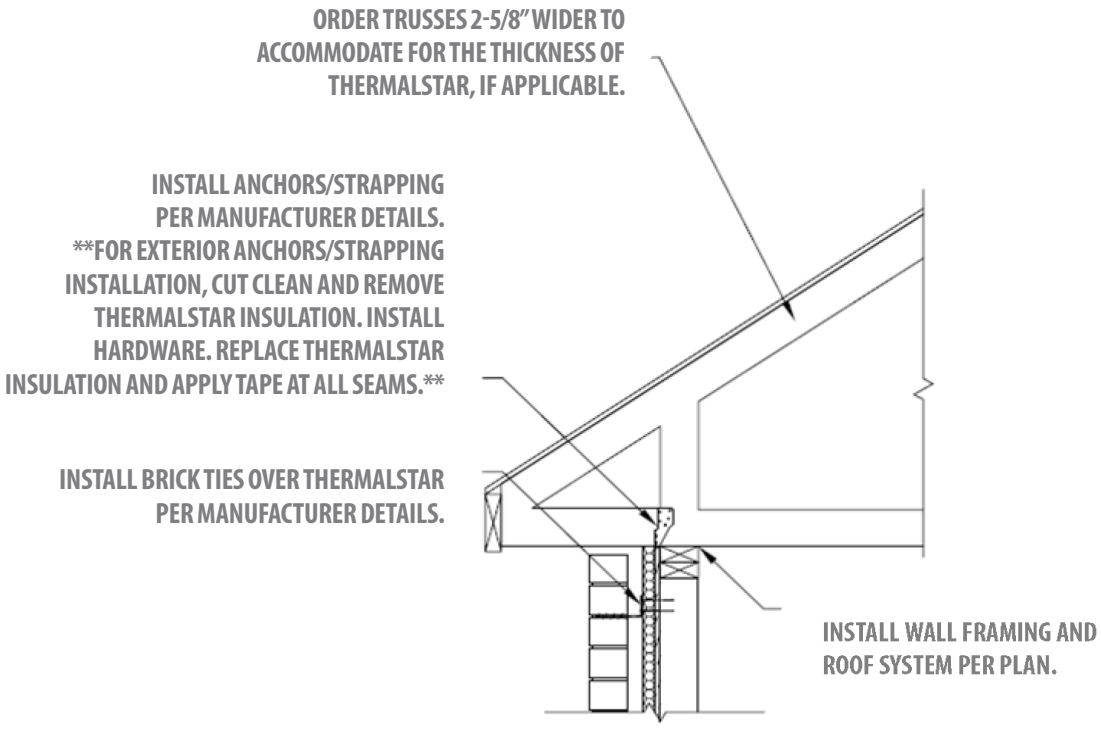
DETAIL 4: TYPICAL WALL SECTION AT FOUNDATION WITH SIDING



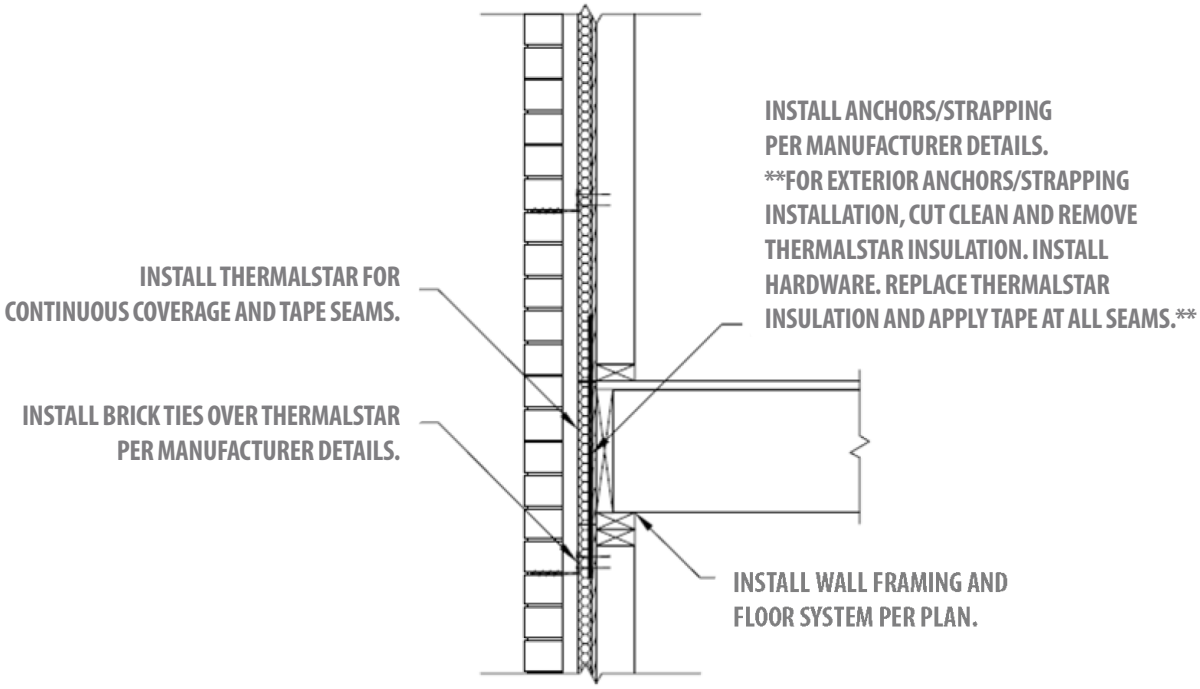
DETAIL 5: OPTIONAL WALL SECTIONS GABLE END WALL AT ROOF TRUSS WITH SIDING



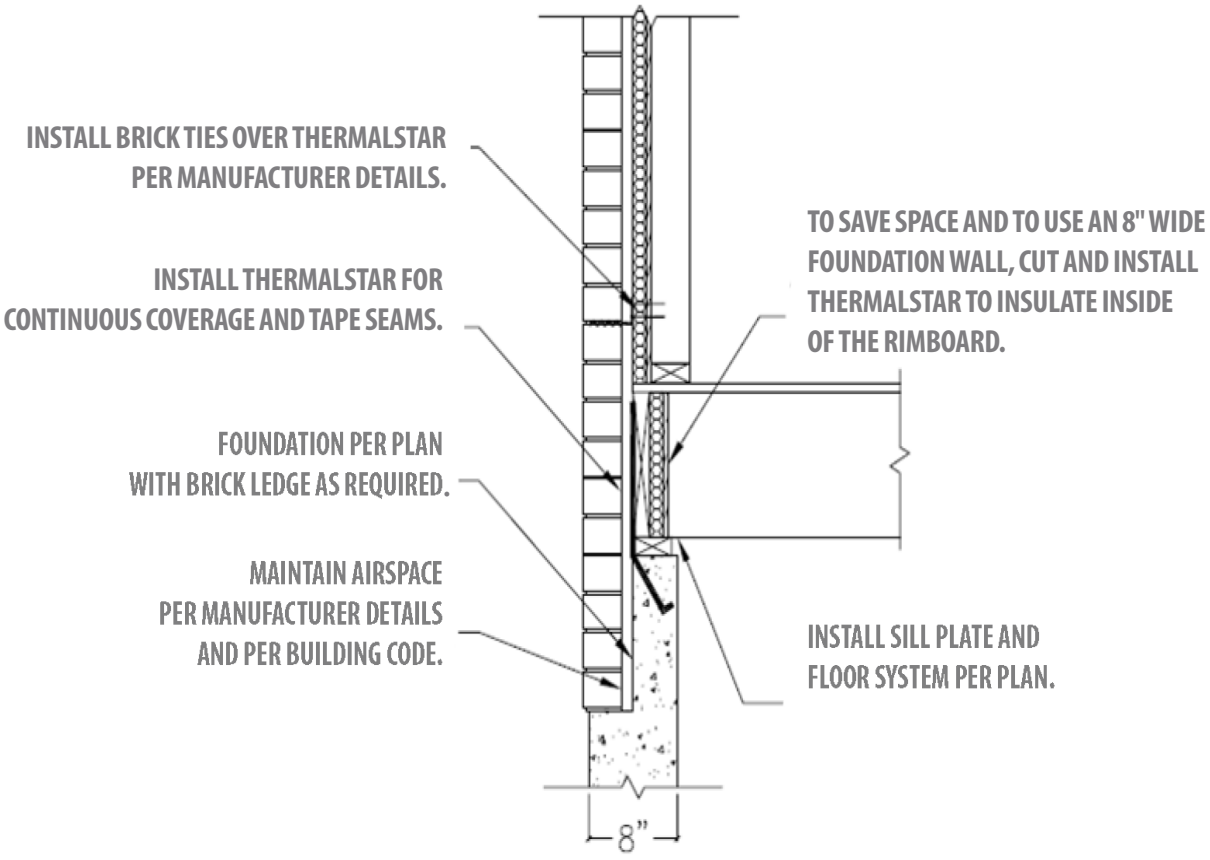
DETAIL 6: TYPICAL WALL SECTION AT ROOF TRUSS WITH BRICK



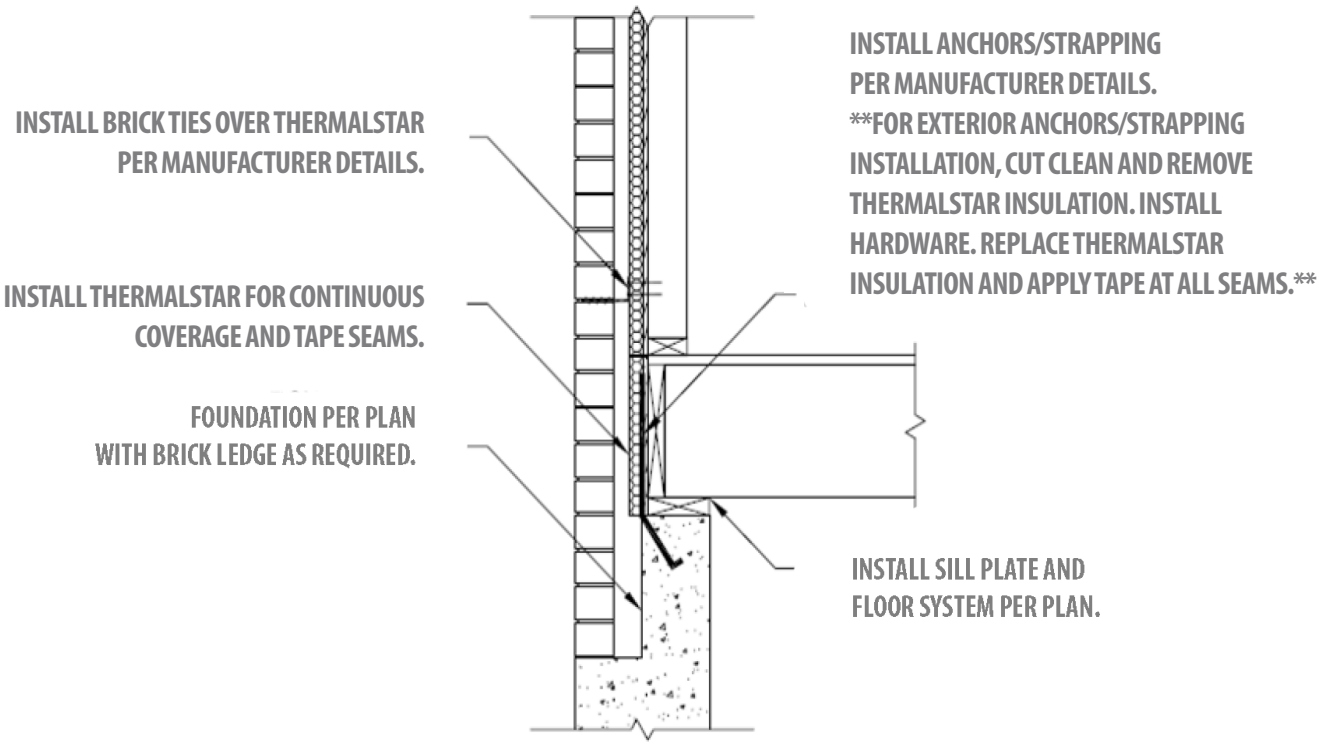
DETAIL 7: TYPICAL WALL SECTION AT FLOOR DECK WITH BRICK



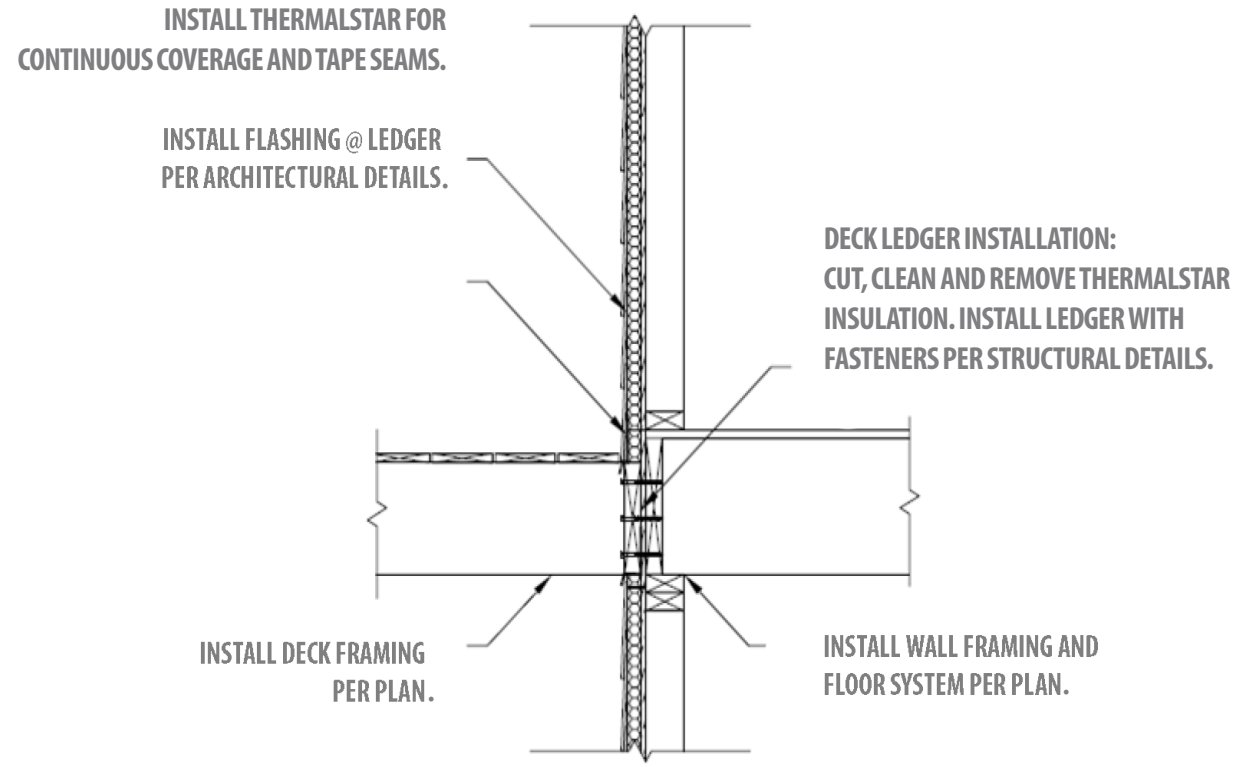
DETAIL 8: TYPICAL WALL SECTION AT 8" FOUNDATION WITH BRICK



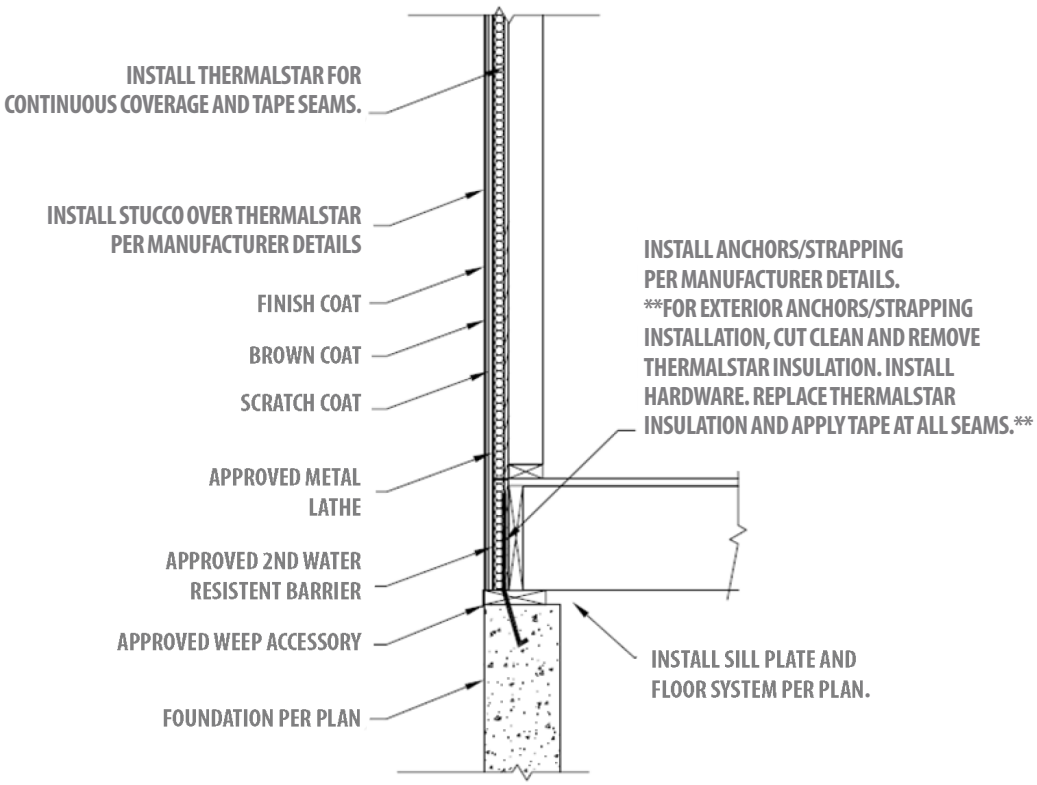
DETAIL 9: TYPICAL WALL SECTION AT FOUNDATION WITH BRICK



DETAIL 10: TYPICAL WALL SECTION AT EXTERIOR DECK



DETAIL 11: TYPICAL WALL SECTION AT FOUNDATION - 3 COAT STUCCO



DETAIL 12: TYPICAL TAPING AND WINDOW INSTALLATION DETAILS