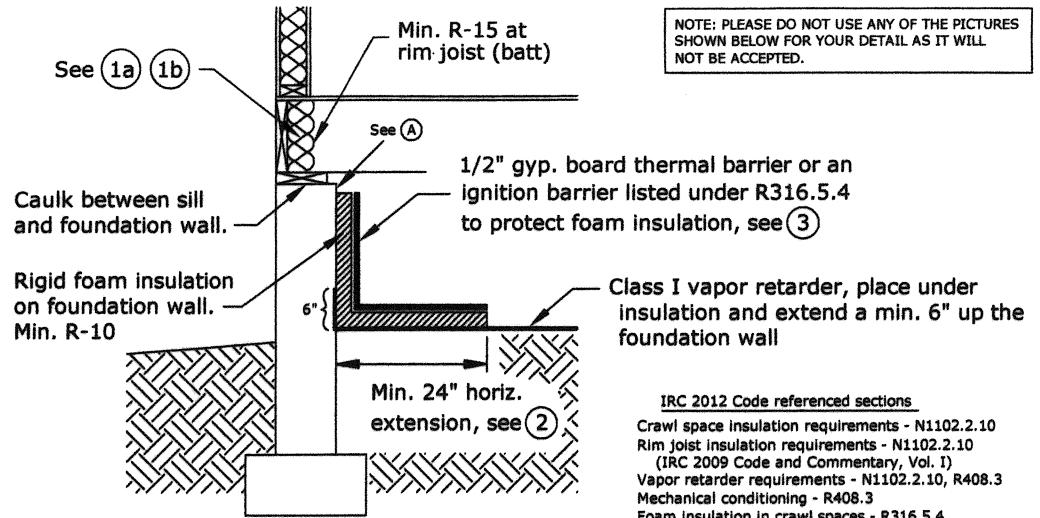


Unvented (conditioned) crawl spaces

If an unvented crawl space will be used, please provide the following information:

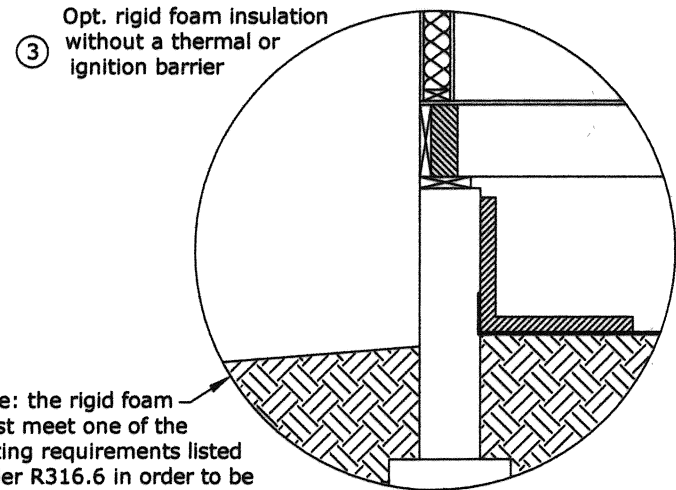
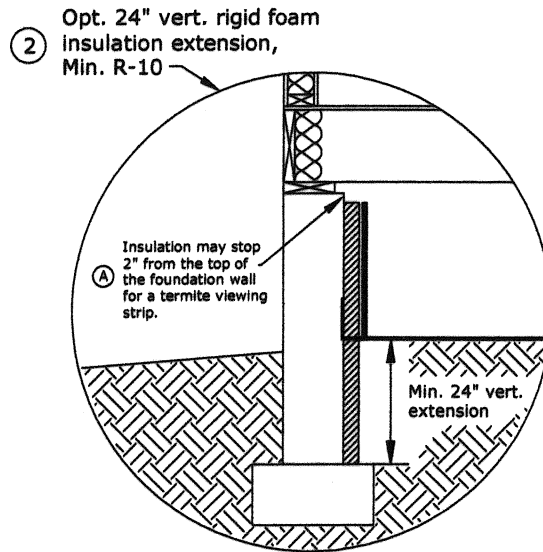
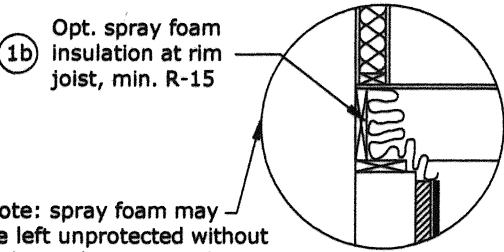
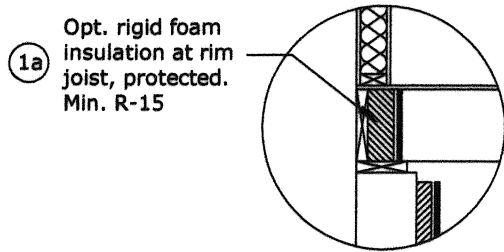
- 1) A typical foundation wall section detail to show how the unvented crawl space will be constructed (see Typ. Foundation Detail below). Please specify all insulation types to be used, the thickness, R-value, and location of the insulation in the crawl space. Please also show the type of thermal or ignition barrier to be used and vapor retarder.
- 2) Specify which one of the three types of mechanical conditionings will be used, per R408.3.
 - a) Continuously Operated Mechanical Exhaust Ventilation (R408.3.2.2.1)
 - b) Conditioned Air Supply (R408.3.2.2.2)
 - c) Use an existing plenum per, M1601.5 (R408.3.2.2.3). **NO LONGER PERMITTED FOR USE IN NEW CONSTRUCTION; MAY BE USED TO CONVERT EXISTING VENTED FOUNDATIONS TO UNVENTED.**
- 3) Provide a ICC-ES report (from www.icc-es.org) for all rigid foam insulation and spray foam insulation to be used.



NOTE: PLEASE DO NOT USE ANY OF THE PICTURES SHOWN BELOW FOR YOUR DETAIL AS IT WILL NOT BE ACCEPTED.

Typ. Foundation Detail

- IRC 2012 Code referenced sections
- Crawl space insulation requirements - N1102.2.10
 - Rim joist insulation requirements - N1102.2.10 (IRC 2009 Code and Commentary, Vol. I)
 - Vapor retarder requirements - N1102.2.10, R408.3
 - Mechanical conditioning - R408.3
 - Foam insulation in crawl spaces - R316.5.4
 - Foam flame spread and smoke developed index - R316.3
 - Foam use on sill plates and headers - R316.5.11
 - Foam use without thermal or ignition barrier - R316.6



Note: spray foam may be left unprotected without a thermal or ignition barrier at the sill plate and joist provided that the 3 conditions listed under R316.5.11 are met. However, many spray foams, including Icynene, are not permitted to be used in a crawl space unprotected if the air is circulated to other parts of the building (which would be the case for a Conditioned Air Supply crawl space (R408.3.2.2.2)). Refer to the manufacturer's ICC-ES report to determine spray foam's applicability.

Note: the rigid foam must meet one of the testing requirements listed under R316.6 in order to be installed unprotected. The foam must also be permitted to be used in a crawl space per the manufacturer's independent test report. Dow Thermax (ESR-1659), Dow Styrofoam XPS (ESR-2142), Kingspan GreenGuard (Dr.J Ter No. 1407-03), and Owens Corning FORMULAR 150 or 250 (UL ER8811-01) meet these requirements.