State of Ohio Weatherization Program Standards

Section **BUILDING SHELL INSPECTION**

Subject **Foundation**

FOUNDATION DESCRIPTION 202-5.1

Note the presence of hazards. Determine if corrective actions are possible within the scope of the program.

hazards
202-5.1a

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Determine the types of materials that make up the foundation. Note any changes in the foundation materials and their location.

construction materials
202-5.1b

Note evidence of any existing moisture inside or outside the foundation area. Note evidence of previous moisture problems, such as mold, mildew, rot, etc. Note sewage leakage problems. Determine if corrective action is possible within program guidelines.

moisture/sewage problems
202-5.1c

Note the condition of the foundation walls. Note the location of building penetrations and damaged areas. If the foundation wall is damaged, determine if corrective action is allowable or possible within program guidelines.

condition
202-5.1d

CRAWL SPACE 202-5.2

Determine whether the crawl space is intentionally heated, conditioned or non-conditioned (see Table 202-5). Treat a post foundation as a non-conditioned area.

determining zone classification
202-5.2a

NEAT

If the crawl space is connected to a basement, decide if isolating it from the basement is appropriate. Consider the possibility of water lines freezing (see Table 202-5).

connection to basement
202-5.2b

Measure the crawl space area.

measure area
202-5.2c

Note whether a vapor barrier is present and inspect for complete coverage and effectiveness. If a vapor barrier is needed, calculate the amount of material necessary to achieve total coverage.

vapor barrier
202-5.2d

Note the presence of water lines and the potential for freezing if floor insulation is to be added.

water lines
202-5.2e

ventilation
202-5.2f

Observe the amount and condition of any existing ventilation. Calculate the amount of closeable ventilation needed for the crawl space area (1ft^2 NFVA for every 1500ft^2 crawlspace floor area). If proper drainage exists, and there is no danger of standing water or moisture production, foundation ventilation is not necessary. If there are vents present, proper drainage and an effective, complete vapor barrier exists, the vents may be closed permanently.

direct air leakage
202-5.2g

Note the presence and location of any direct penetrations, and any other direct air leakage sites. Record locations and make recommendations for correction.

bypasses
202-5.2h

Note any plumbing pipes, chaseways, or other bypass air leakage sites.

exhaust vent termination
202-5.2i

Note any exhaust vent terminations in the crawl space area.

floor insulation
202-5.2j

If the crawl space is non-conditioned, note the condition of any existing floor insulation. If there is no insulation, calculate the amount of R-19 insulation needed.

perimeter insulation
202-5.2k

Determine if the crawl space functions as an intentionally heated, conditioned or non-conditioned space (see Table 202-5). If the crawl space is conditioned, determine the amount of insulation necessary (R-11 vinyl faced). Moisture related problems and potential air quality problems must be corrected prior to the installation of perimeter insulation.

BASEMENT 202-5.3

determining zone classification
202-5.3a

Determine whether the basement functions as an intentionally heated, conditioned or non-conditioned area (see Table 202-5).

basement area
202-5.3b

Measure the basement floor and wall area.

floor moisture
202-5.3c

Inspect for signs of a basement floor moisture problems and determine if corrective actions are necessary.

water lines
202-5.3d

Note the presence of water lines and the potential for freezing because of the addition of floor insulation.

Table 202-5

Classification of Duct/Distribution System Zone

What defines whether the area that a distribution system runs through is intentionally heated, conditioned, or non-conditioned? What retrofits should be done?

Zone is:	**Intentionally Heated** If the zone has heat being intentionally supplied to it	**Conditioned** if the temperature of the zone is closer to inside temperature than to outside temperature (in winter)	**Non-conditioned** if the temperatureof the zone is near the outside temperature (in winter)
1. DESCRIPTION: Area has:	Supply registers, radiators, and/or heat source	Distribution system, furnace/boiler cabinet losses	No space heat
Intended communication with the house:	Inside the building envelope	Inside the building envelope	Outside the building envelope
2. RETROFITS Insulation: Perimeter?	YES	Dependent on occupant usage	NO
Basement? (optional based on NEAT)	NOTE: Do not insulate basement walls that are below the ground surface level with any product where you can not ensure an air barrier, as the flow of moisture behind the insulation may tend to encourage mold growth. We learn that all wall components require a surface exposure to drying potential, either to inside or outside. Basement wall surfaces below grade level need to have the opportunity to “dry to the inside”.		
Floor? Ducts/Boiler Pipes? Water Pipes?	NO NO NO	NO NO NO	YES YES YES: if danger of freezing
Air Leakage Seal envelope leaks?	To outside	To outside	To both in and outside
Duct leaks: Seal returns? Seal supplies? Ventilation?	YES NO NO	YES based on tests NO	YES YES NO: if dry, well drained & vapor barrier present YES: if moisture is present

direct air leakage 202-5.3e	Note the presence and location of any direct penetrations, and any other direct air leakage sites.
thermal bypass sites 202-5.3f	Note any plumbing pipes, chaseways, or other bypass air leakage sites.
exhaust vent termination 202-5.3g	Note the presence of any exhaust vent terminations in the basement area.
exterior windows and doors 202-5.3h	Note the number, size and condition of windows and exterior doors. Note any broken or missing parts or missing glass that would allow air infiltration.
floor insulation 202-5.3i	If the basement area is non-conditioned, note the condition of any existing floor insulation. If there is no insulation, calculate the amount of R-19 insulation needed.