15 COMMON MISTAKES / OMISSIONS FROM RESIDENTIAL PLANS

Hamilton County Planning and Development, Room 801 County Administration Building (513) 946-4550

1. Portions of the residential application form (typically line 13 involving HVAC) are often left blank or are improperly completed. See the mechanical information sheet for assistance completing line 13 on the form.

2. The finished grade lines shown on the elevation views of the building plans do not agree with the proposed finished grades indicated on the site plan (at the corners of the building).

3 Building plans fail to indicate the type of dampproofing system being utilized.

4. Smoke detectors are not shown *inside* each sleeping room. These smoke detectors, like all others, must receive their primary power from the building wiring system and have a battery backed-up power supply. All detectors must be interconnected to each other such that the actuation of one alarm will actuate all alarms.

5 Exterior walls of wood framed construction must not only be structurally braced at their corners *but, also,* every twenty-five (25) feet of wall length as well.

6. Drawings do not contain adequate framing information concerning walls more than nine (10) feet tall. These types of walls including story-and-a-half and two-story gable end walls (located in rooms with vaulted ceilings) need special design attention to limit horizontal wind load deflection. Stud size, stud spacing, bracing methods and other framing details, like balloon framing, should be shown.

7. The configuration of the home (story counts, types of exterior wall coverings, roof construction, etc.) is not always best described by the one, "typical wall section." The designer should provide applicable wall sectioning to fully describe the construction of the home.

8. Site plans indicate unbalanced fill levels (against foundation walls) exceeding that allowed by the code. An eight (8) inch thick foundation wall may support up to seven (7) feet of unbalanced fill, likewise, a ten (10) inch thick wall up to eight (8) feet. These limitations are based on a foundation wall height of eight (8) feet (measured from the top of the basement slab). An engineered foundation wall design is required when these limits are exceeded.

9. Glazing within twenty-four (24) inches of either side of an egress door must be labeled on the plans as, "tempered glass."

10. Often, specific beams, headers and girders are inadequately sized. Often, the allowable bending stress of the material is exceeded or the member deflects too much, or both. Also, the amount of bearing area needed at the ends of these members is not specified, or, when it is shown, it is shown inadequately.

11. Plans need to show a minimum of an R-6 insulation on the inside surface of the foundation wall. This insulation must extend down from the top of the foundation wall to a point which is thirty (30) inches lower than finished grade around the building. This includes the foundation common to the garage.

12. All drawings must have a complete index. This index must account for all documents submitted for review, i.e., site plans, fireplace cut-sheets, window specifications, engineers' reports, all drawing sheets, etc. The purpose of the index is to let the plan reviewer know that your submittal is complete, after all, *if a sheet is missing from the set only the applicant would know it.*

13. All deck and porch columns are required to be anchored at the bottom to resist lateral displacement.

14. A full height and detailed cross-sectional view of the fireplace / chimney (from the footing to its cap) is not provided. Include a plan view and all elevation views of the fireplace face, hearth extension, and the dimension between the fireplace opening and all mantel & surrounding trim materials. The thicknesses of all wood mantel and trim materials should be shown.

15. Partial height concrete foundation walls (walls stepped-down to accommodate sloping grades) may not support more than forty-eight (48) inches of unbalanced fill. Stepped-down walls act as retaining walls because their top support (the floor system above) has been removed. Engineers' design is required for unbalanced fill levels exceeding forty-eight (48) inches.