

Oregon
Interpretive Ruling No. 92-7
TABLE 53-0 BASE PATH 1 LIMITATIONS

Initiated By: ALAN SEYMOUR

ENERGY COORDINATOR

BUILDING CODES AGENCY

QUESTIONS CONSIDERED

1. What ceiling areas must be entered for Base Path 1 of Table 53-0 when the vaulted ceilings exceed 50 percent of the heated space floor area?
2. What skylight areas must be entered for Base Path 1 of Table 53-0 when the skylight exceeds two percent of the heated space floor area?
3. What door areas must be entered for Base Path 1 of Table 53-0 when the wood main entry door exceeds 24 square feet?

APPLICABLE CODE SECTION (Effective January 1, 1992)

Table No. 53-0 of the Oregon Structural Specialty Code and One and Two Family Dwelling Specialty Code

BACKGROUND

The residential energy code effective January 1, 1992, specifies limitations for Prescriptive Path 1 of Table 53-P. The Base Path 1 of Table 53-0 is based on Prescriptive Path 1 of Table 53-P. For Prescriptive Path 1, vaulted ceilings are allowed to be insulated to R-30 ($U = 0.033$) if the area does not exceed 50 percent of the heated floor space. An example of allowable R-30 vaulted ceiling area would be a maximum area of 750 square feet for 1,500 square feet of heated space floor area. The surface area of the vaulted ceiling must not exceed the 750 square foot limitation for the use of R-30 insulation. If the vaulted ceiling surface area exceeds 750 square feet, the area that exceeds 750 square feet must be insulated to R-38. Skylights with a U-value of 0.50 for Prescriptive Path 1 may be installed if the area does not exceed two percent of the heated floor space. Main entry doors may be wood (default of $U = 0.54$) if the area does not exceed 24 square feet for Prescriptive Path 1.

FINDINGS

1. Insulation level for the vaulted ceiling area that exceeds 50 percent of the heated space floor area
 - Prescriptive Path 1 of Table 53-P, requires only the vaulted ceiling that exceeds 50 percent over the heated floor area be insulated to R-38. This limitation must also be applied to the Base Path 1 of Table 53-0.
 - The actual area of vaulted ceilings from the plan take-off, up to 50 percent of the heated space floor area, must be entered for the Base Path 1 calculations. The area in excess of 50 percent for Base Path 1 must be included with the R-38, Flat Ceilings area.
2. Skylight area that exceeds two percent of the heated floor space
 - The skylight limitation for Prescriptive Path 1 is not to exceed two percent of the heated space floor area at a U-value of 0.50. This limitation must also be applied to Base Path 1 of Table 53-0.
 - The actual area of skylights from the plan take-off, up to two percent of the heated space floor area, must be entered for the Base Path 1 calculations. The area in excess of two percent for Base Path 1 must be included with the Windows area at a U-value of 0.40.
3. Main entry doors that exceed 24 square feet in area.
 - The main entry door for Prescriptive Path 1 can be $V = 0.54$ (wood door), up to an area of 24 square feet. This limitation must also be applied to the Base Path 1 of Table 53-0.
 - The actual area of main entry door from the plan take-off up to 24 square feet, must be entered for the Base Path 1 calculations. The area in excess of 24 square feet for Base Path 1 must be included with Other Exterior Doors area at a V-value of 0.20.

This interpretation is authorized by ORS 455.060, Rulings on Acceptability of Materials, Design or Methods of Construction and Attorney General's Opinion OP-5208 issued October 1, 1981, which advised that the statute is designed to permit authoritative interpretations of existing code requirements.

CONCLUSION

Correct entries for Base Path 1 of Table 53-0

- The actual area of vaulted ceilings from the plan take-off, up to 50 percent of the heated space floor area, shall be entered for the Base Path 1 calculations. The area in excess of 50 percent of the heated space floor area for Base Path 1 shall be included with the R-38 Flat Ceiling.
- The actual area of skylights from the plan take-off, up to two percent of the heated space floor area, shall be entered for the Base Path 1 calculations. The area in excess of two percent of the heated space floor area for Base Path 1 shall be included with the Windows at a V-value of 0.40.
- The actual area of main entry door from the plan take-off, up to 24 square feet, shall be entered for the Base Path 1 calculations. The area in excess of 24 square feet for Base Path 1 shall be included with Other Exterior Doors at a V-value of 0.20.

The Energy Conservation Board and Structural Code Advisory Board make this recommendation as an interpretation to the requirements in Chapter 53, Energy Conservation.

(signed May 28, 1992)

Rodger Bekooy, Chairman
Energy Conservation Board

(signed June 5, 1992)

John Talbott, Chairman
Structural Code Advisory Board

Date

The recommendations and findings of the Energy Conservation Board and Structural Code Advisory Board are accepted and the interpretations are adopted as stated above.

(signed June 9, 1992)

Gary J. Wicks, Administrator
Building Codes Agency Date

RESCINDED