Utah Geological Survey

Project: Review of "Geotechnical study, lot 216, Interlaken development, Midway, Utah"			Requesting Agency: Wasatch County Planning
By: Barry J. Solomon	Date: 07-21-99	County: Wasatch	Job No: 99-14 (R-14)
USGS Quadrangle: Heber City (1168)		Number of attachments: None	

In response to a request from Anthony Kohler, Wasatch County Planning Assistant, I reviewed the geotechnical report for Interlaken Estates lot 216 by Earthtec Testing & Engineering, P.C. (Earthtec, 1999). I received the report on July 13, 1999. The geotechnical report includes an addendum by American Geological Services, Inc., describing the results of a geological reconnaissance of the lot. Lot 216 is in the SW1/4 section 23, T. 3 S., R. 4 E., Salt Lake Base Line and Meridian. The purpose of my review is to assess whether Earthtec (1999) adequately addressed the potential for geologic hazards on the lot. My scope of work included a review of published geologic mapping (Bromfield and others, 1970), but I did not inspect the property. Recommendations pertaining to foundation design and site grading in Earthtec (1999) should be reviewed by a qualified geotechnical engineer.

Earthtec (1999) lists landslides, earthquake ground shaking, rock falls, debris flows, liquefaction, and subsidence as potential geologic hazards on the property. I believe Earthtec (1999) adequately addresses geologic hazards on Interlaken Estates lot 216 and I agree with the report's conclusions that the potential for geologic hazards is low. The potential for landslides may be further reduced by implementing site-design features recommended in the report. To ensure slope stability, I recommend that the developer:

- provide an engineered design for retaining walls and have the design reviewed by a qualified engineer; the design must include a site map and slope profile showing cuts, fills, and retaining walls; the retaining-wall design must consider static and earthquake ground-shaking conditions and incorporate pertinent drainage recommendations; and

- address cut-slope stability in accordance with the Uniform Building Code (International Conference of Building Officials, 1997, Appendix Chapter 33, section 3312) for any proposed permanent cuts with slopes steeper than 2H:1V (50 percent) that are not supported by retaining walls.

Wasatch County should provide a means to ensure that final recommendations are followed; one way to do this is to require the developer to submit written documentation from the consultant indicating that their recommendations were followed.

REFERENCES

Bromfield, C.S., Baker, A.A., and Crittenden, M.D., Jr., 1970, Geologic map of the Heber quadrangle, Wasatch and Summit Counties, Utah: U.S. Geological Survey Map GQ-864, scale 1:24,000.

Earthtec Testing & Engineering, P.C., 1999, Geotechnical study, lot 216, Interlaken development, Midway, Utah: Orem, Utah, unpublished consultant's report for Stephan and Sandra Dembinsky, 22 p.

International Conference of Building Officials, 1997, Uniform Building Code: Whittier, California, International Conference of Building Officials, Volume 1, Appendix Chapter 33, p. 407-411.