February 21, 2005

Dear Committee Member,

My field of research is experimental particle physics, with a particular interest in neutrino physics. I am interested in the construction of a large underground detector for neutrino oscillation research. Recently I have been exploring the capabilities of a large scintillation detector, which could offer a wide range of neutrino physics and astrophysics (solar and geoneutrinos), as well as proton decay sensitivity. This type of project involves a large community of researchers, and collaborations of typically one or two hundred members. I am currently a member of the Super-Kamiokande collaboration, at an underground laboratory in Japan, and have worked on the MACRO experiment at the Gran Sasso laboratory in Italy; both of these collaborations are of roughly comparable size to that which would form to work on a large scintillation detector.

The Kimballton site offers a possible location for this project. The achievable depth will be entirely adequate. The baseline from existing accelerator laboratories (Fermilab and Brookhaven) may be appropriate for a scintillation detector.

If Kimballton is selected as the DUSEL site, I will work as a member of the Kimballton team to help make this a reality.

Sincerely,

Kate Scholberg
Duke University Department of
Physics