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Robert Huff* (rohuff@iusb.edu), Department of Mathematical Sciences, Indiana University South Bend, 1700 Mishawaka Avenue, P.O. Box 1711, South Bend, IN 46634. *Conelike soap films spanning tetrahedra*. Preliminary report.

The first existence proofs of non-flat soap films spanning polyhedral boundaries have appeared only recently. Here, further results are discussed in the case where the boundary is a tetrahedron. Specifically, we will discuss the existence of soap films spanning tetrahedra within a two parameter family. All of these soap films are 'conelike', but certain qualitative properties, such as flatness or the nature of the interior singular curves, depend on the shape of the tetrahedron. (Received February 02, 2008)