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Javier Alonso, Horst Martini and Zokhrab Mustafaev* (mustafaev@uhcl.edu), 2700 Bay Area Blvd., Department of Mathematics, University of Houston-Clear Lake, Houston, TX. *On Orthogonal Chords in Minkowski Spaces*. Preliminary report.

It is known that a convex plate of diameter 1 in the Euclidean plane is of constant width 1 if and only if any two perpendicular intersecting chords have total length at least 1. We show that, in general, this result cannot be extended to normed (or Minkowski) planes when the type of orthogonality is defined in the sense of Birkhoff. Inspired by this, we present also further results on intersecting chords in normed planes that are orthogonal in the sense of Birkhoff and in the sense of James. (Received August 21, 2008)