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Simon M. Smith and **Mark E. Watkins*** (mewatkin@syr.edu), Syracuse University,
Mathematics Department, 215 Carnegie, Syracuse, NY 13244-1150. *Finite subgraphs of
 d -distinguishable, locally finite graphs.* Preliminary report.

It is known (M.E. Watkins and X. Zhou, 2007) that every infinite, locally finite tree T with finite distinguishing number $d(T) = d_0$ contains a finite subtree with distinguishing number d_0 . It is not difficult to prove more generally that if every finite subgraph Φ of an infinite, locally finite graph Γ satisfies $d(\Phi) \leq d_0$, then $d(\Gamma) \leq d_0 + 1$. We investigate conditions subject to which this bound may be sharp. (Received January 16, 2012)