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James R Gatewood* (james.gatewood@usma.edu). *Two Mode Matrix of Urban Structure.*

We present an urban network that takes into account how streets and neighborhoods interact and influence each other. This two-mode urban structure presents another approach to analyze urban environments. We use GIS to construct a network map of an American city and then apply network analysis to evaluate how the network structure influences such features as traffic flow, density and housing considerations. Also, given the rise of African cities, where some are being completely designed and developed in lieu of developing organically, the results of this project will make recommendations for effective metropolitan growth structures. (Received September 14, 2013)