

6.2.1

New Traffic Forecasting Model Networks from GIS Datasets

Presenter

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The development of travel demand model networks from GIS datasets is described, based on work done for multi-state Metropolitan planning agencies, project studies in small city settings, and a statewide traffic-forecasting model. Various public access multi-jurisdictional GIS street and highway files were used to create such networks, based on their availability and any enhancement performed by local agencies, and they are compared based on various criteria for "model readiness." These include how "data-rich" they are, how well they overlay (or otherwise join) other GIS datasets with necessary data, how accurately/properly they depict traffic access patterns, if the density of endpoints/nodes is appropriate to the task, and street segment connectivity through such nodes. Data was utilized and joined to networks from a variety of sources, some of which are not traditionally used in travel forecasting including traffic signal locations, railroad crossings, and roadway curve and grade files.