

6.3.3

Expediting Nevada DOTs Crash Analysis through a Multilevel Linear Referencing System

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The Safety Division of Nevada DOT (NDOT) was faced with the challenge of having to locate crash data against multiple linear referencing methods (LRM's). Attempting to meet this objective was requiring NDOT to maintain multiple versions of the network built with different LRM's. This was time consuming and impractical. NDOT's response to this was to implement a multilevel linear referencing system that would support multiple LRM's and geometric representations of the network. In addition, NDOT has collaborative relationships with several of the counties in Nevada to incorporate changes they make to their local road systems into the LRS. As an example Clark County, the most populated county in Nevada, embarked on a data cleaning effort to align road centerlines with parcel data. This creates numerous changes needing to be rolled into NDOTs MLRS. NDOT uses a process that includes data fusion and conflation to identify and incorporate these changes into the LRS. Subsequently, this allows NDOT to still locate all the crashes against the multiple LRM's. In addition, the tools and process NDOT uses greatly reduces the amount of time spent maintaining the LRS.