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Unifying the Colorado DOT (CDOT) Linear Referencing System

Presenter

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Over many years, the linear reference system (LRS) for CDOT's highways diverged into more than one version. Various business needs, misunderstandings of appropriate maintenance processes, and lack of control caused these different versions to be built at CDOT. One example shows that some highway data could not track maintenance actions all the way out to the rights of way where highways end. This presentation describes a project to unify these different LRSs into a single LRS that meets all business needs and provides a single linear reference framework for all of CDOT's highways. The goals of this project were to provide a product that is more useful to CDOT's customers and to reduce confusion across CDOT's business units. The Unified LRS effort produced matching data segmentation across all highways for project development, field construction, safety, FHWA reporting, as well as asset management and planning. CDOT also is setting in place change management controls, and policy to help keep cross systems in sync. This presentation emphasizes technical methods, such as detailed imagery, CAD drawings, and linear referencing calibration, and examples for unifying the LRS.