WHAT IS A LINEAR REFERENCING SYSTEM?

A linear referencing system (LRS) is a set of methods for specifying a location as a distance, or offset, along a linear feature (e.g., centerline) from a site with a known location. This ability is made possible through the use of route features that have unique identifiers and a measure system (e.g., distance, time, etc.). The concept is similar to a ruler, in which each tick mark represents a distance from another tick mark for a given unit of measurement.

MARYLAND STATE HIGHWAY LRS IMPLEMENTATION

The Maryland State Highway Administration’s (SHA) LRS is based on county, route and milepoint and uses a distance-based measure system. Distances are measured in 1/1000ths of a mile along a route, beginning and ending at jurisdictional boundaries. For a more accurate measurement, SHA uses driven mileage to calculate the distance of a route.

HOW DOES MD SHA USE LINEAR REFERENCING?

SHA uses linear referencing to manage highway-related assets and roadway characteristics that do not have explicit x,y coordinates. Recording asset location in terms of relative distance along a line allows for multiple sets of overlapping attributes to be assigned roadway measurements without also requiring the roadway feature be segmented where an attribute value changes.

The One Maryland One Centerline (OMOC) Program is a collaborative effort between federal, state, and local entities to create an authoritative, statewide roadway dataset that meets the needs of a diverse community.

BENEFITS

Local partners in the OMOC Program will have access to this linear referencing system to manage their own assets and easily exchange data with the state and neighboring jurisdictions.

DATA INTEGRATION

The use of mile points is crucial to accurately managing the linear characteristics of a highway and locations of associated data, such as pavement type, speed limit, number of lanes, guardrails, roadway quality, signage, crash locations, and light poles.

CONTACT US

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