DATA ELEMENT STANDARD

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SUPERSEDES: N/A	

SUBJECT	EFFECTIVE DATE:	NUMBER OF PAGES:
Location – State Odometer Specification	03/04/2024	2

THIS STANDARD APPLIES TO	REVISION NUMBER:	LAST REVIEWED:
Caltrans Employees, Contractors & Consultants	N/A	N/A

REFERENCE	APPROVED SIGNATURE
DGP-04 Linear Referencing DES-1 Location Specification - County, Route and Postmile	*Chad Baker* Digitally signed by Chad Baker Date: 2024.03.04 07:57:38 -08'00'

PURPOSE:

This standard defines how locations using the State Odometer linear referencing method (LRM) are represented in corporate datasets and database systems within Caltrans.

GENERAL INFORMATION:

There exists a need to determine the location of projects, assets, etc. for mapping and analytics purposes. There needs to be a data element standard defined for all Caltrans systems and partners to utilize such that records using statewide odometer measures can be mapped using the Caltrans linear referencing system.

This standard defines how State Odometer measure referenced data will be represented to improve data consistency, accuracy, and interoperability.

STANDARD:

State Odometer measure data shall be validated with the linear referencing source system of record or authoritative reporting source as defined in the Linear Referencing Practice Document. The linear referencing system State Odometer measure values shall be derived from the Caltrans Postmile measure data.

Authoritative source systems of record that contain location information shall have valid data whose format conforms with the data standard as described in this document.

Note of Caution: While this data standard defines how state odometer measure data shall be formatted, use of the state odometer LRM is not recommended due to measure values being recalculated with each change to a route's geometry. This will result in items located by the state odometer LRM to shift their relative

position on the route unless the items measure values are recalculated. <u>For this reason, the Caltrans Postmile LRM is the recommended method to use to locate items along the state highway system.</u>

<u>REFERENCES:</u>

Please refer to the following attachments for more details:

- Caltrans State Odometer Linear Referencing Method Data Specification

<u>FINANCIAL IMPACT:</u>

Some programs and/or database systems may require additional resources to meet the State Odometer specification but the number of existing systems requiring modification are estimated to be low (less than 5).

Training may be required for new and current staff to prepare them for meeting these new requirements. For example, data custodians and staff may need training on understanding how Rout IDs are created and assigned to non-state highway mainline routes.

Some data collection efforts and systems may need to be modified to collect Statewide Odometer compatible location information that are not currently doing so to enable mapping and spatial analysis.

Staff time will be saved from manually determining, checking, reviewing, and revising location data. Valid location data improves efficiency and decision making.