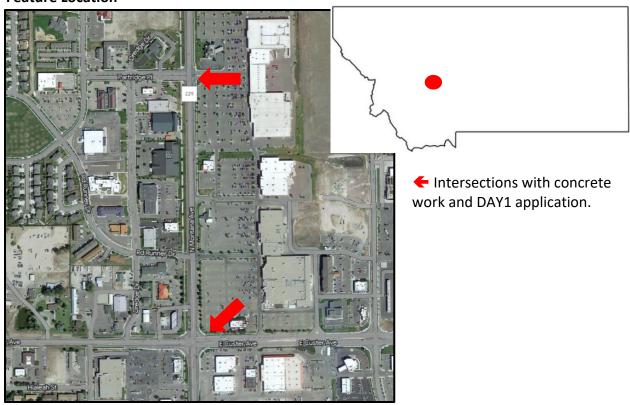




Experimental Feature Work Plan April 2023

| Experimental Feature: | DAY1 Concrete Finishing Aid |
|------------------------------|---|
| Location: | Great Falls District, Lewis & Clark County, City of Helena, |
| | Custer Avenue & Montana Avenue Intersection |
| MDT Project Name: | Custer Ave Signals – Helena |
| MDT Project Number: | CMDP-G 5899(61) |
| Experimental Project Number: | MT-23-03 |
| Principle Investigator: | Chad DeAustin, Experimental Project Manager, (ExPM) |
| Technical Contact: | Wes Dess, Concrete Supervisor |

Feature Location



Feature Description & Outline

DAY1 is a topical concrete additive produced by Solomon Colors and advertises improved workability and finish. It is applied after placement of the concrete and prior to floating or troweling. The manufacture states that DAY1 aids in finishing by raising more paste to the surface and extending the workable time. DAY1 is advertised to have many other features and benefits, found on the <u>Solomon Colors website</u>. The product is mostly used in architectural applications but some of the benefits would be applicable to transportation as well.

MDT specification 501.03.5C prohibits the use of concrete finishing aids because most of the products on the market negatively influence the water to cement ratio causing early spalling or cracking. Using DAY1 will not alter the ratio and MDT decided to evaluate the product. The construction project includes sidewalk improvements. DAY1 will be applied to have the concrete and the other half will be left untreated for control.

Evaluation Procedures & Schedule

The measures of effectiveness prevalent with this feature are:

- Construction practices (constructability, construction time, cost effectiveness, etc.),
- Workability and curing differences,
- Durability of concrete with DAY1 application.

In accordance with MDT's Experimental Features Procedures, the Experimental Project Manager will monitor and report on performance for a minimum of five years annually. This includes delivery of a work plan, construction report, annual reports, and final project report.

2024: Installation/Construction Report

2025-2028: Annual Inspections/Evaluation Reports

2029: Final Evaluation/Final Report

A dedicated webpage provides all reporting for the experimental feature.