TECHNOLOGY & EQUIPMENT

UPDATED DECEMBER 2025

Driver Services Program launched the MAX System. The new system not only standardizes but also creates efficiencies and streamlines operations resulting in even shorter wait times at local offices—if customers even have to go into an office at all. To further enhance operational efficiency, the IT Program implemented a new integration with the MAX System to automate loading transactions into PeopleSoft.

MAX System

Geology Program continued implementing monitoring-while -drilling equipment to provide additional data that supplements standard drilling practices. The incoming data is still in the early stages of correlating to geotechnical soil properties.

Monitoring-While-Drilling Equipment

WHP Ruggedized Computer Solutions

Procurement Services Program issued a contract to Upstate Wholesale Supply, Inc. (dba) Brite to modernize Patrol's in-car computer systems. IT worked with WHP to procure, image, and deploy new rugged tablets to troopers, the commercial carrier group, the academy, and other employees requiring specialized devices.

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Mobile Work Platforms

Employee Safety Program implemented mobile work platforms on the back of vehicles to enable employees to set up and take down traffic control faster, reducing the time and risk from working on roads.

Geology Program started refurbishing its 1050 ATV drill rig to prolong the service life of this critical asset for another 20 years or more. Geology also updated laboratory equipment by adding a new oven and a direct shear machine to improve testing efficiencies for laboratory soil samples.

Geology Equipment

District 1 Brine Plant

District 1 produced 20,237 gallons of brine with their new brine plant, which will supply roughly 1/3 of the liquids used in a winter for cost and time savings.

District 2 implemented a new mastic patching machine to provide more versatility on pavement maintenance.

District 2 Mastic Patching Machine

TECHNOLOGY & EQUIPMENT

UPDATED DECEMBER 2025

LEICA TERRAINMAPPER-3

Photogrammetry & Surveys Section installed a TerrainMapper-3 to their Cessna Caravan airplane, replacing their aging digital mapping camera that was used for 17 years to collect aerial photography for project mapping. With the new TerrainMapper-3, the section has accomplished the following:

- *Collected LiDAR data and digital imagery on 9 STIP projects 30 geology slide monitoring locations, including the entire length of the Wind River Canyon.*
- *Greatly reduced the time needed to create topographic mapping by allowing plotters to map directly from the point cloud. What once took up to 20 days to map topography for a medium-to-large interstate project is now taking less than 10 days.*
- *Reduced mapping activities from 115 days down to 65 days while creating more accurate maps and surface models in half the time.*

Unmanned Aircraft System (UAS) Program oversaw drone usage, which helped bolster efficiency across multiple programs, including:

- *Measuring approximately 260 stockpiles, at around 80% labor savings, while significantly improving accuracy and consistency and removing personnel from safety hazards.*
- *Surveying, saving about 90% of time compared to conventional survey techniques while reducing the personnel needed to complete surveys.*

DRONES