Project Summary:

Heath Creek Truck Parking

LOCATION	START – FINISH	COST	PARTNERS	
Rest Area I-35 NB Heath Creek	September 26, 2024 June 30, 2025	$32,014	• Commercial Vehicle Operations	• Drivewyze

Project Description

Truckers often struggle to find parking to take legally required breaks, which is not only an inconvenience for drivers, but also poses a safety risk for the motoring public. MnDOT is testing a detection system to identify the number of available truck parking spaces at the Heath Creek Rest Area (Northbound) located at M.P. 68.1 North of Faribault and provide those numbers 24 hours a day, 7 days a week. There is a total of 19 spaces. MnDOT wants to provide that available space number on a changeable message sign upstream of the rest area and through the 511 system so that truckers can decide on whether or not they want to park their truck at this location or another.

This is an est. 6-month validation of the proposed product system.

- Check for product durability
- Check for product accuracy
- Check for product integration into MNDOT infrastructure

Project Goals

The following goals align with the state's broader CAV program goals. Reference page 18 of the Strategic Plan for full descriptions of the seven CAV program goals.

Program goal	Project goal
	Greater assist commercial vehicle drivers with open rest area parking
	Provide commercial vehicle drivers real-time information to make decisions on available stops
	Assist with better down time planning for commercial vehicle drivers
	Build trust with the commercial vehicle community

Figure 1. Several commercial vehicles parked side by side.

Project Accomplishments

- Uninterrupted testing
- Ability to do inhouse monitoring
- Potential for adding the system to other locations

Project Key Findings

Product placement for detection

This system has minimum impacts for installation of product. Typically, it can use existing camera height poles and power sources. It is preferred to place in the front of the parking bays to pick up the cabs of the commercial vehicles vs. the rear side. If placed in the rear side of parking bays, flat trailers may not be as easily detected as the standard fully enclosed trailer.

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Product durability

Once installed, there is a short time for AI computer learning to occur. Usually, most issues can be fixed remotely. Any onsite repairs typically will not affect the public.

Product accuracy

The product had a 5% miscount over an est. 5-month trial period. This was usually due to the camera install facing the rear of the parking bays and the low height trailers some trucks were paired to. No product failure occurred. Only about 1-week MnDOT side failure was found.

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Figure 2. Camera picture of the Heath Creek truck parking area. Occupied parking has a green dot and unoccupied has a yellow dot. The dots are a computer count on available open spots to communicate by the 511 map.

Product integration

The system was able to supply a “feed” to MnDOT. This location was then able to be found in the Django filter site. This also made it possible to place open parking spaces on the DMS prior to the rest area along with the 511 site. This appears to be a low cost and minimum lift to accomplish.

Product cost

After the initial install costs, this is a subscription fee-based system. The department who will be contracting this will need sustainability to maintain current and future costs and have staff support to manage the project.

Lessons learned

- Low impact on the site
- Camera placement is important
- Seemed to have a longer lifecycle that previous products

Potential next steps for MnDOT

- Possible expansion to 5 other sites
- Beter public trust in reliability

For more information on this project, please contact **MnDOTCAV.DOT@state.mn.us**

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