



Statewide Guardrail Inspection

Improperly Installed Guardrails Create Life-Threatening Hazard

PROBLEM

A series of accidents coupled with cursory inspections across the state revealed several guardrail end sections were improperly installed with untested/unapproved components or components from other manufacturers, creating life-threatening hazards for motorists.

SOLUTION

To make roads safer, VDOT utilized PILLAR's robust inspection crews to inspect and identify 20,000+ guardrail terminal end sections within a 9-month timeframe for compliance with manufacturer installation guidelines and materials.

APPROACH

The Virginia Department of Transportation (VDOT) Traffic Operations Division (TOD) needed field guardrail inspection services to support the Department's Limited Scope Guardrail Maintenance Inspection Program. They engaged experienced professionals at PILLAR to augment staff and complete inspections in a defined timeframe.

The program required inspection of every existing VDOT guardrail end treatment or terminal. PILLAR crews—consisting of two fully certified individuals—located every terminal on the state-maintained roadway network, identified the specific guardrail terminal product and completed a field assessment of various features of the terminal.

Each inspection location was planned and assigned in advance and completed within predetermined timeframes. Each terminal inspection could take no longer than 15 minutes, in compliance with VDOT's short-duration traffic control guidelines. Terminal locations that could not be safely inspected within the short duration were inspected at a later time after crews coordinated with VDOT to arrange appropriate traffic control.

Crews tracked all progress and recorded all details in the VDOT-developed mobile app including:

- **Terminal Inspection Data Entry:** Crews recorded inspection data against terminal-specific inspection points and locations and attached supporting pictures and other required documentation.
- **Roadway Segment Specific Work Plans and Accomplishments:** crews recorded the completion of planned reviews and inspections of each segment specific assignment.
- **Lessons Learned:** Crews proactively communicated to VDOT inspection lessons learned, quality concerns, or other potential issues to address problems quickly.