

Truck Parking on Ramps

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Purpose of the Project: Faced with increasing Commercial Motor Vehicle (CMV) traffic and static revenues, public agencies cannot keep pace with providing adequate CMV parking along interstates. Private parking facilities also often do not have adequate parking capacity. Truck drivers are struggling to find safe parking facilities to rest and meet the federal hours-of-service (HOS) requirements. Lack of available parking or other behavioral barriers often manifests with trucks illegally parking on interstate on- and off-ramp shoulders. Without adequate information about available parking, many drivers are also forced to exceed HOS regulations to find appropriate parking.

The increase of illegal parking is blamed on the perceived shortage of available and convenient commercial parking facilities and increases in truck traffic. Fatigued truck drivers are often left with the choice of parking illegally along highway entrance and exit ramps or to continue driving while fatigued or park illegally. Illegal parking is dangerous because: “(1) it limits the ability of parked vehicles to accelerate safely into the traffic stream from their parked position; (2) the presence of parked vehicles creates a conflict between existing and parked vehicles; and (3) errant vehicles may stray into the shoulder area and strike parked vehicles”. Demand for truck parking spaces at public rest areas and privately-owned rest facilities near interstate highways are increasing. It is expected that truck traffic is going to continue to grow by about 3% annually through 2020.

In Tennessee, a parking study was conducted in 1999 and assessed some of the parking shortages that existed at that time. Updating and extending the 1999 study, this study will assess the growing demand for truck parking in Tennessee and assess supply and demand of parking along truck corridors (primarily Interstate highways). This study will assess the formal parking supplies at public and private rest areas and truck stops that provide truck parking throughout the state, providing an assessment of supply and identifying areas where demand likely exceeds supply. The PIs will match this analysis of formal and legal parking availability with the availability and demand for on- and off-ramp parking through an empirical analysis of all non-urban on- and off-ramps in Tennessee.

Scope and significance of the project: The scope of the research work includes: A review of relevant literature and state planning studies on truck parking; collecting a full inventory of all publicly available private truck stop parking, public truck parking, weigh station parking; collecting a full inventory of all on- and off-ramp geometrics in non-urban Interstate interchanges and select interchanges on highly traveled non-Interstate truck corridors, with an assessment of potential ramp shoulder parking supply; conducting a statewide assessment of truck parking utilization rates during peak hours (i.e., early morning) at parking facilities; and conducting an assessment of statewide parking supply and demand, with identification of deficiencies and opportunities for support from ramp parking. This project is significant to the future management and

investment in safe parking facilities and improvements in technologies to more effectively use existing and future infrastructure.

Expected outcomes: The analysis of truck parking along freeway corridors in Tennessee will result in a better understanding of where truck parking demand clearly exceeds supply and whether that supply could be met by existing private or public parking facilities nearby, or if new supply should be recommended. Recommendations will be generated if and where ramp parking could provide added capacity where needed, focusing on operations, safety, and maintenance metrics that would need to be developed to provide ramp parking.

Time periods and status of the project: The project started on October 1, 2015 and the contract extends through September 30, 2018. The practical duration of the project is one year. The research team has conducted all of the primary data collection and conducted an analysis of truck parking deficiencies throughout the state. The team documenting the work, supplementing final data to fill gaps in the inventory, and developing recommendations for TDOT.

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