

# **THE POTENTIAL FOR RESERVED TRUCK LANES AND TRUCKWAYS IN FLORIDA**

## **PROBLEM STATEMENT**

Facilitating the movement of freight throughout Florida has recently received increased attention by decision makers throughout the State. Freight movement is one of the most important components of a healthy state economy. The recognition of the importance of freight movement on our transportation system is evidenced by the work of the Florida Freight Stakeholders Task Force, which identified a “first-cut” at a Florida Strategic Freight Network and more recently by the major initiative by the Florida Department of Transportation in developing a system of trade corridors and a Strategic Intermodal System for Florida.

The advent of “e-commerce,” just-in-time delivery, and manufacturing pull systems have all contributed to an increase in truck traffic on the nation’s and Florida’s highways. During the past decade, the growth of peak hour truck traffic on Florida’s highways outpaced that of total traffic during the peak hour. The importance of truck movement to the State’s economy, coupled with the safety and environmental impacts of heavy trucks sharing the highways with passenger automobiles, suggests that there may be locations where reserved truck lanes, or even separate truckways, should be considered.

## **OBJECTIVES**

The purpose of this research was to evaluate the potential for reserved truck lanes and truckways in Florida in addition to determining how commercial vehicles have been managed within other states. The project specifically examined locations where exclusive truckways and truck lanes have been evaluated and constructed within the United States. Researchers summarized and documented the costs and motivating factors in those cases where exclusive facilities have been constructed in the U.S. They then evaluated the potential for reserved truck lanes and truckways on the Florida State Highway System, employing a geographic information system (GIS) screening tool and field review of highways that warranted consideration for implementation of this strategy.

Other objectives included documenting and mapping abandoned railroad alignment in the State and relating them to highway corridors where additional exclusive truck facilities may be warranted. The report also includes a brief discussion on the current uses of differential speed limits for trucks and automobiles.

## **FINDINGS AND CONCLUSIONS**

Few truly exclusive facilities for trucks exist in the United States or around the world. Those that do exist tend to be short-range, special use facilities. Although these roadways usually serve a limited portion of truck traffic, such as ports or international border crossings, their implementation has had a significant impact on truck traffic. Researchers developed a methodology for identifying problem areas on a highway system that may be appropriate for special use lanes or exclusive facilities. Specifically, developed product was a GIS-based model-building tool that utilized several truck-related criteria, including truck-related crashes, truck volume, percent of trucks, highway level of service, and proximity to truck traffic generating facilities, to highlight areas that most deserved consideration for exclusive truck treatments.

After adjusting the combinations of variables and the weighting assigned to each, two models were finalized and applied to the Florida State Highway System (SHS). They examined truck conditions existing in six areas between cities and three areas within cities. Overall, most of the Florida Interstate Highway System emerged as suitable for consideration of exclusive truck facilities. The most feasible opportunities to create exclusive truck facilities are located in areas where the need is most crucial and the necessary right of way is available to add the new lanes.

An ideal exclusive truck facility would provide adequate passing opportunities and room for disabled vehicles. The high cost of construction and the potential for resistance to a tolled facility have discouraged the implementation of such facilities. However, further analysis on the economics of providing exclusive highway facilities for trucks is warranted. Researchers also concluded that other innovative approaches to facilitating the flow of freight in Florida, such as a truck grid network, should be investigated more thoroughly.

## **BENEFITS**

Facilitating the movement of freight throughout Florida is receiving increased attention by decision makers throughout the state. Freight movement is one of the most important components of a healthy state economy, and the importance of truck movement to the state's economy coupled with the safety and environmental implications of heavy trucks in mixed traffic with automobiles suggest that there are locations where truck lanes should be considered.

The value of this research is that it resulted in the development of models that can evaluate the potential for utilizing reserved truck lanes and truckways in Florida in order to improve the movement of commercial vehicles. Once candidate highway sections are determined, the next step will be to perform cost analysis to assess whether the installation of such lanes would be cost effective.

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