



Project Number

BE277

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Analysis of Freight Transport Strategies and Methodologies

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Current Situation

Transportation planners constantly examine traffic flows to see if current roadway layouts are serving traffic needs. For freight hauling, this presents one issue on the open road, but a much different issue as these large vehicles approach their destination – usually a loading dock – which can be difficult to access through urban streets. This creates what planners refer to as the “last mile” problem: the last segment of a delivery trip which may be the most complicated and time consuming part of the trip. Understanding the last mile problem is difficult because only a small portion of deliveries are tracked.

Research Objectives

In this project, researchers from CPCS Transcom, Inc., developed methods to determine the motions of freight haulers as they approach their destinations.

Project Activities

To set the stage for creating strategies and methods, the researchers developed several sources of background information. They reviewed the literature and identified best practices used in the United States. Outreach to stakeholders, such as FDOT’s freight data stakeholders, specialist industry vendors and data providers, and other transportation agencies around the country, informed site- or region-specific case studies. FDOT staff were interviewed in an effort to understand and classify last mile issues. The researchers analyzed some of FDOT’s existing freight-relevant data repositories, performance measurement frameworks, and technical guidance and documentation in order to focus on strategies and approaches for immediate practical implementation.

Two promising approaches, real-time corridors and freight fluidity, along with a number of methods and strategies applications for each were identified.

The real-time corridors approach involves the ability of agencies to identify, respond to, and perhaps even influence, freight movements in real time. The researchers considered that FDOT’s current efforts in Intelligent Transportation Systems and Arterial Management Programs have positioned it well to implement the methods of real-time corridors. The researchers laid out a plan that would guide FDOT in building on current resources to achieve this capability.

The freight fluidity approach is a broad concept that addresses the efficiency with which goods move from one end of the supply chain to the other. Freight fluidity performance measures identify where bottlenecks or inefficiencies occur in the system, including last mile access. These performance measures also connect the issues of transportation and economic development. Key applications were identified that would allow FDOT to begin implementing this approach

Project Benefits

The methods developed in this project will help to make freight transport in Florida increasingly more efficient, which has significant implications for Florida’s economy.

For more information, please see www.fdot.gov/research/.



For a large truck, city streets can present a maze that poses safety hazards and delays arrival times.