



## INTEGRATING LIVABILITY AND FREIGHT

*Researchers identify solutions for incorporating freight into planning for livable communities.*

### The Issue

The typical vision of a livable neighborhood does not include big trucks—with their emissions, vibrations, noise and congestion—traveling through it. So where livability is a goal of the planning process, freight runs the risk of not being considered except as an afterthought or as something to be excluded. However, because economic prosperity is an important characteristic of livable communities, freight will inevitably be needed and must be incorporated into the planning process.

Kristine Williams of the University of South Florida's Center for Urban Transportation Research conducted this research project to explore the relationship between freight and livability. The goal was to provide a "menu of options" for planners to be aware of when considering freight solutions.

### The Research

Williams and co-investigator Alex Carroll, also of the University of South Florida, traveled to Tampa, Florida; Savannah, Georgia; San Antonio, Texas; Albany, New York and Portland, Oregon to gather information about how freight and livability issues were being addressed in the various communities.

Each of the resultant case studies is described in the report, as well as detailed options for integrated land use and transportation planning, infrastructure design, parking and loading, noise reduction and other concerns related to the movement of goods through cities.

The I-4/Selmon Expressway Connector in Florida was an example of an

### THE ISSUE

Where livability is a goal of the planning process, freight runs the risk of being an afterthought.

### THE RESEARCH

Researchers traveled around the country to investigate:

- Livable freight solutions in five U.S. cities;
- The effects (both positive and negative) of the various solutions;
- Necessary considerations for implementing similar solutions in a new context.

### IMPLICATIONS

This research offers planners a menu of options for freight strategies that complement and enhance livability goals.

*Photo: A food service truck makes a local delivery*

infrastructure design strategy to increase efficiency of freight movement. It is an intermodal freight connector designed to facilitate truck travel between Port Tampa Bay and nearby interstates, and reduce truck traffic through historic Ybor city, a popular tourist district.

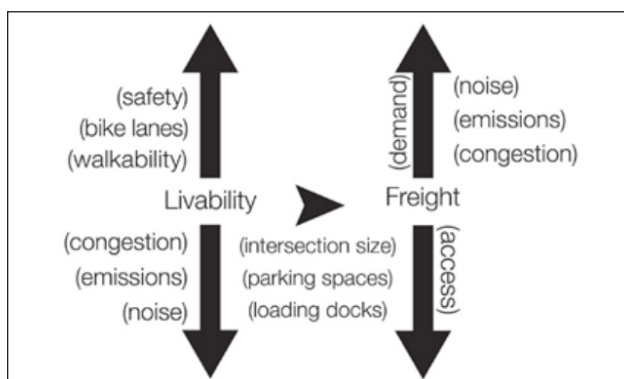
Voluntary off-peak delivering, designed to encourage carriers and receivers to conduct deliveries at night or early in the morning, is a strategy which has had good results in New York. In addition to reducing peak-hour roadway congestion, it can lead to fewer intermodal conflicts, improve freight operational efficiency and reduce fuel costs. Drivers also reported less stress when making deliveries during off-peak hours.

Integration of transportation and land use is another essential part of sustainable and livable freight planning. In Savannah, Georgia, the movement of trucks between industrial sites on the east side of the city and the Port and interstates on the west side was becoming a concern, due to the growth of truck traffic along Bay street, a primary historical and tourist corridor. The research demonstrates that considering the broader context when placing truck-dependent industrial uses could minimize conflicts like this.

### Implications

The report, in addition to describing solutions that have been attempted in the five case study cities, also helps planners weigh the benefits and costs of each solution. For example, some cities have had success with urban consolidation centers: a facility located near a city center where inbound shipments are transferred from large trucks and sorted in smaller vehicles for local delivery. These centers can reduce heavy truck volumes and improve efficiency for local deliveries, but are expensive to operate and maintain. Depending on the surrounding land use and other features, adding another link in the supply

chain may increase delivery time and costs.



#### Relationship between livability and freight

This graphic illustrates a livability and freight movement paradox: factors that make a community livable can create conditions that increase freight demand, while reducing freight access.

When creating and implementing freight strategies, planners need information about potential effects of these strategies on various parts of the city and on multiple stakeholders. Having this menu of available options allows planners to browse through not only the various strategies themselves, but also a comprehensive account of their effects over time. The research has provided a tool that can enhance planners' ability to make informed decisions about the best ways to handle freight movement through livable cities.

## PROJECT INFORMATION

**TITLE:** Integrating Freight into Livable Communities

**LEAD INVESTIGATOR:**  
Kristine Williams, AICP,  
University of South Florida

**PROJECT NUMBER:**  
2015-752

**CONTACT:**  
Justin Carinci, 503-725-2843  
carinci@pdx.edu

**MORE INFORMATION**  
<http://nitc.trec.pdx.edu/research/project/752>