



# Florida Department of Transportation Research

## FDOT Land Use Analysis to Enhance Successful Logistics Activity Center

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### Project Number

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### Project Manager

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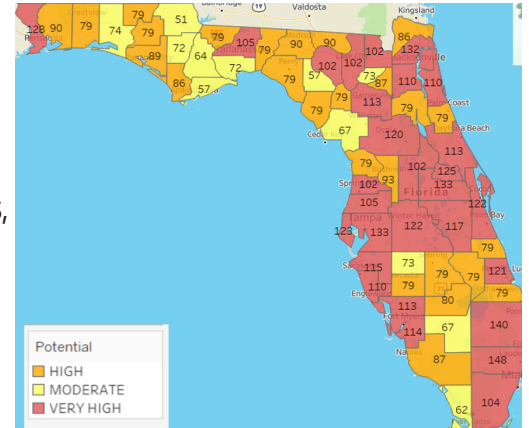
### Principal Investigator

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### Current Situation

As the third most populous state in the U.S., Florida has many attractive qualities – sunshine and beaches, no state income tax, and a diversity of tourist attractions from the panhandle to the peninsula. But is Florida missing out on other business opportunities?

Florida's massive population growth brings an emphasis on freight and logistics. The challenge of maximizing the state's economic development potential lies in attracting more companies, particularly in manufacturing. With a booming population, access to globally-connected seaports, and good workforce availability, manufacturing companies could find a home in Florida.



This heat map created by FDOT and University of South Florida researchers scores parcels with logistics activity center (LAC) development potential.

### Research Objectives

Identifying suitable locations and conditions for manufacturing businesses within the state could give Florida an upper hand in attracting them. To do that, FDOT and University of South Florida researchers sought to identify areas and to develop a set of criteria for ideal Logistics Activity Centers (LACs) – areas or facilities to carry out logistics activities, including warehousing, packaging, and staging goods for transportation. The criteria included environmental factors, as well as legal and social factors like land use and neighboring communities.

### Project Activities

Following a literature review and geographic information system (GIS) mapping of the current land use of Florida, the research team built a heat map that displays the potential for LAC development across the entire state by county. Using heat map colors, the map classifies areas as very high, high, and moderate LAC development potential. Any parcels that were undevelopable were removed from the map.

The team then spot checked the map to test its accuracy using several other software tools like Google Earth, ArcGIS Pro, and the Statewide Land Use Land Cover data shapefiles, which contain 45 different land use types in Florida. The result was 335 maps that also identified the LAC potential of an area that lies close to industrial areas and could be rezoned for industrial purposes.

### Project Conclusions and Benefits

FDOT and other agencies could use the heat map to identify the most suitable areas to welcome new business in Florida as well as identify locations within the state that could benefit from additional or enhanced freight infrastructure.

For more information, please see [fdot.gov/research](https://fdot.gov/research).