Transportation Statistics Office

April 2016

FREIGHT FACILITY DATASET

METHODOLOGY DOCUMENT

Florida Department of Transportation

# TranStat Freight Facility Dataset METHODOLOGY

TABLE OF CONTENTS

1.1   EXECUTIVE SUMMARY

The Transportation Statistics Office (TranStat) of the Florida Department of Transportation (FDOT) has developed a statewide dataset of large-scale freight facilities. Such freight facilities include those with key activities related to Warehousing & Distribution Centers (DCs), Light and Heavy Manufacturing, Packaging Plants, etc. The purpose of the dataset is to identify freight facilities used in the distribution of consumer and other goods that generate moderate to high levels of truck traffic. The information can also serve an essential purpose in supporting freight trip generation and freight modeling efforts, as well as, the district Freight Coordinator objectives of data analysis and public outreach. The dataset may also be a useful tool for Florida freight network identification and provide support for Florida's economic development efforts.

The impacts of freight facilities is recognized at all levels of government and in the private sector. The Transportation Research Board developed NCFRP Report 13 titled Freight Facility Location Selection: A guide for Public Officials in 2011. This document describes the key criteria that the public sector considers when making decisions on where to build new logistics facilities. The location of freight facilities can have both positive and negative economic and social effects on local communities, regions, and states. By providing insight on location decisions for freight facilities, and suggesting best practices for transportation, land use, economic development, and regional partnerships, public sector agencies can benefit from a fuller understanding of the dynamics of freight movement and the factors affecting private sector location decisions. With this insight, public sector agencies may successfully plan for, attract, locate, and partner with freight-related activities in their jurisdictions. This publication provided valuable insights and was a guiding document for this project.   The full publication can be found online at http://onlinepubs.trb.org/onlinepubs/ncfrp/ncfrp_rpt_013.pdf .
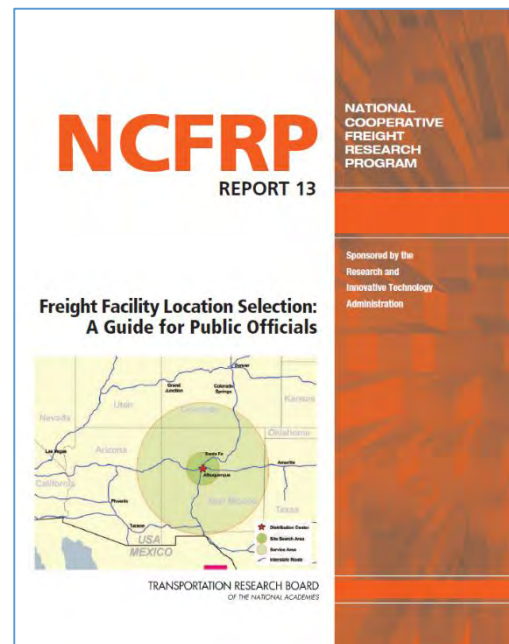
The initial information used for developing Florida's freight facility dataset was obtained from the Florida Department of Revenue (DOR). The 2015 DOR dataset was further expanded using online mapping resources to visually scan parcels and identify large freight facility locations throughout Florida.   The initial DOR parcel data files included freight-related land use codes that were joined with DOR parcel boundary files. Key DOR data fields used to identify and describe the freight facilities were parcel ID, land use code, year built, total living or usable area, number of buildings, owner's name, short legal description, and physical address. The online mapping services used during the scan were Bing Maps, Bing StreetSide, Google Earth, Google Maps, Google StreetView, Yahoo Maps, and others. Information for the data fields added to each record during the scan included the name of the business in operation, data source of the information, the date indicated for the source information, railroad access availability, vacancy, estimated number of truck bays, industrial park or development, and multitenant business names.

The complete set of DOR data contained 91,895 records. This included all parcels located in the state of Florida that contained the designated land use codes.   The level of potential impacts to the transportation system can often be correlated to the size of the buildings as the larger facilities typically translate to more truck activity. As such, criteria were established in order to query the data to obtain a reasonable volume of parcels for developing the dataset. Parcels containing buildings with a total area of 100,000 square feet or larger were selected for conducting the scans. This resulted in 2,756 parcels meeting the established criteria.

Results of the parcel scans are provided in two graphical formats. The first format is presented with dots showing the location of the facilities. The size of the dot is correlated to the size of the facilities, where larger dots represent facilities with a larger building area square footage. The second format is a heat map. This shows the areas with increased concentration and square footage of freight related facilities. The heat map for the state of Florida indicates that the largest intensity of freight facilities is located in the key metropolitan areas in close proximity to major interstates. These areas include Miami, Tampa, Orlando and Jacksonville. Graphics have been developed for the state, each FDOT district, and the Florida Turnpike Enterprise.

1.2   GRAPHICS

The information contained in the data set is represented graphically on the following pages. Graphics were produced for the state, Florida Turnpike Enterprise, and each of the seven FDOT Districts.   Two formats for the graphics were produced.

Heat maps of the state and districts were developed to demonstrate the key areas of freight facilities in the respective regions, using a kernel density analysis method. A five mile search radius was used for developing the heat maps.

Freight facility maps have dots of graduated sizes based on the building size for each parcel.   Dots are placed at the centroids of the parcel extents. Two freight facility graphics were produced for the state and for each district. The first graphic includes all Department of Revenue Land Use Codes 41 through 49. The second graphic is for Use Code 48 alone. The majority of the freight facilities are Use Code 48. Examples of the graphics produced are shown in figure 1. The full series of graphics are provided on the following pages.
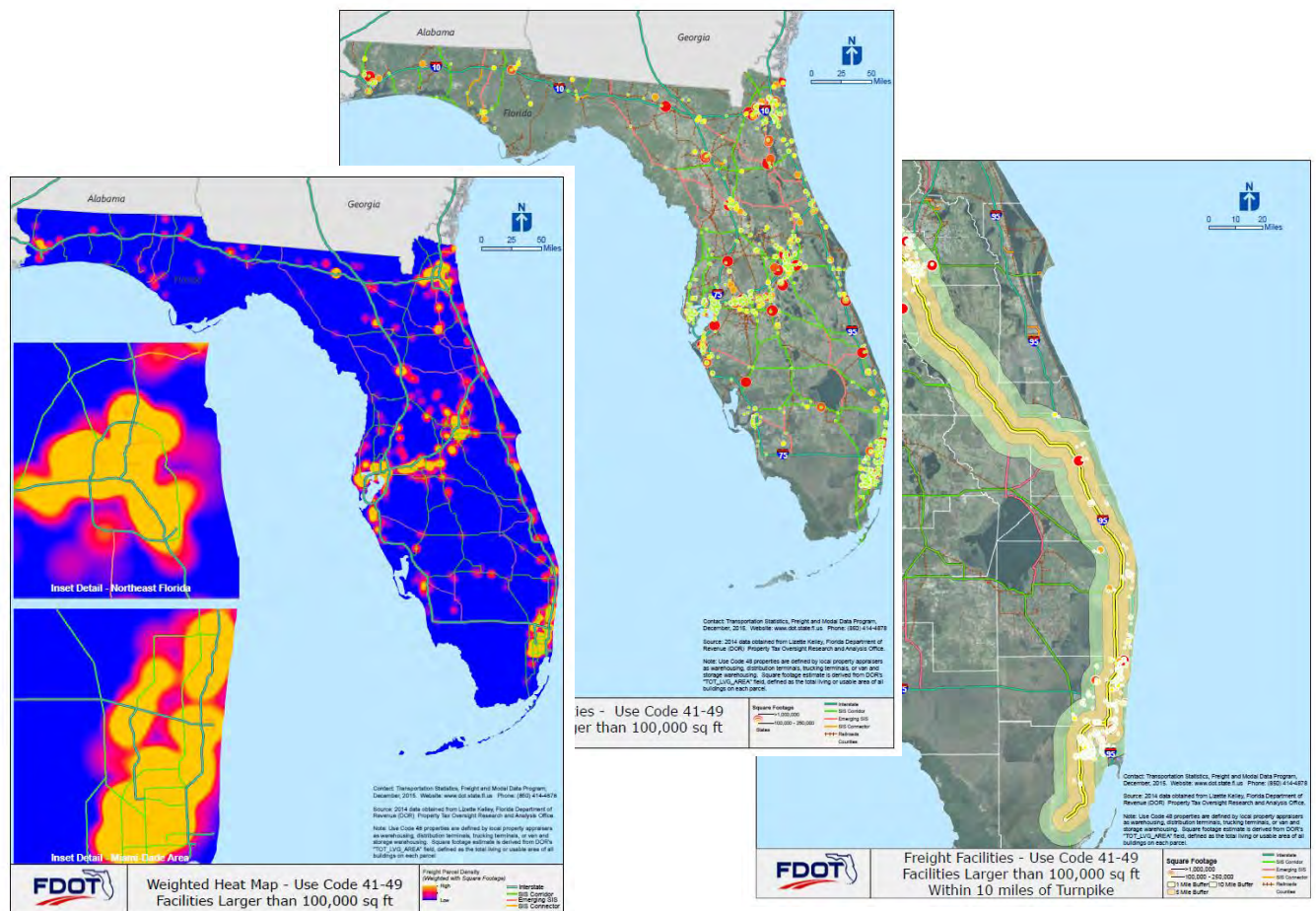
FIGURE 1- EXAMPLES OF GRAPHICS

Inset Detail - Northeast Florida

Inset Detail - Miami-Dade Area

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)

High
Low

—— Interstate
—— SIS Corridor
—— Emerging SIS
—— SIS Connector

Inset Detail - Northeast Florida

Inset Detail - Miami-Dade Area

Alabama

Georgia

Florida

N

0   25   50
Miles

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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FDOT

Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000
States

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

Inset Detail - Northeast Florida

Inset Detail - Miami-Dade Area

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

Weighted Heat Map - Use Code 48
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)

High

Low

Interstate
SIS Corridor
Emerging SIS
SIS Connector

Inset Detail - Northeast Florida

Inset Detail - Miami-Dade Area

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft
Within 10 miles of Turnpike

Square Footage
>1,000,000
100,000 - 250,000
1 Mile Buffer
5 Mile Buffer
10 Mile Buffer

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0 10 20 Miles

Highlands

Orange

Brevard

Pasco

Polk

Osceola

Pinellas

Hillsborough

Manatee

Hardee

Okeechobee

Indian
River

Sarasota

DeSoto

Highlands

St.
Lucie

Charlotte

Glades

Martin

Lee

Hendry

Palm
Beach

Collier

Broward

Inset Detail - District 1

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 1 Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft
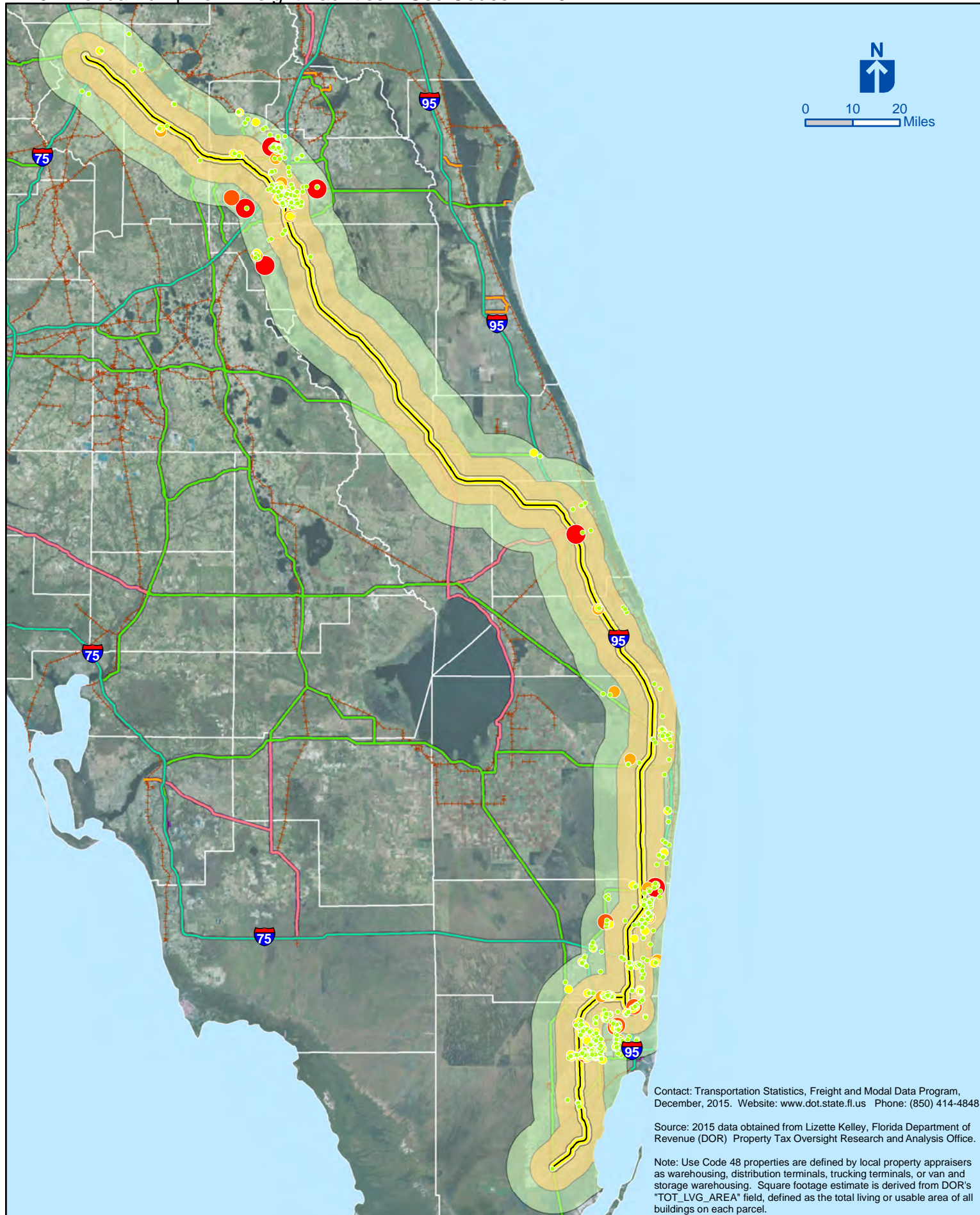
Freight Parcel Density
(Weighted with Square Footage)

High

Low

Interstate
SIS Corridor
Emerging SIS
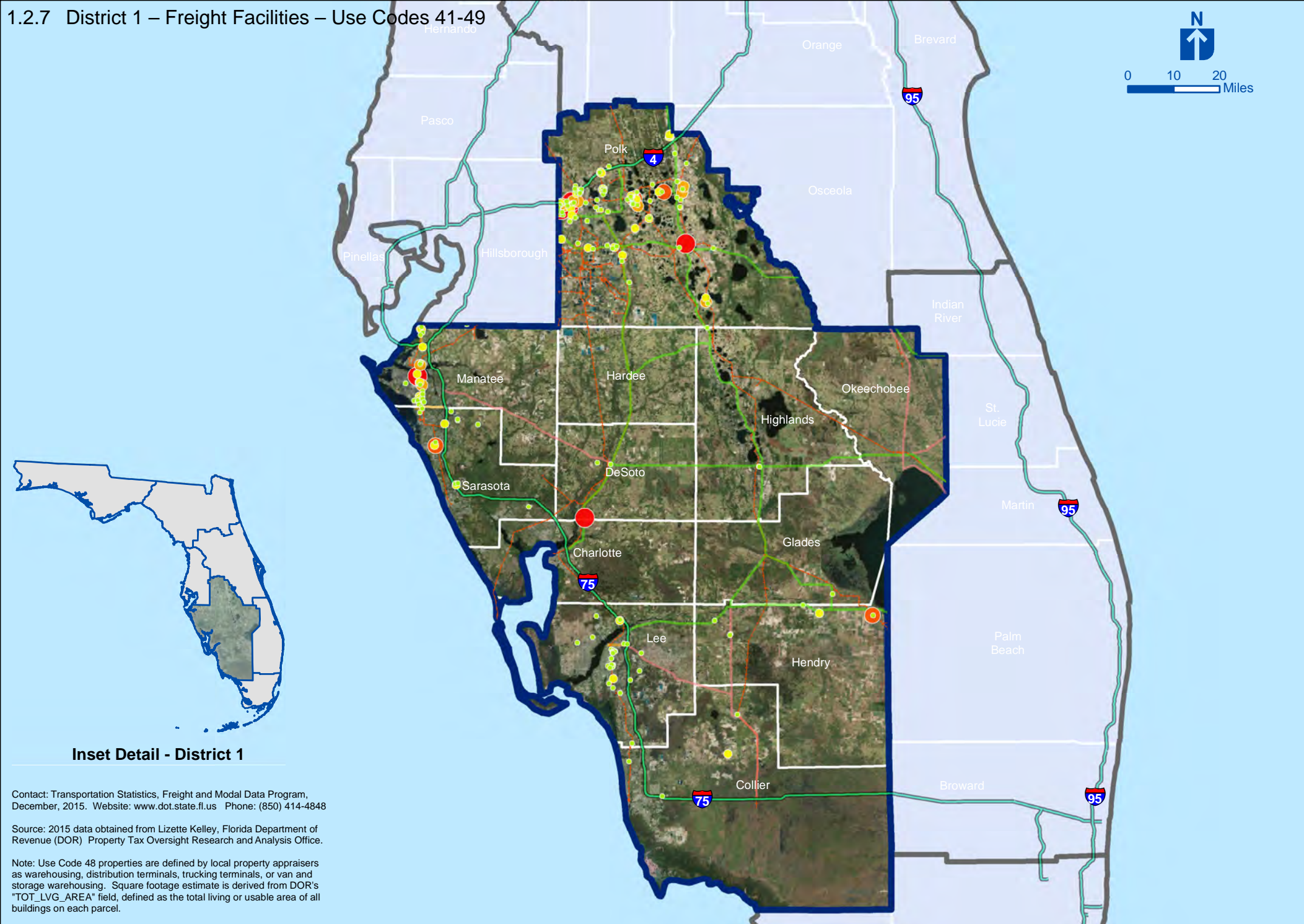SIS Connector
Counties

N

0   10   20
Miles

Inset Detail - District 1

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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FDOT

District 1 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft
Page 12

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0   10   20
Miles

Inset Detail - District 1

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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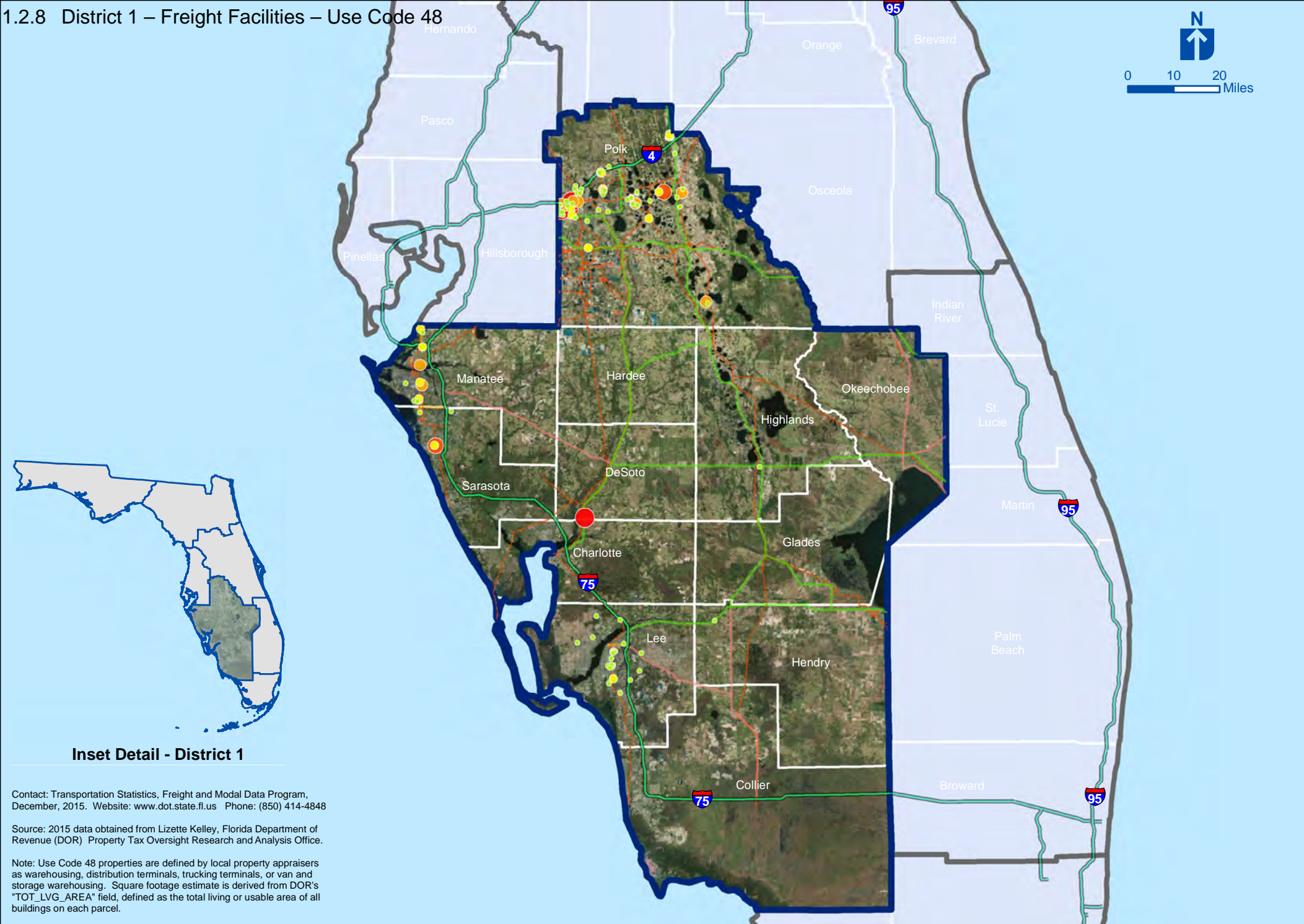
District 1 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft
Page 13

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

FDOT

Inset Detail - District 2

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
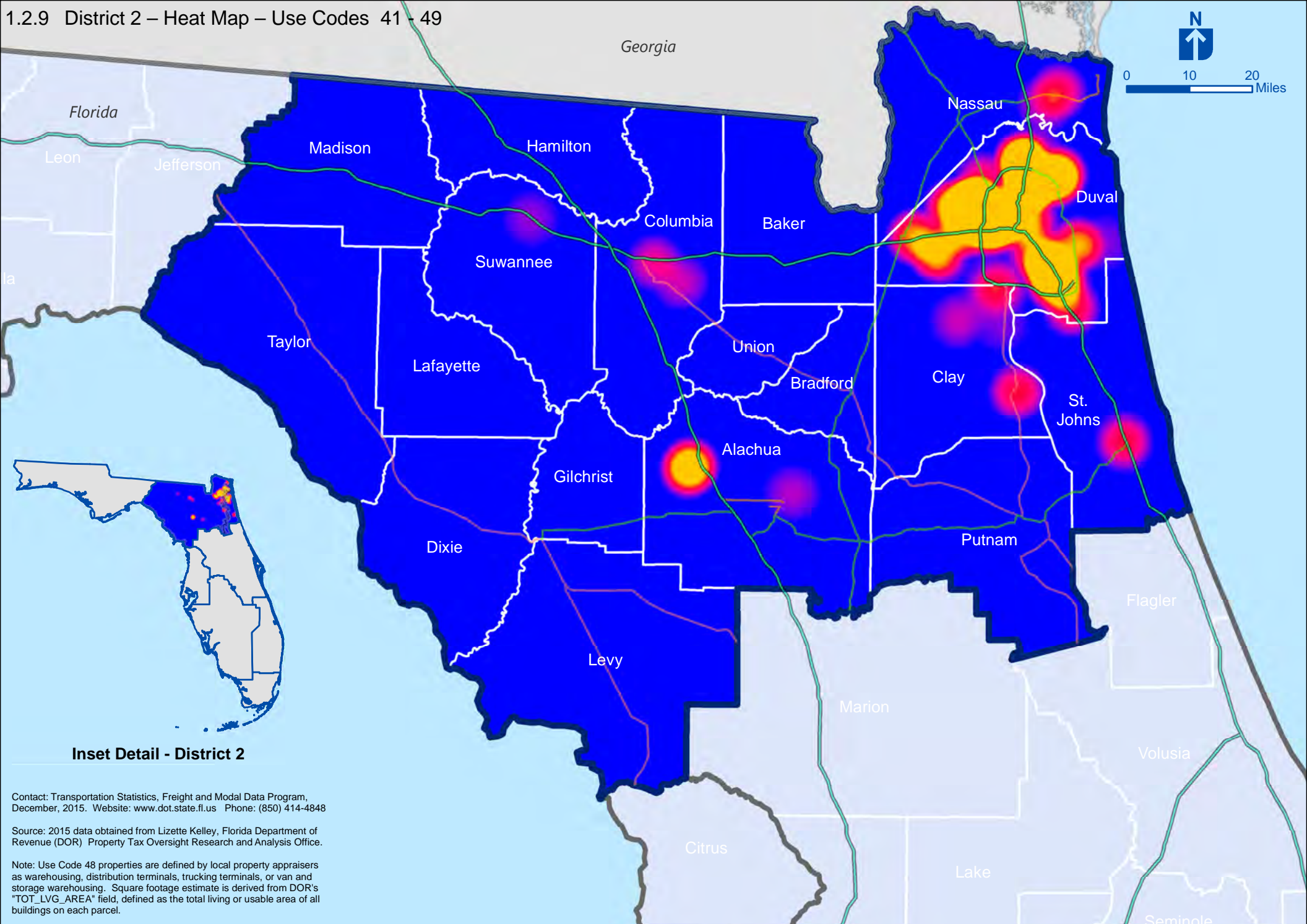
District 2 Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)
High
Low

— Interstate
— SIS Corridor
— Emerging SIS
— SIS Connector
— Counties

N

Georgia

Florida

Leon

Jefferson

Madison

Hamilton

Columbia

Baker

Nassau

Duval

Suwannee

Taylor

Lafayette

Union

Bradford

Clay

St. Johns

Gilchrist

Alachua

Dixie

Putnam

Inset Detail - District 2

Levy

Flagler

Marion

Volusia

Citrus

Lake

Seminole

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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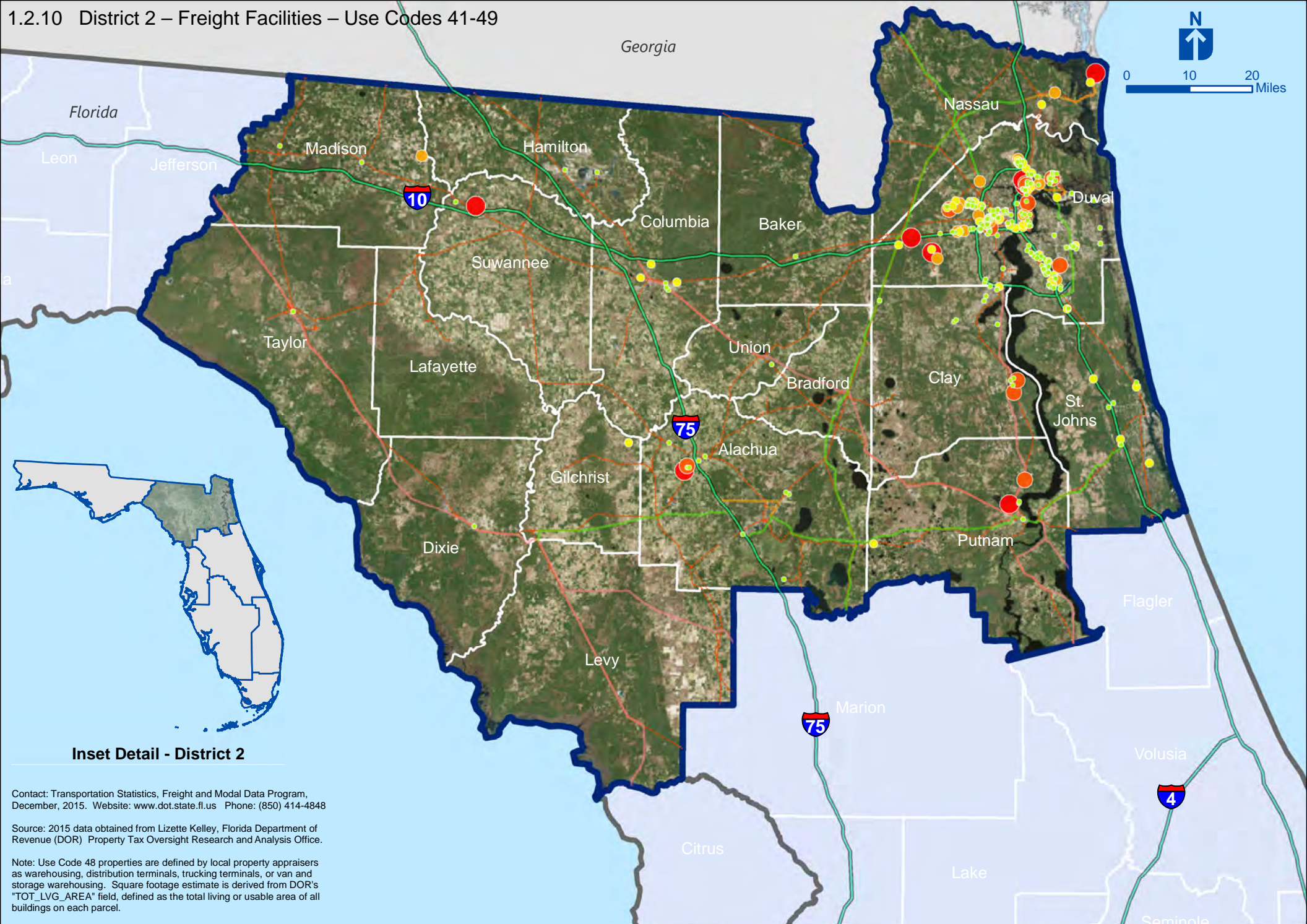
FDOT

District 2 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft

Square Footage
- >1,000,000
- 100,000 - 250,000

- Interstate
- SIS Corridor
- Emerging SIS
- SIS Connector
- Railroads
- Counties

0   10   20   Miles

Georgia

Florida

Leon

Jefferson

Madison

Hamilton

Columbia

Baker

Nassau

Duval

Suwannee

Taylor

Lafayette

Union

Bradford

Clay

St. Johns

Alachua

Gilchrist

Dixie

Levy

Putnam

Flagler

Marion

Volusia

Citrus

Lake

Seminole

N

0   10   20
Miles

Inset Detail - District 2

Contact: Transportation Statistics, Freight and Modal Data Program,
December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of
Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers
as warehousing, distribution terminals, trucking terminals, or van and
storage warehousing. Square footage estimate is derived from DOR's
"TOT_LVG_AREA" field, defined as the total living or usable area of all
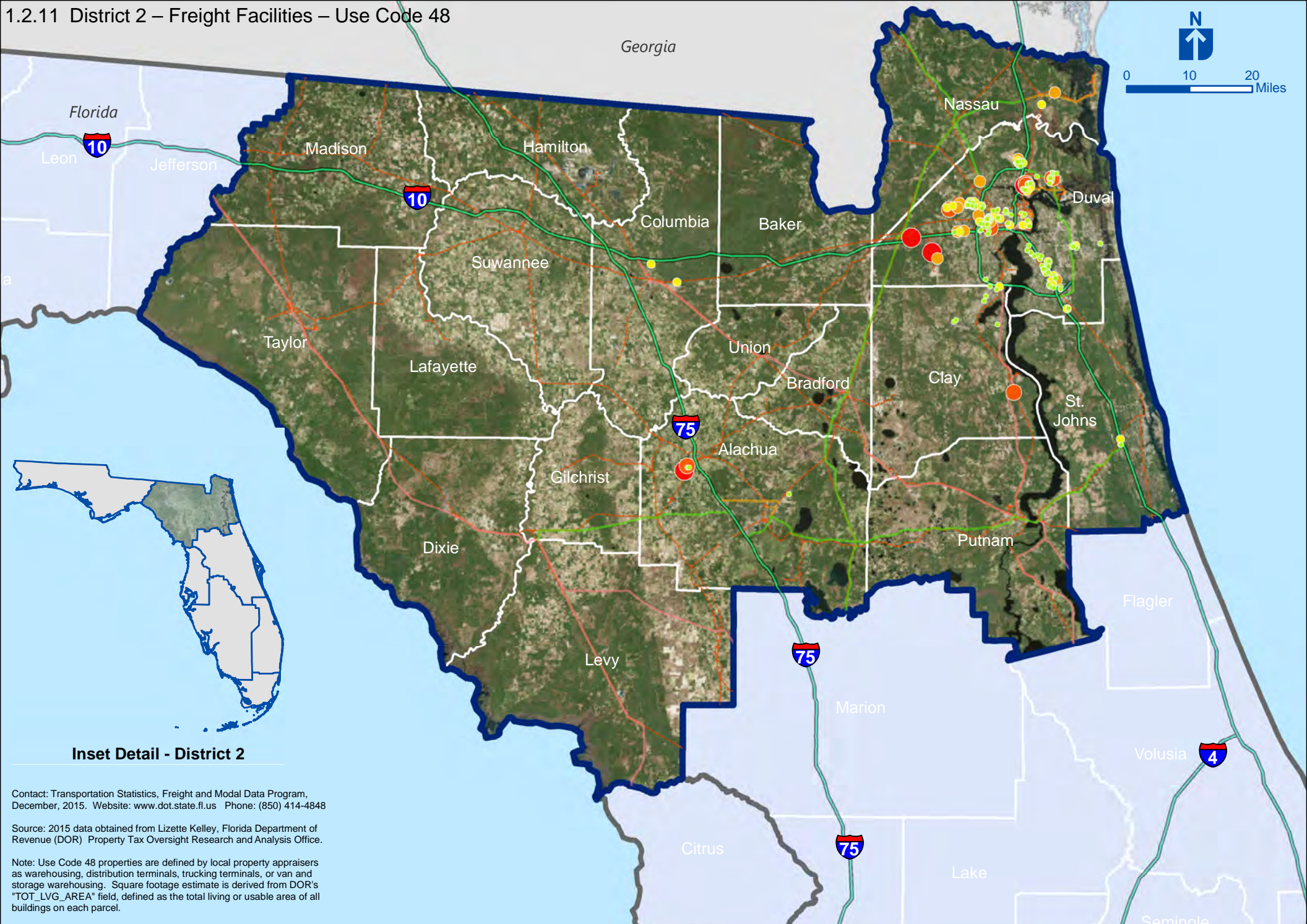buildings on each parcel.

FDOT

District 2 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft

Square Footage
- >1,000,000
- 100,000 - 250,000

- Interstate
- SIS Corridor
- Emerging SIS
- SIS Connector
- Railroads
- Counties

N

0 10 20
Miles

Georgia

Escambia

Santa Rosa

Okaloosa

Holmes

Jackson

Walton

Washington

Gadsden

Calhoun

Leon

Jefferson

Bay

Liberty

Florida

Wakulla

Taylor

Gulf

Franklin

Madiso

Inset Detail - District 3

Contact: Transportation Statistics, Freight and Modal Data Program,
December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of
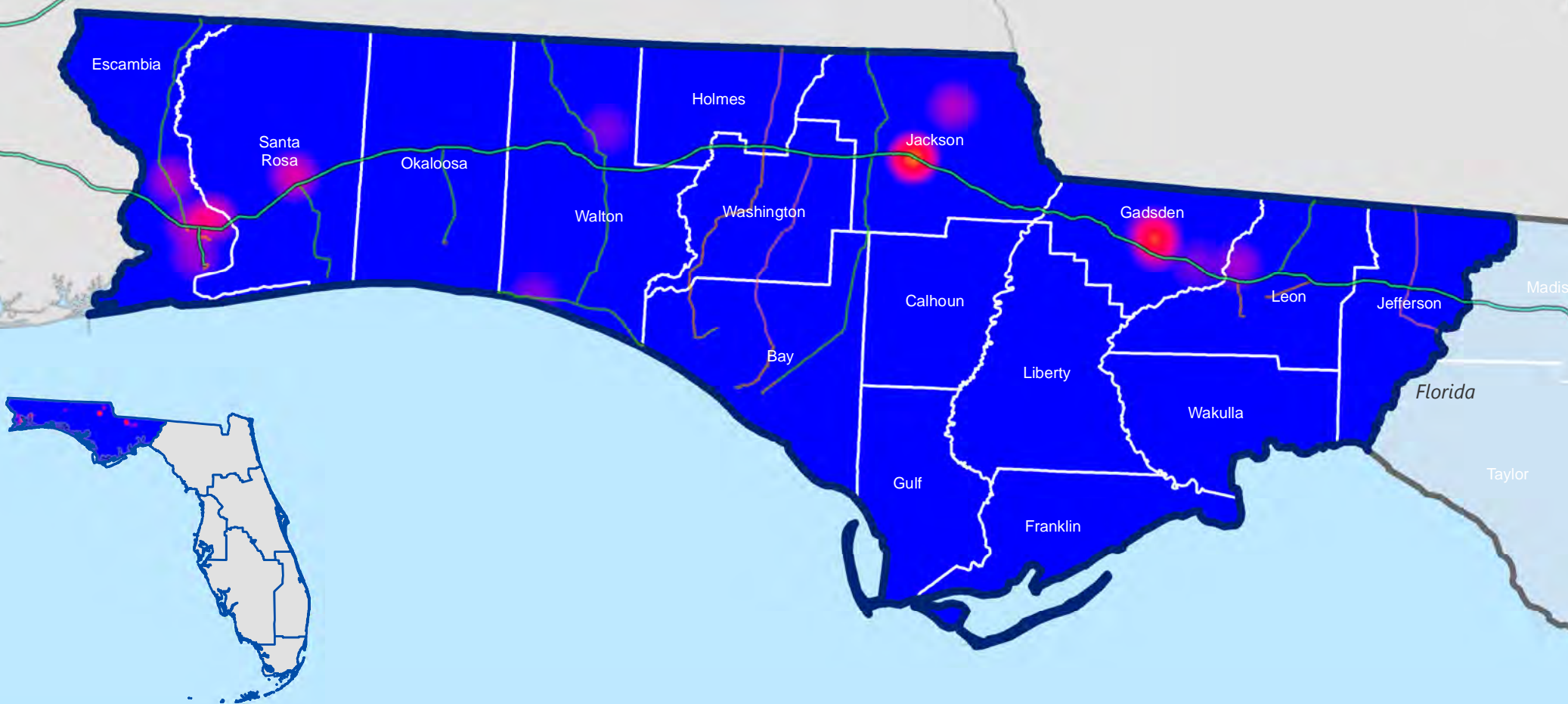Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers
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storage warehousing. Square footage estimate is derived from DOR's
"TOT_LVG_AREA" field, defined as the total living or usable area of all
buildings on each parcel.

FDOT

District 3 Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)

High

Low

⸺ Interstate
⸺ SIS Corridor
⸺ Emerging SIS
⸺ SIS Connector
⸺ Counties

Georgia

Escambia

Santa Rosa

Okaloosa

Holmes

Jackson

Walton

Washington

Gadsden

Calhoun

Leon

Jefferson

Bay

Liberty

Wakulla

Florida

Gulf

Franklin

Madison

Taylor

Inset Detail - District 3

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

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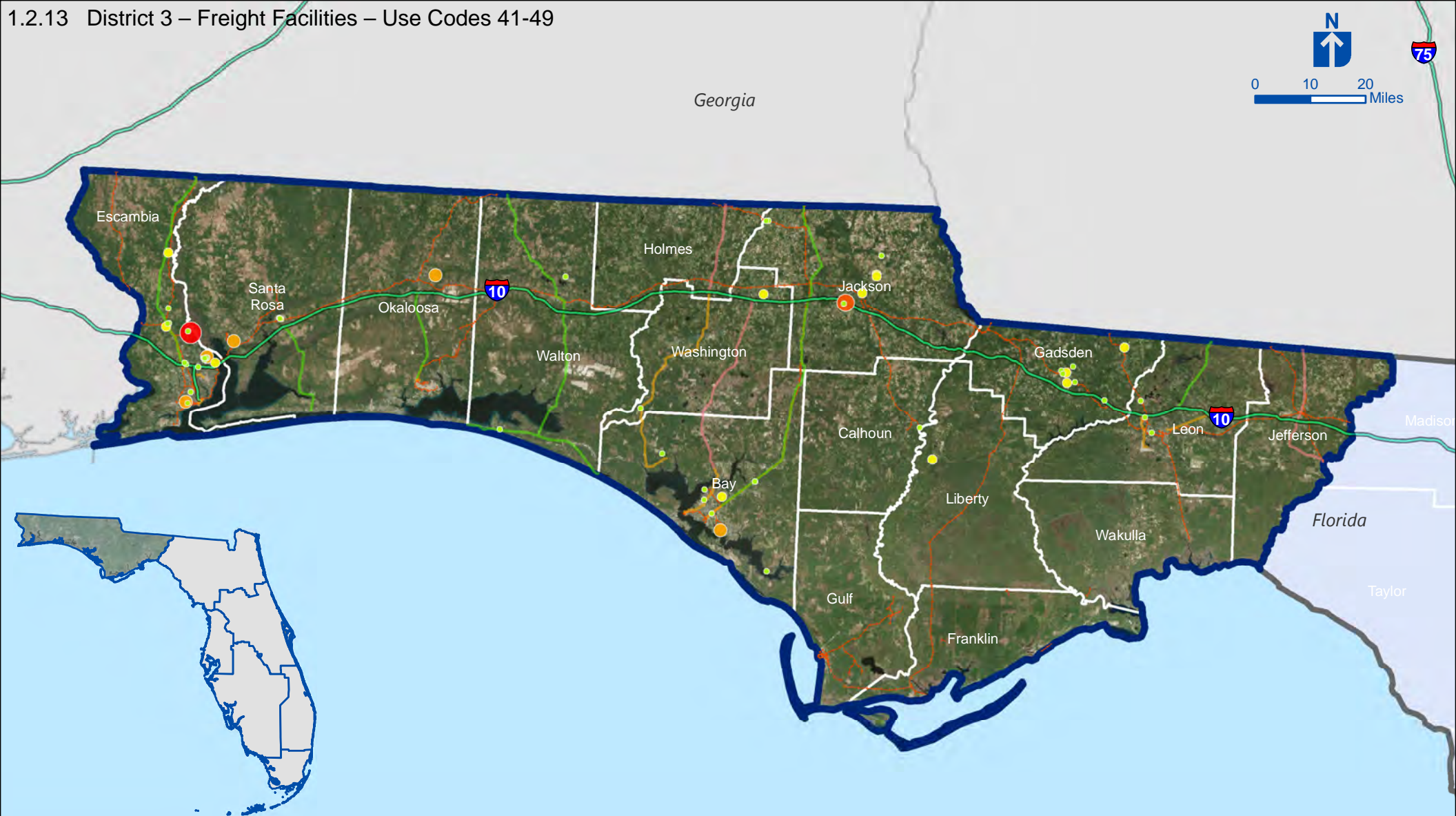
FDOT

District 3 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

Georgia

N

I-75

0   10   20 Miles

Escambia

Santa Rosa

Okaloosa

I-10

Walton

Holmes

Jackson

Washington

Gadsden

Calhoun

Leon

I-10

Jefferson

Bay

Liberty

Madiso

Florida

Wakulla

Gulf

Taylor

Franklin

Inset Detail - District 3

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
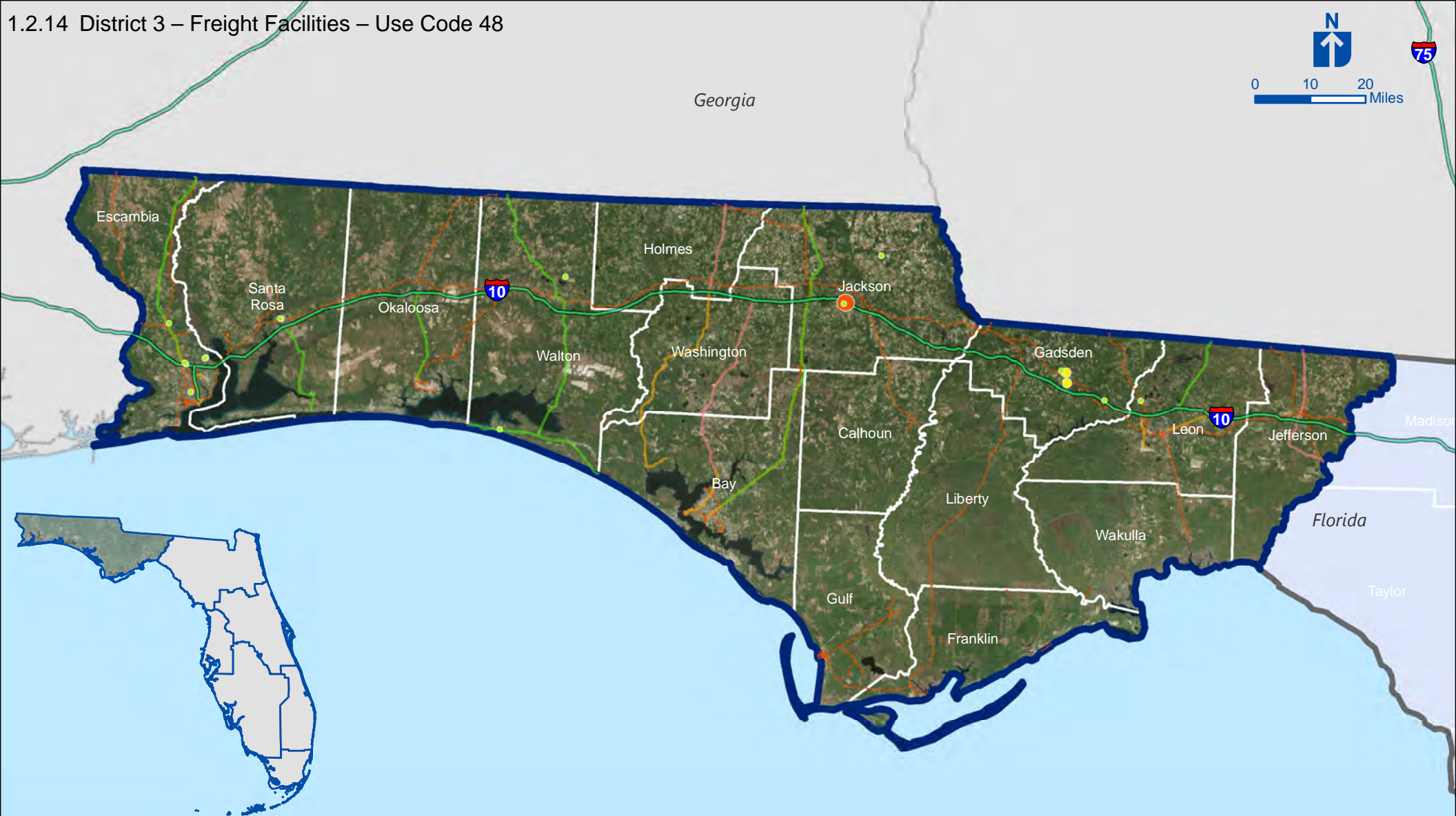
FDOT

District 3 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0 10 20
Miles

Indian River

Okeechobee

Hardee

Highlands

St. Lucie

DeSoto

Martin

Glades

Charlotte

Lee

Palm Beach

Hendry

Broward

Collier

Inset Detail - District 4

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.
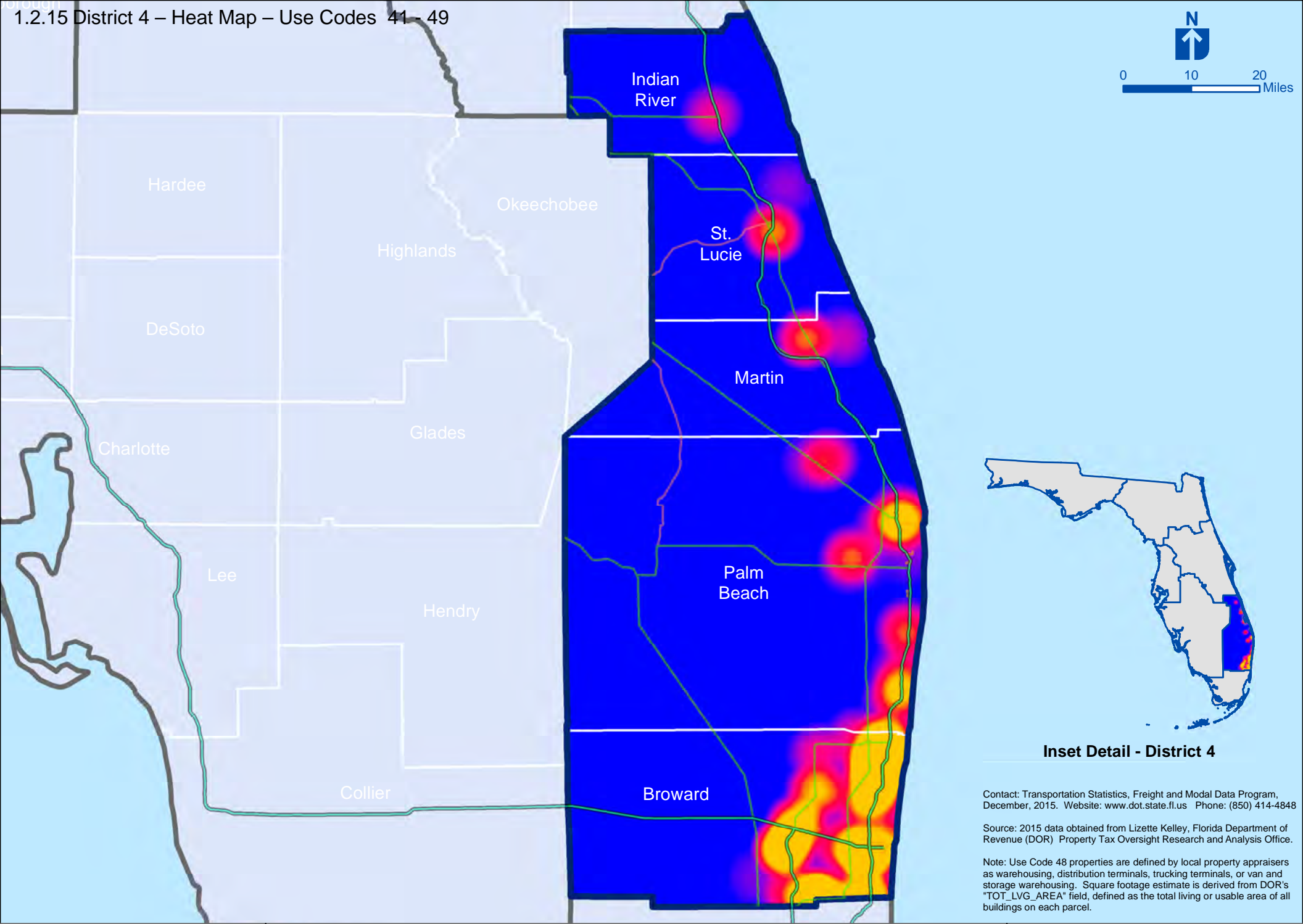
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FDOT

Freight Parcel Density
(Weighted with Square Footage)

High

Low

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Counties

N

0   10   20
Miles

Indian River

Okeechobee

Hardee

Highlands

DeSoto

St. Lucie

Martin

I-95

Charlotte

Glades

I-75

Lee

Hendry

Palm Beach

Inset Detail - District 4

Collier

I-75

Broward

I-95

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0   10   20
Miles

Indian River

Hardee

Okeechobee

Highlands

St. Lucie

DeSoto

Martin

I-95

Glades

Palm Beach

Charlotte

I-75

Lee

Hendry

Broward

Collier

I-75

I-95

Inset Detail - District 4

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 4 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft
Page 22

Square Footage
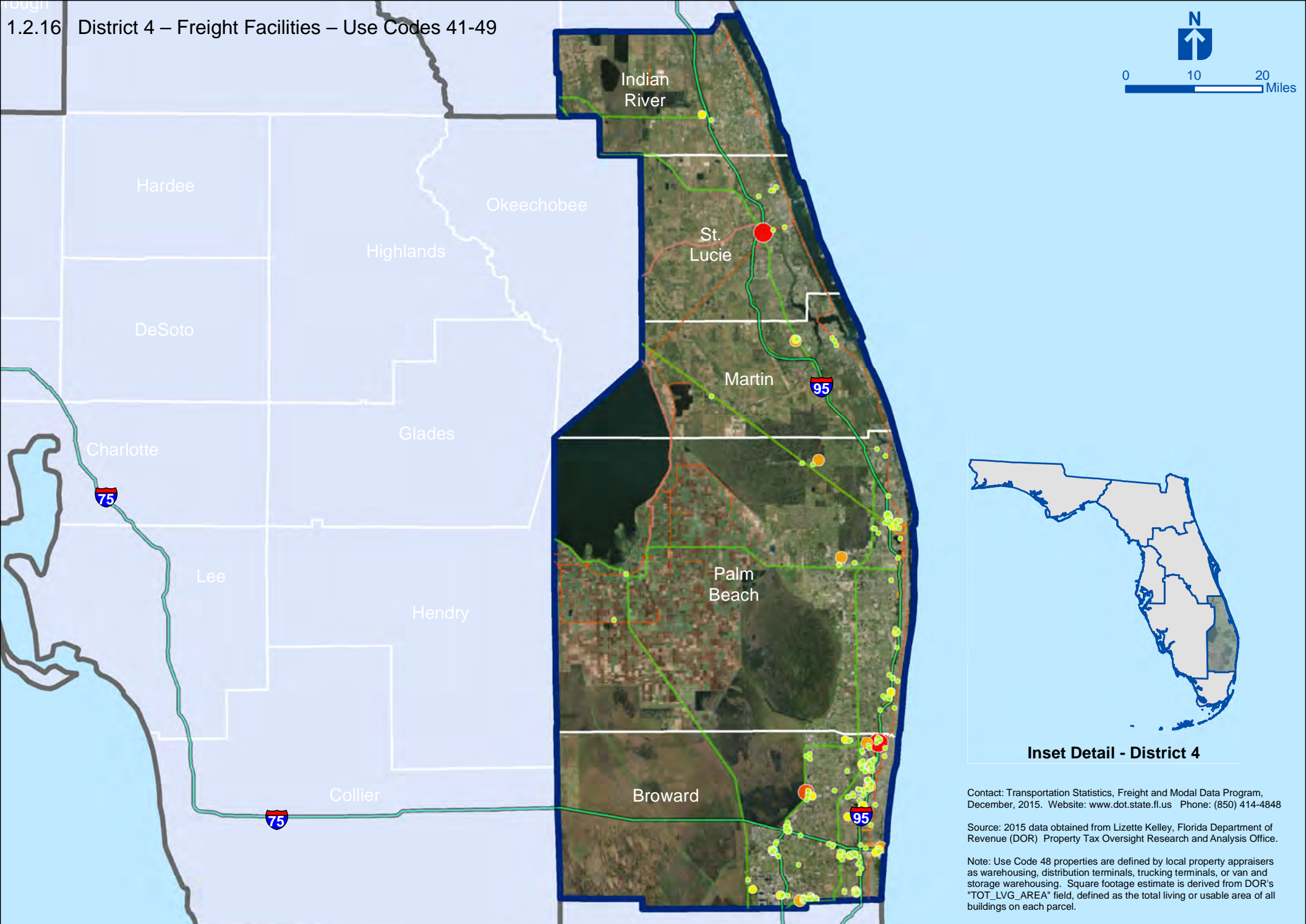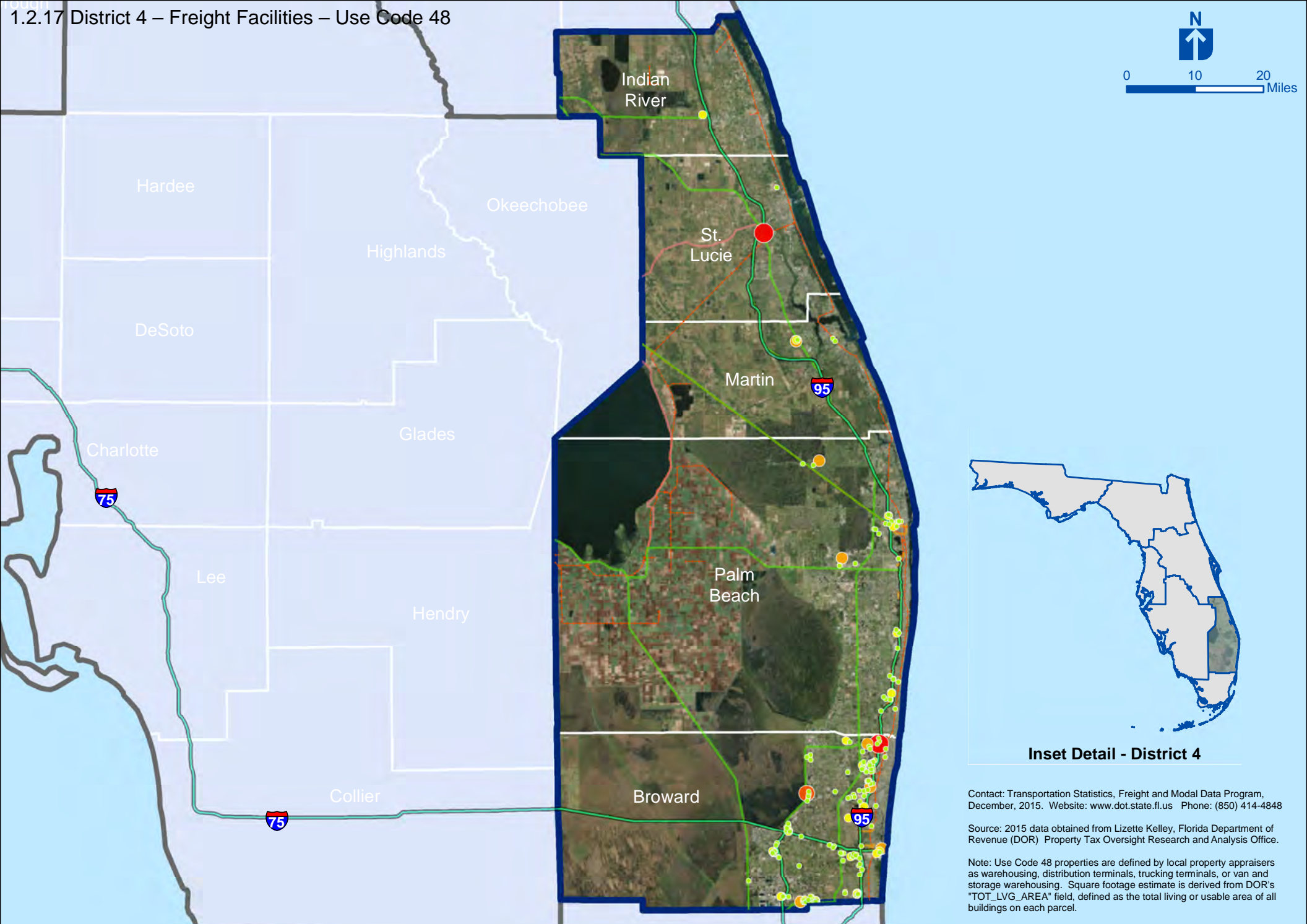- >1,000,000
- 100,000 - 250,000

- Interstate
- SIS Corridor
- Emerging SIS
- SIS Connector
- Railroads
- Counties

Inset Detail - District 5

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
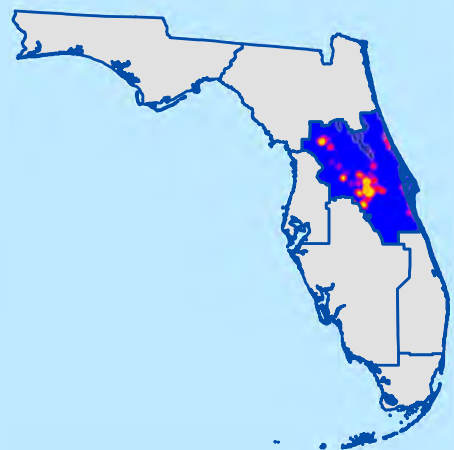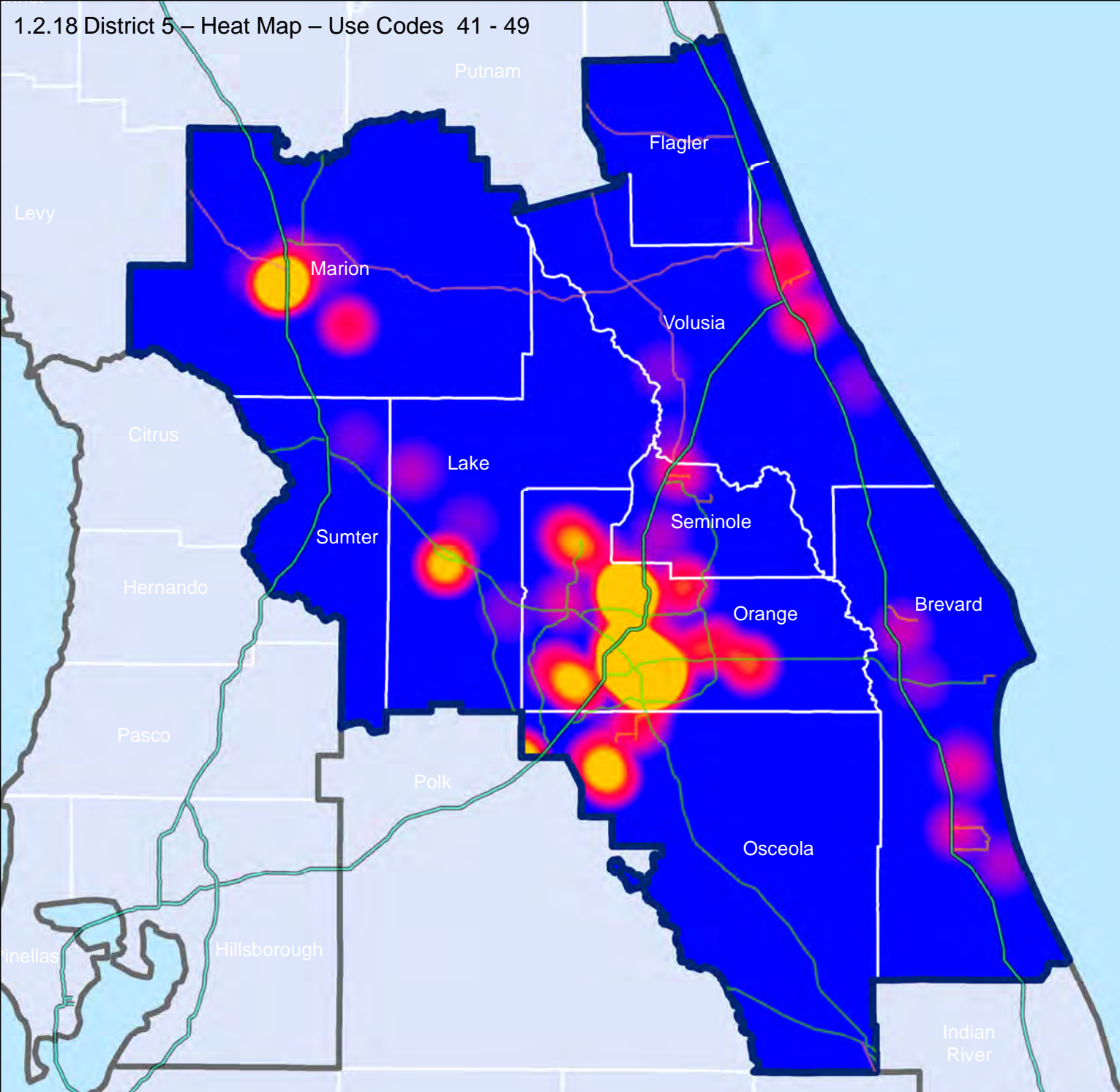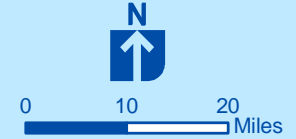
District 5 Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)
High
Low

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Counties

N

0   10   20
Miles

Florida

Putnam

Flagler

Levy

I-75

Marion

Volusia

I-4

Citrus

I-75

Lake

Sumter

Seminole

Hernando

I-95

Orange

Brevard

Pasco

Osceola

Polk

I-4

Hillsboro

Indian
River

Inset Detail - District 5

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.
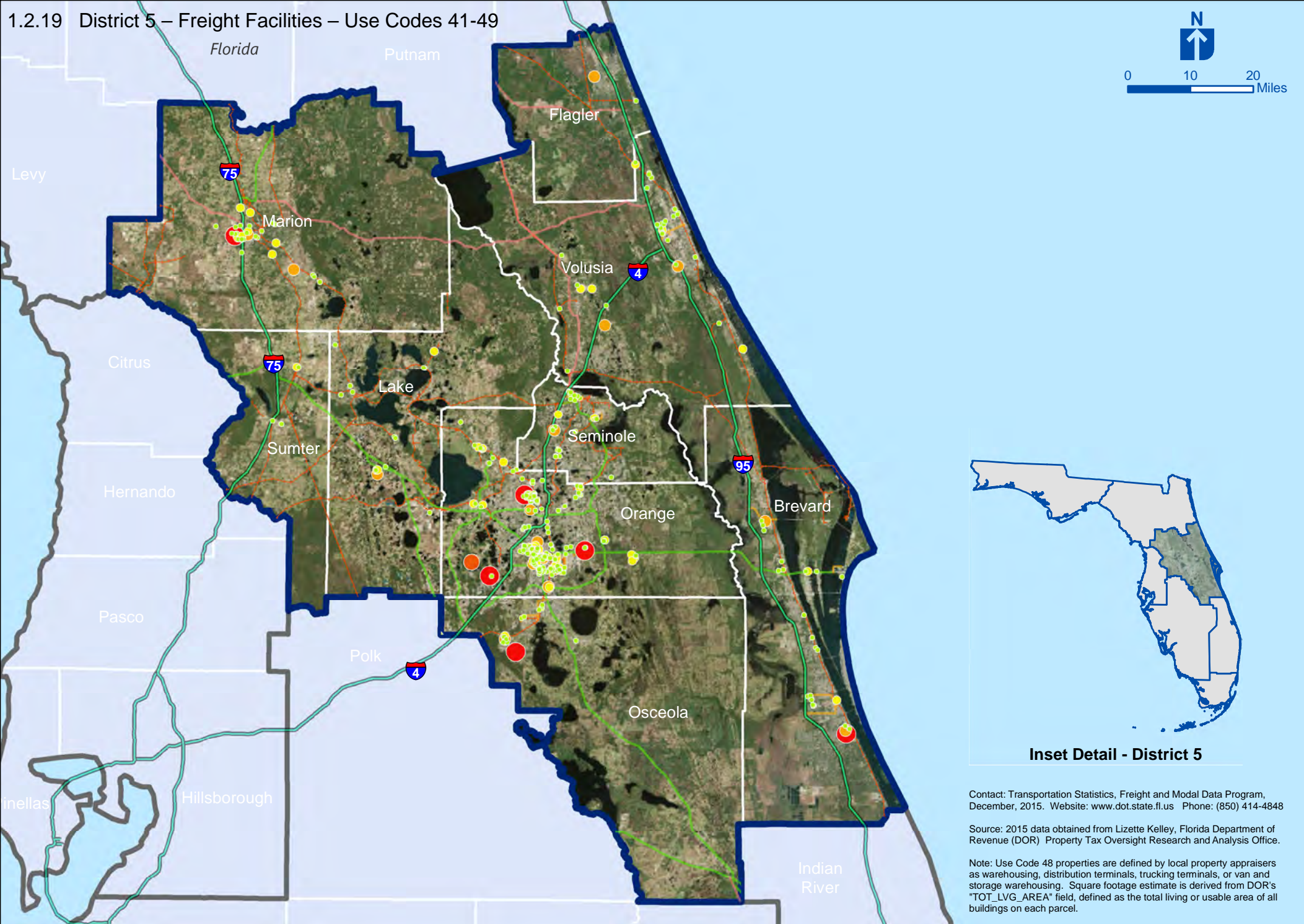
Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 5 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft
Page 24

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

Florida

N

0   10   20
Miles

Putnam

Flagler

Levy

I-75

Marion

Volusia

I-4

Citrus

I-75

Lake

Seminole

Sumter

I-95

Hernando

Orange

Brevard

Pasco

Polk

I-4

Osceola

Pinellas

Hillsborough

Indian River

Inset Detail - District 5

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
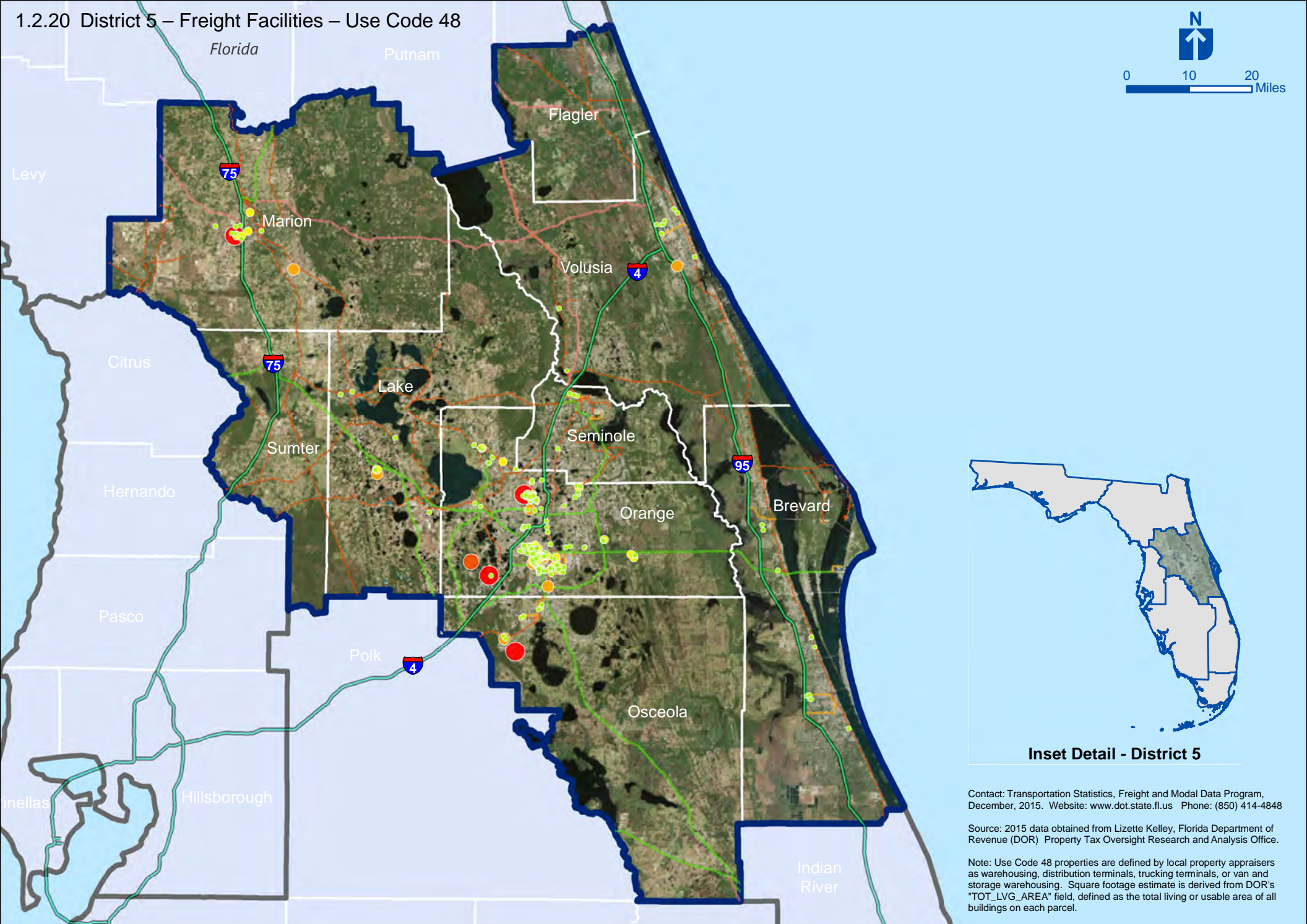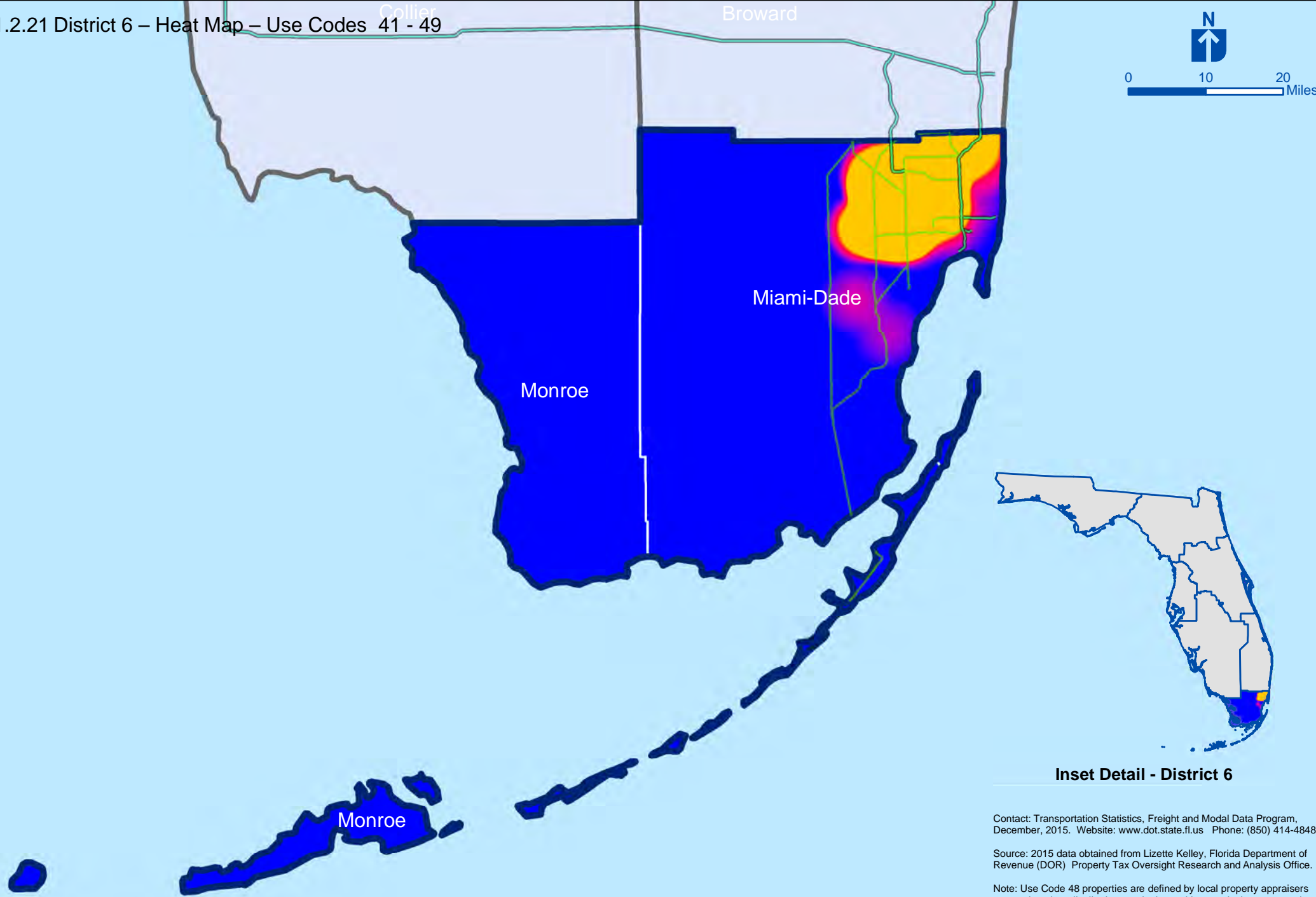
FDOT

District 5 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft
Page 25

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

Collier

Broward

0   10   20
Miles

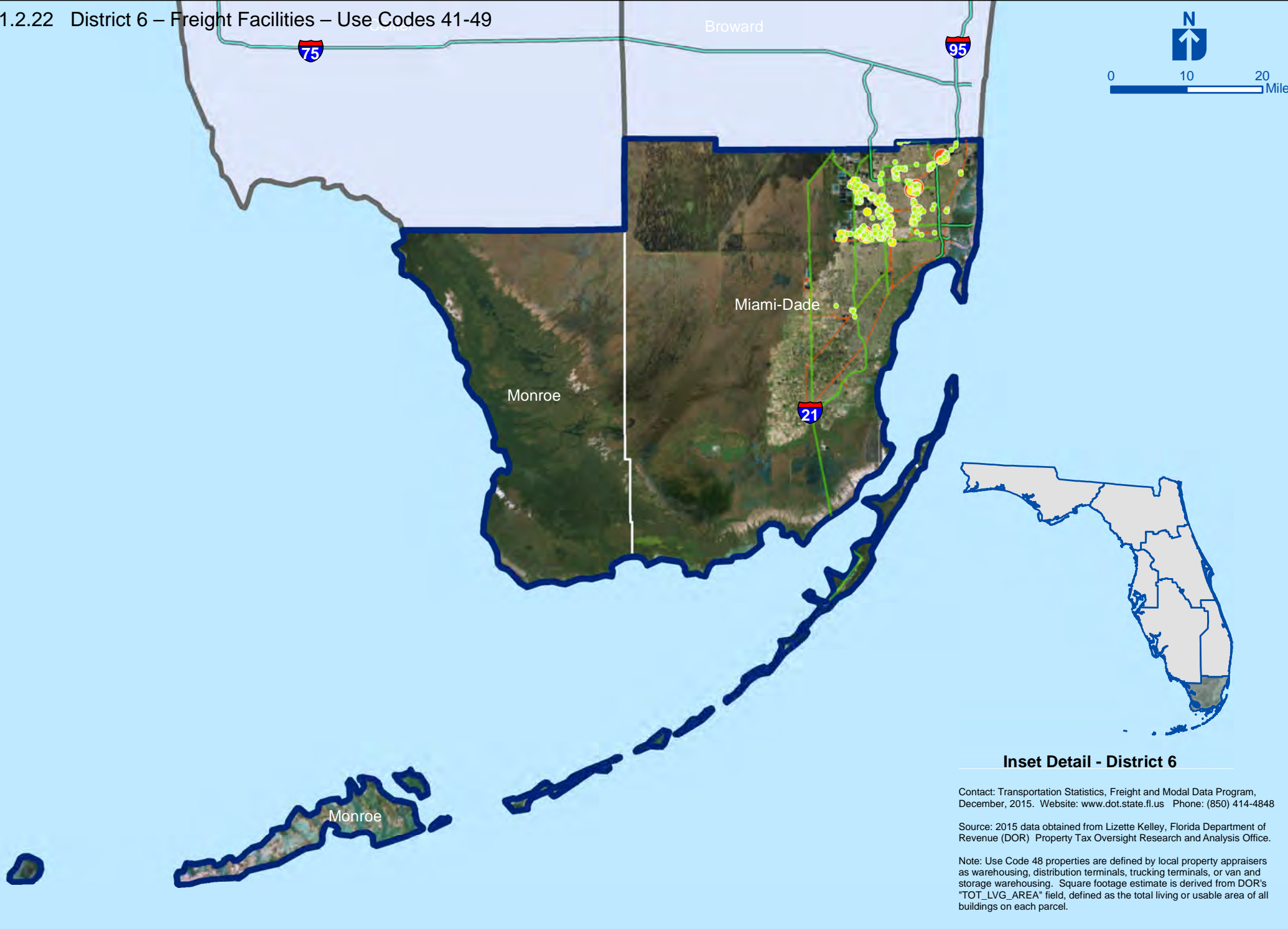Miami-Dade

Monroe

Monroe

Inset Detail - District 6

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 6 Weighted Heat Map - Use Code 41-49
(Weighted with Square Footage)
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)

High

Low

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Counties

N

Broward

0 10 20
Miles

I-75

I-95

Collier

Miami-Dade

Monroe

I-21

Monroe

Inset Detail - District 6

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.
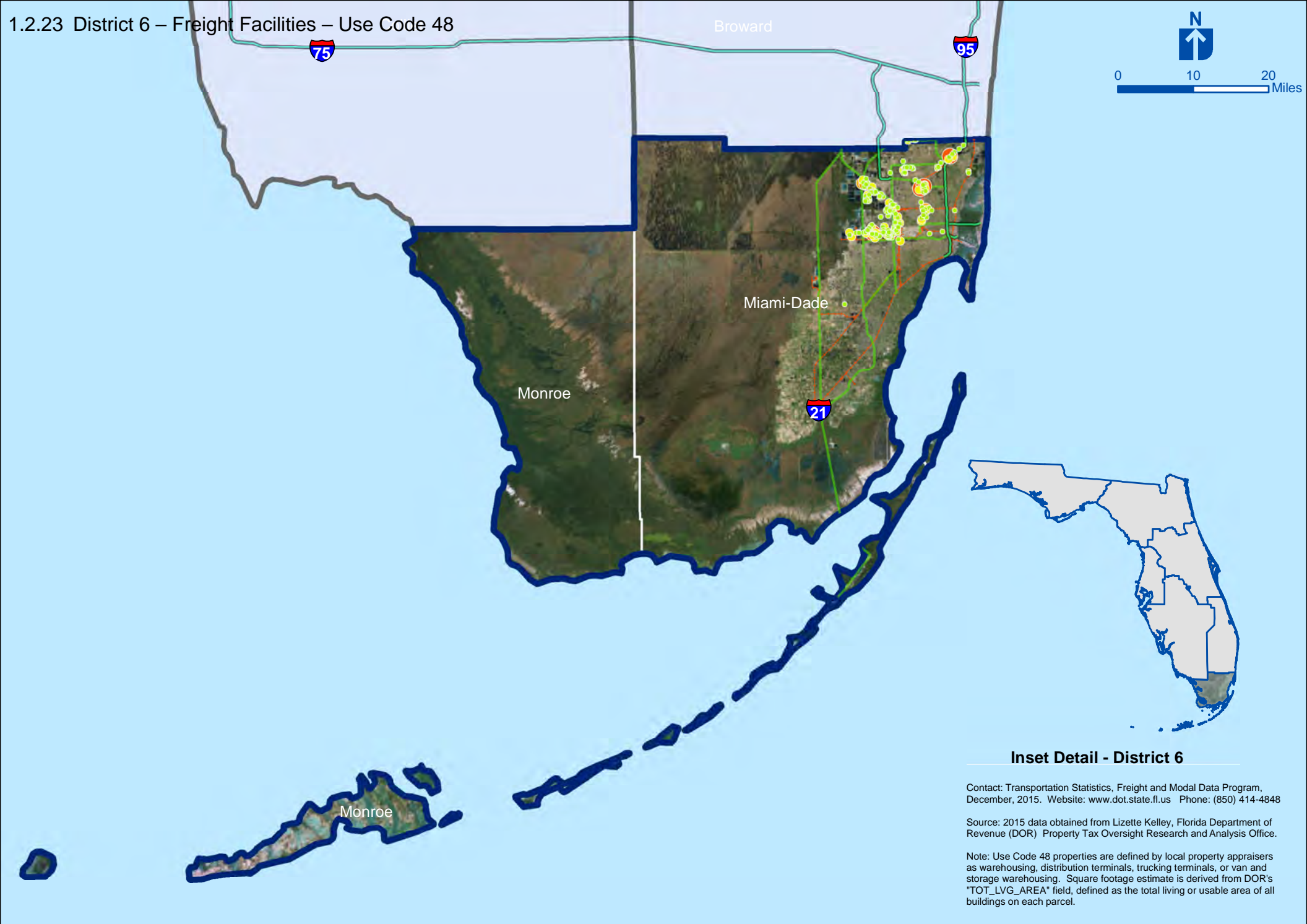
Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 6 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft
Page 27

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

Broward

0   10   20
Miles

I-75

I-95

Miami-Dade

Monroe

I-21

Monroe

Inset Detail - District 6

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
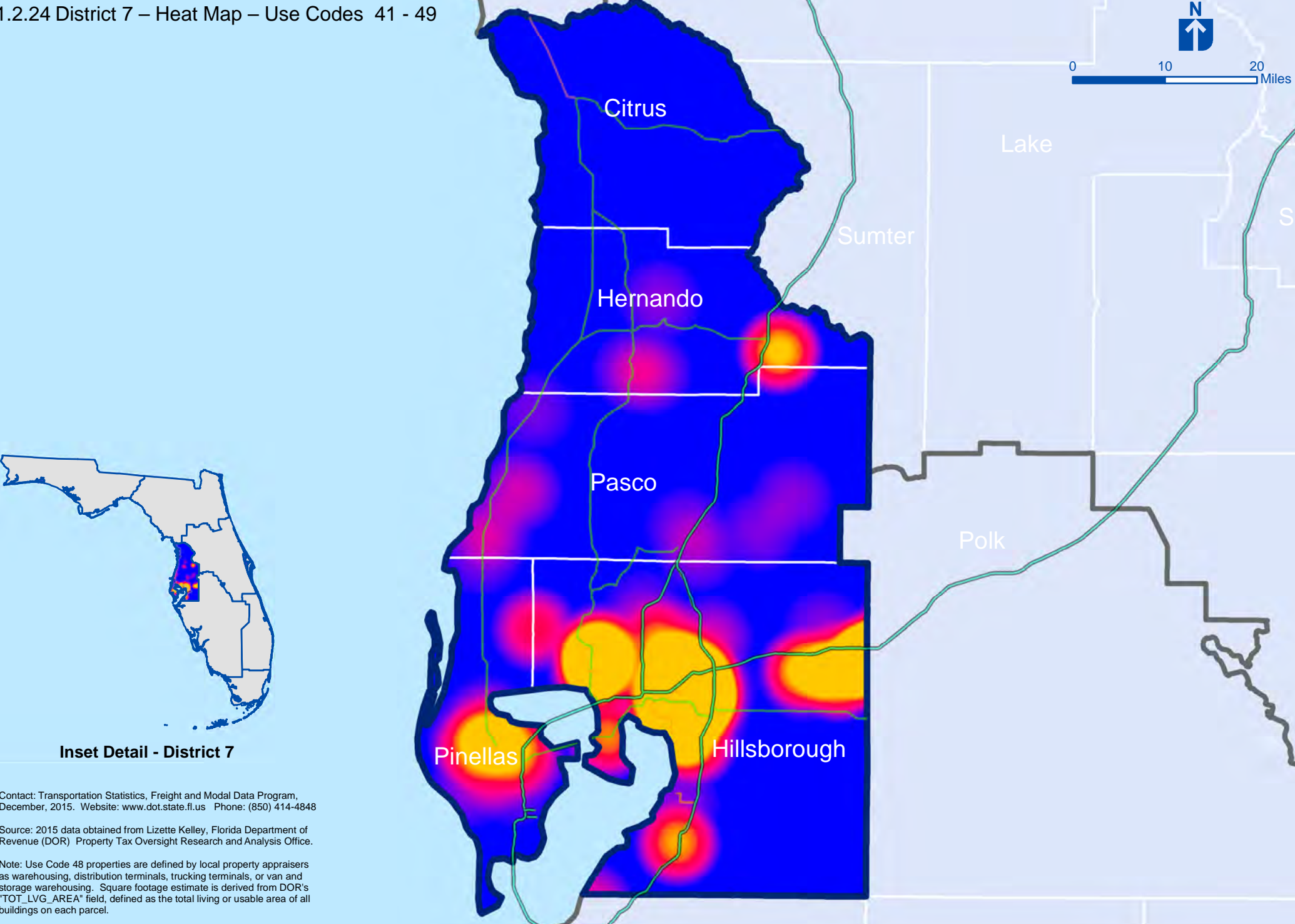
FDOT

District 6 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0   10   20 Miles

Citrus

Lake

Sumter

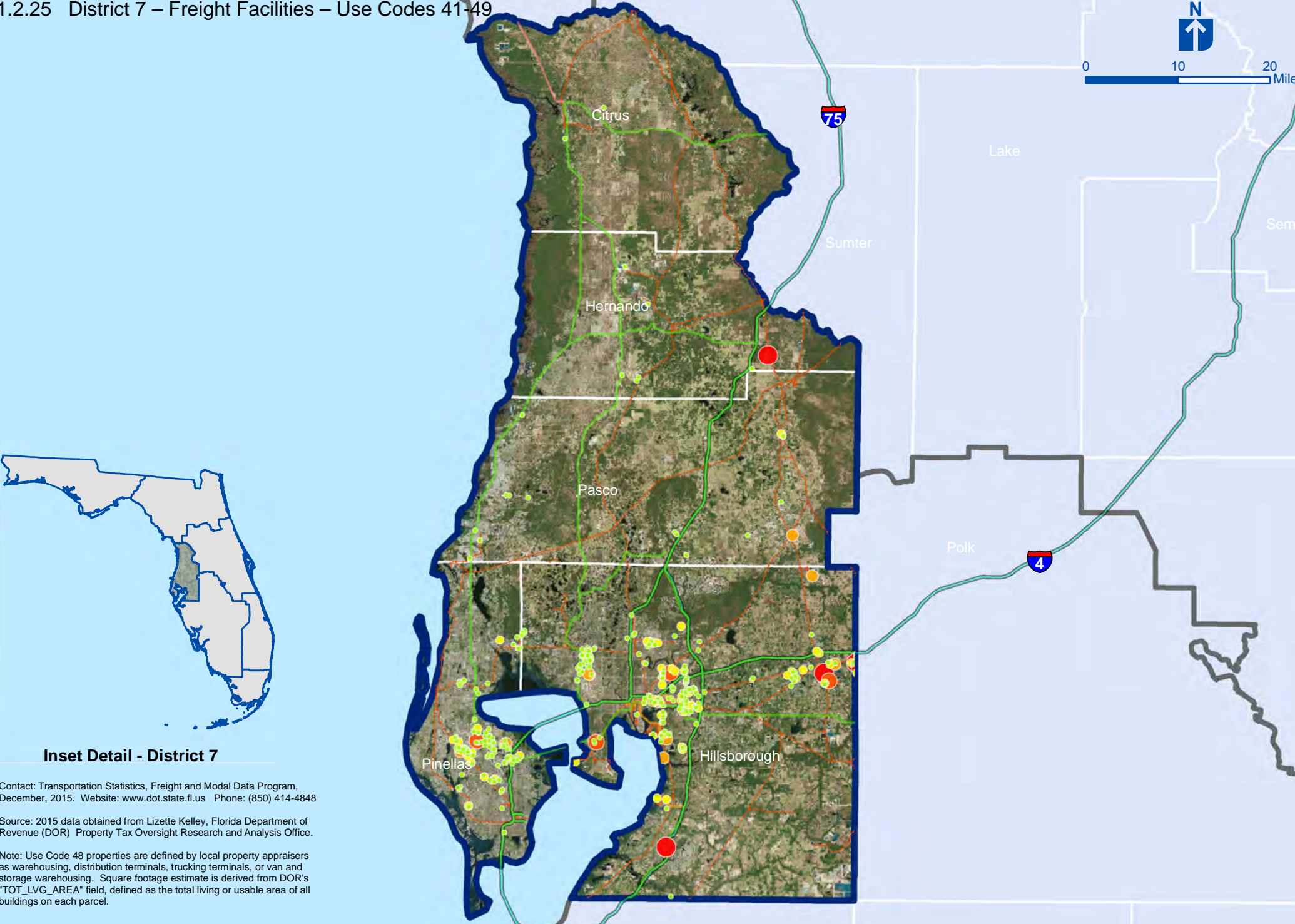Hernando

Pasco

Polk

Pinellas

Hillsborough

Inset Detail - District 7

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

FDOT

District 7 Weighted Heat Map - Use Code 41-49
Facilities Larger than 100,000 sq ft

Freight Parcel Density
(Weighted with Square Footage)

High

Low

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Counties

N

0   10   20
Miles

I-75

Citrus

Lake

Sumter

Hernando

Semin

Pasco

Polk

I-4

Inset Detail - District 7

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.
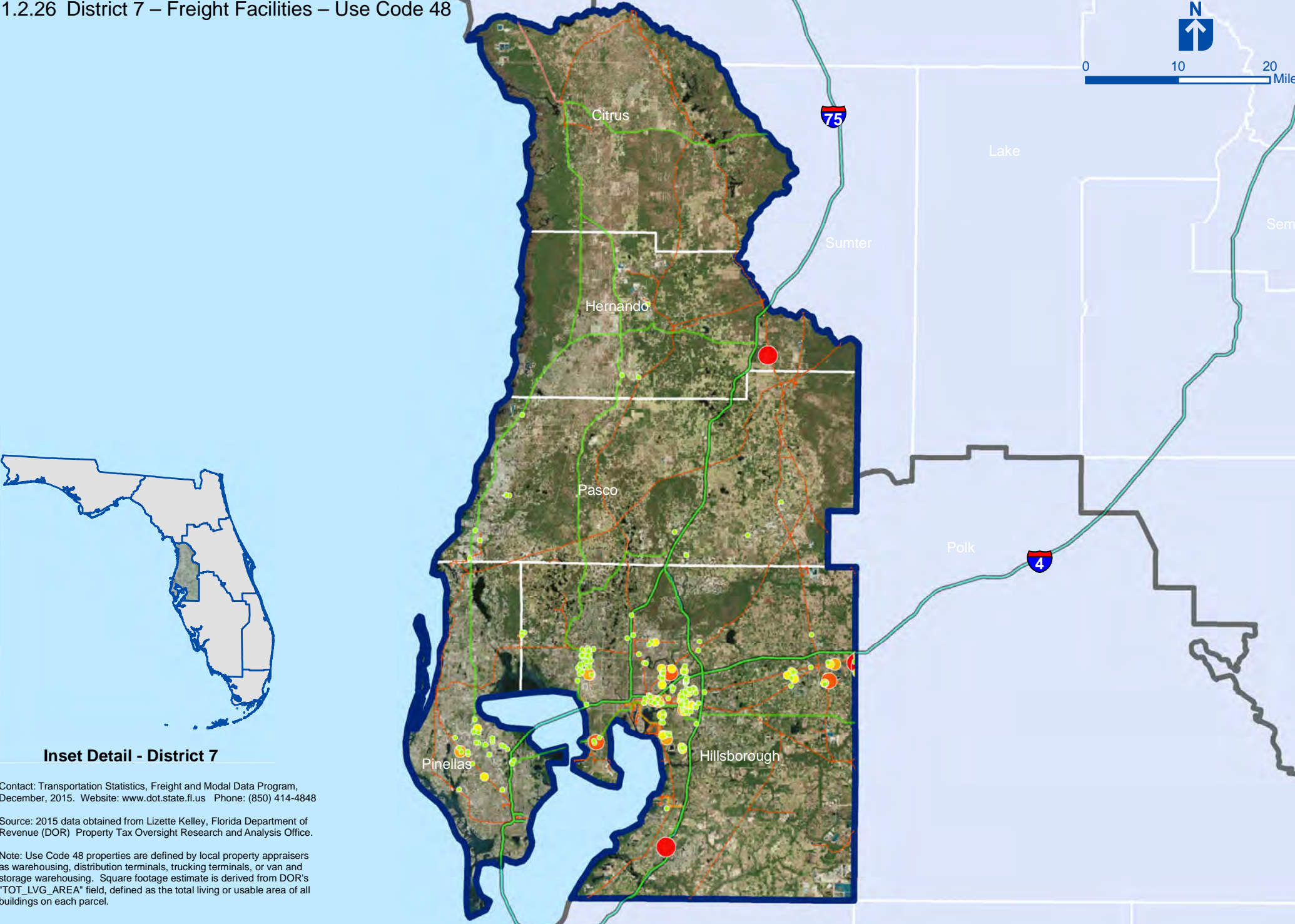
Pinellas

Hillsborough

FDOT

District 7 Freight Facilities - Use Code 41-49
Facilities Larger than 100,000 sq ft
Page 30

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

N

0   10   20
Miles

I-75

Citrus

Lake

Hernando

Sumter

Pasco

Polk

I-4

Inset Detail - District 7

Contact: Transportation Statistics, Freight and Modal Data Program, December, 2015. Website: www.dot.state.fl.us   Phone: (850) 414-4848

Source: 2015 data obtained from Lizette Kelley, Florida Department of Revenue (DOR) Property Tax Oversight Research and Analysis Office.

Note: Use Code 48 properties are defined by local property appraisers as warehousing, distribution terminals, trucking terminals, or van and storage warehousing. Square footage estimate is derived from DOR's "TOT_LVG_AREA" field, defined as the total living or usable area of all buildings on each parcel.

Pinellas

Hillsborough

FDOT

District 7 Freight Facilities - Use Code 48
Facilities Larger than 100,000 sq ft

Square Footage
>1,000,000
100,000 - 250,000

Interstate
SIS Corridor
Emerging SIS
SIS Connector
Railroads
Counties

1.3   FILE NAMES

Following is a list of the electronic files delivered for the project.

1.3.1   GeoDatabases

Following is a list of the Geodatabase files for the project.

File Name:	Information contained
District1.gdb	Geodatabase containing feature class with scanned parcels for District 1 (all DOR use codes; includes OMIT and Vacant Parcels)
District2.gdb	Geodatabase containing feature class with scanned parcels for District 2 (all DOR use codes; includes OMIT and Vacant Parcels)
District3.gdb	Geodatabase containing feature class with scanned parcels for District 3 (all DOR use codes; includes OMIT and Vacant Parcels)
District4.gdb	Geodatabase containing feature class with scanned parcels for District 4 (all DOR use codes; includes OMIT and Vacant Parcels)
District5.gdb	Geodatabase containing feature class with scanned parcels for District 5 (all DOR use codes; includes OMIT and Vacant Parcels)
District6.gdb	Geodatabase containing feature class with scanned parcels for District 6 (all DOR use codes; includes OMIT and Vacant Parcels)
District7.gdb	Geodatabase containing feature class with scanned parcels for District 7 (all DOR use codes; includes OMIT and Vacant Parcels)
Statewide.gdb	Geodatabases containing the following feature classes: AllDistricts_Merged (statewide layer of scanned parcels); District1; District2; District3; District4; District5; District6; District7; FinalFreightParcelCentroids (statewide centroids of scanned parcel geometry); FinalFreightParcelCentroids_wo_Omits (statewide centroids of scanned parcel geometry, excluding parcels coded "OMIT" in the Business Name field).
Statewide_byCounty.gdb	Geodatabase containing a feature class with scanned parcels for each county in Florida and a "CountyNumberLookup" table which provides County Names and County Numbers. Filename convention for County Feature classes is "CO_" followed by the County Code referenced in the Lookup table.

1.3.2   Florida Department of Revenue Files

The Florida Department of Revenue provided a CSV (Comma Separated Value) file containing information for all 67 counties in Florida. This file was used as the basis for further data collection. The CSV file was

imported into various other software applications for use. These applications include Microsoft EXCEL, ACCESS and ArcGIS.

The original file provided by FDOR is named: DORUC40-49-Original file from DOR on 2015-08-18.csv

1.3.3   FDOT District Excel Spreadsheet Files

Microsoft EXCEL files were created for each FDOT District. These files contain all the information provided by the Department of Revenue and the information developed from scanning the parcels.

File Name:	Information contained
All State_Includes scan data.xlsx	Includes data for entire state
District 1_Includes scan data.xlsx	Includes only data for District 1
District 2_Includes scan data.xlsx	Includes only data for District 2
District 3_Includes scan data.xlsx	Includes only data for District 3
District 4_Includes scan data.xlsx	Includes only data for District 4
District 5_Includes scan data.xlsx	Includes only data for District 5
District 6_Includes scan data.xlsx	Includes only data for District 6
District 7_Includes scan data.xlsx	Includes only data for District 7

1.3.4   Scanned Parcels Status Sheet

A Microsoft EXCEL file was used to record the number of joined records as described Appendix 1: Procedure.
.
File Name: TranStat_TWO#3_FreightFacility_STATUS_SHEET

1.3.5 Graphics

Following is a list of the individual graphics produced. These individual files do not include the document header labels so these may be incorporated into other documents as appropriate.

File Name:	Information contained
1.2.1_State_UC41-49_HeatMap.pdf	State Heat Map showing all Land Use Codes
1.2.2_State_UC41-49.pdf	State Map showing Land Use Codes 41 through 49
1.2.3_State_UC48_HeatMap.pdf	State Heat Map showing only Land Use Code 48
1.2.4_State_UC48.pdf	State Map showing only Land Use Code 48
1.2.5_TurnpikeUC41-49.pdf	Turnpike Map showing Land Use Codes 41 through 49
1.2.6_District_1_UC41-49_HeatMap.pdf	District 1 Heat Map for Land Use Codes 41 through 49
1.2.7_District_1_UC41-49.pdf	District 1 Map showing Land Use Codes 41 through 49
1.2.8_District_1_UC48.pdf	District 1 Map showing only Land Use Code 48
1.2.9_District_2_UC41-49_HeatMap.pdf	District 2 Heat Map for Land Use Codes 41 through 49
1.2.10_District_2_UC41-49.pdf	District 2 Map showing Land Use Codes 41 through 49
1.2.11_District_2_UC48.pdf	District 2 Map showing only Land Use Code 48
1.2.12_District_3_UC41-49_HeatMap.pdf	District 3 Heat Map for Land Use Codes 41 through 49
1.2.13_District_3_UC41-49.pdf	District 3 Map showing Land Use Codes 41 through 49
1.2.14_District_3_UC48.pdf	District 3 Map showing only Land Use Code 48
1.2.15_District_4_UC41-49_HeatMap.pdf	District 4 Heat Map for Land Use Codes 41 through 49
1.2.16_District_4_UC41-49.pdf	District 4 Map showing Land Use Codes 41 through 49
1.2.17_District_4_UC48.pdf	District 4 Map showing only Land Use Code 48
1.2.18_District_5_UC41-49_HeatMap.pdf	District 5 Heat Map for Land Use Codes 41 through 49
1.2.19_District_5_UC41-49.pdf	District 5 Map showing Land Use Codes 41 through 49
1.2.20_District_5_UC48.pdf	District 5 Map showing only Land Use Code 48
1.2.21_District_6_UC41-49_HeatMap.pdf	District 6 Heat Map for Land Use Codes 41 through 49
1.2.22_District_6_UC41-49.pdf	District 6 Map showing Land Use Codes 41 through 49
1.2.22_District_6_UC48.pdf	District 6 Map showing only Land Use Code 48
1.2.24_District_7_UC41-49_HeatMap.pdf	District 7 Heat Map for Land Use Codes 41 through 49
1.2.25_District_7_UC41-49.pdf	District 7 Map showing Land Use Codes 41 through 49
1.2.26_District_7_UC48.pdf	District 7 Map showing only Land Use Code 48

1.4 DATA SOURCES

1.4.1 DOR Parcel Data File

A 2015 parcel data file from DOR received on 8/18/2015 served as the primary input for the dataset. The comma separated value (CSV) file contained data for all parcels with use codes 40 through 49 (see section 1.4.1.1). The comprehensive set of fields included Name-Address-Legal (NAL), Sales-Data-Files (SDF), and Name-Address-Personal (NAP) fields.

1.4.1.1   Key DOR Fields

Of the many fields in the parcel data file, several were particularly relevant to the identification and description of freight facilities. The key fields are described below, utilizing text from DOR's 2015 *User's Guide*.

Parcel Identification Code

> PARCEL_ID. This field contains a unique code based on a parcel coding system applied uniformly within the county. The local property appraiser manages the uniform coding system, so parcel ID formats vary by county.
>
> Examples (two of several systems property appraisers use):
> - County A may use a section/township/range/subdivision/block/lot coding system: 12-3N-45-6789-101-112
> - County B may use a seven-digit leading and four-digit extension system: 1234567-1234

County Number

> CO_NO. This field reflects the two-digit number the department assigned to each Florida county. See the table starting on page 36.

DOR Land Use Code

> DOR_UC. This field indicates the land use code associated with each type of property. The property appraiser assigns the use code based on department guidelines. If a parcel has more than one use, the appraiser assigns a code according to property's predominant use.

Actual Year Built

> ACT_YR_BLT. This field indicates the year the parcel's primary structure was built. This field is required for all improved use codes. This field will be blank if not applicable.

Total Living or Usable Area

> TOT_LVG_AREA. This field reflects the total effective area of all improvements on the property, excluding improvements classified as special features. This is the total area of all floors on any multi-story building and the total area of all property record cards that share the same unique parcel number.
>
> The effective building area is measured in square feet and begins with the building's base area, which is the building type's major area. Property appraisers may apply percentage factors to the square footages of other building areas such as attached garages, attached carports, porches, utility rooms, and offices. These percentage factors may be less than or greater than one, depending on the unit cost of the other area(s) relative to that of the base area. For example, the percentage factor for a garage attached to a single-family home typically would be less than one, while the percentage factor for an enclosed office area in a warehouse typically would be greater than one. The effective base area is the sum of the base area's square footage and the adjusted square footages of all other attached building areas. This field is left blank if not applicable.

Number of Buildings

> NO_BULDNG. This field indicates the parcel's total number of buildings excluding improvements classified as special features. An entry is required for all improved land use codes except condominiums (004). This field will be blank if not applicable.
> Examples:
> - An office complex with 15 office buildings, entry = 15
> - Single-family residential structure, entry = 1

Owner's Name

> OWN_NAME. This field contains the primary owner's name.

Short Legal Description

> S_LEGAL. This field contains a short legal description of the parcel. Since this field only allows 30 characters, the information may appear abbreviated, truncated, or incomplete.
> The data may indicate:
> - Township
> - Range
> - Section or grant number
> - Subdivision name/lot number
> - Municipality code or number
> - Metes & Bounds description

Physical Address – Line 1

> PHY_ADDR1. This field identifies the physical street address of the parcel. If the parcel is vacant and has not been assigned a street number, the field may contain the name of the fronting (or ingress/egress) road.

Physical Location – City

> PHY_CITY. This field contains the city in which the parcel is located. This field is left blank if unnecessary.

1.4.1.2   DOR Land Use Codes

The freight-related land use codes that define the parcels provided by DOR, forming the basis for the freight facility dataset, include manufacturing, production, processing, storage, and warehousing & distribution.

DOR Freight-Related Land Use Codes

DOR_UC	Description
40	Vacant
41	Light Manufacturing
42	Heavy Manufacturing
43	Lumber Yards
44	Packing Plants
45	Bottlers
46	Food Processing
47	Materials Processing
48	Warehousing & Distribution
49	Open Storage

To correspond with the 2015 parcel data file, DOR 2015 parcel boundary shapefile were obtained through DOR's public GIS/Mapping Data Files FTP site (ftp://sdrftp03.dor.state.fl.us/Map%20Data/).

1.4.2   Online Mapping

Several online search and mapping tools were used to verify DOR Use Codes and establish additional information, such as business names. In addition to basic mapping, imagery, and address searching functions, each online source used provided unique capabilities. During the parcel scanning process (see below), the primary online data source used was indicated in the "source" field. The unique capabilities of each source as they relate to identifying, verifying, and describing freight facilities are:

Bing Maps

In late 2015, Bing was previewing a new version of Bing Maps. A useful feature of the previous version was a business address listing returned upon an address search. However, the results often contained out-of-date information, listing businesses that had vacated the address. Another valuable aspect of Bing Maps is Bird's Eye, which displays oblique aerial imagery. This was particularly useful for counting the number of truck bays to quantify the potential magnitude of freight activity.

Bing StreetSide

Bing has launched StreetSide which provides a ground level view, similar to Google StreetView. This provided a useful supplement, as Bing StreetSide often photographed locations more recently than the most recent Google StreetView pass. StreetSide coverage generally is limited to major metropolitan areas.

Google Earth

A useful feature of Google Earth is the time-lapse imagery, which can be used to trace the historical development of land over time.

Google Maps

Business place markers often identified business names and locations.

Google StreetView

Similar to Bing StreetSide, Google StreetView was used to verify business occupancy or vacancy with building company signage, available/for lease/ for sale signage, etc.

Others

Yahoo Maps was also used. Often the DOR data file itself indicated the business occupant.

## 1.5   PREPARATION

1.5.1   File Structure

Once the data sources were assembled, a file structure was established. GIS reference files included a map document template, a geodatabase, and a shapefile subfolder. The shapefile folder contained the prior datasets, including a set of distribution centers previously identified and a set of freight-related business locations from Florida Power and Light. The map document template referenced these prior datasets.

The geodatabase contained a "NewFieldsTemplate" with definitions for the new fields to be populated during the scanning process. Domains also housed presets possible for some fields, including Source, Bays, Vacant, and Rail Access (see Section 1.6.1 New Fields below).

Within a DOR15 folder for the 2015 DOR data, each district had a folder, and within each district folder were county folders. A geodatabase contained the statewide DOR data table (imported from CSV). The starter files, consisting of the county geodatabase and map document template, were copied from the reference folder into each county folder. DOR 2015 parcel boundary shapefiles downloaded from the DOR website were placed within the county's shp folder.

The freight facility dataset adopted the NAD_1983_UTM_Zone_17N projected coordinate system. County parcel boundary shapefiles were projected to the coordinate system as a feature class within the county geodatabase.

A horizontal chart representation of the file structure is shown below.
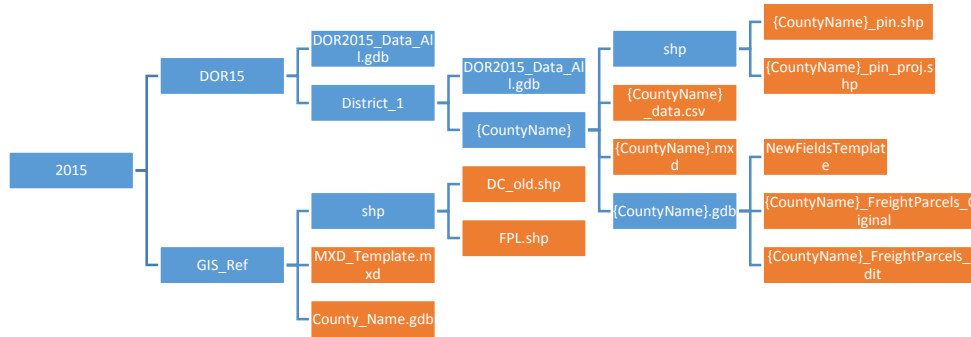
Blue are folders and orange are files
{CountyName} is to be replaced with the county's name

An alternative figure to represent the file structure is as follows:
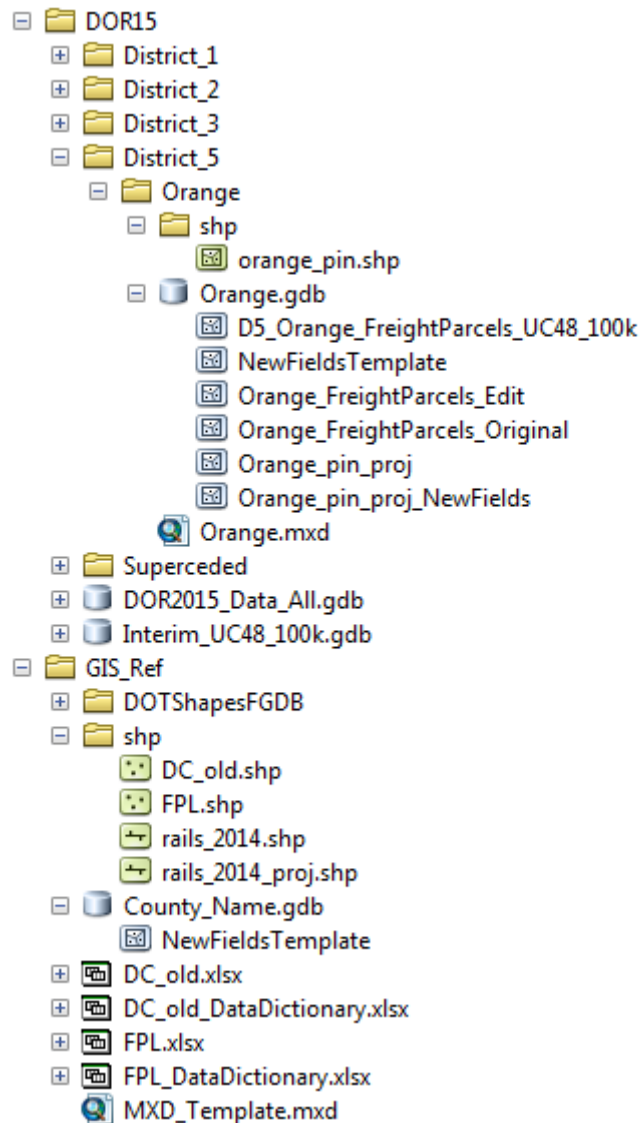
1.5.2   Joining the Parcel Boundary and Data Files

The projected parcel boundary file was merged with the new field template and joined with the parcel data table.

Given the various parcel numbering conventions, the Parcel ID field often caused problems in attempts to join the parcel data table with the parcel boundary file. Joining from the parcel data table from within the statewide geodatabase prevented some of the join problems, which often occurred for individual counties with parcel ID conventions not amenable to GIS.

A few counties required some manipulation to get the parcel boundary and parcel data file ID's to match. For example, Taylor County included additional leading characters in the PARCELNO of the parcel boundary file and had a hyphen before the last three characters of the PARCELNO in the parcel data file. These differences were reconciled by creating a new ID field to enable the join. Another example was Manatee County, which had an initial join percent of 78%. The main reason was that the data file contained records for individual units, but the parcel boundary file had not been subdivided. The Collier County parcel boundary file did not contain leading zeros for ID's with fewer than 11 characters, while the data file did include the leading zeros.

Eventually, the join was validated for all counties. Of 91,895 records statewide in the parcel data table, the joins with the parcel boundary files yielded 84,148 records. The join percentage was calculated for each county, comparing the number of records in the join result to the number of records in the parcel data table for the county. The table below summarizes the join percentage distribution for Florida's 67 counties.

Join Percentage Distribution
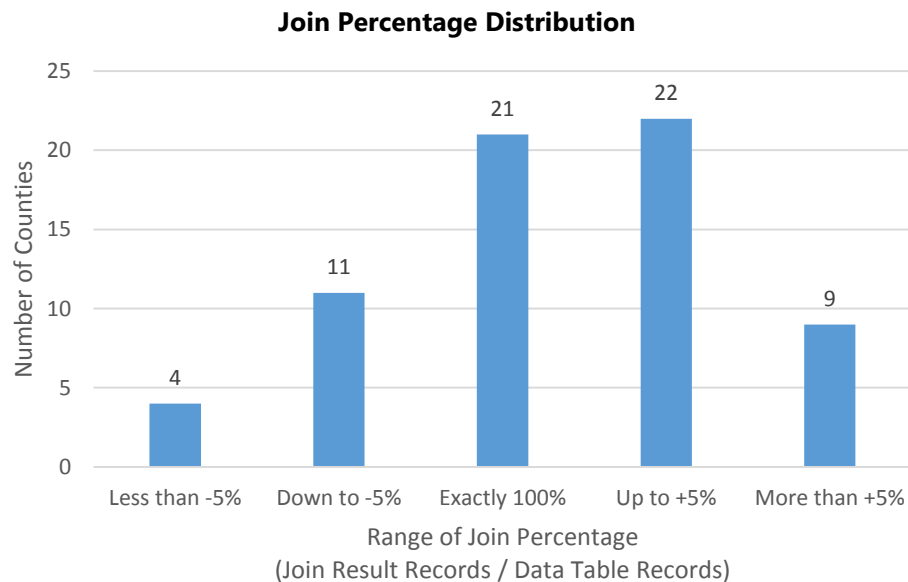
Many counties had join percentages in excess of 100%, indicating more join results than data table records. This is caused by multiple parcel boundary records containing the same PARCELNO for multiple

records. Some counties use the parcel boundary file to subdivide parcels into lots. For the purposes of generating the freight facility dataset, it was necessary to represent each facility only once and to not duplicate the attribute data (total area, for example). See the Issues and Solutions Appendix for further discussion.

DOR Data and Boundary Join Percentage by County (ranked by Percent Join)
(Field names defined following table)

District	County	DOR_CO	DOT_CO	N_Data	N_Join	Pct_Join
D2	Levy	48	34	114	271	238%
D2	St. Johns	65	78	489	1,160	237%
D5	Sumter	70	18	164	209	127%
D2	Hamilton	34	32	323	384	119%
D3	Washington	77	61	47	53	113%
D2	Alachua	11	26	1,165	1,292	111%
D7	Hernando	37	8	328	363	111%
D3	Holmes	40	52	33	36	109%
D3	Walton	76	60	250	270	108%
D3	Bay	13	46	787	822	104%
D1	DeSoto	24	4	111	115	104%
D7	Hillsborough	39	10	4,060	4,205	104%
D1	Okeechobee	57	91	169	175	104%
D3	Jackson	42	53	172	178	103%
D2	Dixie	25	30	29	30	103%
D3	Jefferson	43	54	62	64	103%
D2	Clay	20	71	222	228	103%
D3	Calhoun	17	47	55	56	102%
D3	Santa Rosa	67	58	646	657	102%
D2	Nassau	55	74	183	186	102%
D1	Charlotte	18	1	1,101	1,117	101%
D1	Collier	21	3	1,082	1,096	101%
D5	Brevard	15	70	2,793	2,829	101%
D4	Broward	16	86	9,081	9,173	101%
D4	St. Lucie	66	94	1,595	1,611	101%
D5	Marion	52	36	1,585	1,589	100%
D5	Seminole	69	77	1,847	1,851	100%
D4	Martin	53	89	946	947	100%
D5	Lake	45	11	1,104	1,105	100%
D1	Sarasota	68	17	2,564	2,566	100%
D5	Orange	58	75	4,563	4,564	100%
D1	Glades	32	5	24	24	100%
D2	Baker	12	27	39	39	100%
D2	Bradford	14	28	59	59	100%

District	County	DOR_CO	DOT_CO	N_Data	N_Join	%
D2	Columbia	22	29	192	192	100%
D2	Duval	26	72	5,420	5,420	100%
D2	Gilchrist	31	31	28	28	100%
D2	Lafayette	44	33	17	17	100%
D2	Madison	50	35	55	55	100%
D2	Taylor	72	38	64	64	100%
D2	Union	73	39	15	15	100%
D3	Gadsden	30	50	123	123	100%
D3	Gulf	33	51	94	94	100%
D3	Okaloosa	56	57	904	904	100%
D3	Wakulla	75	59	86	86	100%
D4	Indian River	41	88	659	659	100%
D5	Flagler	28	73	274	274	100%
D5	Osceola	59	92	573	573	100%
D5	Volusia	74	79	2,623	2,623	100%
D6	Monroe	54	90	272	272	100%
D7	Pasco	61	14	1,241	1,241	100%
D7	Pinellas	62	15	4,864	4,864	100%
D1	Polk	63	16	3,624	3,622	100%
D1	Lee	46	12	3,516	3,514	100%
D3	Escambia	27	48	1,021	1,020	100%
D1	Highlands	38	9	599	598	100%
D7	Citrus	19	2	377	376	100%
D3	Leon	47	55	988	985	100%
D2	Putnam	64	76	197	196	99%
D4	Palm Beach	60	93	5,383	5,329	99%
D1	Hendry	36	7	258	254	98%
D3	Franklin	29	49	113	111	98%
D1	Hardee	35	6	91	89	98%
D2	Suwannee	71	37	78	73	94%
D3	Liberty	49	56	13	12	92%
D1	Manatee	51	13	1,861	1,499	81%
D6	Miami-Dade	23	87	18,480	9,642	52%

Table Field Names

District: FDOT district number

County: Name of county

DOR_CO: Department of Revenue county number

DOT_CO: FDOT county number

N_Data: Number of records in the county parcel data file (with detailed parcel attributes)

N_Join: Number of records in the county parcel boundary shapefile with attributes from the data file joined.

Pct_Join: N_Data divided by N_Join. The percentage of the parcels with detailed attributes that exist in the join result.

1.6 SCAN

The DOR parcel dataset provided a comprehensive basis for identifying the locations of major freight facilities throughout Florida. However, scanning, or reviewing the parcel data and location in conjunction with online mapping services was necessary to verify the existence and freight-related nature of facilities. In addition, further information was collected to describe and quantify the facilities. During the scan, several new fields were added.

The joined data contained the boundaries and data attributes of all parcels in Florida with freight-related land use codes. To identify the major facilities and reduce the dataset to a more manageable number, parcels with 100,000 square feet or greater of living area (TOT_LVG_AREA) were scanned. Future efforts could include scans of parcels with smaller areas.

DOR collects data from county appraisers and updates the parcel dataset on an annual cycle. Draft data for the preceding year are released each August and finalized in October. FDOT could coordinate with DOR to receive updated parcel datasets each year. Substantial effort was required to create the initial freight facility dataset. One approach to streamlining annual updates of the freight facility dataset could be to focus the DOR data updates only on parcels that have changed (e.g., changed to land use code 48 or increased in area). Another approach to updating the freight facility dataset could be to rely on local knowledge to add, remove, and adjust facilities.

See Section 0 for the initial setup and scanning procedure.

1.6.1 New Fields

The following new fields were added to the DOR dataset and populated during the scanning process.

Business (Field Name: *Business*)
"Business" is the name of the business or entity operating at the location. Facilities with multiple business tenants are quite prevalent. To expedite review on this iteration of the dataset, when more than one business was encountered for a given parcel, the business was listed as "Multitenant". For such multitenant facilities, the names of any businesses identified can be listed in the field established for "Multitenant Business Name" (see below), separated by semicolons. Some analysis will be dependent on associating parcels with businesses and their attributes, while other analysis will be of the parcels themselves.

Source (Field Name: *Source*)
"Source" is the data source used to identify the Business or other attribute. The Data_Source domain within the geodatabase provided a drop down choice of the following when editing: Bing Maps, Bing StreetSide, Google Earth, Google Maps, Google StreetView, Yahoo Maps, and Other. See the Data Sources section 1.3.2 above for more information.

Lookup Date (Field Name: *LookupDate*)

"Lookup Date" is the year & month (if available) of the source in YYYYMM Format (e.g., 201303 for March 2013). Although multiple sources (potentially from different time periods) were often used to verify and describe different aspects of the record during the scan, the key lookup date (and source) were recorded.

Rail Access (Field Name: *RailAccess*)

"Rail Access" indicates whether the facility has active railroad access with an industrial siding, or a rail line splitting off the main line (spur) to serve the facility. Many facilities are adjacent to railroads but do not have rail access or industrial sidings. Also, some facilities had dedicated railroad access in the past that is no longer utilized. The Rail Access domain provided the following choices: Yes, No, Formerly.

Vacant (Field Name: *Vacant*)

Based on the "Source," "Vacant" indicates whether the facility appears to be wholly or partially vacant. As potential past and future freight generators, vacant properties possess potential for freight activity and can be monitored for future occupancy. Values: Wholly, Partially, and In Use.

Estimated Number of Bays (Field Name: *EstBays*)

During the scan, the number of truck bays or loading docks at each facility was estimated. This indicator of freight activity can be used in conjunction with square feet. Possible values included "none" through "greater than 100" in increments of 10.

> 1-10: Between 1 and 10 bays
> 11-20: Between 11 and 20 bays
> 21-30: Between 21 and 30 bays, etc.

Industrial Park or Development (Field Name: *ParkDev*)

This field indicated if the parcel was located within an industrial park or freight-related development. Often freight facilities are grouped together in a formal industrial park, cluster of industrial zoned land, or master-developed series of parcels and buildings with common characteristics. Attributes and statistics can be summarized by such clusters with further analysis. Utilizing this field could also be useful in grouping smaller parcels to scan jointly, especially if parcels with less than 100,000 square feet are scanned in the future.

Multitenant Business Names (Field Name: *MultiBiz*)

This field contains the names of businesses identified at multitenant facilities, separated by semicolons.

Notes (Field Name: *Notes*)

The "Notes" contain other pertinent information encountered during the scan.

1.6.2   Conventions Applied

In the process of scanning the parcels, conventions were developed.

- Omitted from the dataset

- o Self-Storage. A large number of self-storage facilities were included in the warehousing and distribution land use code (DOR_UC 48). However, these were often small in scale and are unlikely to generate significant freight activity. Therefore, self-storage facilities were omitted from the dataset and accompanying graphics.
    - o Aircraft hangars. Aircraft hangars were occasionally included within the freight-related land use codes. These records were omitted from the dataset.
    - o Retail only. Occasionally, facilities appearing to only contain retail components were included in the freight-related land uses. Examples include Sam's Club and Big Lots stores. These were omitted from the dataset. (Retail land uses were not included in the original DOR parcel data.)
- • Vacant. If a parcel is wholly vacant, its business name was indicated as "Vacant." Vacant parcels were omitted from the graphics included in this report.
- • Unknown. If the business operating at a parcel cannot be determined, then the business name was indicated as "Unknown."
- • Bays. Bays refer to the estimated number of truck bays only. This does not include railway bays.
- • Outdoor storage and number of bays. Bays are not a significant indicator when the facility is more of an outdoor/covered storage area than a traditional distribution center building. If outdoor/covered storage was noted, then the number of bays field was disregarded.

1.6.3   Other Fields and Possible Supplemental Analysis

Other fields contained within the dataset but not yet populated are NAICS, NAICS Description, Facility Type, and Parcel Area Ratio. Future efforts to associating each business with its North American Industry Classification System (NAICS) code could enable informative summaries of the geographic distribution and characteristics of freight-related facilities. Facility type could involve categorizing freight facilities according to their size, multitenant nature, and other characteristics. See Section 1.11 for examples of facility type. Variations of facility type analysis could include indicating the presence of refrigeration or various types of layout (cross-dock, etc.).

Data that can quantitatively help distinguish major freight facilities include building square footage (total living area), estimated number of bays, number of buildings, and square footage of the entire parcel. A parcel area ratio could compare these attributes. For example, the average building area calculated by diving the total living area by the number of buildings could help flag parcels comprised of several small buildings.

1.7   PROCESSING AND ANALYSIS

Parcels with land use (UC) code 48 Warehousing & Distribution were scanned first for all counties that had parcels meeting the total living area criteria of at least 100,000 square feet. An interim export of scanned UC 48 results for all counties was performed (see Appendix 2).

The scan was then expanded to include parcels of all freight-related use codes (40 through 49) with a total living area of at least 100,000 square feet. Once all scans were completed, the final export was performed to assemble parcels from all counties into a statewide geodatabase (see Section 1.9 for Export Procedure).

1.8   APPENDIX 1: PROCEDURE

1. Working locally (on C drive)
   a. **Replicate** the /15/DOR15/District_{X}/ folder structure
   b. **Copy and paste** the county's folder (containing the pin.shp) into local district folder
2. In ArcCatalog
   a. **Copy and paste** the geodatabase \2015\DOR15\DOR2015_Data_All.gdb which contains the table DOR2015_All into district folder. This table still contains all the statewide data but creating a copy of it will prevent possible file access problems. This step is only needed when starting a new district.
   b. **Copy and paste** the County_Name.gdb from /15/GIS_Ref into county folder
      i. Rename as {CountyName}.gdb
   c. **Copy and paste** the MXD_Template.mxd from /15/GIS_Ref
      i. **Rename** as {CountyName}.mxd
      ii. **Open** the mxd
      iii. **Repair** the data sources for FPL and DCold to /15/GIS_Ref
   d. **Project** the parcel boundary file (pin)
      i. Input: {CountyName}_pin.shp
      ii. Output: {CountyName}.gdb/{CountyName}_pin_proj
      iii. Output Coordinate System: NAD_1983_UTM_Zone_17N
   e. **Merge** the parcel boundary file (pin) and new field template
      i. Inputs
         1. {CountyName}.gdb/NewFieldsTemplate (added 1st)
         2. {CountyName}.gdb/{CountyName}_pin_proj (added 2nd)
      ii. Output: {CountyName}.gdb/{CountyName}_pin_proj_NewFields
      iii. Accept default field formats
3. In ArcMap,
   a. **Add** data
      i. {CountyName}.gdb/{CountyName}_pin_proj_NewFields
      ii. DOR2015_Data_All.gdb/DOR2015_All
   b. **Join** the data to the feature class based on PARCELNO and PARCEL_ID
      i. Keep only matching records
      ii. **Validate** Join
      iii. **Record** the number of joined records in the Status Sheet (See Section 1.3.4 for electronic file naming)
   c. **Export** data (join result) as {CountyName}.gdb/{CountyName}_FreightParcels_Original
   d. **Remove** DOR2015_Data_All.gdb/DOR2015_All from the map document. This also removes its associated join with {CountyName}_pin_proj_NewFields.
   e. **Set** transparency of *{CountyName}_FreightParcels_Original* to 50%
4. In ArcCatalog, **export** a copy to be edited during scan (Export → To Geodatabase (Single))
   a. Input: *{CountyName}.gdb/{CountyName}_FreightParcels_Original*
   b. Output: *{CountyName}.gdb/{CountyName}_FreightParcels_Edit*
   c. Accept default field formats
5. *Add {CountyName}.gdb/{CountyName}_FreightParcels_Edit* to *{CountyName}*.mxd

a. **Set** transparency of *{CountyName}_FreightParcels_Edit* to 50%

6. **Freeze** key fields in *{County_Name}_FreightParcels_Edit*. This will ensure these important fields are visible on the left side of the attribute table as the parcels are manually scanned.

   a. **DOR_UC**   Department of Revenue Use Code. Primary use of the parcel.

DOR_UC	Description
40	Vacant
41	Light Manufacturing
42	Heavy Manufacturing
43	Lumber Yards
44	Packing Plants
45	Bottlers
46	Food Processing
47	Materials Processing
48	Warehousing & Distribution
49	Open Storage

   b. **ACT_YR_BLT**   Actual year built of the primary structure on the parcel

   c. **TOT_LVG_AR**   Total Living Area. From the DOR User's Guide for 2014 Department Property Tax Data Files: "This field reflects the total effective (or adjusted) area of all improvements on the property, excluding improvements classified as special features. This is the total of all floors on any multi-story building and the total of all property record cards having the same unique parcel number."

      1. **Change** the numeric properties to show the thousands separator

   d. **NO_BUILDINGS**   Number of Buildings

   e. **OWN_NAME**   Name of parcel owner (sometimes can help identify Business)

   f. **S_LEGAL**   Short Legal Description. Possibly including Industrial Park.

   g. **PHY_ADDR1**   Physical Address of the parcel

   h. **PHY_CITY**   City of the parcel

7. **Turn Off** the fields from the template but not to be populated in the initial screening

   a. **Facility Type**

   b. **Parcel Area Ratio**

   c. **NAICS**

   d. **NAICS Description**

8. **Scan** each parcel

   a. **Filter** *{CountyName}_FreightParcels_Edit* parcels to reveal the set to be scanned during the first pass by using a

      i. Properties → Definition Query: DOR_UC = 48 AND TOT_LVG_AREA >=100000

      ii. **Record** in the Status Sheet the number of remaining parcels (N_100k_UC48)

      iii. Keeping the *Originals* turned on will give you context for scanning the rest later

   b. **Start** an Edit session

      i. **Adjust** the width of the new fields to be able to see the drop down menus

   c. **Investigate** each parcel and **populate the new fields** while **cross referencing** the previous distribution centers and FPL data relative to the following sources:

      i. GM Google Maps, including StreetView

      ii.   BM [Bing Maps](#), including Bird's Eye to get oblique aerial photography to help identify any signage or other facility characteristics. Bing Maps also often returns lists of business associated with an address. The list may be out of date, but we can cite Bing Maps.

      iii.   Yahoo Maps

      iv.   [Wikimapia](#), including Wikimapia, Google, Bing, and Yahoo satellite imagery. Wikimapia satellite imagery may be more current than Google Maps satellite imagery. Google Earth imagery may be more current than Google Maps.

      v.   GE Google Earth, including time-lapse imagery.

      vi.   Other

   d. **Update** the number of scanned parcels (N_Scanned) in the Status Sheet

For Reference:

9.   New fields (type, length) in *{County_Name}_FreightParcels_Edit*

   a. **Business** (Text, 50)   The name of the business or entity. Facilities with multiple business tenants are quite prevalent. To expedite review on this iteration of the dataset, it is proposed that if more than one business is encountered for a given parcel, then the business shall be listed as "Multitenant". For such multitenant facilities, the names of any businesses identified can be listed in the MultiBiz field (see below), separated by **semicolons**. Some of the analysis will be dependent on associating parcels with businesses and their attributes, while other analysis will be of the parcels themselves. Consistently capturing this information upfront is important.

   b. **Source** (Text, 50)   The data source to identify the Business or other attribute (see below). Drop down choice of: Google Maps, Google StreetView, Google Earth, Bing Maps, or Other.

   c. **OtherSourc** (Text, 50)   Manually enter the source when Source is set to Other.

   d. **LookupDate** (Text, 6)   The year & month (if available) of the source in YYYYMM Format (e.g., 201303 for March 2013).

   e. **RailAccess** (Text, 10)   The facility has active railroad access, with industrial siding, or a rail line splitting off the main line to serve the facility. Many facilities are adjacent to railroads but do not have rail access or industrial sidings. Therefore, inspection of photography is preferable to GIS analysis. Also, some facilities had dedicated railroad access (industrial siding) in the past that is no longer utilized. *Values*: Yes, No, Formerly.

   f. **Vacant** (Text, 10)   Based on the Source, this facility appears to be Wholly or Partially vacant. Though potential past and future freight generators, vacant properties should be accounted for in considering current freight activity. In Use.

   g. **EstBays** (Short Integer, 4) Estimated number of truck bays or loading docks. A freight indicator of potential value equal to or greater than square feet.

<div style="margin-left: 40%;">

1-10: Between 1 and 10 bays

11-20: Between 11 and 20 bays

21-30: Between 21 and 30 bays, etc.

Greater than 100

</div>

h. **ParkDev** (Text, 50)   Industrial park or development. Though perhaps this field is more for the analysis phase, it will still be beneficial to note while scanning when a parcel appears to be part of an industrial park or freight-related development. This may aid in identifying clusters of freight and may avoid the need to manually scan many small parcels. Create a unique value for each industrial park or development so all parcels within it can be queried later on (e.g., "Westside Industrial Park" or "Broward_023").

i. **MultiBiz** (Text, 150)   Contains the names of businesses identified at multitenant facilities), separated by semicolons.

j. **Notes** (Text, 150)   Contains other pertinent information.

DOR Data Fields (with important fields highlighted)

DOR Field	FIELD TITLE
CO_NO	County Number
PARCEL_ID	Parcel Identification Code
FILE_T	File (Roll) Type
ASMNT_YR	Assessment Year
BAS_STRT	Basic Stratum
ATV_STRT	Active Stratum
GRP_NO	Group Number
DOR_UC	DOR Land Use Code
PA_UC	Property Appraiser Land Use Code
SPASS_CD	Special Assessment Code
JV	Just Value
JV_CHNG	Just Value Change
JV_CHNG_CD	Just Value Change Code
AV_SD	Assessed Value – School District
AV_NSD	Assessed Value – Non-School District
TV_SD	Taxable Value – School District
TV_NSD	Taxable Value – Non-School District
JV_HMSTD	Just Value – Homestead Property
AV_HMSTD	Assessed Value – Homestead Property
JV_NON_HMSTD_RESD	Just Value – Non-Homestead Residential Property
AV_NON_HMSTD_RESD	Assessed Value – Non-Homestead Residential Property
JV_RESD_NON_RESD	Just Value – Residential and Non-Residential Property
AV_RESD_NON_RESD	Assessed Value – Residential and Non-Residential Property
JV_CLASS_USE	Just Value – Classified Use (Agricultural Land Value)
AV_CLASS_USE	Assessed Value – Classified Use (Agricultural Land Value)
JV_H2O_RECHRGE	Just Value – High-water Recharge (Land Value)
AV_H2O_RECHRGE	Assessed Value – High-water Recharge (Land Value)
JV_CONSRV_LND	Just Value – Conservation Land
AV_CONSRV_LND	Assessed Value – Conservation Land
JV_HIST_COM_PROP	Just Value – Historic Commercial Property
AV_HIST_COM_PROP	Assessed Value – Historic Commercial Property
JV_HIST_SIGNF	Just Value – Historically Significant Property
AV_HIST_SIGNF	Assessed Value – Historically Significant Property
JV_WRKNG_WTRFNT	Just Value – Working Waterfront Property
AV_ WRKNG_WTRFNT	Assessed Value – Working Waterfront Property
NCONST_VAL	New Construction Value
DEL_VAL	Deletion Value
PAR_SPLT	Parcel Split/Combine Flag
DISTR_CD	Disaster Code
DISTR_YR	Disaster Year
LND_VAL	Land Value
LND_UNTS_CD	Land Unit Code
NO_LND_UNTS	Number of Land Units
LND_SQFOOT	Land Square Footage
DT_LAST_INSPT	Date of Last Physical Inspection
IMP_QUAL	Improvement Quality
CONST_CLASS	Construction Class
EFF_YR_BLT	Effective Year Built
ACT_YR_BLT	Actual Year Built
TOT_LVG_AREA	Total Living or Usable Area
NO_BULDNG	Number of Buildings
NO_RES_UNTS	Number of Residential Units
SPEC_FEAT_VAL	Special Feature Value
MULTI_PAR_SAL1	Multi-Parcel Sale – Sale 1
QUAL_CD1	Qualification Code – Sale 1
VI_CD1	Vacant/Improved Code – Sale 1
SALE_PRC1	Sale Price – Sale 1

SALE_YR1	Sale Year – Sale 1
SALE_MO1	Sale Month – Sale 1
OR_BOOK1	Official Record Book Number – Sale 1
OR_PAGE1	Official Record Page Number – Sale 1
CLERK_NO1	Clerk's Instrument Number – Sale 1
SAL_CHNG_CD1	Sale Change Code – Sale 1
MULTI_PAR_SAL2	Multi-Parcel – Sale 2
QUAL_CD2	Qualification Code – Sale 2
VI_CD2	Vacant/Improved Code – Sale 2
SALE_PRC2	Sale Price – Sale 2
SALE_YR2	Sale Year – Sale 2
SALE_MO2	Sale Month – Sale 2
OR_BOOK2	Official Record Book Number – Sale 2
R_PAGE2	Official Record Page Number – Sale 2
CLERK_NO2	Clerk's Instrument Number – Sale 2
SAL_CHNG_CD2	Sale Change Code – Sale 2
OWN_NAME	**Owner's Name**
OWN_ADDR1	Owner's Mailing Address – Line 1
OWN_ADDR2	Owner's Mailing Address – Line 2
OWN_CITY	Owner's Mailing Address – City
OWN_STATE	Owner's Mailing Address – State
OWN_ZIPCD	Owner's Mailing Address – US ZIP Code
OWN_STATE_DOM	Owner's State of Domicile
FIDU_NAME	Fiduciary's Name
FIDU_ADDR1	Fiduciary's Mailing Address – Line 1
FIDU_ADDR2	Fiduciary's Mailing Address – Line 2
FIDU_CITY	Fiduciary's Mailing Address – City
FIDU_STATE	Fiduciary's Mailing Address – State
FIDU_ZIPCD	Fiduciary's Mailing Address – US ZIP Code
FIDU_CD	Fiduciary Code
S_LEGAL	**Short Legal Description**
APP_STAT	Homestead Applicant's Status
CO_APP_STAT	Homestead Co-Applicant's Status
MKT_AR	Market Area Code
NBRHD_CD	Neighborhood Code
PUBLIC_LND	Public Land
TAX_AUTH_CD	Taxing Authority Code
TWN	Township Number
RNG	Range Number
SEC	Section or Grant Number
CENSUS_BK	Census Block Group Number
PHY_ADDR1	**Physical Address – Line 1**
PHY_ADDR2	Physical Address – Line 2
PHY_CITY	**Physical Location – City**
PHY_ZIPCD	Physical Location – US ZIP Code
ASS_TRNSFR_FG	Assessment Differential Transfer Flag
PREV_HMSTD_OWN	Number of Owners – Previous Homestead
ASS_DIF_TRNS	Assessment Differential Transferred
CONO_PRV_HM	County Number Previous Homestead
PARCEL_ID_PRV_HMSTD	Parcel ID – Previous Homestead
YR_VAL_TRNSF	Year Value Transferred
SEQ_NO	File Sequence Number
RS_ID	Real Property Submission Identification Code
MP_ID	Master Parcel Identification Code

1.9   APPENDIX 2: EXPORT PROCEDURES

1.9.1   Interim Export and Continued Scan

Before proceeding to scan the other land use codes, export the results of our completed UC 48 scans. Some counties do not have parcels that meet the 100,000 square feet and use code 48 criteria. Other counties have a few parcels meeting the criteria, but all are omitted (e.g., self-storage, aircraft hangars).

1. For all counties having scanned results
   a. **Export** *{CountyName}_FreightParcels_Edit* from the county gdb
      i. As *D{District#}_{CountyName}_FreightParcels_UC48_100k*
         e.g., *D1_Lee_ FreightParcels_UC48_100k*
      ii. In /15/DOR15/Interim_UC48_100k.gdb
   b. If working on the C drive, also keep a local copy of the UC48_100k feature class
2. In the status sheet, **enter** the number of parcels omitted (N_Omit)
   a. If all of the scanned parcels in a county are omitted, then the county does not need to be exported
   b. If scanned parcels in a county contain both omitted and retained parcels, the omitted parcels do not need to be excluded before the export
   c. The status sheet calculates the number of 100k UC 48 parcels retained in the export
3. In the status sheet, **enter** "Yes" or "Not Needed" in the "UC48_100k_Exported" column after the export has been completed
4. Continue scanning the use code 41-47 and 49 parcels using the {CountyName}_FreightParcels_edit feature class
   a. **Change** the definition query from DOR_UC = 48 AND TOT_LVG_AREA >=100000 to

      i. **TOT_LVG_AREA >=100000 AND (DOR_UC = 41 OR DOR_UC=42 OR DOR_UC=43 OR DOR_UC=44 OR DOR_UC=45 OR DOR_UC=46 OR DOR_UC=47 OR DOR_UC=49)**

   b. In the status sheet, **enter** the number of records meeting the criteria in the column titled "N_100k_UC41-47,49_ArcMap"
   c. As the remaining parcels are scanned, **update** the "N_Scan2" column

DOR_UC	Description
40	Vacant
41	Light Manufacturing
42	Heavy Manufacturing
43	Lumber Yards
44	Packing Plants
45	Bottlers
46	Food Processing
47	Materials Processing
48	Warehousing & Distribution
49	Open Storage

Sample Status Sheet

District	County	DOR_CO	DOT_CO	FIPS	O	N_100k_UC48_ArcMap	N_Scanned	P	Pct_Complete_100k_UC48	UC48_100k_Exported	N_Omit	N_100k_UC48_Retained	N_100k_UC41-47,49_ArcMap	N_Scan2
D1	Charlotte	18	1	12015	K	2	2		100%	Not needed	2	0	0	0
D1	Collier	21	3	12021	K	5	5		100%	Not needed	5	0	4	
D1	DeSoto	24	4	12027	K	2	2		100%	Not needed	2	0	3	
D1	Glades	32	5	12043	K	0	0		NONE MEETS CRITERIA	Not needed	0	0	1	
D1	Hardee	35	6	12049	K	0	0		NONE MEETS CRITERIA	Not needed	0	0		
D1	Hendry	36	7	12051	K	1	1		100%		1	0		
D1	Highlands	38	9	12055	K	2	2		100%		1	1		
D1	Lee	46	12	12071	K	39	39		100%	Yes	15	24	7	

1.9.2 Final Export

1. **Export** final scan results
    a. To:
       \\JAXFILE01\Transportation\P\FDOT_Transtat_Freight_Data\2015\DOR15**FreightParcels Scans.gdb**
    b. From: *{CountyName}_**FreightParcels**_Edit*
    c. As: ***D{#}_{CountyName}_FreightParcels_**Final*
    d. **Right click** on the ...*FreightParcels_Edit* feature → Properties → Fields
        i. **Turn on all fields**
        ii. Options → **Reset field order**
    e. **Include** all features (with no definition query):
        i. All scanned parcels UC41-49, 100k sq. ft., including omitted parcels
        ii. Un-scanned UC 40 Vacant parcels
        iii. Un-scanned UC41-49 parcels of all sizes
    f. **Include** all counties:
        i. Counties with scanned results
        ii. Counties with only omitted parcels
        iii. Counties with no 100k sq. ft. parcels
2. **Transfer** working data back to the district folders (if not already on the Jacksonville server)
    a. Within District folder, **create** a "Startup" folder
    b. **Cut and paste** existing County folder into Startup folder
        i. This retains the shape files and possibly map document that were used as the seed to startup the analysis
    c. **Copy and paste** the County folder from the local work location to the District folder
        i. This ensures retention of the map document used for the scans and the county geodatabase including *{CountyName}_FreightParcels_Original* and *{CountyName}_FreightParcels_Edit*

1.10 APPENDIX 3: ISSUES AND SOLUTIONS

This appendix summarizes issues and potential solutions encountered in the creation of the freight facility dataset. The solutions were not necessarily implemented comprehensively throughout the dataset but are noted here for reference.

1.10.1 Facility Spanning Multiple Parcels

- Issue: A single facility sometimes spans multiple parcels
- Solution
  - Give associated parcels a common ParkDev value for later merging into a single entity
  - If park/dev is already populated (already identified as part of an industrial park or development), then use the Notes field

1030 Collier Center, Collier County

Saddle Creek Campus, Polk County

Commercial Warehousing Inc, Polk County

1.10.2 Multiple Shapes with same Parcel ID

As noted within the preparation / joining section above, several parcel boundary records have identical PARCELIDs. In the example shown below, the large yellow polygon and the small yellow triangle near the intersection are two unique records in the parcel boundary file that have a single PARCELID and thus a single record in the parcel data file.

During the scan, only the dominant record should be retained. Future cleanup of the parcel boundary files can help resolve this issue.

1.10.3 Importance of Current Source and Lookup Date

The web mapping data sources have varying dates. Coupled with high turnover, the dataset should be considered fluid. In the example below, depending on the source, the business operating at the facility could have been identified as Publix, vacant, or Amazon. The two Google StreetView images are one "tile" apart, with two adjacent streets having been surveyed most recently in May 2011 and March 2014.

Google May 2011
Publix

Google Mar 2014
Vacant

Bing Mar 2015
Amazon

1.10.4 Domain Fix

A few counties were joined and scanned with a geodatabae that had slightly different domain definitions than contained in the reference template. Counties requiring the domain fix were Orange, Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Lee, Manatee, Okeechobee, Polk, and Sarasota. For these counties in particular, the data source domains had several differences, including sort order. The following procedure corrected this issue for affected counties.

The Data Source correction involved a series of steps:
1. Copy the county geodatabase to another version within the same county folder with the name {CountyName}_DomainFix.gdb to preserve the original
    a. Within this gdb rename {CountyName}_FreightParcels_Edit as {CountyName}_FreightParcels_Edit_DomainFix to avoid confusion with the original
2. In the new county geodatabase
    a. Rename the domain "Data_Source" to "Data_Source_Old"
    b. Add a new domain "Data_Source" with Text field type with the correct values (see CountyName.gdb above)
3. In the {CountyName}_FreightParcels_Edit feature class
    a. In ArcCatalog
        a. Rename the field "Source" to "Source_Old"
        b. Create a new field "Source" text, 50 characters long that uses the domain Data_Source
4. Save {CountyName}.mxd as {CountyName}_DomainFix.mxd
    a. Group the original layers into an Original group and hide them
    b. Add {CountyName}_FreightParcels_Edit_DomainFix from {CountyName}_DomainFix.gdb
5. In the {CountyName}_FreightParcels_Edit feature class
    a. In ArcMap
        a. Calculate "Source" values by selecting "Source_Old" values one at a time and assigning the new, corrected value
            1. Do not forget to assign 1 Bing Maps even though the number is not different (if there are records in the county with a Bing Maps source)
        b. If corrections are needed for both UC 48 and the other UC's, make sure to convert the sources of all necessary scanned records before proceeding to delete (if scan2 already occurred, but a UC 48 definition query is applied and the Source_Old is deleted, the process will have to be repeated to fix the source domain for scan2 results)
        c. Delete the Source_Old field
6. In the county DomainFix geodatabase
    a. Disassociate Data_Source_Old from all feature classes, including
        a. NewFieldsTemplate
        b. {CountyName}_pin_proj_NewFields
        c. {CountyName}_FreightParcels_Original
        d. D#_{CountyName}_FreighParcels_UC48_100k (feature class should be deleted because source will be incorrect)
    b. Delete the Data_Source_Old domain
7. Export Via ArcMap (to preserve formatting and any definition query)
    a. Show all fields and reset field order
    b. Apply the appropriate definition query if needed, e.g.,
   a. DOR_UC = 48 AND TOT_LVG_AREA >=100000
    c. Export the feature class

a. To both the target geodatabase (serve) and
b. To the county geodatabase
8. Via ArcCatalog, in the exported target geodatabase, in the field properties of the Source field, assign the domain Data_Source

1.11 APPENDIX 4: EXAMPLE FACILITY TYPES

1.11.1 Mega Distribution Center

Walmart, 5600 STATE ROAD 544 N
Winter Haven, Polk County, District 1
900,000 sq. ft., > 100 bays
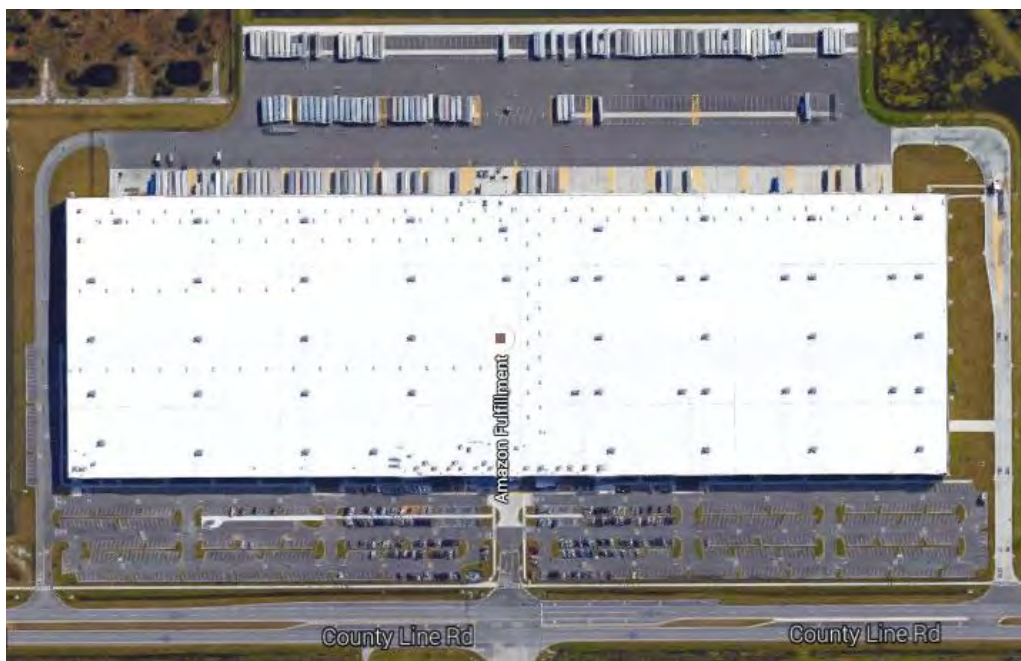
Amazon, 1760 COUNTY LINE RD
Lakeland, Polk County, District 1
1.5 million sq. ft., >100 Bays

1.11.2 Large Multitenant Distribution Center

2405 COMMERCE PARK DR
Orlando, Orange County, District 5
420,000 sq. ft., > 91-100 bays

Bays along both long sides
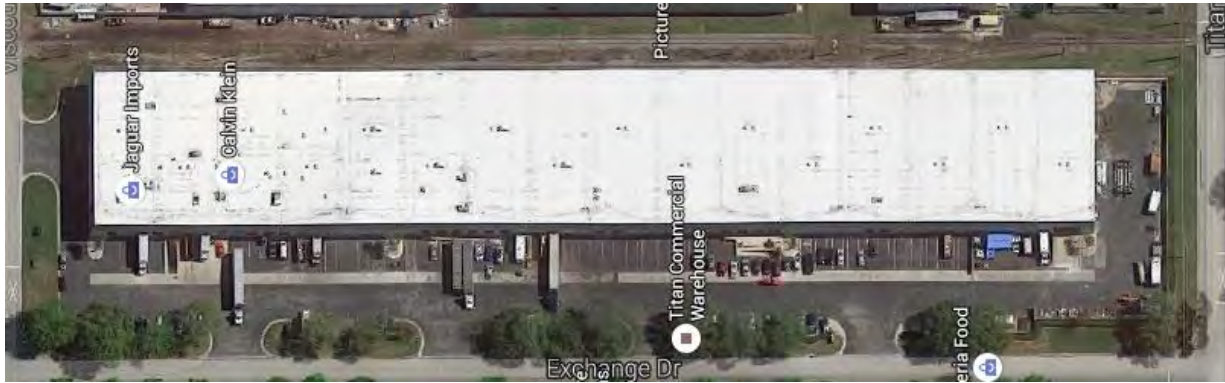Office & automobile parking along short side

1.11.3 Large Multitenant Distribution Center Development

9401 SOUTHRIDGE PARK CT
Orlando, Orange County, District 5
110,000 sq. ft., > 21-30 bays each building

Bays along one long side
Office & automobile parking along other long side

1.11.4 Medium Multitenant Rail DC

7503 EXCHANGE DR
Orlando, Orange County, District 5
150,000 sq. ft., > 51-60 bays

Bays along one long side
Rail along other long side

1.11.5 Storefront Multitenant Facility

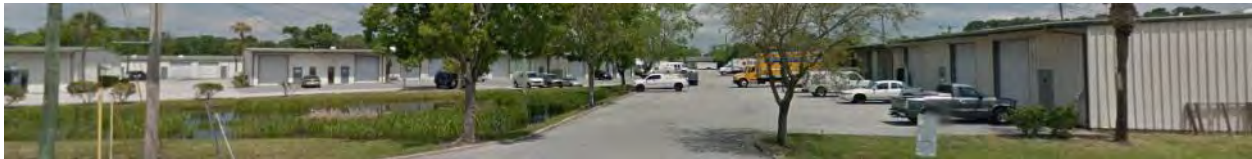2902 NW 72nd Ave
Miami, Dade County, District 6

2335 COMMERCE POINT
Lakeland, Polk County, District 1

1.11.6 Small Multitenant Facility

37 DRENNEN RD
Orlando, Orange County, District 5
110,000 sq. ft.

Single bay and single person door per unit

6160 EDGEWATER DR
Orlando, Orange County
District 5
100,000 sq. ft.

1.12 APPENDIX 5: HEAT MAP/ KERNEL DENSITY ANALYSIS

1) Working with Final Export Statewide Freight Parcel Datasets in ArcMap:
   a) **Exclude** parcels coded "OMIT"
      i) **Right clic**k on the UC48 Final Freight Parcels. **Select** → Layer Properties → Definition Query.
      ii) **Enter** the Definition Query ["Business" <> "OMIT"]
      iii) **Export** to a new layer [UC48FPs_ExcludeOMITS]
   b) **Repeat** the above process (steps i through iii) for the UC41-49 layer, using filename [UC41-49_ExcludeOMITS]
2) **Create Centroids** using the "Feature To Point" Tool for both the [UC48FPs_ExcludeOMITS] and the [UC41-49_ExcludeOMITS] layers.
   a) **Open** the "Feature To Point" tool from ArcToolbox → Data Management Tools →Features. In the "Input Features" dialogue, **select** [UC48FPs_ExcludeOMITS]
      i) **Set** "Output Feature Class" dialogue to save [UC48FPs_ExcludeOMITS_Centroids] in the desired directory.
      ii) **Click** "OK" to execute the tool
   b) **Repeat** the above process for the [UC41-49_ExcludeOMITS] layer.
3) Create Heat Map rasters using Kernel Density tool (*Note: requires Spatial Analyst license*)
   a) **Open** the Kernel Density tool from ArcToolbox → Spatial Analyst Tools → Density
      i) **Select** [UC48FPs_ExcludeOMITS_Centroids] in the "Input point or polyline features" dialogue
      ii) **Select** the Total Living Area field [TOT_LVG_AR] in the "Population field" dialogue
      iii) **Select** appropriate output directory in the "Output Raster" dialogue. Name the file "UC48FPs_KD_{15}m". *Note: {15} is for 15-mile search radius, replace as needed for different search radii.*
      iv) **Set** "Output Cell Size" to 100.
      v) **Set** "Search Radius" to the desired number of miles multiplied by 1609.344 meters, e.g. for 15 miles enter "24140.16".
      vi) **Leave** "Area units"; "Output values are"; and "Method" dialogues at default settings.
      vii) **Click** "Environments" → "Processing Extent" → "Extent". Using the dropdown menu, **set** the extent to the "Minimum Boundary" layer (a polygon layer previously created which contains a rectangle large enough to encompass the entire state of Florida). This step is necessary to ensure that the output layer extent covers the entire state and is not truncated at the limits of the input centroid layer. **Click** "OK" to exit the dialogue.
      viii) **Click** "OK" again to execute the Kernel Density Tool.
      ix) **Symbolize** the resulting raster using a stretched color ramp set to "Type-Standard Deviations" and "n:2.5". Click the "Invert" dialogue to set the warm colors corresponding to higher values.
   b) **Repeat** the process above using [UC41-49FPs_ExcludeOMITS_Centroids] as a layer; once with the search radius set to 15 miles, and again for 7 miles.
   c) The process described above will result in the following 3 raster layers: [UC48FPs_KD_15m]; [UC41-49FPs_KD_15m]; and [UC41-49FPs_KD_7m]. *Note: The 15 mile search radius was used for statewide maps of both UC 48 and UC41-49. The 5 mile search radius was used for UC41-49 to provide a greater level of detail for the individual district maps.*