



# Southwest Florida LEPC District IX Commodity Flow Study Final Report



**Prepared By:**



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## Table of Contents

|   |            |
|---|------------|
| <b>FORWARD</b> .....  | <b>1</b>   |
| <b>PURPOSE</b> .....  | <b>1</b>   |
| <i>Background</i> .....   | 1          |
| <i>Mission</i> .....  | 1          |
| <b>LEPC DISTRICT IX PROFILE</b> .....                                 | <b>2</b>   |
| <i>Socioeconomic Information</i> .....                                | 2          |
| <i>Transportation Network</i> .....                                   | 3          |
| <b>DISTRICT MAP WITH OBSERVATION LOCATIONS</b> .....                  | <b>6</b>   |
| <b>SURVEY DESCRIPTION</b> .....                                       | <b>7</b>   |
| <i>Identification Techniques</i> .....                                | 7          |
| <b>SURVEY METHODS</b> .....   | <b>9</b>   |
| <i>Survey Sites</i> .....   | 9          |
| <i>Data Collection</i> .....  | 10         |
| <i>Limitations</i> .....  | 10         |
| <b>OBSERVATIONS AND RESULTS</b> .....                                 | <b>11</b>  |
| <i>Sarasota County</i> .....  | 11         |
| <i>Charlotte County</i> .....   | 12         |
| <i>Glades County</i> .....  | 13         |
| <i>Hendry County</i> .....  | 13         |
| <i>Lee County</i> .....   | 14         |
| <i>Collier County</i> .....   | 15         |
| <b>CONCLUSIONS AND RECOMMENDATIONS</b> .....                          | <b>16</b>  |
| <i>Study Conclusions</i> .....  | 16         |
| <i>Additional Observations</i> .....                                  | 18         |
| <i>Survey Recommendations</i> .....                                   | 18         |
| <b>APPENDIX A: PLACARDS</b> .....                                     | <b>I</b>   |
| <b>APPENDIX B: STUDY LOCATIONS</b> .....                              | <b>III</b> |
| <i>Location 1: Sarasota County – Interstate 75 North/South</i> .....  | III        |
| <i>Location 2: Sarasota County - US-41 North/South</i> .....          | III        |
| <i>Location 3: Charlotte County – Interstate 75 North/South</i> ..... | IV         |

---

*Location 4: Charlotte County – US-41 North/South ..... IV*

*Location 5: Glades County – US-27 North/South ..... V*

*Location 6: Hendry County – State Road 80 East/West and US-29 North/South..... V*

*Location 7a and 7b: Lee County – US-41 North/South..... VI*

*Location 8: Lee County – Interstate 75 North/South..... VI*

*Location 9: Collier County – US-41 North/South ..... VII*

*Location 10: Collier County – Interstate 75 North/South ..... VII*

**APPENDIX C: FIELD DATA.....VIII**

**APPENDIX D: ACRONYMS ..... XVIII**

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## List of Tables

|  |       |
|--|-------|
| Table 1: LEPC District IX Population by County .....                                       | 2     |
| Table 2: Observation Locations .....   | 9     |
| Table 3: Sarasota County US-41 – Vehicle Report.....                                       | 11    |
| Table 4: Charlotte County US-41 – Vehicle Report .....                                     | 12    |
| Table 5: Glades County US-41 – Vehicle Report.....   | 13    |
| Table 6: Lee County US-41 – Vehicle Report.....  | 14    |
| Table 7: Collier County US-41 – Vehicle Report .....                                       | 15    |
| Table 8: (Location 1) Sarasota County – Interstate 75 North/South Field Data.....          | VIII  |
| Table 9: (Location 2) Sarasota County - US-41 North/South.....                             | XI    |
| Table 10: (Location 3) Charlotte County – Interstate 75 North/South .....                  | XII   |
| Table 11: (Location 4) Charlotte County – US-41 North/South.....                           | XIII  |
| Table 12: (Location 5) Glades County – US-27 North/South.....                              | XIII  |
| Table 13: (Location 6) Hendry County – State Road 80 East/West and US-29 North/South ..... | XIV   |
| Table 14: (Location 7) Lee County – US-41 North/South .....                                | XV    |
| Table 15: (Location 8) Lee County – Interstate 75 North/South .....                        | XVI   |
| Table 16: (Location 9) Collier County – US-41 North/South .....                            | XVII  |
| Table 17: (Location 10) Collier County – Interstate 75 North/South .....                   | XVII  |
| Table 18: Acronyms .....   | XVIII |

## List of Figures

|  |    |
|--|----|
| Figure 1: Commodity Flow Study Location Map .....                                    | 6  |
| Figure 2: Example of Placard and Panel with ID Number.....                           | 7  |
| Figure 3: General Road Trailers .....  | 8  |
| Figure 4: Sarasota County Interstate 75 - Total by Commodity Type .....              | 11 |
| Figure 5: Charlotte County Interstate 75 - Total by Commodity Type .....             | 12 |
| Figure 6: Hendry County Interstate 75 - Total by Commodity Type .....                | 13 |
| Figure 7: Lee County Interstate 75 - Total by Commodity Type.....                    | 14 |
| Figure 8: Collier County Interstate 75 - Total by Commodity Type .....               | 15 |
| Figure 9: District IX Conclusion - Percent (%) by Hazard Class .....                 | 16 |
| Figure 10: District IX Conclusion – Total by Vehicle Type.....                       | 16 |
| Figure 11: District IX Conclusion - Percent (%) of Observed Vehicles by County ..... | 17 |
| Figure 12: District IX Conclusion - Total by Commodity Type .....                    | 17 |
| Figure 13: Placards .....  | I  |

## Forward

Under a U.S. Department of Transportation (USDOT) Hazardous Materials Emergency Preparedness (HMEP) planning grant, the District IX LEPC conducted a Highway Commodity Flow Study for the six counties within its jurisdiction. This study consisted of a placard survey of the highways and major roads on twelve corridors within the district.

## Purpose

### Background

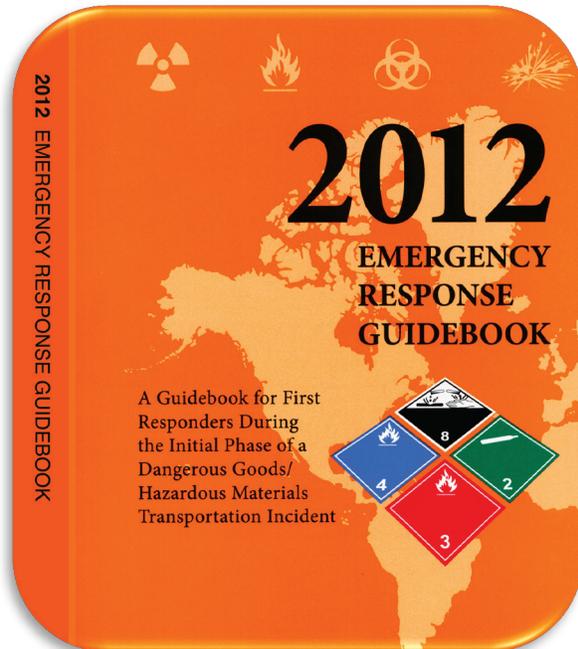
The purpose of this study is to examine the movement of hazardous materials on the highways and major roads associated with twelve major corridors that transverse the district. The study utilized trained spotters to gather information at specific locations within the corridors throughout a three-month period. The information that was gathered for each hazardous material vehicle includes: the DOT (Department of Transportation) hazard class, Placard number, commodity, carrier, corridor, and the direction of travel. All data was captured in a consistent format that can be viewed in Appendix C. Each corridor was separately analyzed and quantitatively reviewed. The data was then compiled to show regional conclusions.

### Mission

The mission of the Commodity Flow Study is to assess, through a placard survey, the types and quantities of hazardous materials, hazardous substances, and hazardous wastes traveling via the highways and major roadways through the District IX LEPC region.

### Goals and Objectives

- 1) Collect information to increase awareness for preparation, prevention, and response capabilities for hazardous materials responders.
- 2) Identify placard types and classes of hazardous materials, the proper shipping names, the motor carrier names, direction of travel, and the types of vehicles.
- 3) Describe through maps and reports the results of the commodity flow study.
- 4) Provide results and conclusions to all Emergency Management Directors, and any additional interested persons, in the LEPC region.



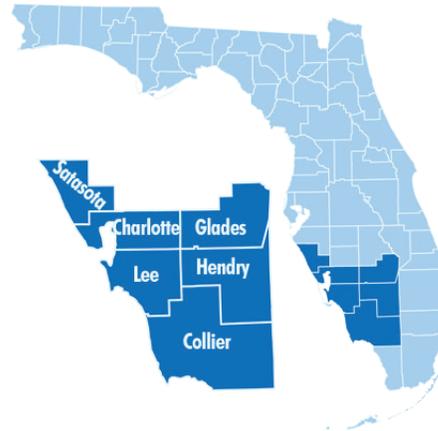
## LEPC District IX Profile

### Socioeconomic Information

The LEPC District IX Region has a significant level of vulnerability for residential populations, which include full-time residents, seasonal residents, and winter residents; as well as tourists that could potentially be subject to a hazardous materials incident. The District IX LEPC is made up of six counties; Charlotte, Collier, Glades, Hendry, Lee, and Sarasota. The region currently has a population of approximately 1.8 million people. As of 2015, there are fourteen municipalities within the District. The region has recently seen an increase in population growth that may continue as economic activities continue to expand.

Table 1: LEPC District IX Population by County

| County    | Population |
|-----------|------------|
| Lee       | 756,681    |
| Sarasota  | 436,124    |
| Collier   | 406,262    |
| Charlotte | 183,340    |
| Hendry    | 43,847     |
| Glades    | 12,093     |



The region is heavily dependent on tourism, construction, and agriculture as its economic foundation; this has contributed to population growth and sprawl throughout the 6-county region. As a result, Southwest Florida has a variety of different cultures, habitats, and identities. The western coastal communities and interior agricultural lands are patchwork of vibrant coastal cities; suburban communities, and rural farm towns linked together by a central urban corridor (SWFRPC CEDS Plan).

## Transportation Network<sup>1</sup>

### *Charlotte County*

U.S. Highway 41 is the main north/south route through the county. The barrier islands and beach communities are served by County Roads 775 and 776, as County Road 771 serves the central Cape Haze and Rotunda areas.

Interstate 75 runs through the central portion of the county and through Lee and Sarasota Counties. U.S. Highway 17 provides an alternate route to DeSoto County. County Road 74 is the County's major west/east artery. State Road 31 runs north/south through the eastern portion of the County.

The Seminole Gulf Railroad line runs in close proximity to U.S. 41 from North Fort Myers to Punta Gorda. Other lines in the County are not in use and have been abandoned.

The Intracoastal Waterway provides for passage of vessels of less than 12 foot draft, and runs north and south the full length of the county. Gasparilla Island and Manasota Key are served by drawbridges and causeway connections. Charlotte County possesses no major port facility, but contains many private marina facilities. These bridges could critically impact evacuation and emergency response time.

Residents of Charlotte County are vulnerable to the harmful effects of accidental release of hazardous materials. A large volume of hazardous materials is transported throughout the county by railroad, highways, air traffic, water and pipelines daily. Within Charlotte County there are a number of private and public facilities which produce, store or use hazardous materials and substances.

### *Collier County*

U.S. Interstate 75 is the main north/south and east/west transportation routes through Collier County. There are currently five off-on ramps from I-75 within the County: Exit 111 (Immokalee Road), Exit 107 (Pine Ridge Road), Exit 105 (Golden Gate), Exit 101 (CR 951), and Exit 80 (SR 29).

US 41 from East Naples to the Lee County line is generally local truck and automobile traffic. There are several arterial roads within the densely populated areas of the county that routinely carry chlorine, anhydrous ammonia, petroleum products, fungicides, pesticides, and other hazardous materials on a daily basis. Within Collier County there are a number of private and public facilities which produce, store, or use hazardous materials and substances.

### *Glades County*

The primary inter-County/City transportation route is U.S. 27, which has four lanes. U.S. 27 traverses the entire peninsula of Florida and connects cities such as: Tallahassee, Sebring, Clewiston, and Miami; US-27 intersects, from north to south, major highways I-75, the Florida Turnpike, I-4, and I-95. Other roads include State Road 78, which extends north along the

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<sup>1</sup> 2015 District IX LEPC HazMat Plan

eastern edge of the County to Okeechobee, and State Road 80, which runs in an east/west direction along part of the southern border of the County.

Glades County is traversed by the South Central Express Railroad, whose tracks parallel U.S. 27 from Highlands County to Palmdale, where it diverges, with one tract continuing south, and the other heading southeast, through Moore Haven. The proximity of population to the rail lines and highways can cause reason for concern. Large volumes of hazardous materials are transported through Glades County both by highway and rail. The population in the vicinity of transportation routes would be especially vulnerable to the harmful effects of a hazardous materials release should there be an accident. The County has a number of facilities which produce, store, or use hazardous materials and substances.

### *Hendry County*

The primary roads penetrating the County are: State Road 80 (east/west), State Road 29 (north/south) LaBelle area, and US 27 (east/west) Clewiston. The Caloosahatchee River is an intercostal waterway running (east-west) from Lake Okeechobee to the Gulf of Mexico.

Rail transportation service is provided by South Central Express (freight) in the western portion of the County. Hazardous materials are transported through the County daily. There are a number of facilities in the county which routinely use, produce or store hazardous materials and substances. There are draw bridges in the County which could impact evacuation and response time.

### *Lee County*

U.S. 41 and Interstate 75 are the primary north-south access highways. These roads provide access to Lee County with Tampa and Miami. Other major highways providing access into Lee County are State Roads 31, 78, 80, and 82; and County Roads 765 and 887.

Lee County is served by the Seminole Gulf Railroad, a local tourist dinner service with limited freight. Rail facilities consist of approximately 50 miles of light rail line linked to the national rail network. Existing rail service extends north through DeSoto County and south into Collier County. Products transported out of the county include citrus, limestone, dolomite, coquina softwood, sand and gravel.

Products shipped into the county include newsprint, canned food, LP gas, fertilizer products, sandstone, and aggregate lumber. Within Lee County there are a number of private and public facilities which produce, store or use hazardous materials and substances.

### *Sarasota County*

The Intracoastal Waterway provides for passage of vessels of less than 12 foot draft, and runs north and south the full length of the county, dividing the beach area from the mainland. The beach area is served by causeway connections.

Seminole Gulf operates a railroad which runs north and south along the west coast of Sarasota County. Sarasota County has a limited coastal road network.

U.S. 41, the most traveled is a 4-lane/5-lane in the City of Sarasota; and is located, the entire north/south length of the coast just south of the City of Venice where it turns east to the City of

North Port and then to Charlotte County. It is used both as a trucking/commercial route and as a popular coastal tourist route.

Interstate 75, carrying the majority of north/south through traffic, and are located generally 10 miles to the east of US. 41. It is also well traveled by commercial and private vehicles. The County also has two east/west roads, which are State Roads 72 and 780. With the exception of Interstate 75, all federal, state, and county roads in Sarasota County are extremely susceptible to flooding due to their low elevation and potential storm surge generated by all categories of hurricanes.

*For more information on the transportation corridors within the region; please refer to the 2015 LEPC HazMat Plan, as well as the Florida Department of Transportation District 1 website at <http://www.swflroads.com>.*

### District Map with Observation Locations

The observation locations illustrated below were selected for various reasons including, but not limited to: proximity to major roadways/highways, clear visual of all hazardous material transportation vehicles traveling on the identified roadway/highway, personnel safety, and equal survey information gathered in each of the six counties within the Southwest Florida region. Additional information regarding these locations can be found in Appendix B.



Figure 1: Commodity Flow Study Location Map

## Survey Description

### Identification Techniques

#### *Placard Identification*

To determine the type of commodity being carried within a vehicle, placards were examined. The 4-digit ID Number may be shown on the diamond-shaped placard or on an adjacent orange panel displayed on the ends and sides of a cargo tank, vehicle, or railcar (Figure 2 below).

Figure 2: Example of Placard and Panel with ID Number



\*For a complete table of placards see appendix A.

#### *Identifying Hazard Class with the Hazard Classification System*

Placards are also used to identify the class or division of a material. The hazard class of dangerous goods is indicated either by its class, (or division) number, or name. The class or division helps determine the type of hazard the commodity poses to the community.

#### **Class 1 - Explosives**

- Division 1.1 Explosives with a mass explosion hazard
- Division 1.2 Explosives with a projection hazard
- Division 1.3 Explosives with predominantly a fire hazard
- Division 1.4 Explosives with no significant blast hazard
- Division 1.5 Very insensitive explosives with a mass explosion hazard
- Division 1.6 Extremely insensitive articles

#### **Class 2 - Gases**

- Division 2.1 Flammable gases
- Division 2.2 Non-flammable, non-toxic gases
- Division 2.3 Toxic gases

#### **Class 3 - Flammable liquids (and Combustible liquids [U.S.])**

#### **Class 4 - Flammable solids; spontaneously combustible materials; and Dangerous when wet Materials/Water-reactive substances**

- Division 4.1 Flammable solids
- Division 4.2 Spontaneously combustible materials
- Division 4.3 Water-reactive substances/Dangerous when wet materials

**Class 5 - Oxidizing substances and Organic peroxides**

Division 5.1 Oxidizing substances

Division 5.2 Organic peroxides

**Class 6 - Toxic substances and Infectious substances**

Division 6.1 Toxic\*substances

Division 6.2 Infectious substances

**Class 7 - Radioactive materials**

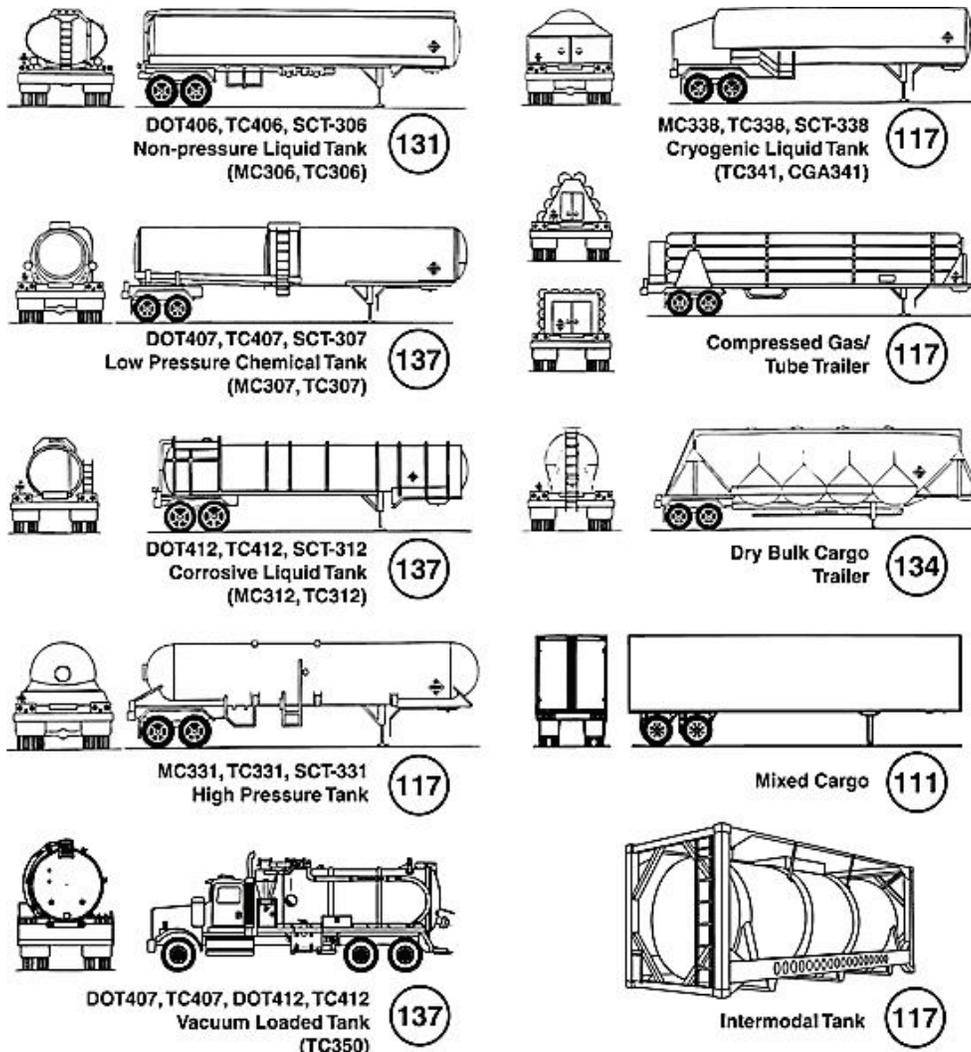
**Class 8 - Corrosive substances**

**Class 9 - Miscellaneous hazardous materials/Products, Substances or Organisms**

**Road Trailer Identification**

The identification of trailer types is an additional option for responders to use in determining the risk of a commodity if it cannot be identified by other means. Below are examples of general road trailer silhouettes:

Figure 3: General Road Trailers



## Survey Methods

### Survey Sites

The survey was conducted on 10 major roadway and highway corridors within the district from July to September of 2015. These survey sites included nine north/south corridors and two east/west corridors. Each of the major highway corridors had one or two observation points along its corridor. These observation points were located at rest stops or near major highway intersections. The total number of observation points/sites was eleven. The table below represents the survey locations<sup>2</sup>.

**Table 2: Observation Locations**

| Site # | Major Road/Highway | Approximate Address or Mile Marker               | County    | Date        | Time              |
|--------|--------------------|--|-----------|-------------|-------------------|
| 1      | Interstate 75      | 6010 Cattleridge Dr, Sarasota                    | Sarasota  | September 2 | 1:10pm – 3:10pm   |
| 2      | US-41              | Centennial Park (1565 1st St, Sarasota)          | Sarasota  | September 2 | 10:00am – 12:00pm |
| 3      | Interstate 75      | Punta Gorda Weigh Station/Rest Area              | Charlotte | August 13   | 11:30am – 1:30pm  |
| 4      | US-41              | Intersection of US-41 and CR-776                 | Charlotte | August 13   | 8:30am – 10:30am  |
| 5      | US-27 and US-29    | Intersection of US-27 and US-29                  | Glades    | July 27     | 10:20am – 12:20pm |
| 6      | SR-80 and US-29    | Intersection of SR-80 and US-29                  | Hendry    | July 27     | 1:05pm – 3:05pm   |
| 7a     | US-41              | Intersection of US-41 and State Road 78          | Lee       | July 28     | 8:45am – 9:45am   |
| 7b     | US-41              | Intersection of Business US-41 and State Road 78 | Lee       | July 28     | 9:50am – 10:50am  |
| 8      | Interstate 75      | Germain Arena Parking Lot (Mile Marker 123)      | Lee       | July 28     | 1:00pm – 3:00pm   |
| 9      | US-41              | Intersection of US-41 and State Road 846         | Collier   | July 29     | 9:08am – 11:08am  |
| 10     | Interstate 75      | Between Mile Marker 92 & Mile Marker 93          | Collier   | July 29     | 12:25pm – 2:25pm  |

<sup>2</sup> A photo and description of each location is included in Appendix B.

### Data Collection

The information that was gathered for each hazardous material vehicle included the DOT classification number (placard number), vehicle type, hazard class, commodity, number of axles, carrier, direction of travel, location, and date. All data was captured in a consistent format using a standard observation form. The DOT classification numbers (four-digit numbers) were used to



identify hazardous substances. The vehicle types were used to determine if the placarded hazardous material was consistent with the vehicle category. The hazard class/division was used to identify the type of dangerous commodity classification. The axle count on the vehicle was recorded and can help with estimating the potential capacity of a vehicle. Carrier information was captured to further help identify the potential product carried. The location and direction of travel was recorded to help identify the actual roadway where the vehicle was observed. The date and time was also documented for identification purposes.

### Limitations

The contents of this survey only reflect a small percentage of the traffic crossing the observed corridors. The survey was limited on the number and duration of sessions. The data collected reflects a snapshot of the traffic at defined points-in-time. To truly define the actual traffic patterns of the corridors, more sessions and longer observation periods should be utilized.

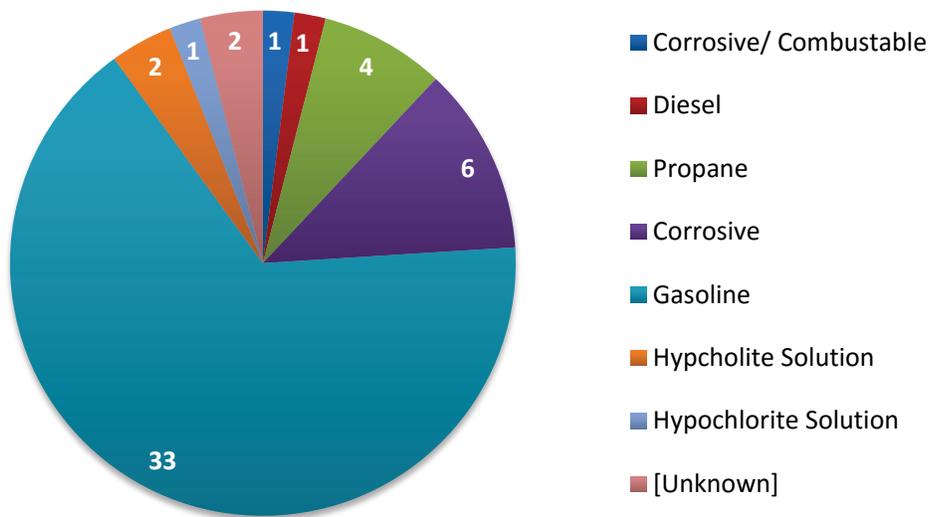
## Observations and Results

### Sarasota County

#### Interstate 75 North/South

The Interstate 75 corridor had one observation point within Sarasota County. This point included the northbound/southbound traffic from the parking lot of 6010 Cattleridge Drive. The site was observed for one, two hour period. During the observation period, fifty (50) vehicles transporting hazardous materials were recorded\*. Of the vehicles recorded, thirty three (33) were gasoline trucks, six (6) were transporting corrosive chemicals, and four (4) were transporting propane. The following chart shows the total observed commodity types for the site.

Figure 4: Sarasota County Interstate 75 - Total by Commodity Type



\*All raw data for the survey can be found in Appendix C.

#### US-41 North/South

The US-41 corridor included one observation point within Sarasota County. This included the northbound/southbound traffic at the 1<sup>st</sup> Street intersection near Centennial Park. The site was observed one, two hour period. During the observation period only two (2) vehicles carrying hazardous materials were observed. Of the vehicles recorded, one (1) vehicle was a box truck transporting an unmarked corrosive material; the second vehicle was transporting diesel fuel. For more information see the detailed report below. Additional information on the vehicles can be found in Appendix C.

Table 3: Sarasota County US-41 – Vehicle Report

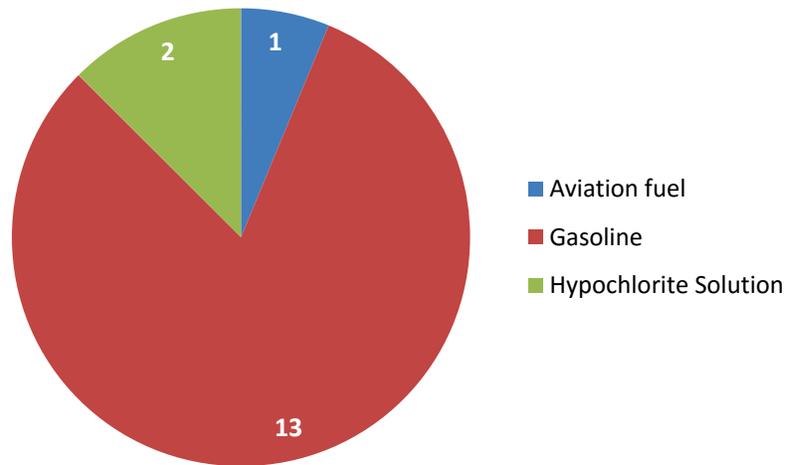
| Placard # | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name | Direction of Travel |
|-----------|-----------------|--------------|-------------------|------------|--------------|---------------------|
| 1993      | MC306           | 3            | Diesel            | 3          | [Unknown]    | South               |
| [Unknown] | Box Truck       | 8            | Corrosive         | 2          | [Unknown]    | South               |

**Charlotte County**

**Interstate 75 North/South**

The I-75 corridor had one observation point within Charlotte County. This included the northbound/southbound traffic at Punta Gorda Weigh Station and Rest Area. This site was observed for one, two hour period. During the observation period, sixteen (16) vehicles transporting hazardous materials were recorded\*. Of the vehicles recorded, thirteen (13) were gasoline trucks, two (2) were transporting a hypochlorite solution, and one (1) was transporting aviation fuel. The following chart shows the total observed commodity types for the site.

Figure 5: Charlotte County Interstate 75 - Total by Commodity Type



*\*All raw data for the survey can be found in Appendix C.*

**US-41 North/South**

The US-41 corridor had one observation point within Charlotte County. This included the northbound/southbound traffic for US-41 and eastbound/westbound traffic for CR-776. This site was observed for one, two hour period. During the observation period, four (4) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, two (2) were gasoline trucks, one (1) was transporting oxygen, and one (1) was transporting propane. For more information see the detailed report below. Additional information on the vehicles can be found in Appendix C.

Table 4: Charlotte County US-41 – Vehicle Report

| Placard # | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name | Direction of Travel |
|-----------|-----------------|--------------|-------------------|------------|--------------|---------------------|
| 1073      | MC307           | 2            | Oxygen            | 5          | PTI          | South               |
| 1075      | MC307           | 2            | Propane           | 2          | Amerigas     | South               |
| 1203      | MC306           | 3            | Gasoline          | 5          | Edison Oil   | South               |
| 1203      | MC306           | 3            | Gasoline          | 5          | Palmdale Oil | South               |

Glades County

*US-27 North/South*

The US-27 corridor had one observation point within Glades County. This included the northbound/southbound traffic at the intersection of US-27 and US-29. This site was observed for one, two hour period. During the observation period, five (5) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, two (2) were transporting an unmarked/unknown corrosive material, one (1) was transporting a calcium hypochlorite solution, one (1) was transporting potassium hydroxide, and one (1) was transporting sulfuric acid. For more information see the detailed report below. Additional information on the vehicles can be found in Appendix C.

Table 5: Glades County US-41 – Vehicle Report

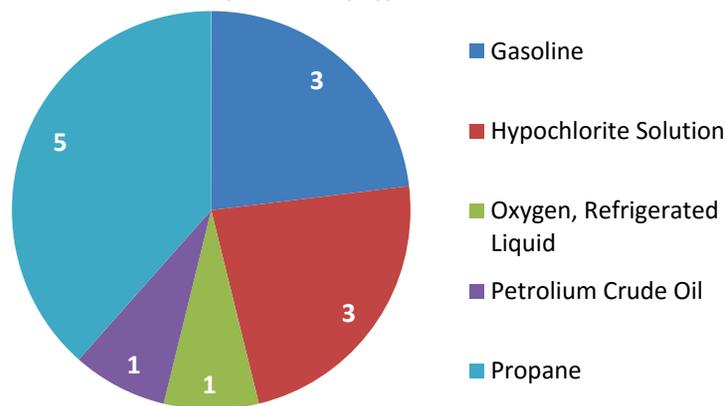
| Placard # | Type of Vehicle | Hazard Class | Type of Commodity    | # of Axles | Carrier Name | Direction of Travel |
|-----------|-----------------|--------------|----------------------|------------|--------------|---------------------|
| 2796      | Flat Bed        | 8            | Sulfuric Acid        | 2          | [Unknown]    | South               |
| 1813      | MC312           | 8            | Potassium Hydroxide  | 5          | [Unknown]    | North               |
| 2880      | MC312           | 5.1          | Calcium Hypochlorite | 5          | Skygrade     | South               |
| Corrosive | MC312           | 8            | Corrosive            | 5          | [Unknown]    | North               |
| Corrosive | MC312           | 8            | Corrosive            | 5          | [Unknown]    | North               |

Hendry County

*State Road 80 East/West and US-29 North/South*

The intersection of State Road 80 and US-29 corridor had one observation point within Hendry County. This included the northbound/southbound US-29 traffic and the eastbound/westbound traffic of SR-80 at the intersection. This site was observed for one, two hour period. During the observation period, thirteen (13) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, five (5) were transporting propane or propane cylinders, three (3) were transporting a hypochlorite solution, and three (3) were transporting gasoline. The following chart shows the total observed commodity types for the site.

Figure 6: Hendry County Interstate 75 - Total by Commodity Type

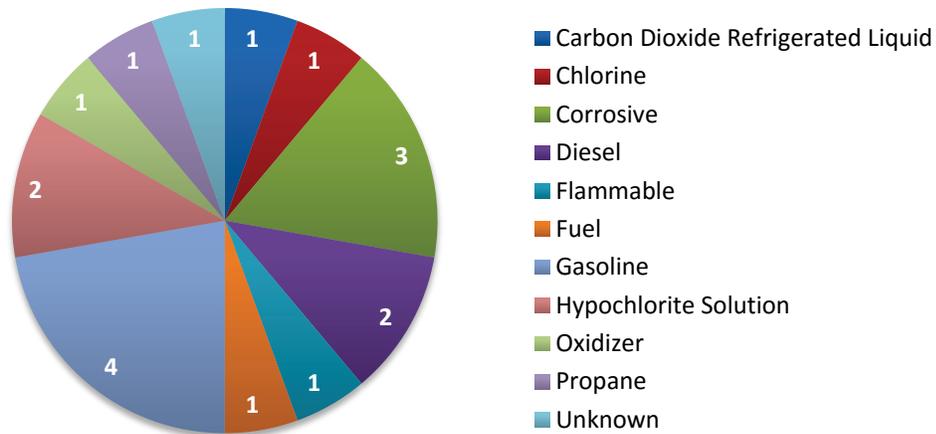


Lee County

Interstate 75 North/South

The Interstate 75 corridor had one observation point within Lee County. This included the northbound/southbound traffic at mile marker 123 in front of Germain Arena. This site was observed for one, two hour period. During the observation period, eighteen (18) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, four (4) were transporting gasoline, three (3) were an unknown corrosive, two (2) were transporting diesel, and two (2) were transporting a hypochlorite solution. The following chart shows the total observed commodity types for the site. Additional information on the vehicles can be found in Appendix C.

Figure 7: Lee County Interstate 75 - Total by Commodity Type



US-41 North/South

The US-41 corridor had two observation points within Lee County. This included the northbound/southbound traffic and eastbound/westbound traffic at the intersection of US-41 and SR-78 as well as northbound/southbound and eastbound/westbound traffic at the intersection of Business US-41 and SR-78. Each site was observed once for one hour each. During the observation period, six (6) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, two (2) were transporting gasoline, two (2) were transporting propane, one (1) was transporting unknown medical supplies, and one (1) from was transporting an unknown oxidizer 5.1 and flammable material. For more information see the detailed report below. Additional information on the vehicles can be found in Appendix C.

Table 6: Lee County US-41 – Vehicle Report

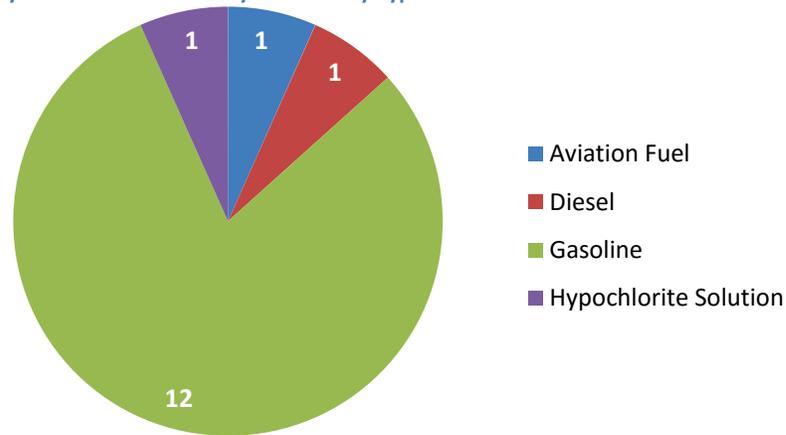
| Placard # | Type of Vehicle | Hazard Class | Type of Commodity        | # of Axles | Carrier Name | Direction of Travel |
|-----------|-----------------|--------------|--------------------------|------------|--------------|---------------------|
| [Unknown] | Box Truck       | [Unknown]    | Medical Supplies         | 2          | [Unknown]    | West                |
| 1075      | Box Truck       | 2            | Propane                  | 2          | Amerigas     | South               |
| 1075      | MC 331          | 5            | Propane                  | 5          | Ferralgas    | East                |
| 1203      | MC 306          | 2            | Gasoline                 | 2          | Edison Oil   | South               |
| [Unknown] | Box Truck       | 5.1/3        | Oxidizer 5.1/Flammable 3 | 5          | Brentag      | South               |

Collier County

*Interstate 75 North/South*

The Interstate 75 corridor had one observation point within Collier County. This included the eastbound/westbound traffic between mile marker 92 and mile marker 93. This site was observed for one, two hour period. During the observation period, fifteen (15) vehicles transporting hazardous materials were recorded. Of the vehicles recorded, twelve (12) were transporting gasoline, one (1) was transporting diesel, one (1) was transporting aviation fuel, and one (1) was transporting a hypochlorite solution. The following chart shows the total observed commodity types for the site. Additional information on the vehicles can be found in Appendix C.

Figure 8: Collier County Interstate 75 - Total by Commodity Type



*US-41 North/South*

The US-41 corridor had one observation point within Collier County. This included the northbound/southbound and eastbound/westbound traffic at the intersection of US-41 and SR-846. This site was observed for one, two hour period. During the observation period, two (2) vehicles transporting hazardous materials were recorded. The vehicles recorded included one (1) box truck transporting an unknown corrosive and one (1) vehicle transporting a hypochlorite solution. For more information see the detailed report below. Additional information on the vehicles can be found in Appendix C.

Table 7: Collier County US-41 – Vehicle Report

| Placard # | Type of Vehicle | Hazard Class | Type of Commodity     | # of Axles | Carrier Name | Direction of Travel |
|-----------|-----------------|--------------|-----------------------|------------|--------------|---------------------|
| 1791      | MC 312          | 8            | Hypochlorite Solution | 5          | N/A          | North               |
| [Unknown] | Box             | 8            | Corrosive             | 2          | Conway       | South               |

## Conclusions and Recommendations

### Study Conclusions

After examining the data from this survey several conclusions emerged. First, by far the most frequently carried classification within the region is DOT Class 3 – Flammable Liquids, which was observed over 60 percent of the time (see figure 6). Second, the most common vehicle type observed transporting hazardous commodities was the MC 306 tanker representing non-pressure liquids. This was observed 59 percent of the time. Finally the most common commodities identified within the region were: gasoline (52.6%), propane (9.9%), unknown corrosives (9.9%), and hypochlorite solution(s) (9.2%).

Figure 9: District IX Conclusion - Percent (%) by Hazard Class

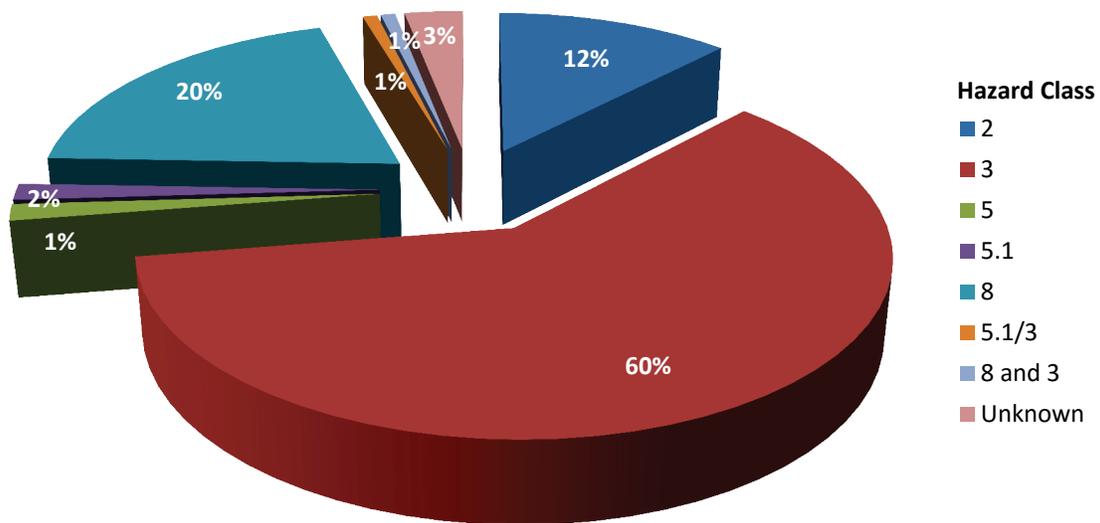


Figure 10: District IX Conclusion – Total by Vehicle Type

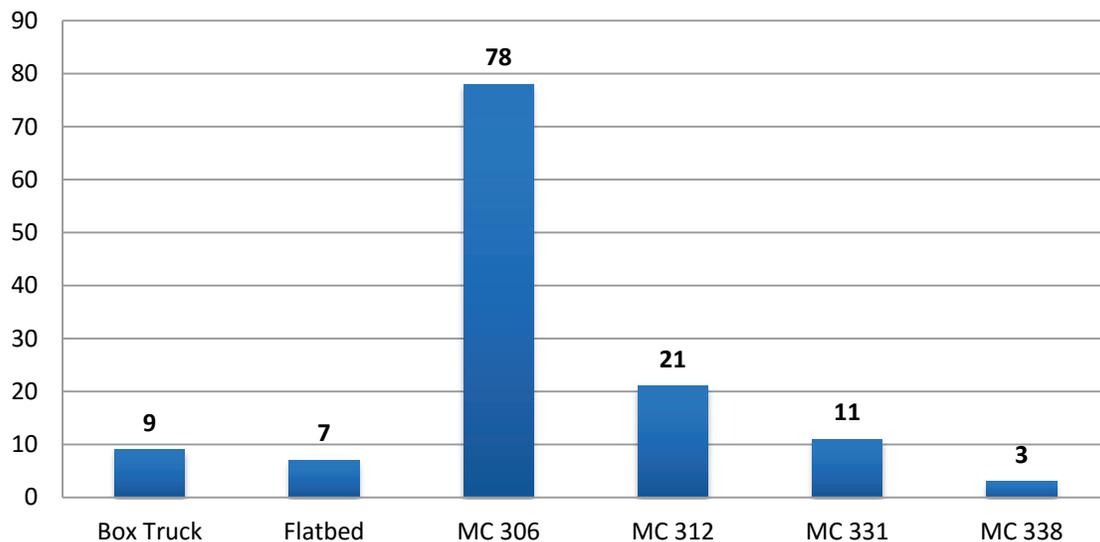


Figure 11: District IX Conclusion - Percent (%) of Observed Vehicles by County

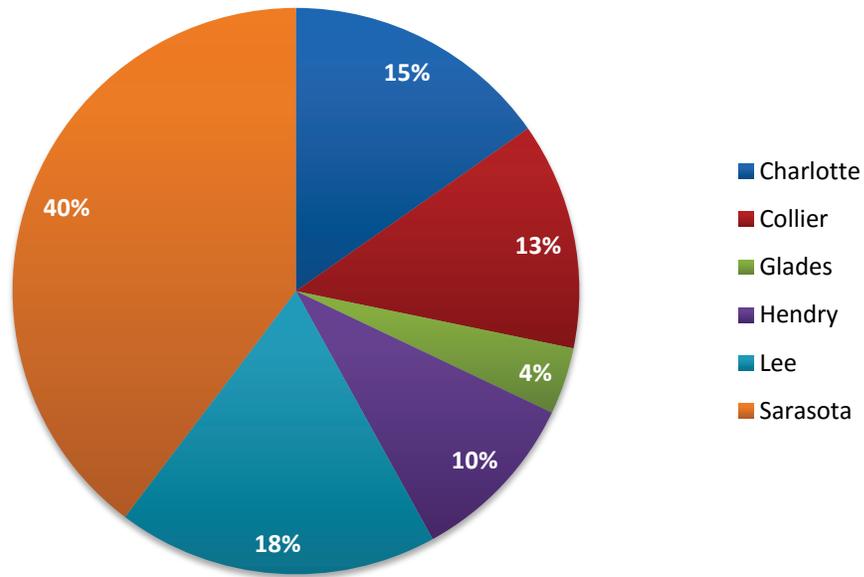
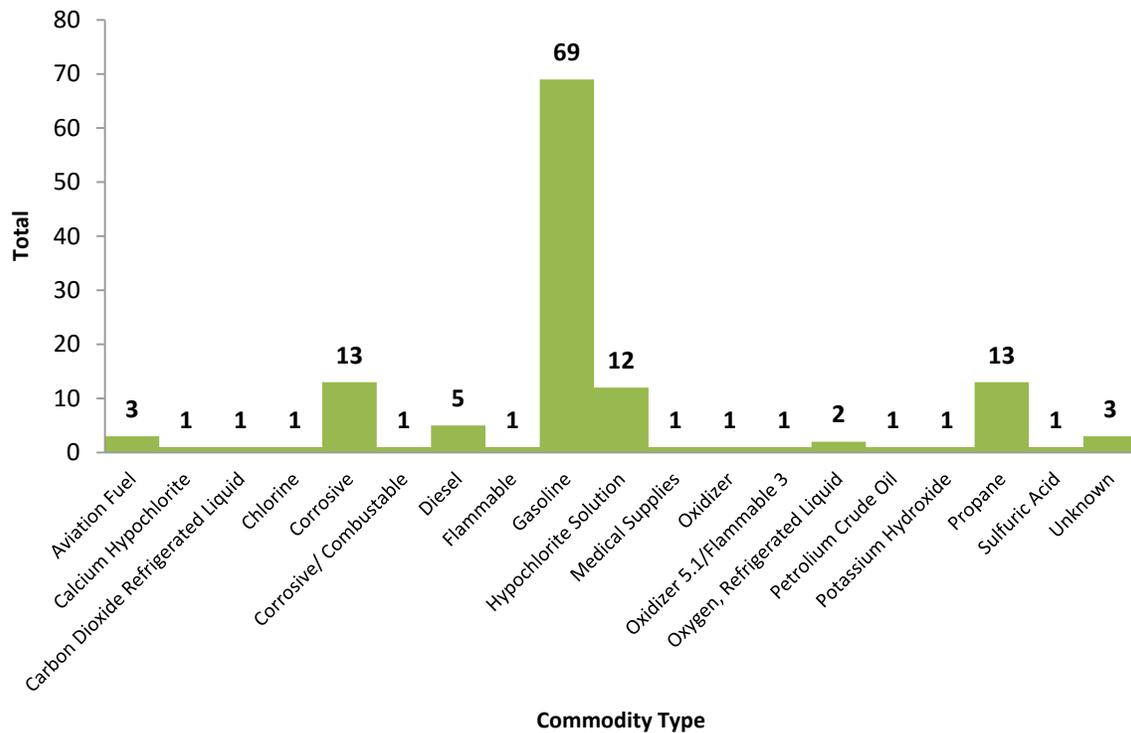


Figure 12: District IX Conclusion - Total by Commodity Type



### Additional Observations

During the course of the study, several additional observations were made:

- 1) Nearly all of the hazardous materials observed being transported on the eastern side of the region, specifically along US-27 were corrosive materials. Additionally, many of the trucks travelling north from Miami were transporting unmarked shipping containers.
- 2) It is difficult to read placard numbers on any vehicles traveling at a significant speed over 45mph. Also vehicles that are more than approximately 75 feet away become exceedingly difficult to read (black placards are even more difficult). This could be a hindrance to emergency personnel approaching a hazardous materials situation in which it is not clear what hazardous commodity is in the affected area.
- 3) Almost twice as many vehicles were noted traveling north through the region on Interstate 75 (62) than traveling south (37). Concluding that much of the hazardous materials were traveling through the region on Interstate 75 from the South Florida Region (Miami) and heading north.

### Survey Recommendations

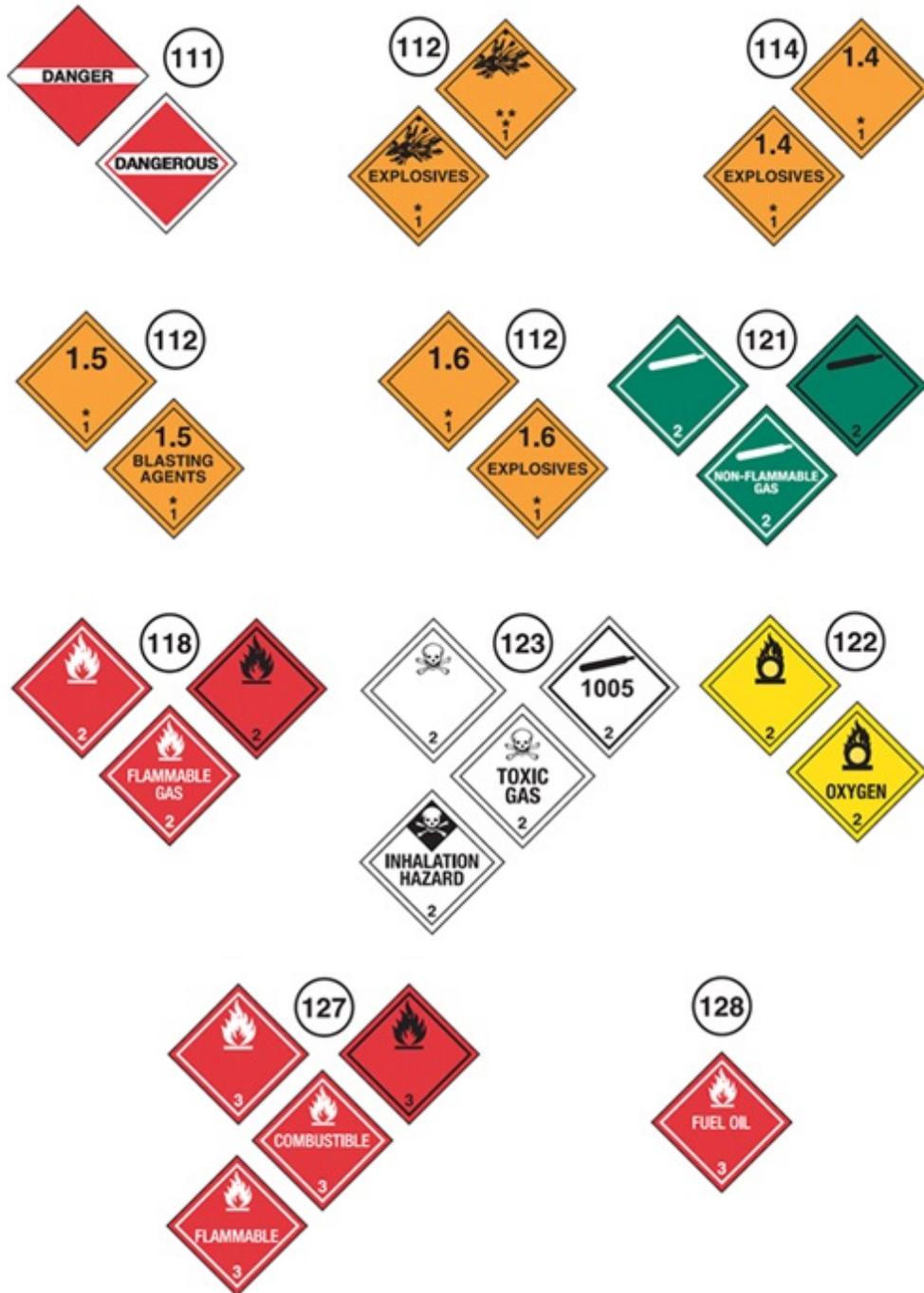
After reviewing the data from the surveyed corridors, the following recommendations are offered if additional surveys are to be undertaken in the future:

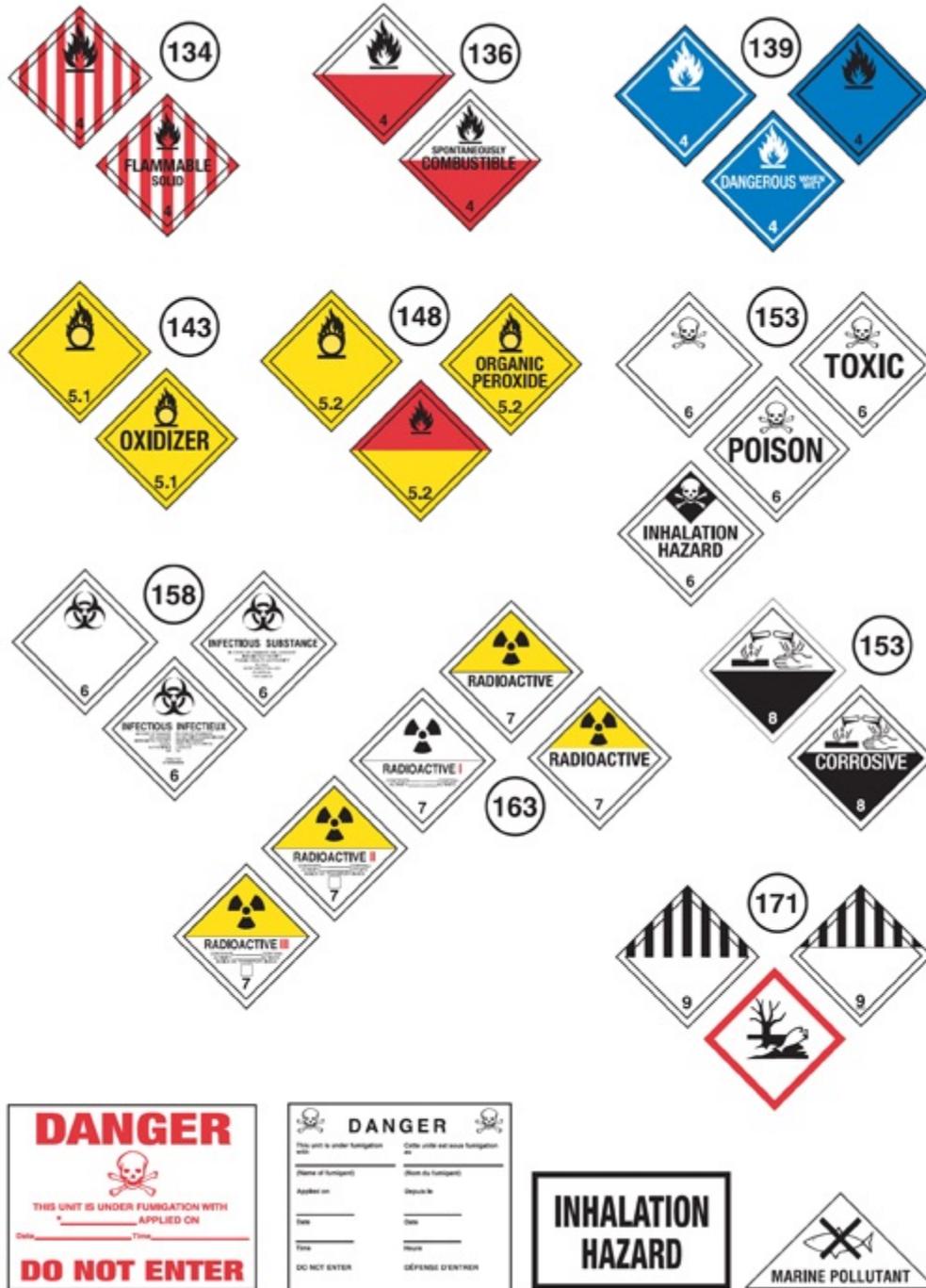
- 1) Studies of the corridors should span over a longer period of time in order to facilitate a broader cross section of the commodity traveling that corridor.
- 2) The surveys should be limited to two observation points. Each point should be located on the furthest end of the corridors within the district. Traffic that does not pass one of these two points would be considered local traffic. The traffic hazard commodity associated with the local traffic could be defined using other resources such as the Tier II reports.
- 3) Limit the study sites to include only two directions of travel. This will allow for more accurate data collection due to visibility.

All data recorded during the study is referenced in the enclosed appendices.

## Appendix A: Placards

Figure 13: Placards





## Appendix B: Study Locations

### Location 1: Sarasota County – Interstate 75 North/South

**Observation Location (Address/Mile Marker):** 6010 Cattleridge Dr, Sarasota

**Observation Date:** September 2, 2015

**Observation Time:** 1:10 pm to 3:10 pm



### Location 2: Sarasota County - US-41 North/South

**Observation Location (Address/Mile Marker):** Centennial Park (1565 1<sup>st</sup> St, Sarasota)

**Observation Date:** September 2, 2015

**Observation Time:** 10:00 am to 12:00 pm

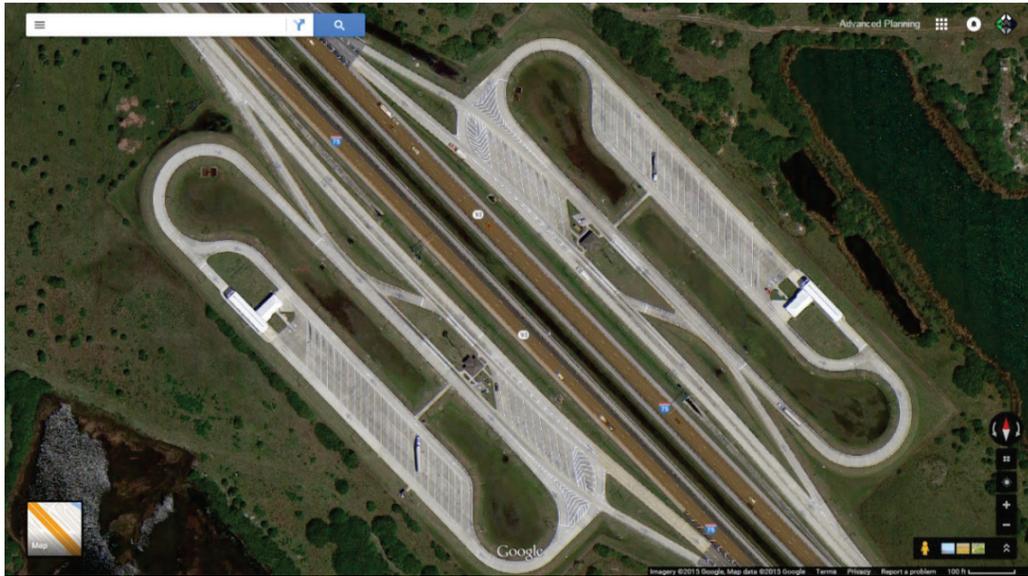


**Location 3: Charlotte County – Interstate 75 North/South**

**Observation Location (Address/Mile Marker):** Punta Gorda Weigh Station/Rest Area

**Observation Date:** August 13, 2015

**Observation Time:** 11:30 am to 1:30 pm

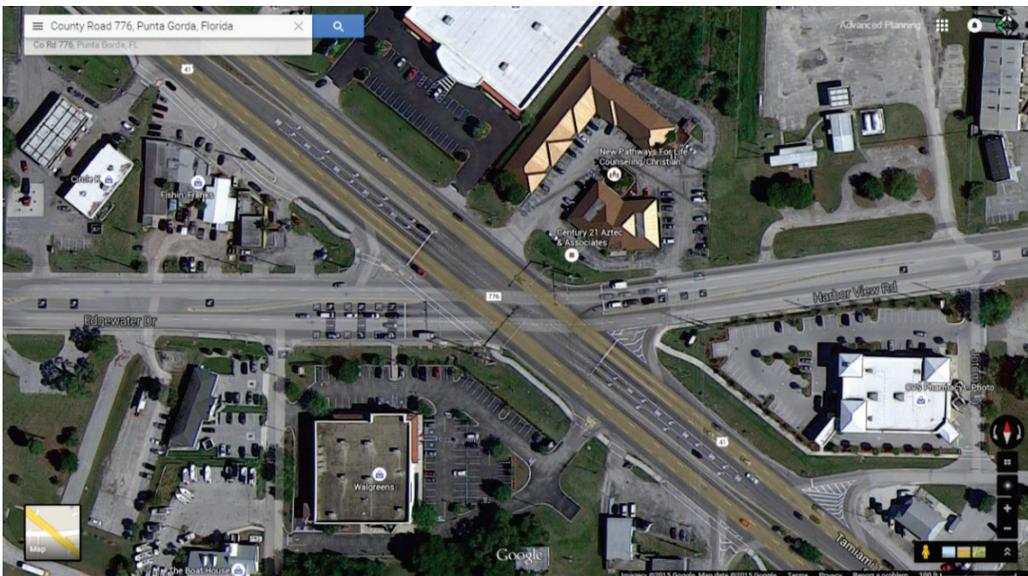


**Location 4: Charlotte County – US-41 North/South**

**Observation Location (Address/Mile Marker):** Intersection of US-41 and CR-776 in Punta Gorda

**Observation Date:** August 13, 2015

**Observation Time:** 8:30 am to 10:30 am



**Location 5: Glades County – US-27 North/South**

**Observation Location (Address/Mile Marker):** Intersection of US-27 and US-29

**Observation Date:** July 27, 2015

**Observation Time:** 10:20 am to 12:20 pm



**Location 6: Hendry County – State Road 80 East/West and US-29 North/South**

**Observation Location (Address/Mile Marker):** 45 Bridge St., Labelle

**Observation Date:** July 27, 2015

**Observation Time:** 1:05 pm to 3:05 pm



**Location 7a and 7b: Lee County – US-41 North/South**

**Observation Location (Address/Mile Marker):** Intersection of US-41 and State Road 78 & Intersection of Business US-41 and State Road 78

**Observation Date:** July 28, 2015

**Observation Time:** 8:45 am to 9:45 and 9:50 am to 10:50 am (Business US-41)



**Location 8: Lee County – Interstate 75 North/South**

**Observation Location (Address/Mile Marker):** Germain Arena Parking Lot (Mile Marker 123)

**Observation Date:** July 28, 2015

**Observation Time:** 1:00 pm to 3:00 pm

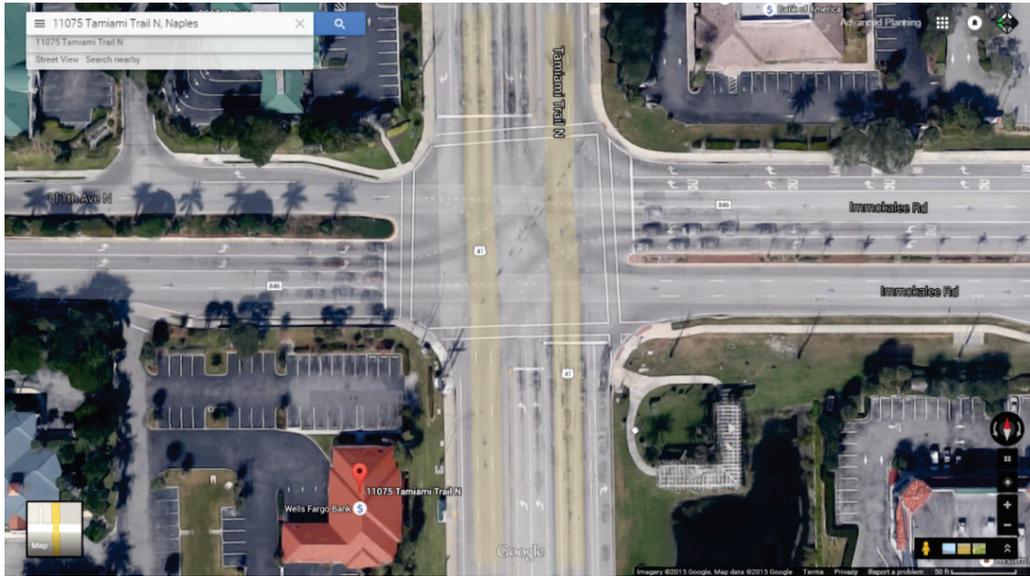


**Location 9: Collier County – US-41 North/South**

**Observation Location (Address/Mile Marker):** Intersection of US-41 and State Road 846

**Observation Date:** July 29, 2015

**Observation Time:** 9:08 am to 11:08 am



**Location 10: Collier County – Interstate 75 North/South**

**Observation Location (Address/Mile Marker):** Everglades Blvd Overpass on Interstate 75  
(Between Mile Marker 92 & Mile Marker 93)

**Observation Date:** July 29, 2015

**Observation Time:** 12:25 pm to 2:25 pm



## Appendix C: Field Data

Table 8: (Location 1) Sarasota County – Interstate 75 North/South Field Data

| Location 1: Sarasota County - I-75 North/South |                      |              |                       |            |                        |              |                     |            |            |
|--|----------------------|--------------|-----------------------|------------|------------------------|--------------|---------------------|------------|------------|
| Placard #                                      | Type of Vehicle      | Hazard Class | Type of Commodity     | # of Axles | Carrier Name           | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1203   | MC 306               | 3            | Gasoline              | 5          | [Unknown]              | I-75         | South               | 9/2/2015   | 1:11 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | Keenan Advantage       | I-75         | South               | 9/2/2015   | 1:11 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | Keenan Advantage       | I-75         | South               | 9/2/2015   | 1:12 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 1:14 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | Florida Gas and Tanker | I-75         | South               | 9/2/2015   | 1:16 PM    |
| 1075   | Flat Bed             | 2            | Propane               | 2          | [Unknown]              | I-75         | North               | 9/2/2015   | 1:17 PM    |
| 1075   | Flat Bed             | 2            | Propane               | 5          | Amerigas               | I-75         | South               | 9/2/2015   | 1:21 PM    |
| 1791   | MC312                | 8            | Hypochlorite Solution | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 1:26 PM    |
| 1791   | MC312                | 8            | Hypochlorite Solution | 5          | Kraft                  | I-75         | North               | 9/2/2015   | 1:30 PM    |
| [Unknown]                                      | Box Truck            | 8 and 3      | Corrosive/Combustible | 5          | Autozone               | I-75         | South               | 9/2/2015   | 1:33 PM    |
| 1075   | Flat Bed (cylinders) | 2            | Propane               | 3          | [Unknown]              | I-75         | North               | 9/2/2015   | 1:36 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | CWC                    | I-75         | North               | 9/2/2015   | 1:37 PM    |
| [Unknown]                                      | MC 331               | [Unknown]    | [Unknown]             | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 1:39 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | Edison Oil             | I-75         | South               | 9/2/2015   | 1:44 PM    |
| 1203   | MC 306               | 3            | Gasoline              | 5          | Keenan Advantage       | I-75         | North               | 9/2/2015   | 1:45 PM    |

| Location 1: Sarasota County - I-75 North/South |                 |              |                       |            |                    |              |                     |            |            |
|--|-----------------|--------------|-----------------------|------------|--------------------|--------------|---------------------|------------|------------|
| Placard #                                      | Type of Vehicle | Hazard Class | Type of Commodity     | # of Axles | Carrier Name       | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Eagle              | I-75         | South               | 9/2/2015   | 1:45 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Palmdale           | I-75         | South               | 9/2/2015   | 1:50 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | [Unknown]          | I-75         | North               | 9/2/2015   | 1:50 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Jet Star           | I-75         | South               | 9/2/2015   | 1:59 PM    |
| [Unknown]                                      | MC 312          | 8            | Corrosive             | 5          | [Unknown]          | I-75         | North               | 9/2/2015   | 2:00 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | [Unknown]          | I-75         | South               | 9/2/2015   | 2:00 PM    |
| 1791   | MC 312          | 8            | Hypochlorite Solution | 5          | [Unknown]          | I-75         | South               | 9/2/2015   | 2:04 PM    |
| [Unknown]                                      | MC 312          | 8            | Corrosive             | 5          | [Unknown]          | I-75         | North               | 9/2/2015   | 2:08 PM    |
| [Unknown]                                      | [Unknown]       | [Unknown]    | [Unknown]             | 5          | Sterling Transport | I-75         | North               | 9/2/2015   | 2:14 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Racetrack          | I-75         | South               | 9/2/2015   | 2:14 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Love's             | I-75         | South               | 9/2/2015   | 2:16 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | PTL                | I-75         | South               | 9/2/2015   | 2:19 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | PTL                | I-75         | South               | 9/2/2015   | 2:21 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Keenan Advantage   | I-75         | North               | 9/2/2015   | 2:23 PM    |
| [Unknown]                                      | Box Truck       | 8            | Corrosive             | 5          | Autozone           | I-75         | North               | 9/2/2015   | 2:27 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Keenan Advantage   | I-75         | North               | 9/2/2015   | 2:30 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Keenan Advantage   | I-75         | South               | 9/2/2015   | 2:31 PM    |
| [Unknown]                                      | MC 312          | 8            | Corrosive             | 5          | [Unknown]          | I-75         | North               | 9/2/2015   | 2:33 PM    |
| 1203   | MC 306          | 3            | Gasoline              | 5          | Racetrack          | I-75         | South               | 9/2/2015   | 2:36 PM    |

| Location 1: Sarasota County - I-75 North/South |                 |              |                   |            |                        |              |                     |            |            |
|--|-----------------|--------------|-------------------|------------|------------------------|--------------|---------------------|------------|------------|
| Placard #                                      | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name           | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1993   | MC 306          | 3            | Diesel            | 2          | [Unknown]              | I-75         | North               | 9/2/2015   | 2:38 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 3          | [Unknown]              | I-75         | North               | 9/2/2015   | 2:40 PM    |
| [Unknown]                                      | MC 312          | 8            | Corrosive         | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 2:41 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 2:42 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Keenan Advantage       | I-75         | North               | 9/2/2015   | 2:44 PM    |
| 1075   | MC 331          | 2            | Propane           | 5          | Blue Rhino             | I-75         | South               | 9/2/2015   | 2:45 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | [Unknown]              | I-75         | South               | 9/2/2015   | 2:45 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Florida Gas and Tanker | I-75         | North               | 9/2/2015   | 2:48 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Eagle                  | I-75         | North               | 9/2/2015   | 2:48 PM    |
| [Unknown]                                      | Box Truck       | 8            | Corrosive         | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 2:53 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Edison Oil             | I-75         | South               | 9/2/2015   | 2:53 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Racetrack              | I-75         | South               | 9/2/2015   | 2:54 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Keenan Advantage       | I-75         | North               | 9/2/2015   | 2:59 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | Racetrack              | I-75         | South               | 9/2/2015   | 3:07 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 3:08 PM    |
| 1203   | MC 306          | 3            | Gasoline          | 5          | [Unknown]              | I-75         | North               | 9/2/2015   | 3:08 PM    |

Table 9: (Location 2) Sarasota County - US-41 North/South

| Location 2: Sarasota County - US-41 North/South |                 |              |                   |            |              |              |                     |            |            |
|---|-----------------|--------------|-------------------|------------|--------------|--------------|---------------------|------------|------------|
| Placard #                                       | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1993  | MC306           | 3            | Diesel            | 3          | [Unknown]    | US-41        | South               | 9/2/2015   | 10:17 AM   |
| [Unknown]                                       | Box Truck       | 8            | Corrosive         | 2          | [Unknown]    | US-41        | South               | 9/2/2015   | 11:26 AM   |

Table 10: (Location 3) Charlotte County – Interstate 75 North/South

| Location 3: Charlotte County – Interstate 75 North/South |                 |              |                   |            |                  |              |                     |            |            |
|--|-----------------|--------------|-------------------|------------|------------------|--------------|---------------------|------------|------------|
| Placard #  | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name     | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1791   | MC312           | 8            | Hypochlorite      | 5          | [Unknown]        | I-75         | North               | 8/13/2015  | 11:40 AM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Love's           | I-75         | North               | 8/13/2015  | 11:48 AM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | South               | 8/13/2015  | 12:03 PM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Penn Tank Lines  | I-75         | North               | 8/13/2015  | 12:11 PM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | [Unknown]        | I-75         | South               | 8/13/2015  | 12:27 PM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | North               | 8/13/2015  | 12:49 PM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | North               | 8/13/2015  | 12:58 PM   |
| 1863   | MC306           | 3            | Aviation fuel     | 5          | Stardust         | I-75         | North               | 8/13/2015  | 1:02 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Palmdale Oil     | I-75         | South               | 8/13/2015  | 1:50 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | North               | 8/13/2015  | 1:15 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | [Unknown]        | I-75         | North               | 8/13/2015  | 1:18 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | South               | 8/13/2015  | 1:19 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | North               | 8/13/2015  | 1:19 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | South               | 8/13/2015  | 1:24 PM    |
| 1791   | MC312           | 8            | Hypochlorite      | 5          | [Unknown]        | I-75         | North               | 8/13/2015  | 1:25 PM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Keenan Advantage | I-75         | North               | 8/13/2015  | 1:26 PM    |

Table 11: (Location 4) Charlotte County – US-41 North/South

| Location 4: Charlotte County – US-41 North/South |                 |              |                   |            |              |              |                     |            |            |
|--|-----------------|--------------|-------------------|------------|--------------|--------------|---------------------|------------|------------|
| Placard #  | Type of Vehicle | Hazard Class | Type of Commodity | # of Axles | Carrier Name | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1073   | MC307           | 2            | Oxygen            | 5          | PTI          | US-41        | South               | 8/13/2015  | 9:00 AM    |
| 1075   | MC307           | 2            | Propane           | 2          | Amerigas     | US-41        | South               | 8/13/2015  | 9:20 AM    |
| 1203   | MC306           | 3            | Gasoline          | 5          | Edison Oil   | US-41        | South               | 8/13/2015  | 10:21 AM   |
| 1203   | MC306           | 3            | Gasoline          | 5          | Palmdale Oil | US-41        | South               | 8/13/2015  | 10:28 AM   |

Table 12: (Location 5) Glades County – US-27 North/South

| Location 5: Glades County – US-27 North/South |                 |              |                      |            |              |              |                     |            |            |
|---|-----------------|--------------|----------------------|------------|--------------|--------------|---------------------|------------|------------|
| Placard #                                     | Type of Vehicle | Hazard Class | Type of Commodity    | # of Axles | Carrier Name | Roadway Name | Direction of Travel | Study Date | Study Time |
| 2796  | Flat Bed        | 8            | Sulfuric Acid        | 2          | [Unknown]    | US-27        | South               | 7/27/2015  | 10:24am    |
| 1813  | MC312           | 8            | Potassium Hydroxide  | 5          | [Unknown]    | US-27        | North               | 7/27/2015  | 10:45am    |
| 2880  | MC312           | 5.1          | Calcium Hypochlorite | 5          | Skygrade     | US-27        | South               | 7/27/2015  | 11:02am    |
| Corrosive                                     | MC312           | 8            | Corrosive            | 5          | [Unknown]    | US-27        | North               | 7/27/2015  | 11:17am    |
| Corrosive                                     | MC312           | 8            | Corrosive            | 5          | [Unknown]    | US-27        | North               | 7/27/2015  | 11:41am    |

Table 13: (Location 6) Hendry County – State Road 80 East/West and US-29 North/South

| Location 6: Hendry County – State Road 80 East/West and US-29 North/South |                 |              |                             |            |                  |              |                     |            |            |
|---|-----------------|--------------|-----------------------------|------------|------------------|--------------|---------------------|------------|------------|
| Placard #   | Type of Vehicle | Hazard Class | Type of Commodity           | # of Axles | Carrier Name     | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1203  | MC 306          | 3            | Gasoline                    | 2          | Howell Oil       | SR-80        | East                | 7/27/2015  | 1:05pm     |
| 1267  | MC 312          | 3            | Petroleum Crude Oil         | 5          | Mckenze          | SR-80        | West                | 7/27/2015  | 1:34pm     |
| 1075  | MC 331          | 2            | Propane                     | 2          | Balgas           | SR-80        | West                | 7/27/2015  | 1:55pm     |
| 1791  | MC 312          | 8            | Hypochlorite Solution       | 5          | [Unknown]        | SR-80        | East                | 7/27/2015  | 2:06pm     |
| 1203  | MC 306          | 3            | Gasoline                    | 5          | Merrit Petroleum | SR-80        | West                | 7/27/2015  | 2:19pm     |
| 1075  | MC 331          | 2            | Propane                     | 2          | PTI              | SR-80        | West                | 7/27/2015  | 2:24pm     |
| 1075  | MC 331          | 2            | Propane                     | 2          | Balgas           | SR-80        | East                | 7/27/2015  | 2:35pm     |
| 1073  | MC 338          | 2            | Oxygen, Refrigerated Liquid | 5          | Matheson Trigas  | SR-80        | West                | 7/27/2015  | 2:45pm     |
| 1075  | MC 331          | 2            | Propane                     | 2          | Balgas           | SR-80        | East                | 7/27/2015  | 2:48pm     |
| 1791  | MC 312          | 8            | Hypochlorite Solution       | 5          | [Unknown]        | SR-80        | East                | 7/27/2015  | 2:52pm     |
| 1203  | MC 306          | 3            | Gasoline                    | 2          | Porterfield      | SR-80        | West                | 7/27/2015  | 2:55pm     |
| 1791  | MC 312          | 8            | Hypochlorite Solution       | 5          | [Unknown]        | SR-80        | West                | 7/27/2015  | 2:57pm     |
| 1075  | MC 331          | 2            | Propane                     | 2          | Balgas           | US-29        | South               | 7/27/2015  | 2:57pm     |

Table 14: (Location 7) Lee County – US-41 North/South

| Location 7: Lee County – US-41 North/South |                 |              |                          |            |              |                  |                     |            |            |
|--|-----------------|--------------|--------------------------|------------|--------------|------------------|---------------------|------------|------------|
| Placard #                                  | Type of Vehicle | Hazard Class | Type of Commodity        | # of Axles | Carrier Name | Roadway Name     | Direction of Travel | Study Date | Study Time |
| [Unknown]                                  | Box Truck       | [Unknown]    | Medical Supplies         | 2          | [Unknown]    | SR-78            | West                | 7/28/2015  | 9:07am     |
| 1075                                       | Box Truck       | 2            | Propane                  | 2          | Amerigas     | US-41 (Business) | South               | 7/28/2015  | 10:01am    |
| 1075                                       | MC 331          | 5            | Propane                  | 5          | Ferralgas    | SR-78            | East                | 7/28/2015  | 10:03am    |
| 1203                                       | MC 306          | 2            | Gasoline                 | 2          | Edison Oil   | US-41 (Business) | South               | 7/28/2015  | 10:12am    |
| [Unknown]                                  | Box Truck       | 5.1/3        | Oxidizer 5.1/Flammable 3 | 5          | Brentag      | US-41 (Business) | South               | 7/28/2015  | 10:30am    |

Table 15: (Location 8) Lee County – Interstate 75 North/South

| Location 8: Lee County – Interstate 75 North/South |                 |              |                                    |            |                   |              |                     |            |            |
|--|-----------------|--------------|------------------------------------|------------|-------------------|--------------|---------------------|------------|------------|
| Placard #  | Type of Vehicle | Hazard Class | Type of Commodity                  | # of Axles | Carrier Name      | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1993   | MC 306          | 3            | Diesel                             | 3          | [Unknown]         | I-75         | North               | 7/28/2015  | 1:03pm     |
| [Unknown]  | Box Truck       | 5.1          | Oxidizer                           | 2          | Apria Health      | I-75         | South               | 7/28/2015  | 1:04pm     |
| 1017   | MC 331          | 2            | Chlorine                           | 5          | [Unknown]         | I-75         | North               | 7/28/2015  | 1:15pm     |
| 1203   | MC 306          | 3            | Gasoline                           | 5          | PTI               | I-75         | North               | 7/28/2015  | 1:25pm     |
| 1863   | MC 306          | 3            | Fuel                               | 5          | Tri-Star          | I-75         | North               | 7/28/2015  | 1:28pm     |
| 1791   | MC 312          | 8            | Hypochlorite Solution              | 5          | [Unknown]         | I-75         | South               | 7/28/2015  | 1:32pm     |
| [Unknown]  |                 |              | Corrosive                          | 5          | [Unknown]         | I-75         | North               | 7/28/2015  | 1:42pm     |
| 1993   | MC 306          | 3            | Diesel                             | 5          | Pilot             | I-75         | North               | 7/28/2015  | 1:57pm     |
| 1791   | MC 312          | 8            | Hypochlorite Solution              | 5          | [Unknown]         | I-75         | North               | 7/28/2015  | 1:59pm     |
| [Unknown]  | Flatbed         | 8            | Corrosive                          | 5          | [Unknown]         | I-75         | North               | 7/28/2015  | 2:15pm     |
| 1203   | MC 306          | 3            | Gasoline                           | 3          | Palmdale          | I-75         | North               | 7/28/2015  | 2:22pm     |
| 2187   | MC 338          | 2            | Carbon Dioxide Refrigerated Liquid | 2          | [Unknown]         | I-75         | North               | 7/28/2015  | 2:27pm     |
| 1203   | MC 306          | 3            | Gasoline                           | 3          | Palmdale          | I-75         | North               | 7/28/2015  | 2:32pm     |
| 1075   | MC 331          | 3            | Propane                            | 2          | Thompson Gas      | I-75         | North               | 7/28/2015  | 2:40pm     |
| [Unknown]  | Flatbed         | 8            | Corrosive                          | 5          | [Unknown]         | I-75         | South               | 7/28/2015  | 2:41pm     |
| [Unknown]  | Flatbed         | 3            | Flammable                          | 2          | [Unknown]         | I-75         | South               | 7/28/2015  | 2:53pm     |
| 1203   | MC 306          | 3            | Gasoline                           | 5          | Port Consolidated | I-75         | South               | 7/28/2015  | 2:54pm     |
| [Unknown]  | MC 306          | 3            | Unknown                            | 5          | Chevron           | I-75         | North               | 7/28/2015  | 2:58pm     |

Table 16: (Location 9) Collier County – US-41 North/South

| Location 9: Collier County – US-41 North/South |                 |              |                       |            |              |              |                     |            |            |
|--|-----------------|--------------|-----------------------|------------|--------------|--------------|---------------------|------------|------------|
| Placard #                                      | Type of Vehicle | Hazard Class | Type of Commodity     | # of Axles | Carrier Name | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1791   | MC 312          | 8            | Hypochlorite Solution | 5          | N/A          | US-41        | North               | 7/29/2015  | 9:09am     |
| [Unknown]                                      | Box             | 8            | Corrosive             | 2          | Conway       | Us-41        | South               | 7/29/2015  | 9:36am     |

Table 17: (Location 10) Collier County – Interstate 75 North/South

| Location 10: Collier County – Interstate 75 North/South |                 |              |                       |            |                  |              |                     |            |            |
|---|-----------------|--------------|-----------------------|------------|------------------|--------------|---------------------|------------|------------|
| Placard #   | Type of Vehicle | Hazard Class | Type of Commodity     | # of Axles | Carrier Name     | Roadway Name | Direction of Travel | Study Date | Study Time |
| 1203  | MC 306          | 3            | Gasoline              | 5          | N/A              | I-75         | North               | 7/29/2015  | 12:25pm    |
| 1863  |                 |              | Aviation Fuel         | 5          | Jet Star         | I-75         | North               | 7/29/2015  | 12:33pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | N/A              | I-75         | North               | 7/29/2015  | 12:33pm    |
| 1993  | MC 306          | 3            | Diesel                | 5          | Piolet           | I-75         | North               | 7/29/2015  | 12:34pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | Palmdale         | I-75         | North               | 7/29/2015  | 12:35pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | Kennan Advantage | I-75         | North               | 7/29/2015  | 12:37pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | N/A              | I-75         | South               | 7/29/2015  | 12:38pm    |
| 1203  | MC 306          | 3            | Gasoline              | 2          | Pure             | I-75         | North               | 7/29/2015  | 12:43pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | Askar Energy     | I-75         | North               | 7/29/2015  | 12:45pm    |
| 1203  | MC 306          | 3            | Gasoline              | 5          | N/A              | I-75         | South               | 7/29/2015  | 1:06pm     |
| 1791  | MC 312          | 8            | Hypochlorite Solution | 5          | N/A              | I-75         | North               | 7/29/2015  | 1:07pm     |
| 1203  | MC 306          | 3            | Gasoline              | 5          | Askar Energy     | I-75         | North               | 7/29/2015  | 1:42pm     |
| 1203  | MC 306          | 3            | Gasoline              | 2          | Askar Energy     | I-75         | North               | 7/29/2015  | 1:43pm     |
| 1203  | MC 306          | 3            | Gasoline              | 5          | N/A              | I-75         | South               | 7/29/2015  | 1:50pm     |
| 1203  | MC 306          | 3            | Gasoline              | 5          | Kennan Advantage | I-75         | South               | 7/29/2015  | 2:21pm     |

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## Appendix D: Acronyms

Table 18: Acronyms

| Acronym | Meaning                                     |
|---------|---|
| CEDs    | Comprehensive Economic Development Strategy |
| DOT     | Department of Transportation                |
| HMEP    | Hazardous Materials Emergency Preparedness  |
| LEPC    | Local Emergency Planning Committee          |
| MM      | Mile Marker                                 |
| S.R.    | State Road                                  |
| SWFRPC  | Southwest Florida Regional Planning Council |
| U.S.    | United States Highway                       |
| USDOT   | United States Department of Transportation  |





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