



# BLUE ZONES PROJECT<sup>®</sup>

## JACKSONVILLE

# Blue Zone Data Analysis

UPWP Task 5.7

December 2022

Prepared for:



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## Background

The Blue Zones initiative ([BZP Jacksonville - Blue Zones](#)) studies the lifestyle characteristics that explain longevity within at-risk communities that share traits relating to physical activity, having a sense of purpose, a healthy diet and (maybe most important) a sense of community.

The City of Jacksonville engaged a Blue Zones Study Team Blue Zones—Live Longer, Better 2021 - Blue Zones to perform a regional assessment. This team interviewed 275 Jacksonville city leaders from 140 organizations, including governmental entities, nonprofits and the employers of more than 50,000 area residents.

The Blue Zones team, made up of global experts in food systems, the built environment, tobacco and alcohol use, health equity, and happiness, will work with local experts and leaders to assess the highest priority needs and opportunities, as well as strengths and challenges.

## Purpose

This study summarizes previously collected data associated with the blue zones identified by the Blue Zone Jacksonville team and assesses the potential tradeoffs between speed limits, safety and traffic flow in these at-risk communities.

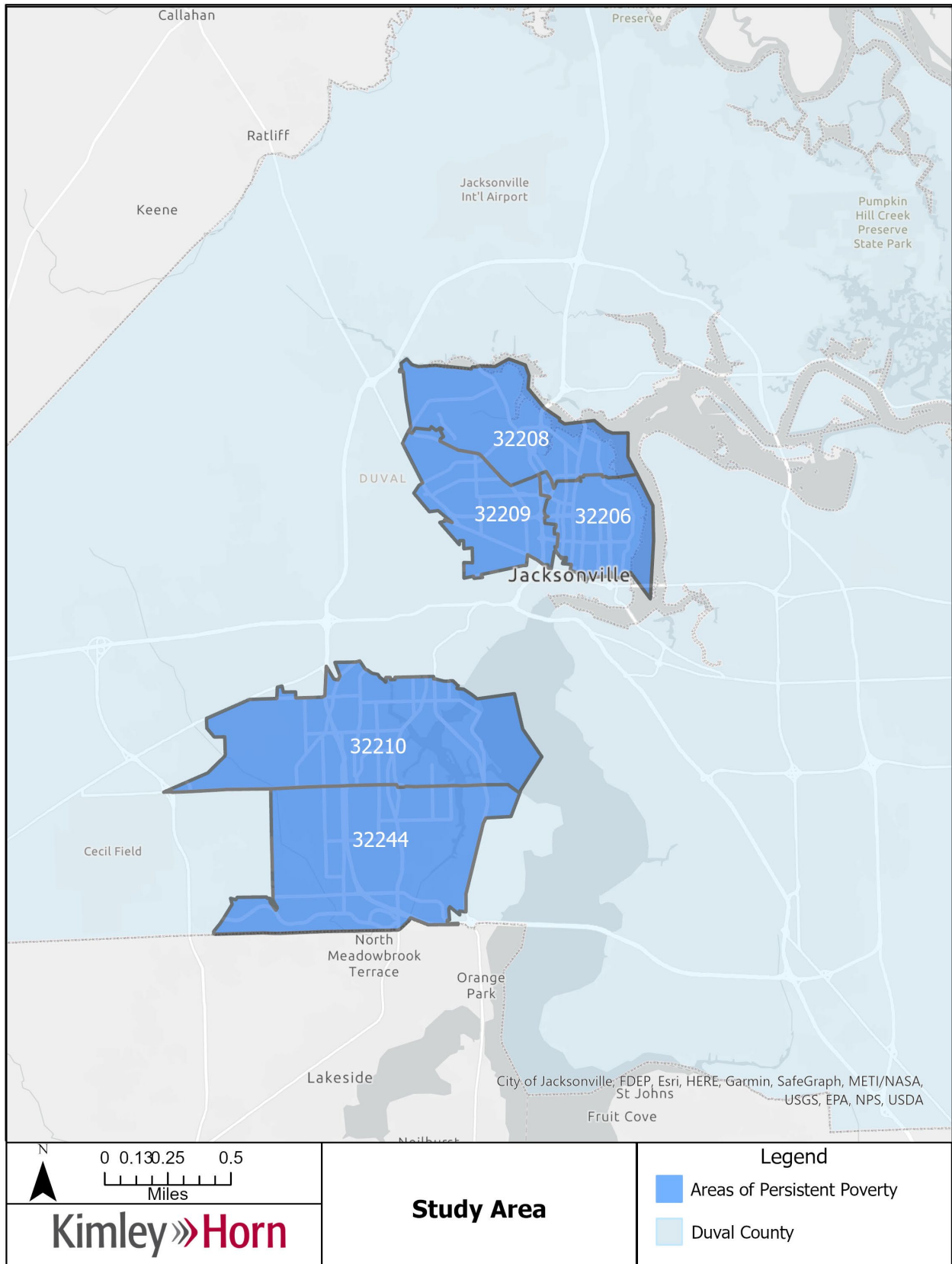
## Study Area

The Blue Zone initiative team identified the five zip codes to be the focus of their study shown on Figure 1. Table 1 summarizes the common names of these areas.

**Table 1. Blue Zones**

Zip Code	Common Neighborhood Names
<a href="#">32206</a>	Eastside, Talleyrand, Springfield and Brentwood
<a href="#">32208</a>	Eastside, Ribault Manor, Panama Park and Lake Forest Hills
<a href="#">32209</a>	Eastside, College Park, Gran Park Magnolia Gardens
<a href="#">32210</a>	Westside, Cedar Hills, Lake Shore and Normandy
<a href="#">32244</a>	Westside, Wesconnett, Duclay, Timuquana

Figure 1. Blue Zone Study Area



## Ladders of Opportunity Study

Many of the issues of concern for a Blue Zone were evaluated part of the [Ladders of Opportunity: Improving Lives Through Mobility](#) Study prepared by the North Florida Transportation Planning Organization in 2021. The following summarizes the conclusions of that study for these areas

The Eastside community includes zip codes 32206, 32208 and 32209 and faces significant health disparities compared to Duval County as a whole based on a 2016 study performed by the City to establish priorities through health zones. This Eastside area has the highest priority based on:

- Higher levels of poverty
- Lower level of educational attainment
- Highest stroke mortality rate
- Highest heart disease mortality rate
- Highest infant mortality rate, 11.6 out of 1,000 births in comparison to the state rate of 6.9
- Higher injury rates requiring emergency room visits, 14,272 versus the state rate of 8,263 per 1,000 residents
- Greater percentage of visits to hospital emergency rooms for many issues that can usually be managed through regular visits to a primary care physician
- Highest rate of preventable diabetes hospitalization
- Higher asthma-related deaths at a rate that are nearly double the average rate in Florida and significantly higher than the national average
- Higher death rate for chronic obstructive pulmonary disease at 30% higher than the average rate in Florida
- Less accessibility to affordable primary care locations – none are located within the residential areas and may not be easily accessible to those who don't have their own vehicle
- High proportion of the area is a food desert according to The Food Trust
- The highest rates of violent crimes in the region.

The Westside neighborhoods in 32210 and 32244 face many of the same issues but are less intense than the Eastside community.

Other issues facing both communities when compared to the City and region

- Higher rates of limited English proficiency
- Lower rates of vehicle ownership
- Higher proportion of females being the head of households with children at home

## Vehicle Crash Rates

An analysis of the crashes within these Blue Zones was prepared as part of this issue paper. Crash data for the Florida State Highway Systems (SHS) and local roadways was obtained from Signal Four Analytics and the Florida Department of Transportation (FDOT) Transportation Data Portal.

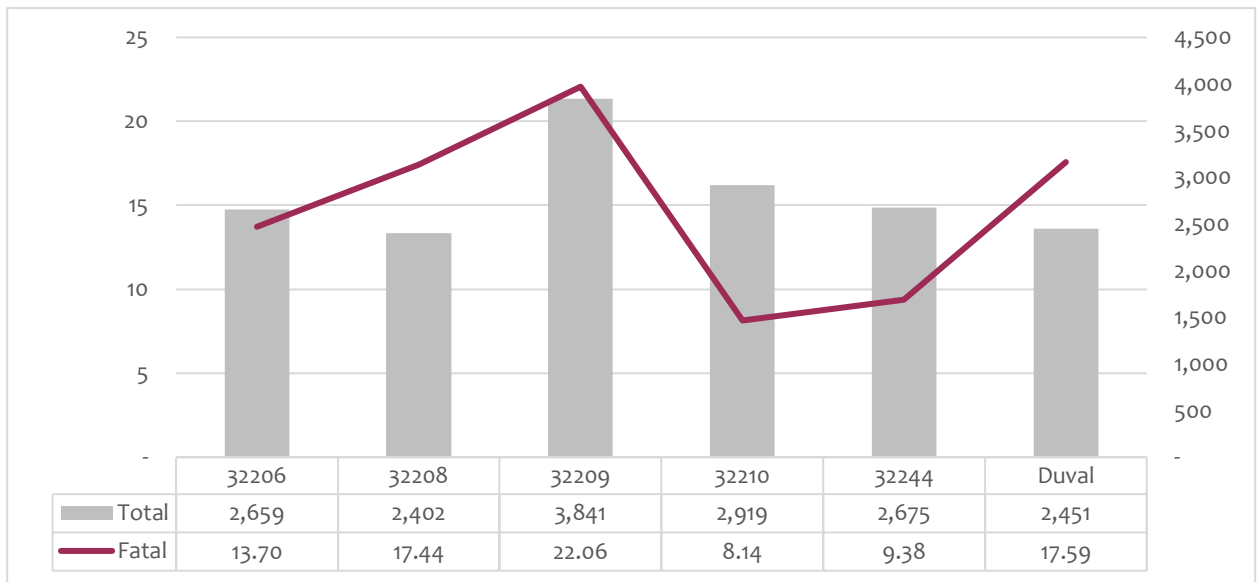
Table 3 summarizes the annual average crash history and economic impact of crashes in each of the Blue Zone areas by zip code.

**Table 2. Summary of Annual Average Crashes by Severity (2018-2021)**

Crash Severity/ Zip Code	Average Number of Crashes per Year					Total
	32206	32208	32209	32210	32244	
Fatal (K)	4	8	11	7	7	37
Severe Injury (A)	11	15	27	35	24	112
Moderate Injury (B)	55	988	184	181	136	1,544
Minor Injury (C)	133	192	295	434	336	1,390
Property Damage Only (O)	573	790	1398	1,852	1,494	6,107
All Crashes	776	1,102	1,915	2,510	1,997	8,300
Economic Cost (millions) per year	\$81.5	\$143.3	\$218.4	\$199.4	\$168.5	\$811.0

Figure 2 summarizes the fatal and total crash history in the Blue Zone areas compared to the Duval County averages. The rate for total crashes exceeds the citywide averages. The fatal crash rate in the College Park area of Eastside significant exceeds the rates in other areas. This neighborhood includes I-95 and US 1 Alt. MLK Parkway which carry significant more volume than the roadways in other areas.

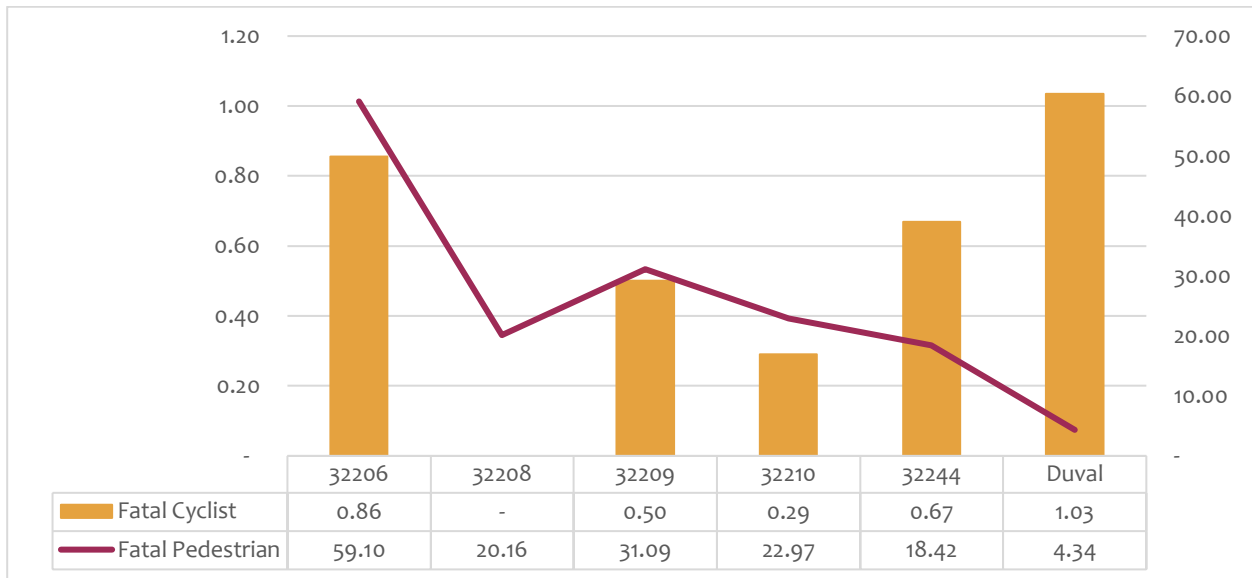
Figure 2. Fatal and Total Crash Rate per 100,000 persons



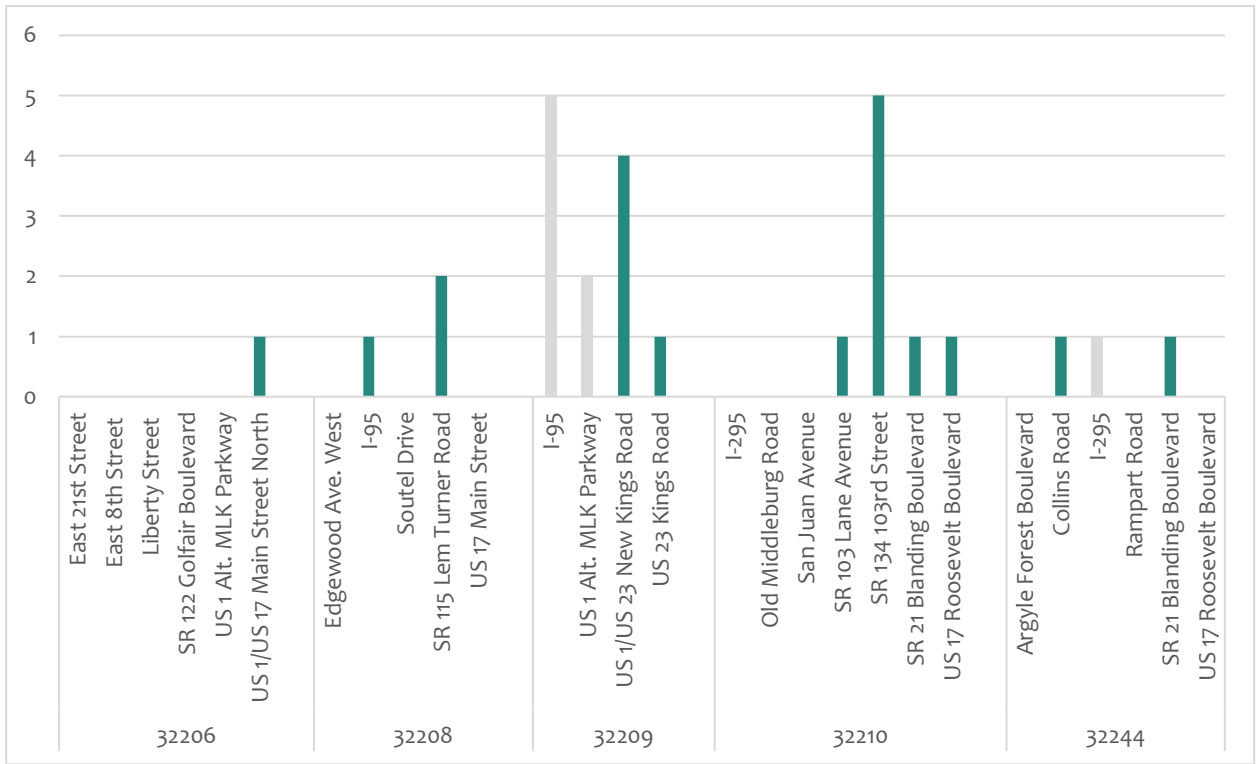
## Vulnerable Road User Crash Rates

An analysis of the fatalities of vulnerable road users was performed and the rate of pedestrian fatalities per 100,000 in population exceeds the citywide average in all zip codes as shown in Figure 3.

**Figure 3. Vulnerable Road User Fatalities per 100,000 in Population**

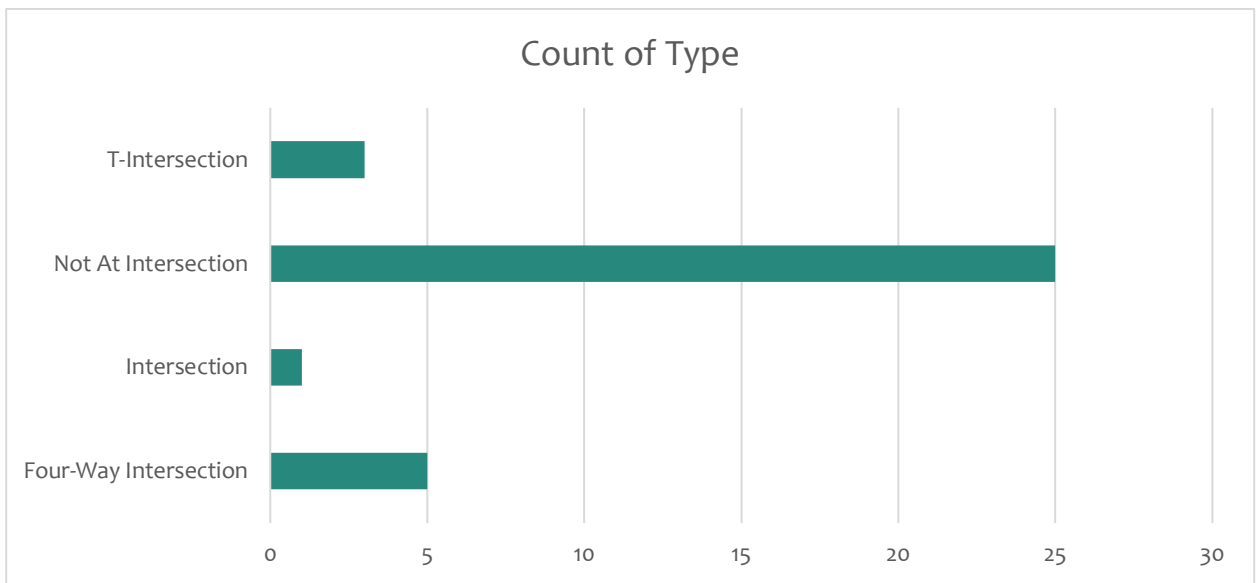


**Figure 4. Pedestrian Fatalities on Key Corridors**



Columns shown in grey are limited-access facilities and pedestrians are prohibited.

**Figure 5. Summary of Pedestrian Crash Locations**



All pedestrian fatalities.

**Table 3. Summary of Pedestrian Fatalities**

Zip	Primary Road	Direction Along	Secondary Road	Type
32206	SR 115 East State Street	East	Liberty Street	Four-Way Intersection
32206	US 17 North Main Street	North	21st Street	Four-Way Intersection
32206	I-95	North	SR 117 Golfair Boulevard	Not At Intersection
32206	SR 115 East State Street	West	Liberty Street	Not At Intersection
32206	SR 117 Brentwood Avenue		Basswood Street	Intersection
32208	SR 115 Lem Turner Road	North	Broom Street	Not At Intersection
32208	SR 115 Lem Turner Road	East	Woodland Avenue	Not At Intersection
32208	SR 210 Moncrief Road		Spirea Street	T-Intersection
32208	I-95		SR 115 Lem Turner Road	Not At Intersection
32209	SR 117 Golfair Boulevard	East	SR 117 Moncrief Road	Not At Intersection
32209	I-95	North	US 23 Kings Road	Not At Intersection
32209	US 23 Kings Road		Whitner Street	Four-Way Intersection
32209	Barnett Street	North	6th Street	Not At Intersection
32209	US 23 Kings Road		Cleveland Street	T-Intersection
32209	US 23 New Kings Road	South	Edgewood Ave	Not At Intersection
32209	I-95	North	SR 117 Golfair Boulevard	Not At Intersection
32209	US 23 Kings Road	West	Fairfax St	Four-Way Intersection
32209	I-95	South	8th Street	Not At Intersection
32209	US 1	East	Canal Street	Not At Intersection
32209	US 23 Kings Road		Canal Street	Four-Way Intersection
32209	US 23 New King Road	South	Edgewood Avenue	Not At Intersection
32209	Cleveland Road	North	Carroll Drive	Not At Intersection
32209	I-95		SR 117 Golfair Boulevard	Not At Intersection
32209	SR 210 Moncrief Road	West	Audubon Street	Not At Intersection
32209	I-95	North	8th Street	Not At Intersection
32209	US 1	East	Wilson Street	Not At Intersection
32209	SR 23 Kings Road		Spires Avenue	T-Intersection
32210	SR 21 Blanding Blvd	West	SR 134 103 <sup>rd</sup> Street	Not At Intersection
32210	SR 134 103 <sup>rd</sup> Street	West	Wesconnett Boulevard	Not At Intersection
32210	US 17 Roosevelt Blvd	South	St Johns Avenue	Not At Intersection
32210	SR 134 103 <sup>rd</sup> Street	West	Vivian Drive	Not At Intersection
32210	SR 134 103 <sup>rd</sup> Street	South	Kinkaid Road	Not At Intersection
32210	SR 103 Lane Avenue	South	Manotak Avenue	Not At Intersection
32210	I-295	North	US 17 Main Street	Not At Intersection
32210	I-295	North	SR 208 Wilson Boulevard	Not At Intersection
32210	SR 134 103 <sup>rd</sup> Street	West	Ken Road	Not At Intersection
32210	Fouraker Road		Fabray Drive	Not At Intersection
32210	SR 134 103 <sup>rd</sup> Street	North	California Avenue	Not At Intersection
32224	Townsend Road	West	Charmayn Road	Not At Intersection
32224	Townsend Road	East	SR 21 Blanding Boulevard	Not At Intersection
32224	I-295	North	Collins Road	Not At Intersection



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<b>Zip</b>	<b>Primary Road</b>	<b>Direction Along</b>	<b>Secondary Road</b>	<b>Type</b>
<b>32224</b>	<b>Shindler Road</b>	<b>South</b>	<b>SR 134 103<sup>rd</sup> Street</b>	<b>Not At Intersection</b>
<b>32224</b>	<b>Hillman Drive</b>	<b>South</b>	<b>Renault Drive</b>	<b>Not At Intersection</b>
<b>32224</b>	<b>SR 134 103<sup>rd</sup> Street</b>	<b>West</b>	<b>Seaboard Avenue</b>	<b>Not At Intersection</b>
<b>32224</b>	<b>Collins Road</b>	<b>West</b>	<b>Pondue Lane</b>	<b>Not At Intersection</b>
<b>32224</b>	<b>SR 21 Blanding Boulevard</b>	<b>South</b>	<b>I-295</b>	<b>Not At Intersection</b>

## Corridor Analysis

Average crash rates per 100 million vehicle miles traveled are estimated within the North Florida based on 5-year rolling averages from 2017-2021 are summarized in Table 5.

**Table 4. Average Crash Rates per Million Vehicle-miles Traveled (2017-2021)**

Crash Severity	Fatal	All Injuries
All Roads	0.01411	1.02324

Source: 2022 Annual Mobility Report

Figure 5 provides a graphical summary of the crashes by corridor within the study area. The columns above the grey area are above the "all roads" regional average for fatal crashes.

Figure 6. Total and Fatal Crash Rates (crashes per million VMT)

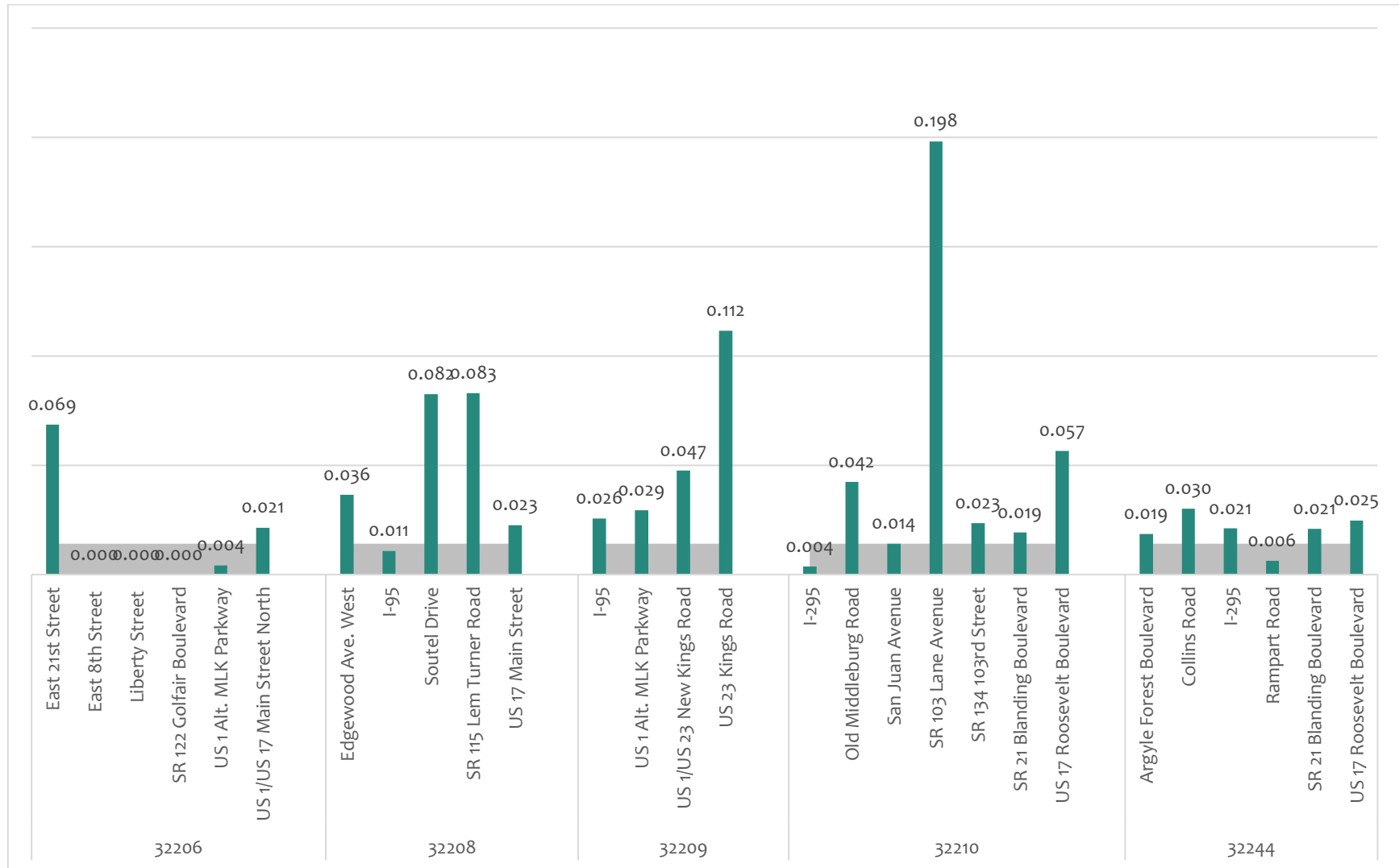
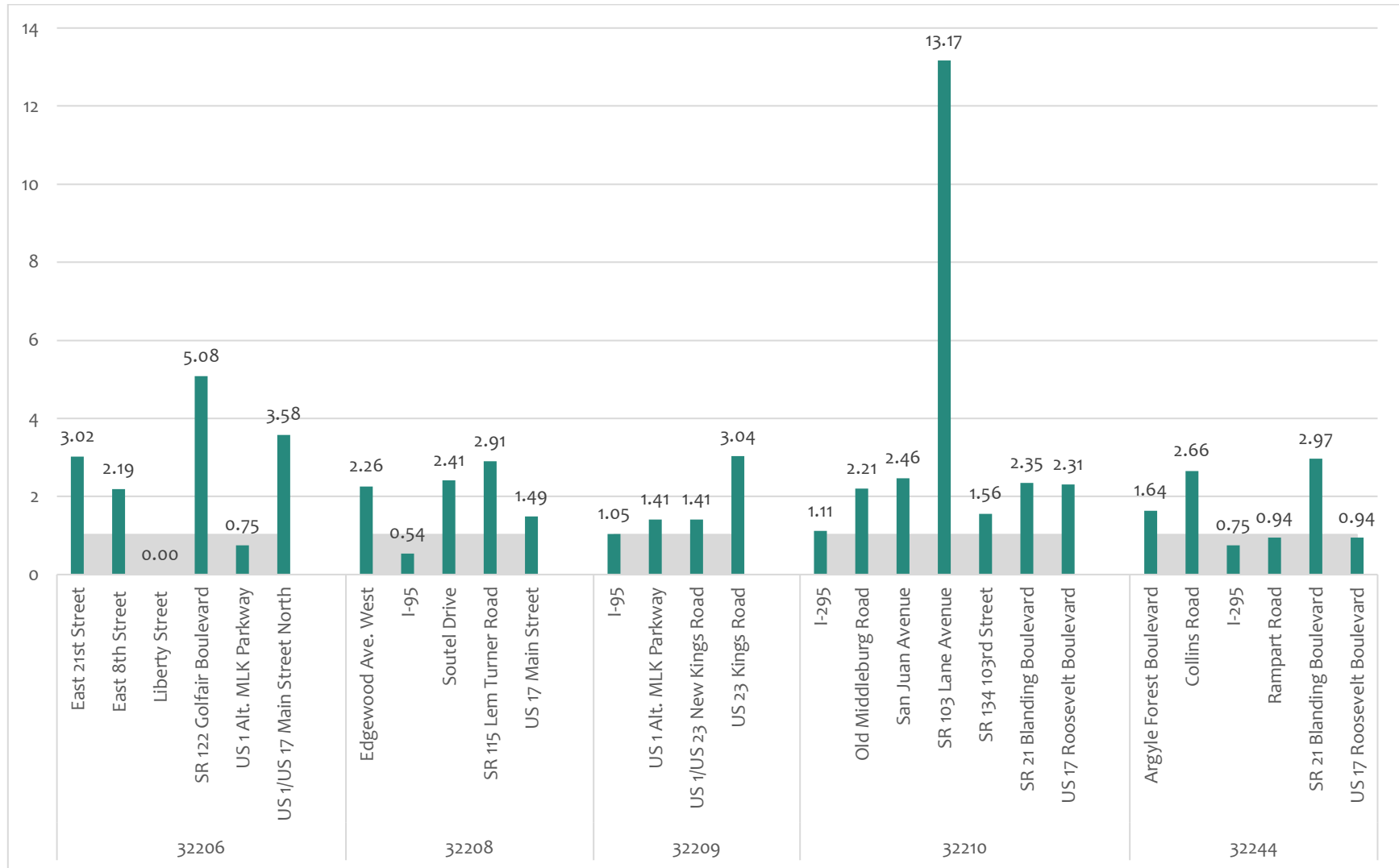


Figure 7. Injury Crash Rates

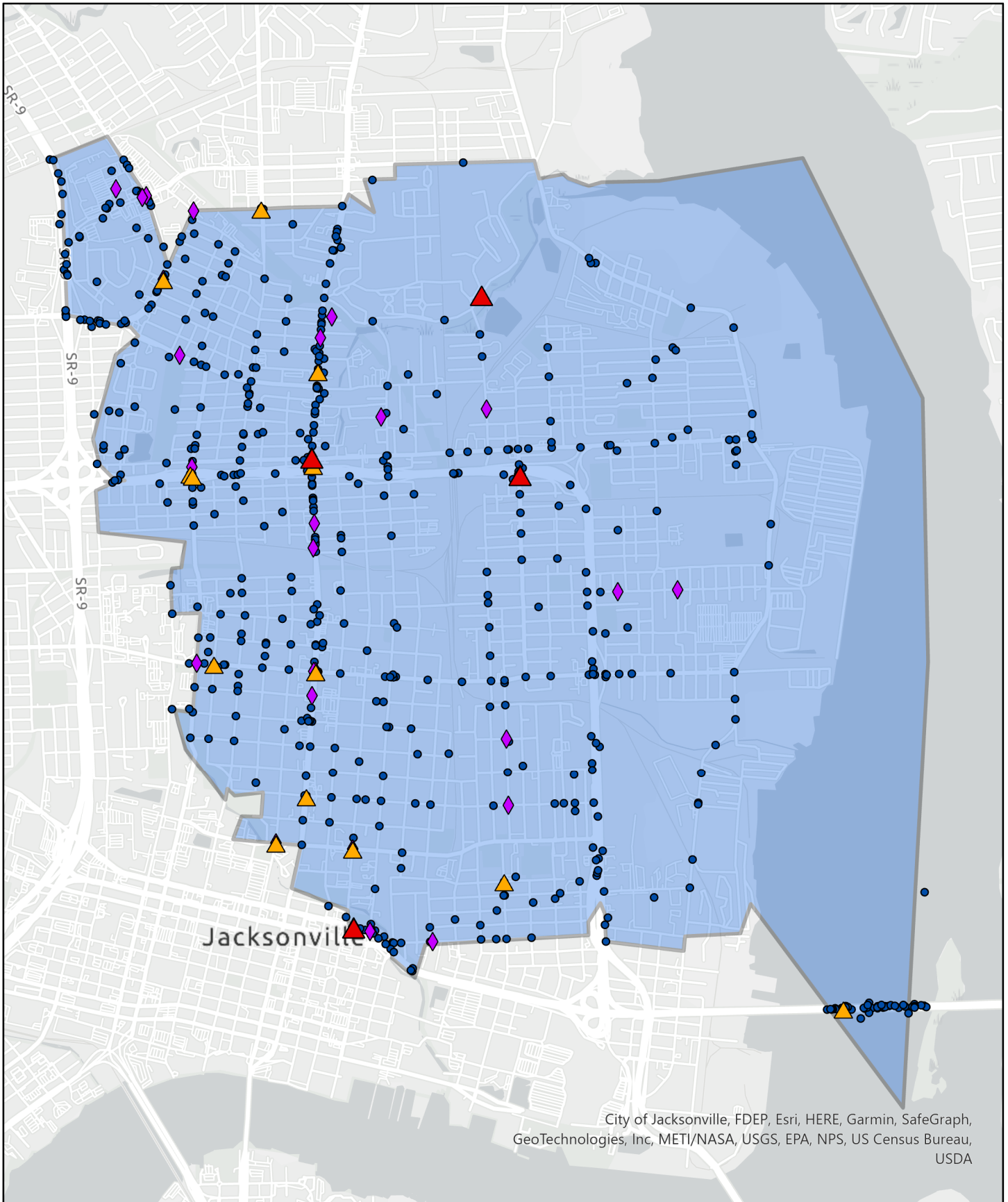


## **Summary**

The safety performance of the corridors within these study areas exceed the regional crash rate averages for many of the roadways for the fatality and injury crash rates.

Additional analysis is needed to understand the causality of the correlation of these higher than expected fatal crash rates, injury crash rates and pedestrian fatalities in these areas.

# **Appendix A. Crash Maps by Zip Code**



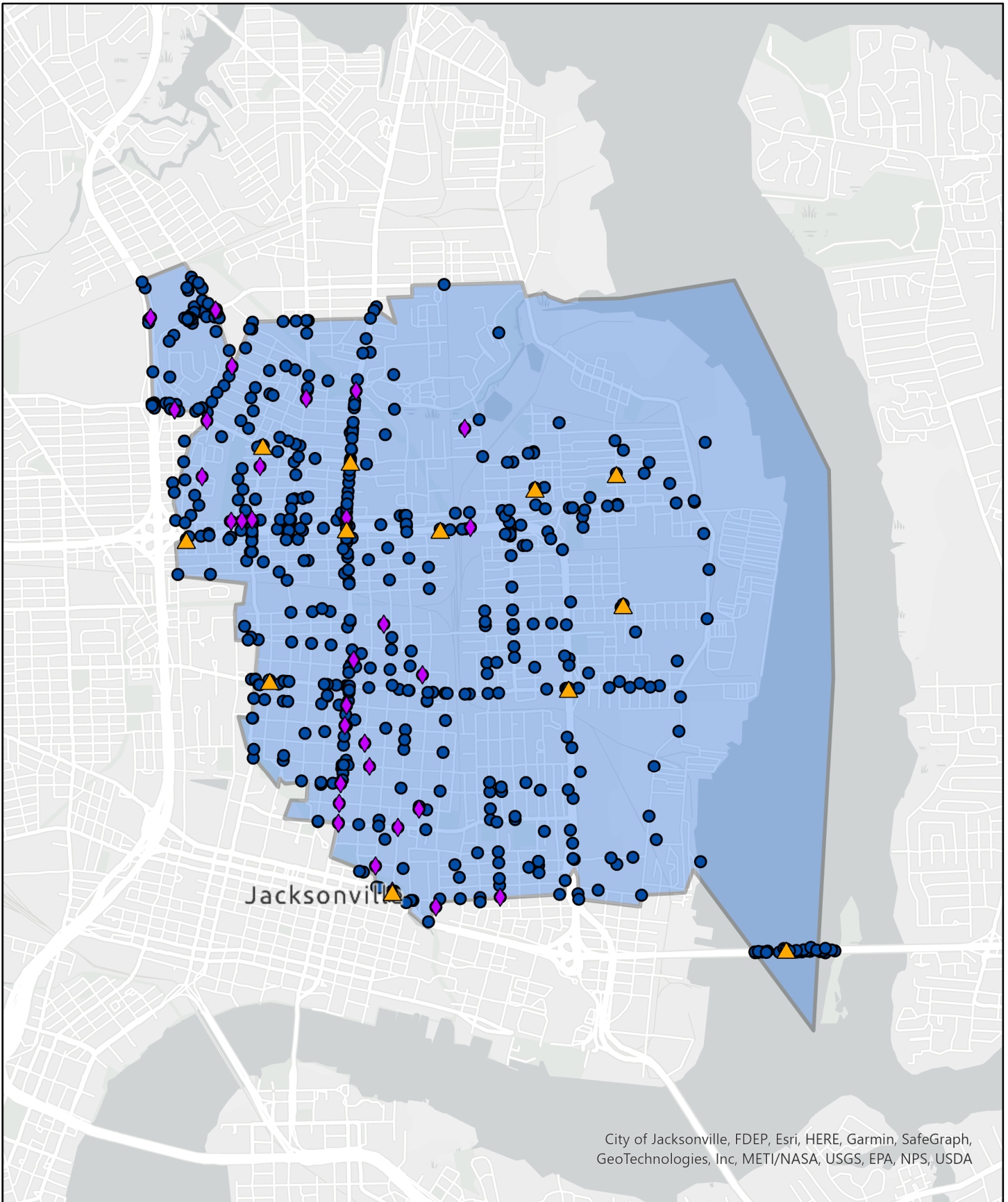
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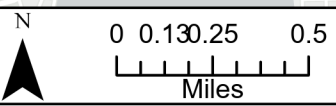
**32206  
2018 Crashes**

**Legend**

- ▲ 2018 Fatalities
- ▲ 2018 Serious Injuries
- ◆ 2018 Bike/Ped Crashes
- 2018 crashes for 32206



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



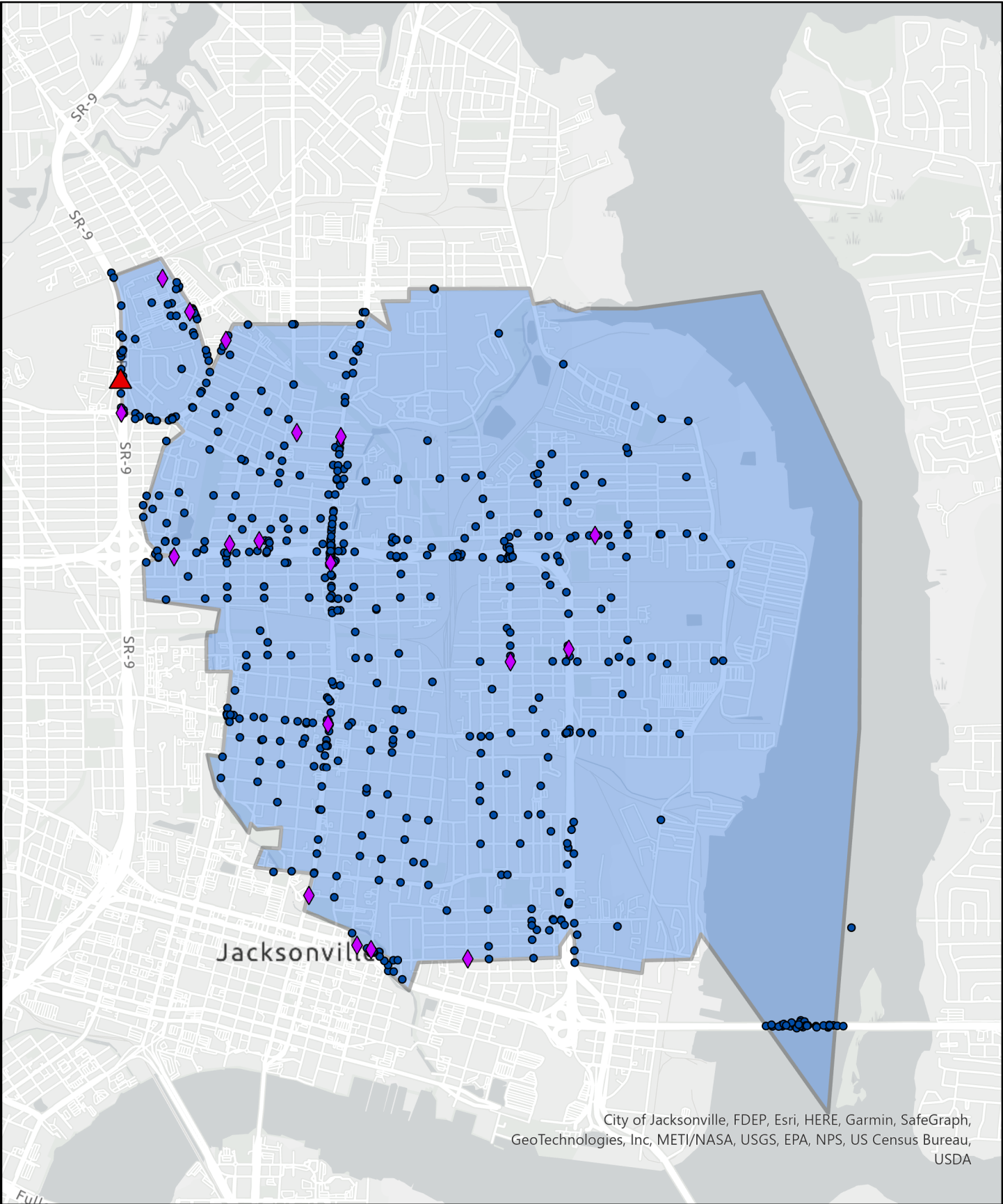
**Kimley»Horn**

**32206  
2019 Crashes**

**Legend**

-  2019 Fatalities
-  2019 Serious Injuries
-  2019 Bike/Ped Crashes
-  2019 Crashes





City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

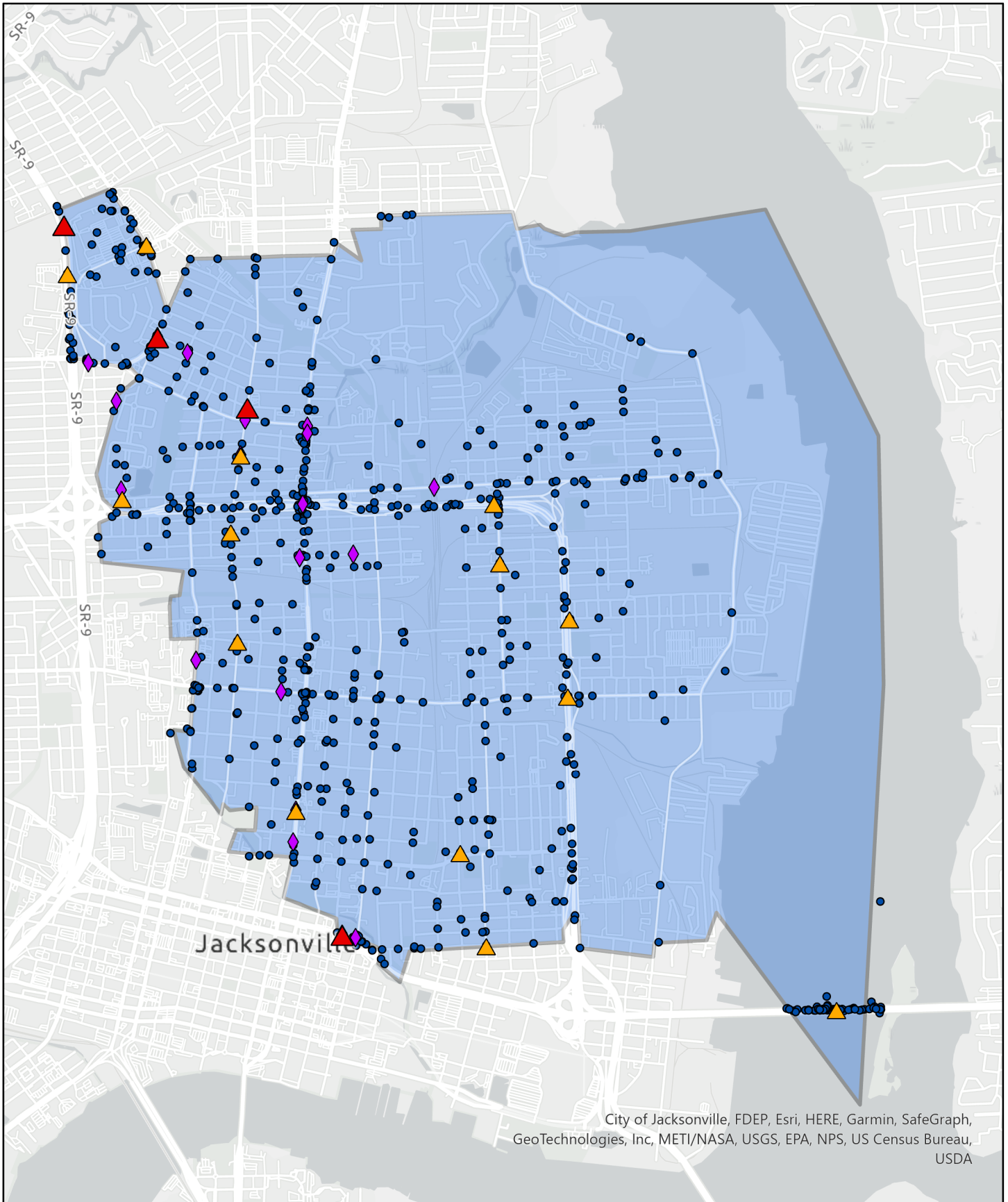
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Miles

**Kimley >>> Horn**

**32206  
2020 Crashes**

**Legend**

- 2020 Fatalities
- 2020 Serious Injuries
- 2020 Bike/Ped Crashes
- 2020 crashes for 32206



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

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 Miles

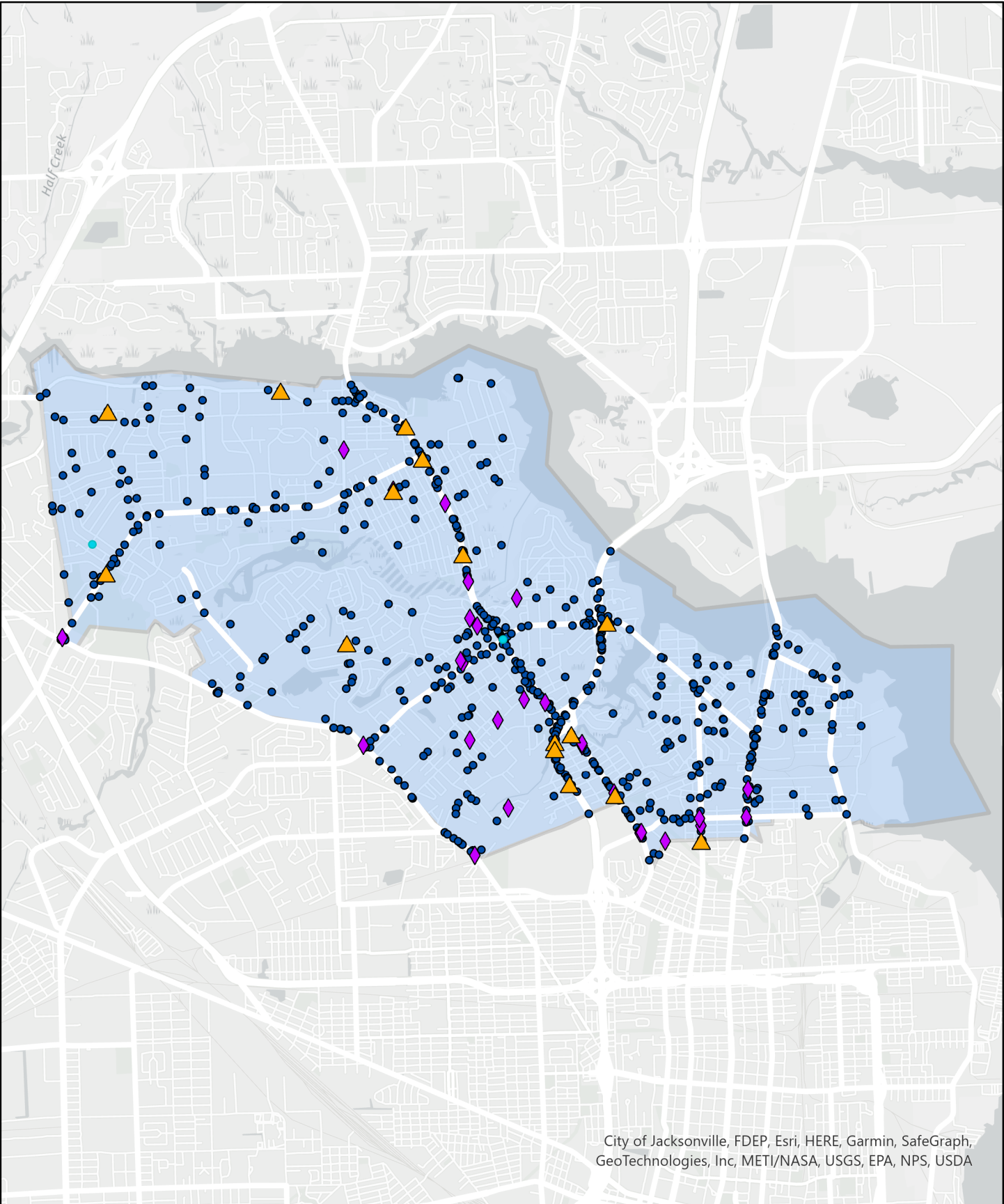
**Kimley >>> Horn**

**32206**  
**2021 Crashes**

**Legend**

- ▲ 2021 Fatalities
- ▲ 2021 Serious Injuries
- ◆ 2021 Bike/Ped Crashes
- 2021 crashes for 32206





City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



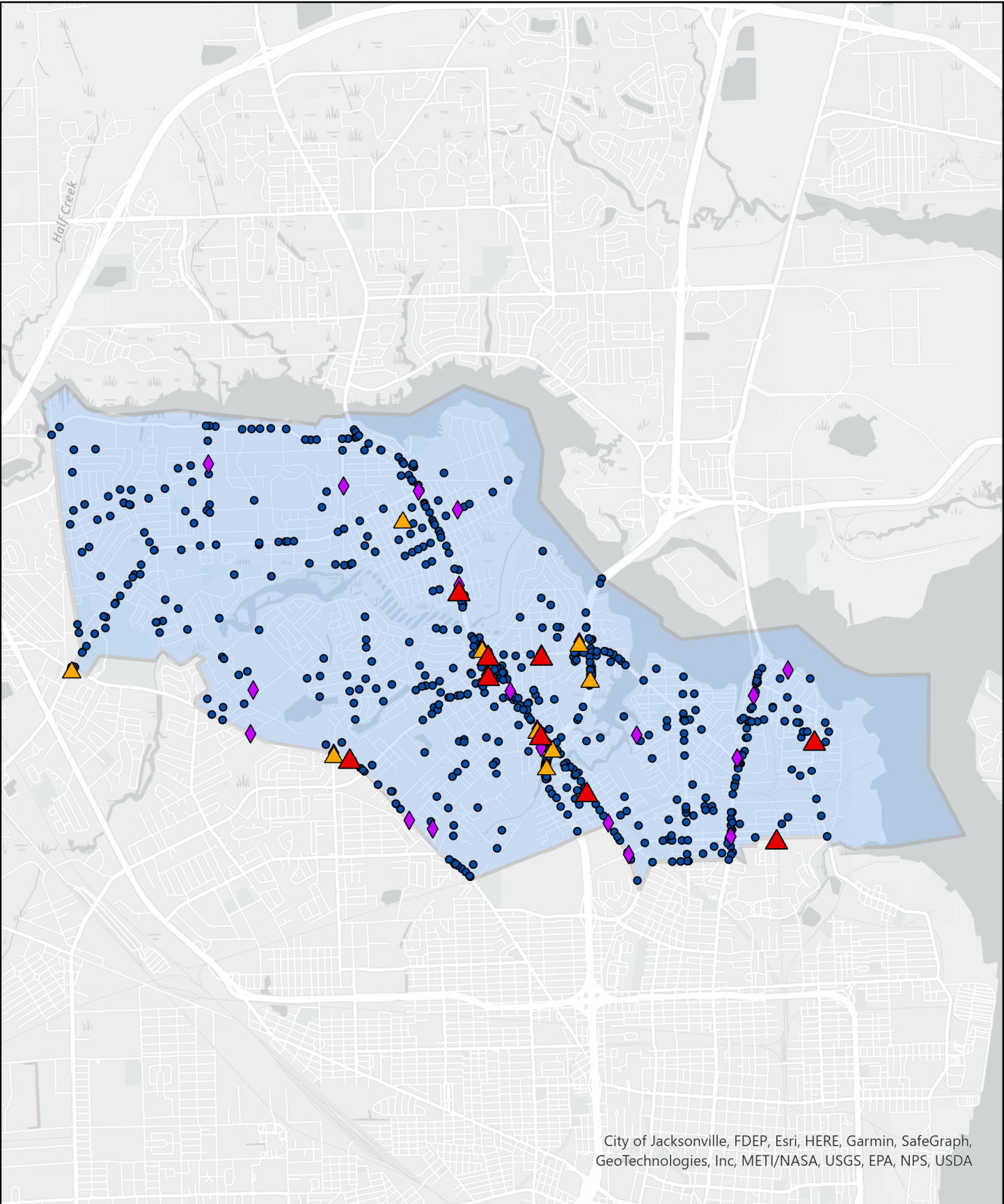
0 0.130.25 0.5  
Miles

**Kimley»Horn**

**32208  
2018 Crashes**

**Legend**

- ▲ 2018 Fatalities
- ▲ 2018 Serious Injuries
- ◆ 2018 Serious Injuries



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

N

0 0.130.25 0.5



Miles

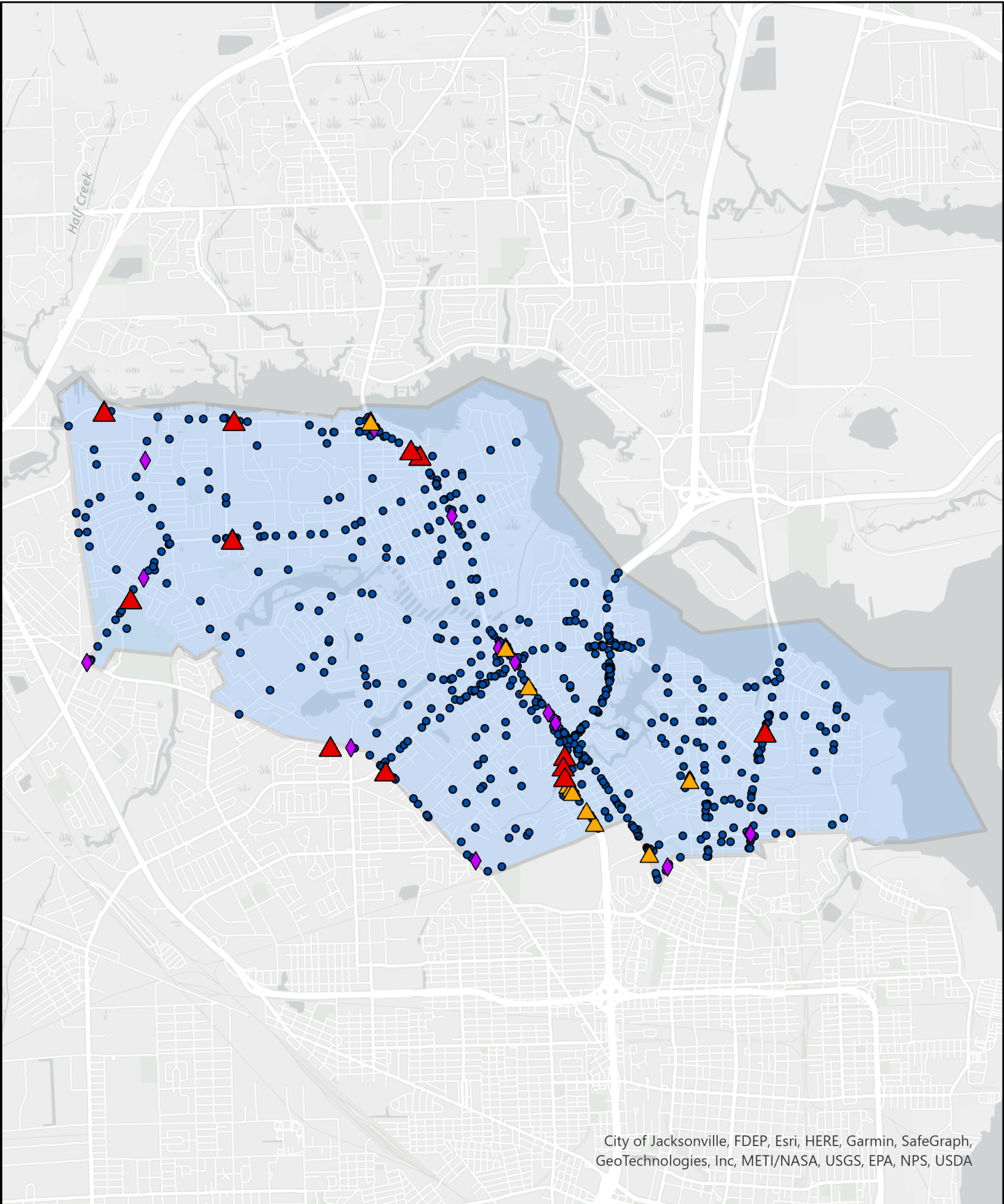
**Kimley»Horn**

**32208**  
**2019 Crashes**

**Legend**

-  2019 Fatalities
-  2019 Serious Injuries
-  2019 Serious Injuries
-  2019 Crashes





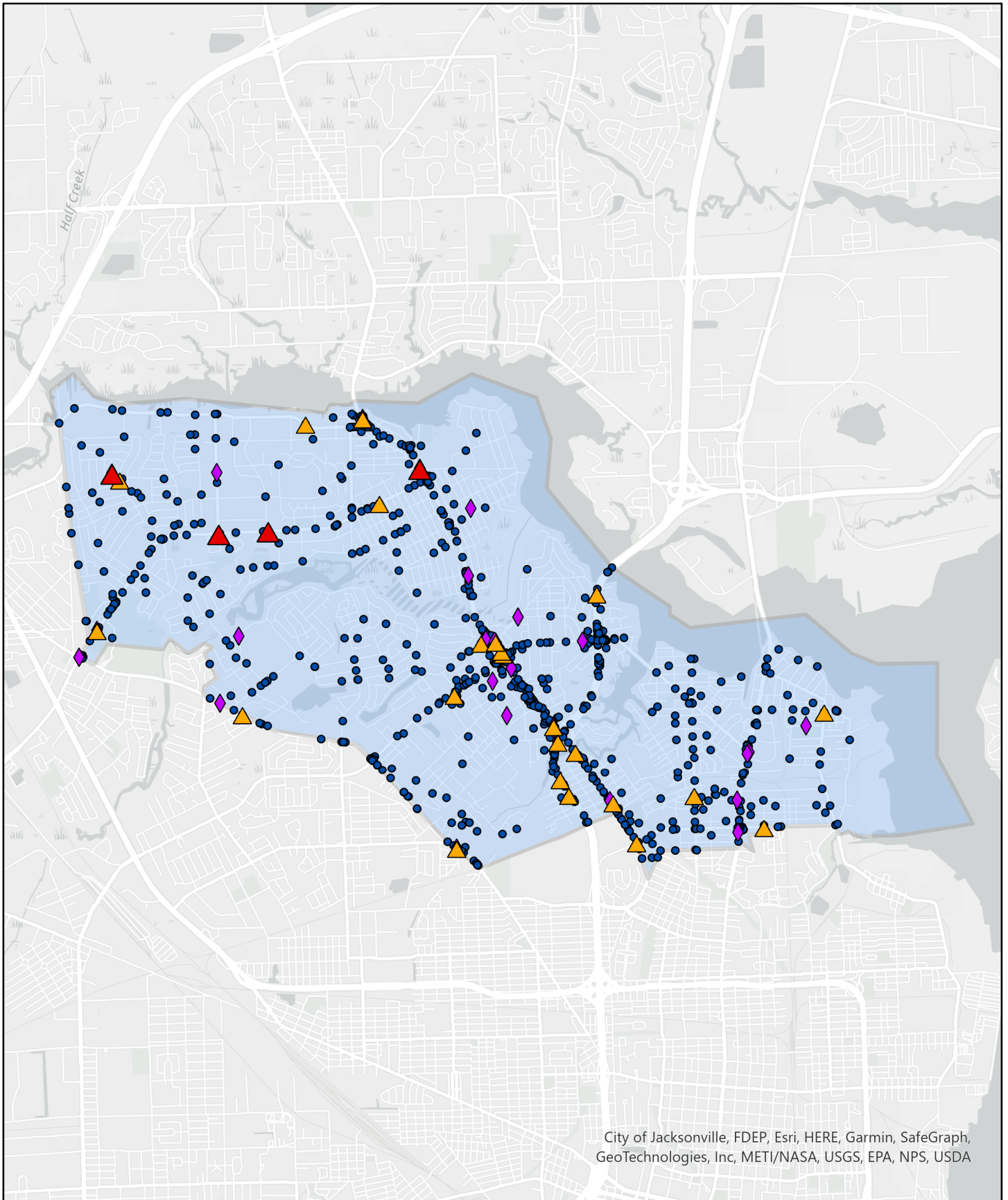
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Miles

**Kimley»Horn**

**32208**  
**2020 Crashes**

**Legend**

- 2020 Fatalities
- 2020 Serious Injuries
- 2020 Serious Injuries
- 2020 Crashes



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA







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Miles

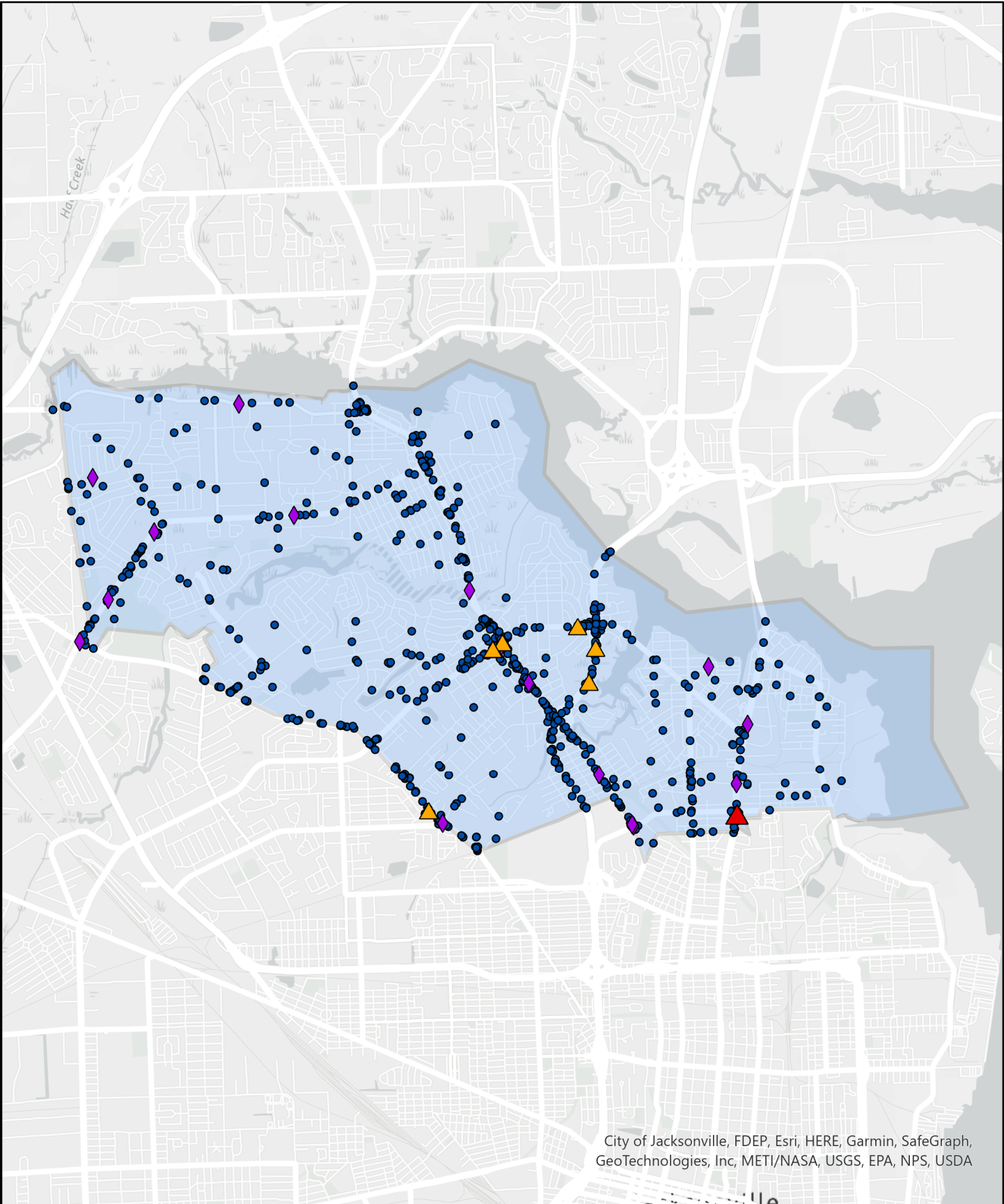
**Kimley >>> Horn**

**32208  
2021 Crashes**

**Legend**

-  2021 Fatalities
-  2021 Serious Injuries
-  2021 Serious Injuries
-  2021 Crashes





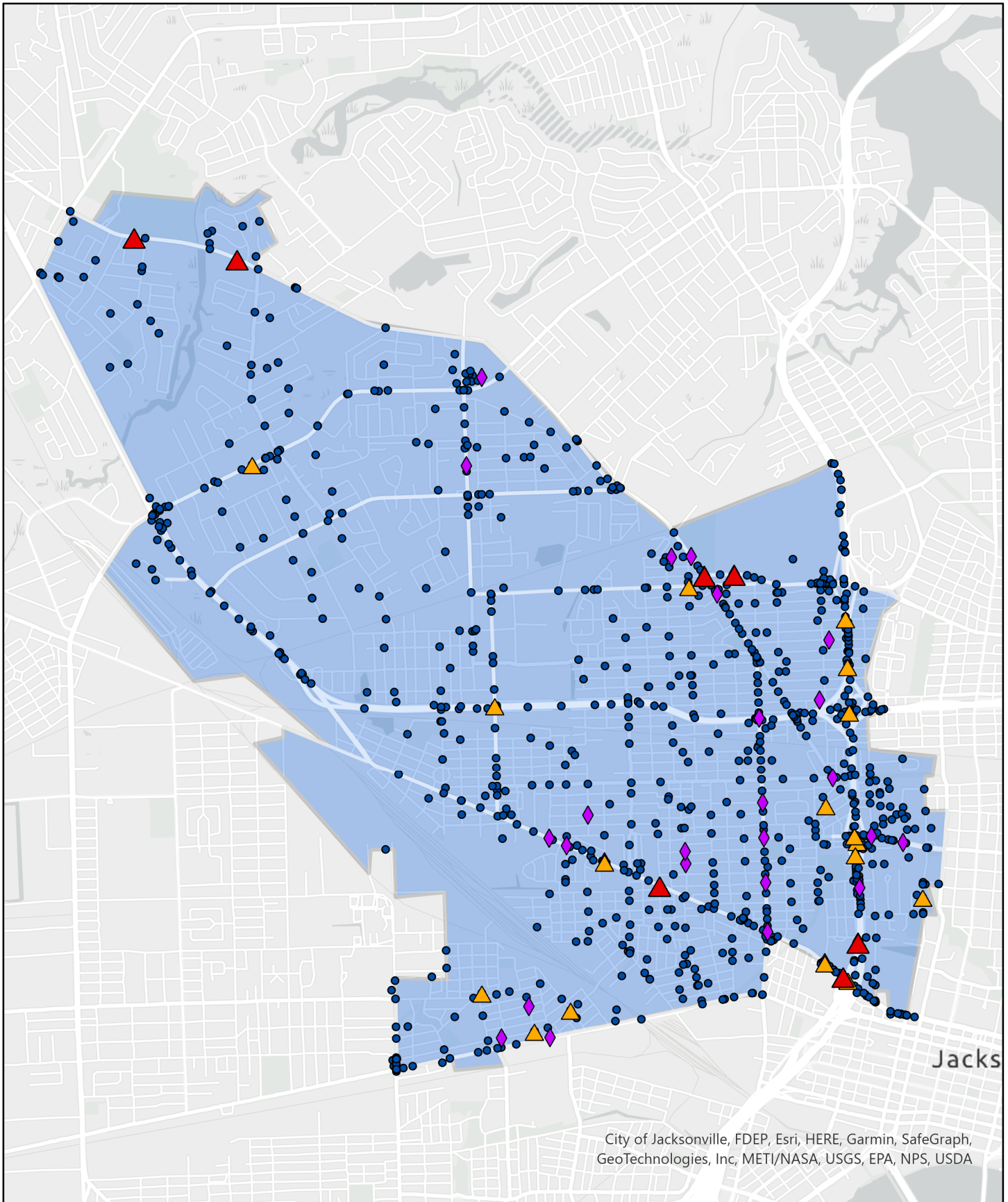
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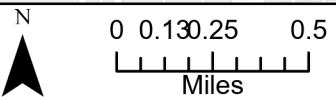
**32208  
2022 Crashes**

**Legend**

- ▲ 2022 Fatalities
- ▲ 2022 Serious Injuries
- ◆ 2022 Bike/ped
- 2022 Crashes



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



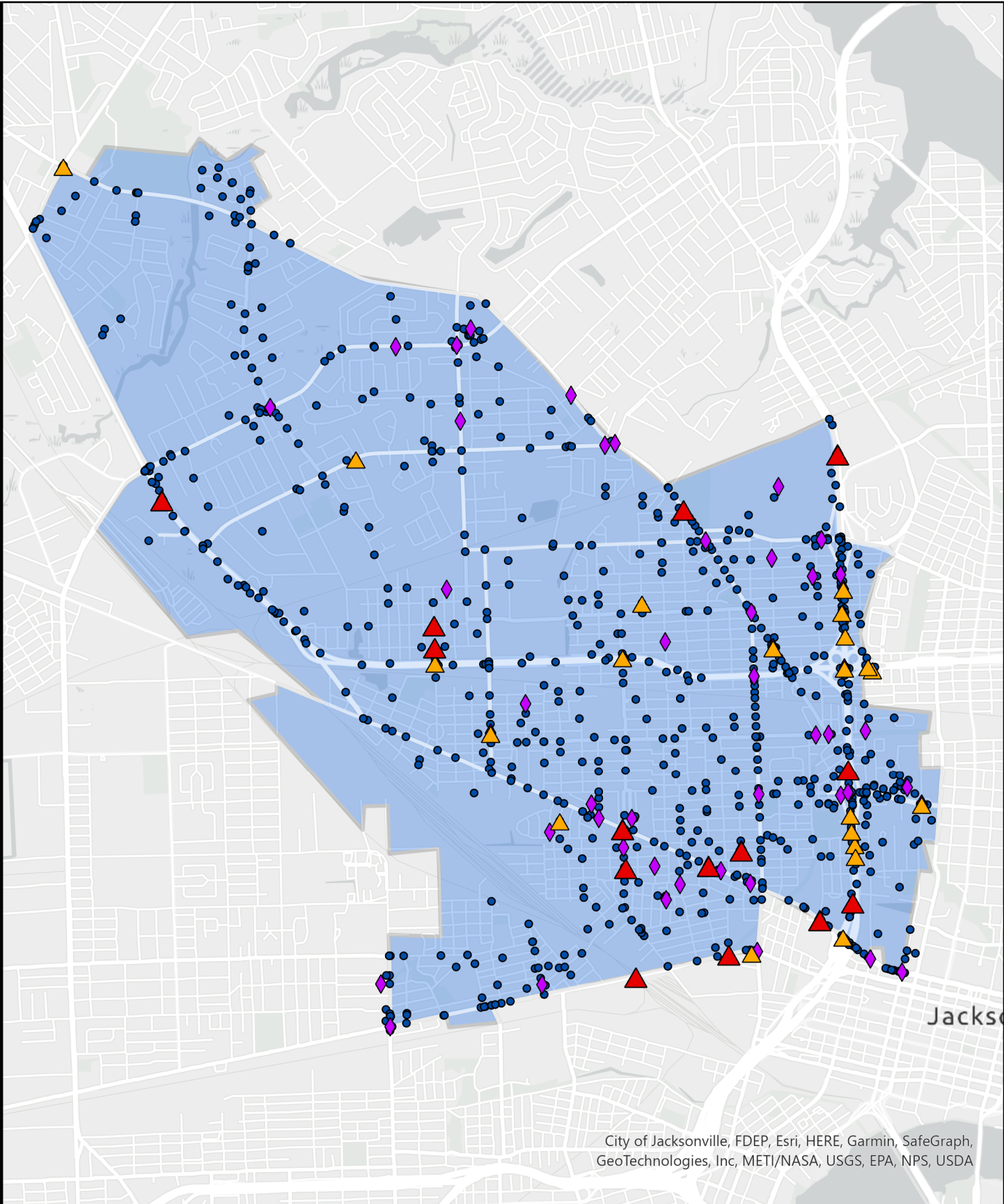
**Kimley»Horn**

**32209  
2018 Crashes**

**Legend**

- ▲ 2018 Fatalities
- ▲ 2018 Serious Injuries
- ◆ 2018 Bike/Ped
- 2018 Crashes





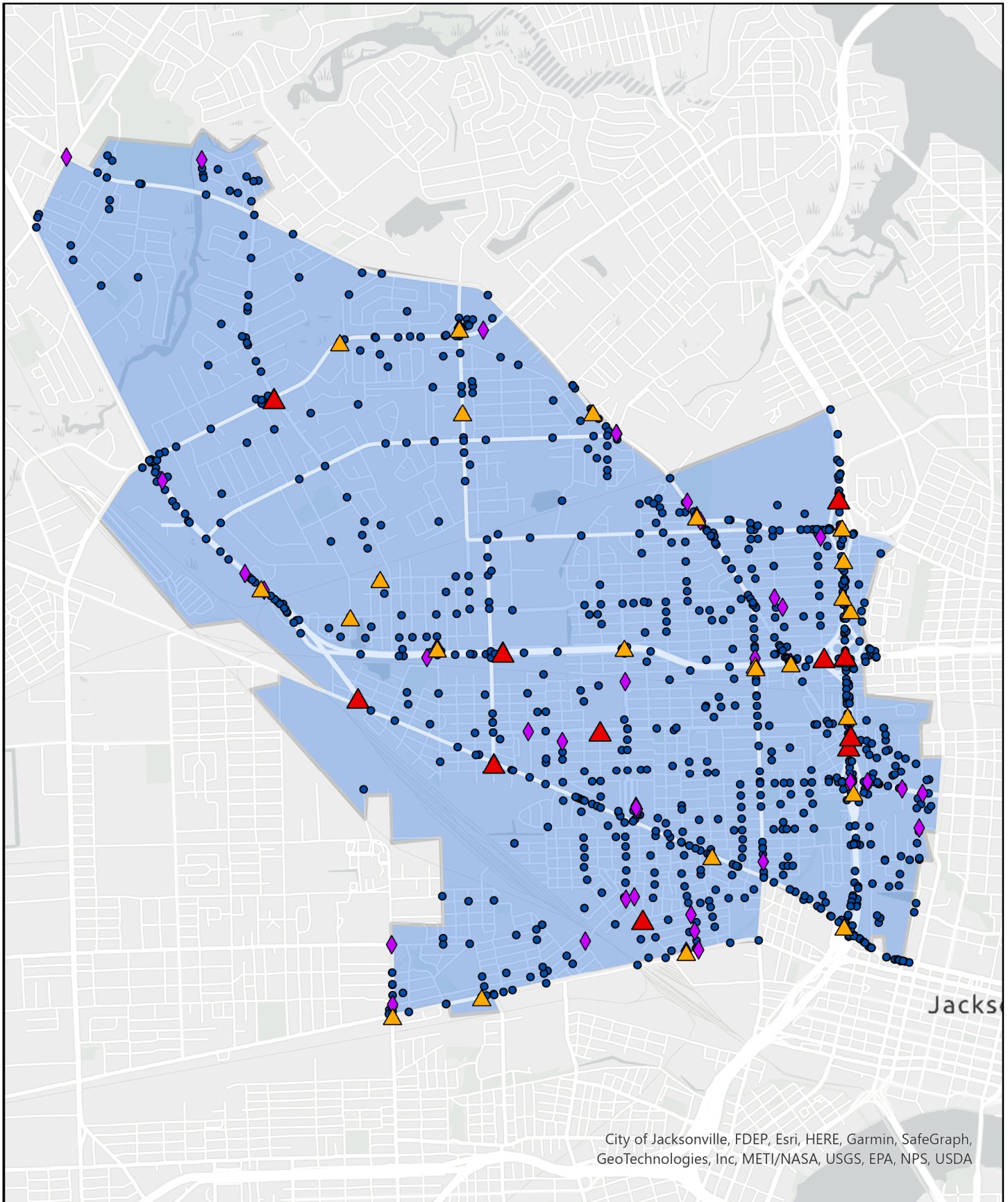
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Miles

**Kimley»Horn**

**32209  
2018 Crashes**

**Legend**

- ▲ 2019 Fatalities
- ▲ 2019 Serious Injuries
- ◆ 2019 Bike/Ped
- 2019 crashes 32209



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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Miles

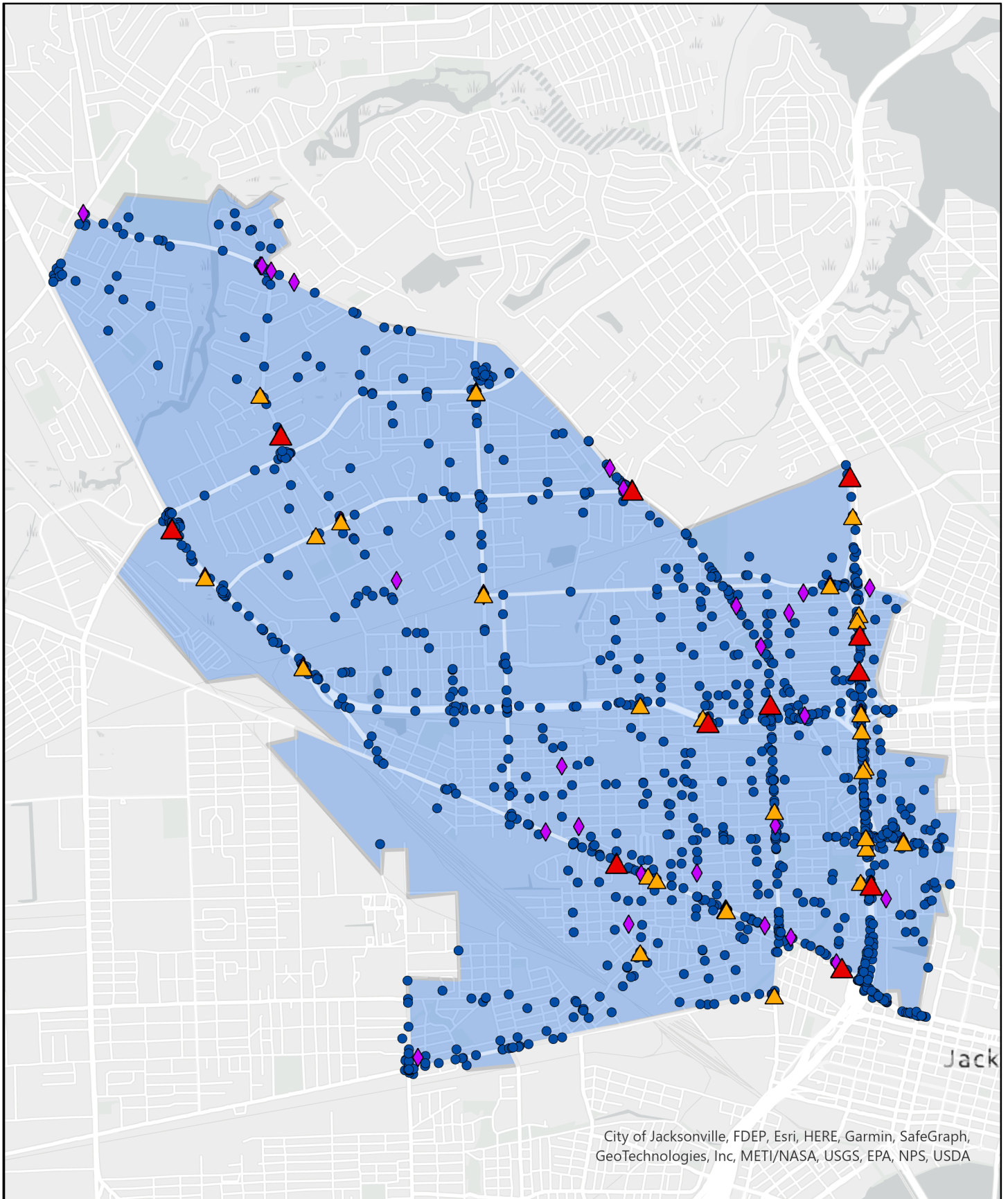
**Kimley»Horn**

**32209  
2020 Crashes**

**Legend**

- ▲ 2020 Fatalities
- ▲ 2020 Serious Injuries
- ◆ 2020 Bike/Ped
- 2020 Crashes





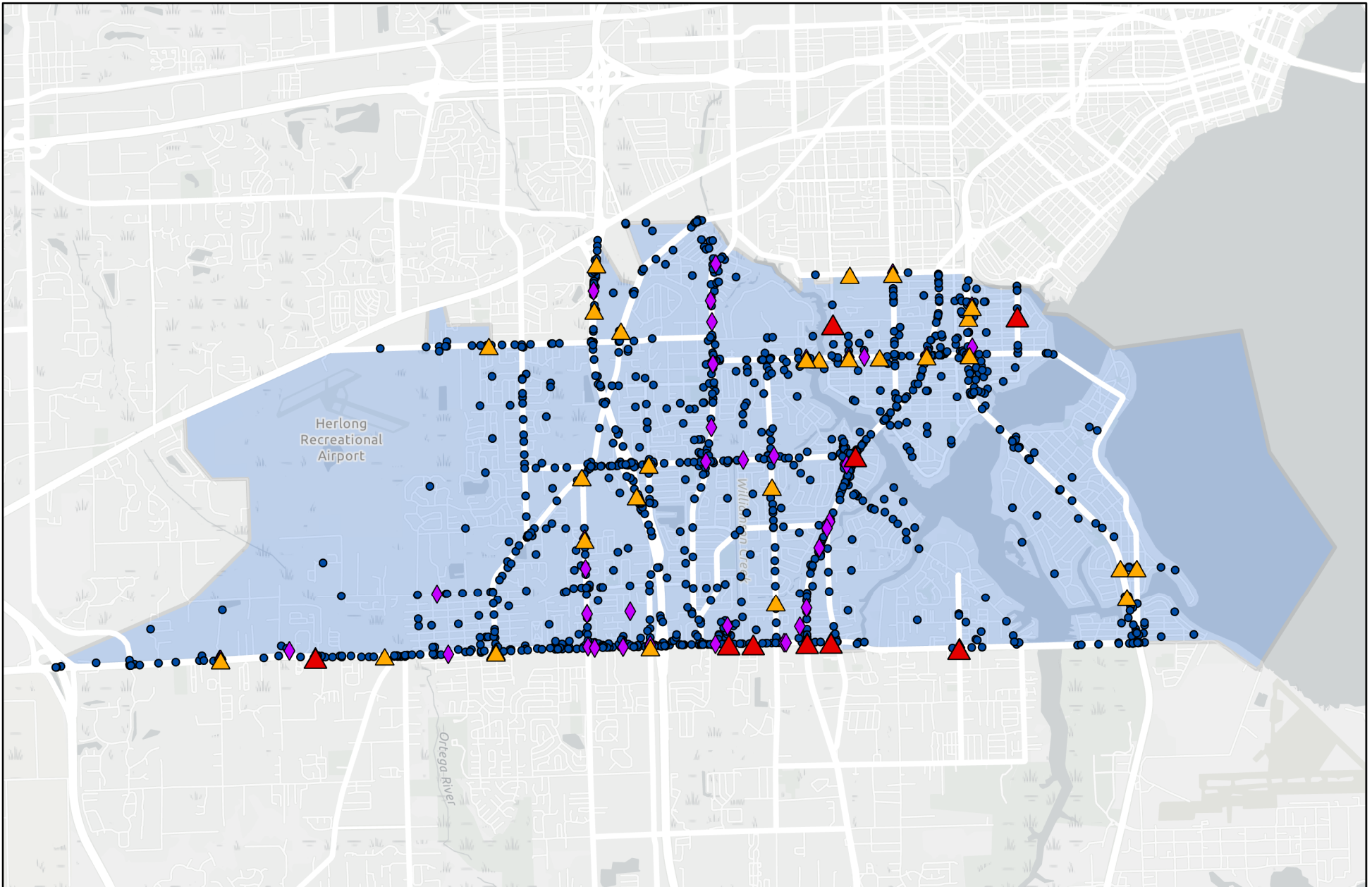
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**Kimley»Horn**

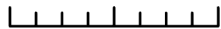
**32209  
 2021 Crashes**

**Legend**

- ▲ Fatalities
- ▲ Serious Injuries
- ◆ Bike/Ped
- 2021 Crashes 32209



0 0.3 0.6 1.2 Miles

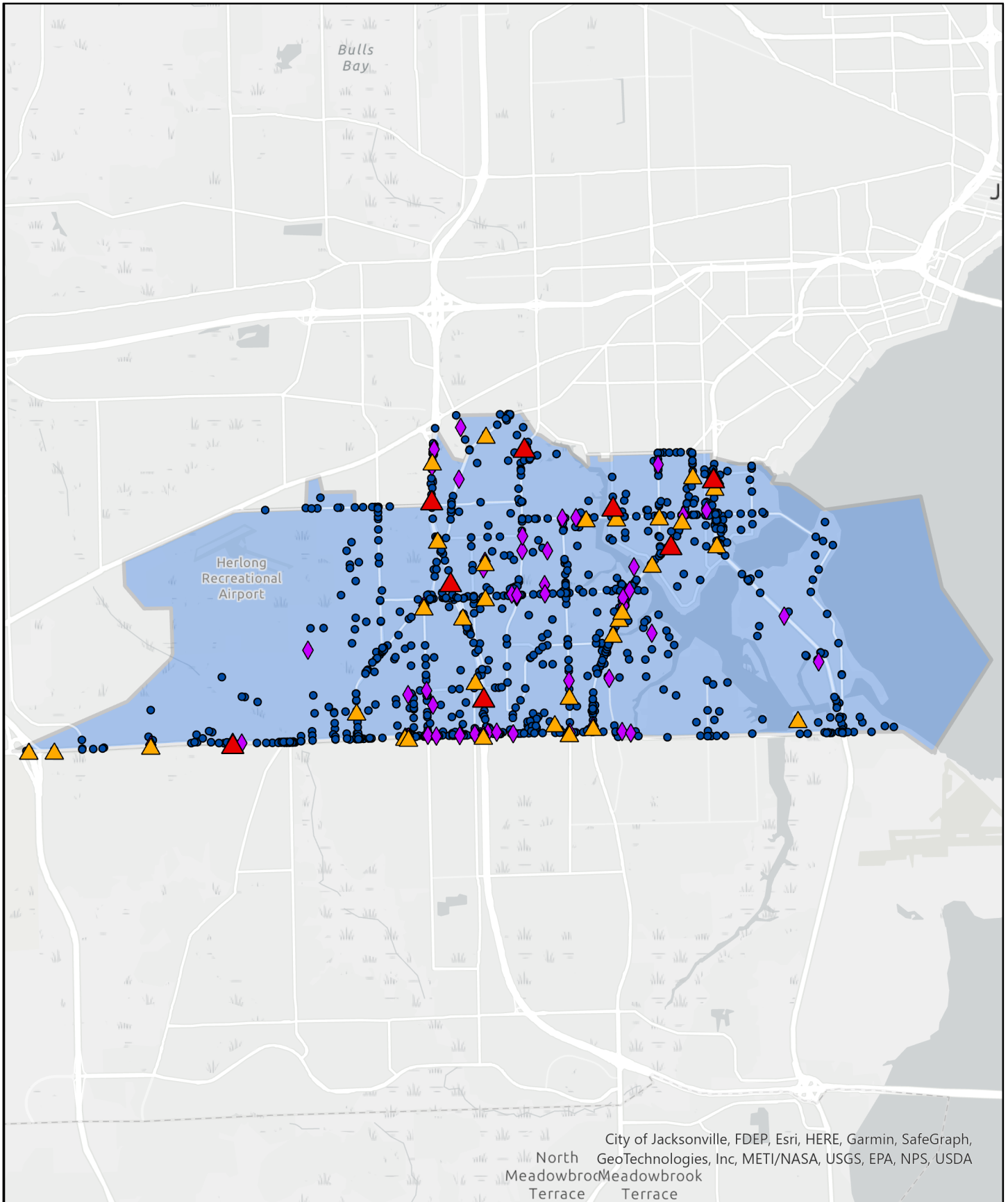


**Kimley»Horn**

**32210  
2018**

**Legend**

-  2018 Fatalities
-  2018 Serious Injuries
-  2018 Bike/Ped
-  2018 Crashes



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

N  
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Miles

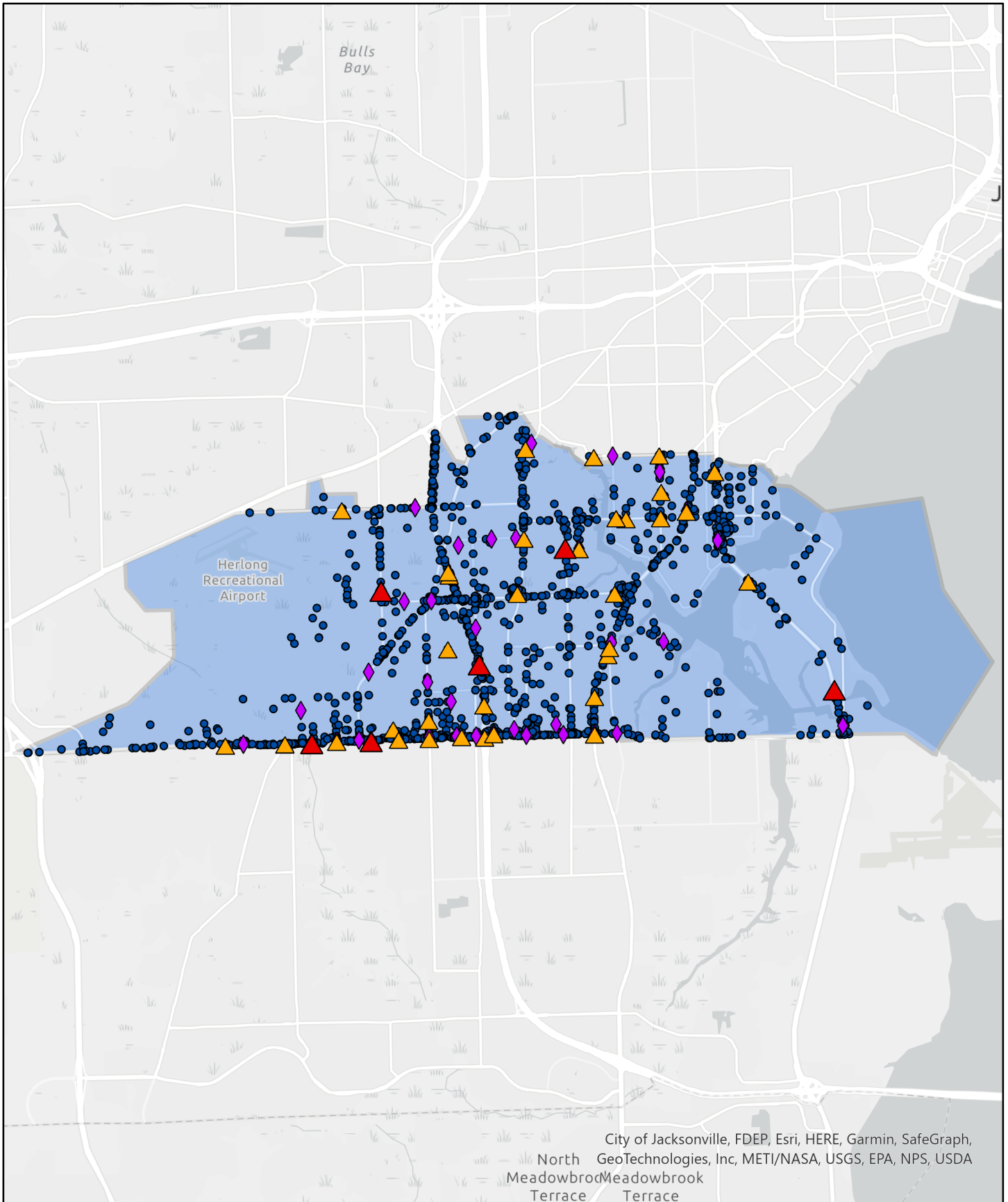
**Kimley >>> Horn**

**32210  
2019 Crashes**

**Legend**

- Fatalities
- Serious Injuries
- Bike/Ped
- 32210 Crashes 2019





N

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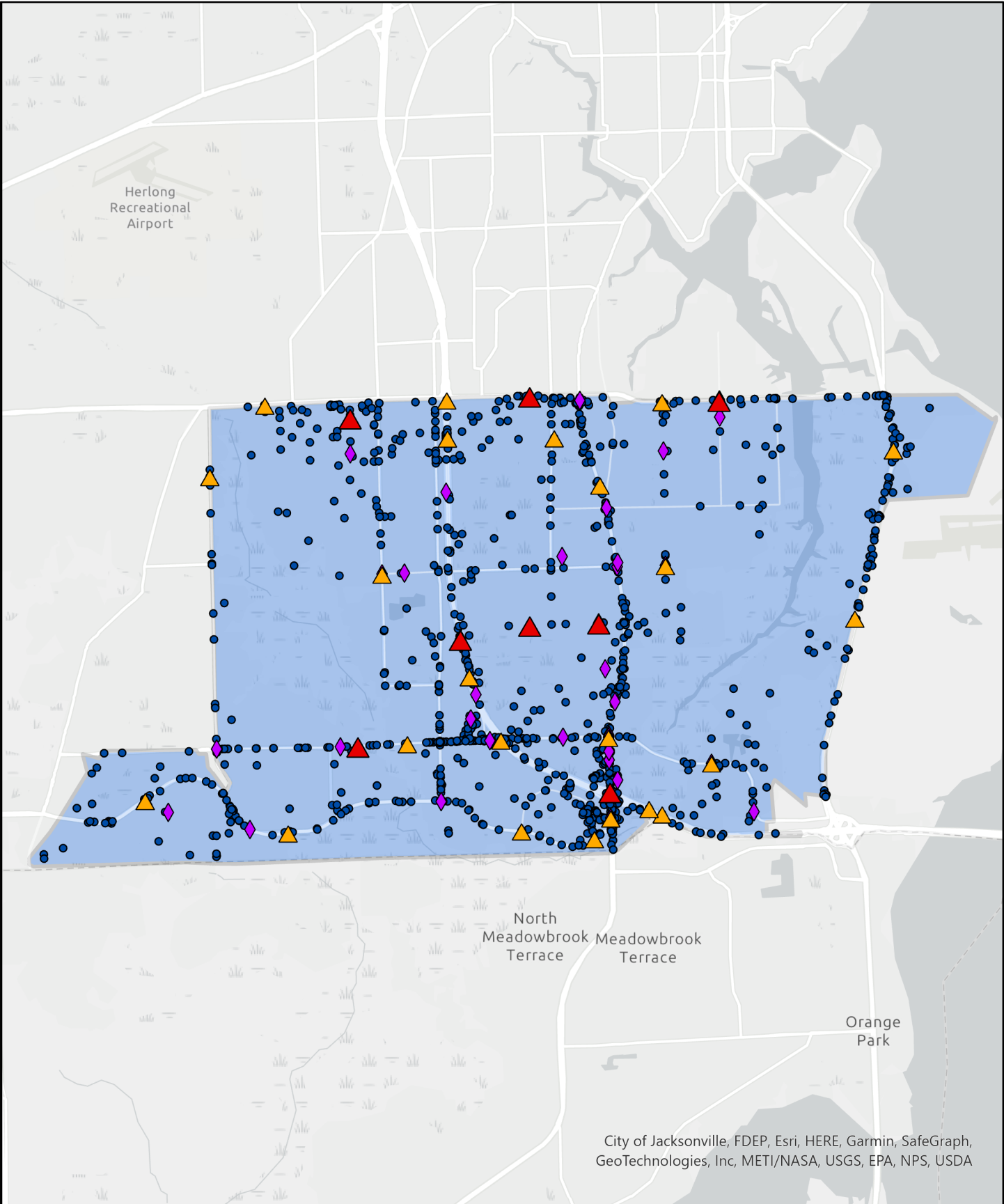
Miles

**Kimley»Horn**

**32210  
2021 Crashes**

**Legend**

- ▲ Fatalities
- ▲ Serious Injuries
- ◆ Bike/Ped
- 32210 Crashes 2021



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



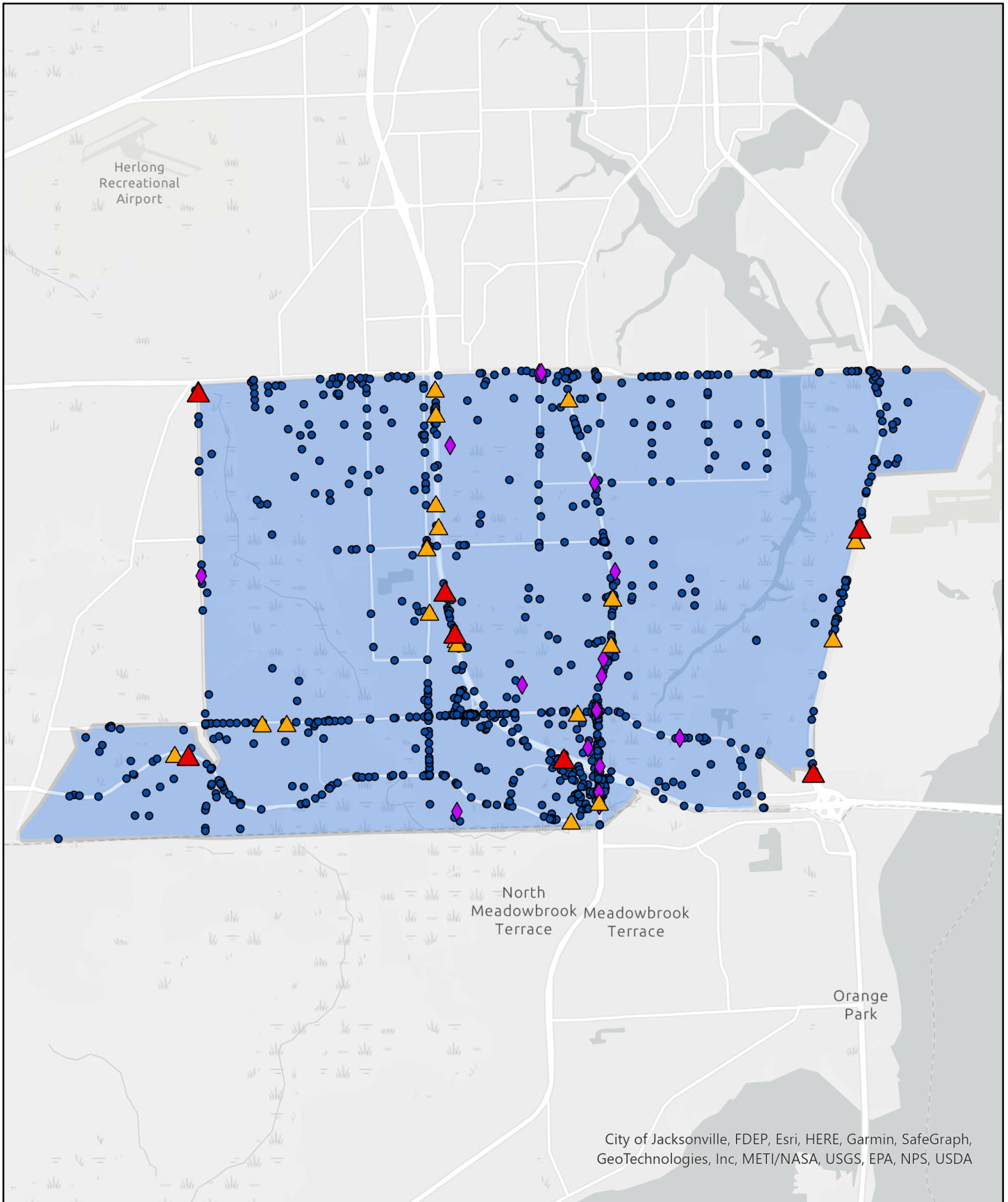
0 0.130.25 0.5  
Miles

**Kimley»Horn**

**32244  
2018 Crashes**

**Legend**

- ▲ Fatalities
- ▲ Serious Injuries
- ◆ Bike/Ped
- 32244 Crashes 2018



City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

N  
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Miles

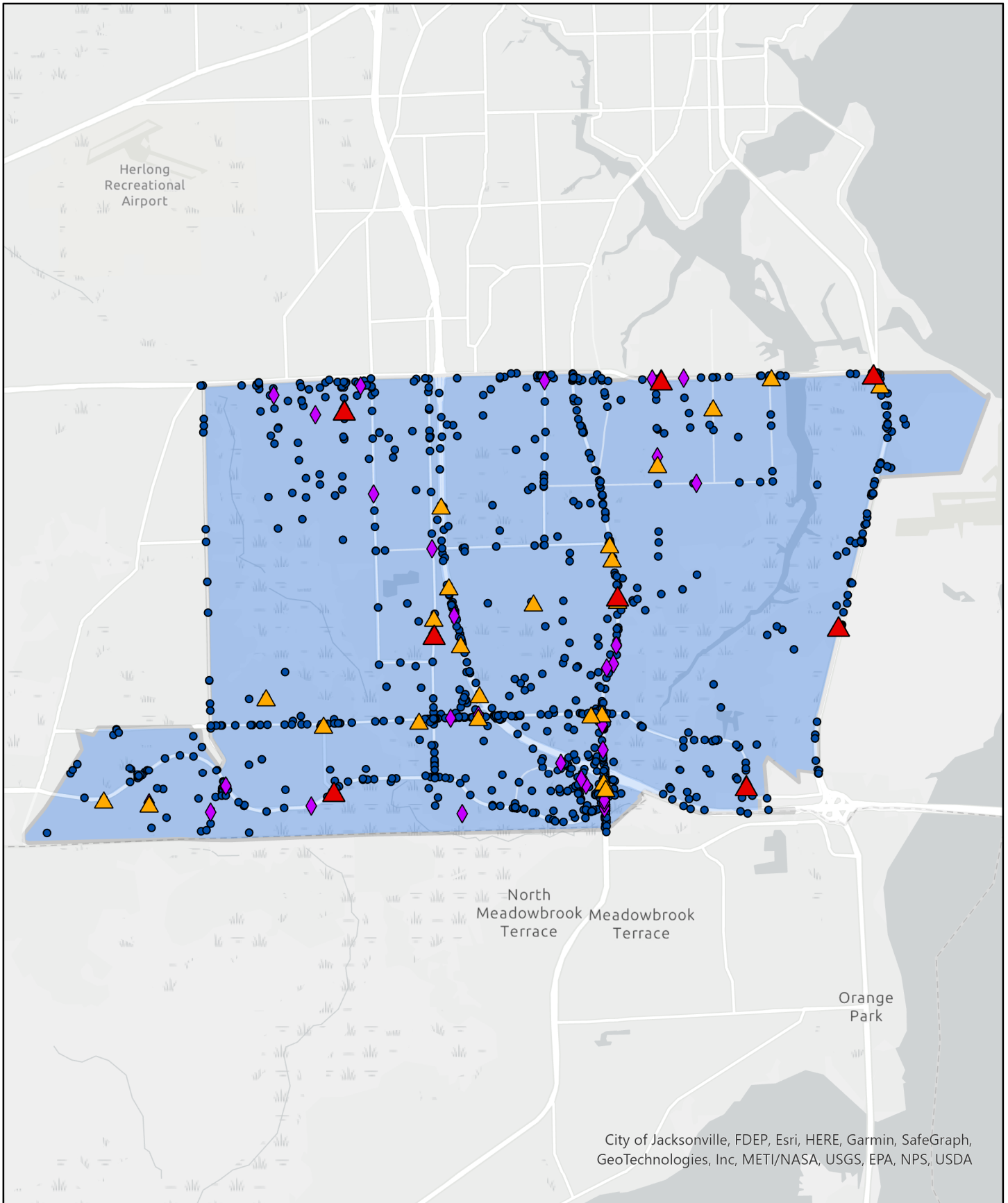
**Kimley»Horn**

**32244**  
**2019 Crashes**

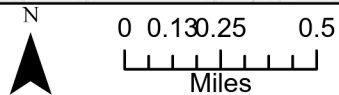
**Legend**

- ▲ Fatalities
- ▲ Serious Injuries
- ◆ Bike/Ped
- 32244 Crashes 2019









City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



**Kimley»Horn**

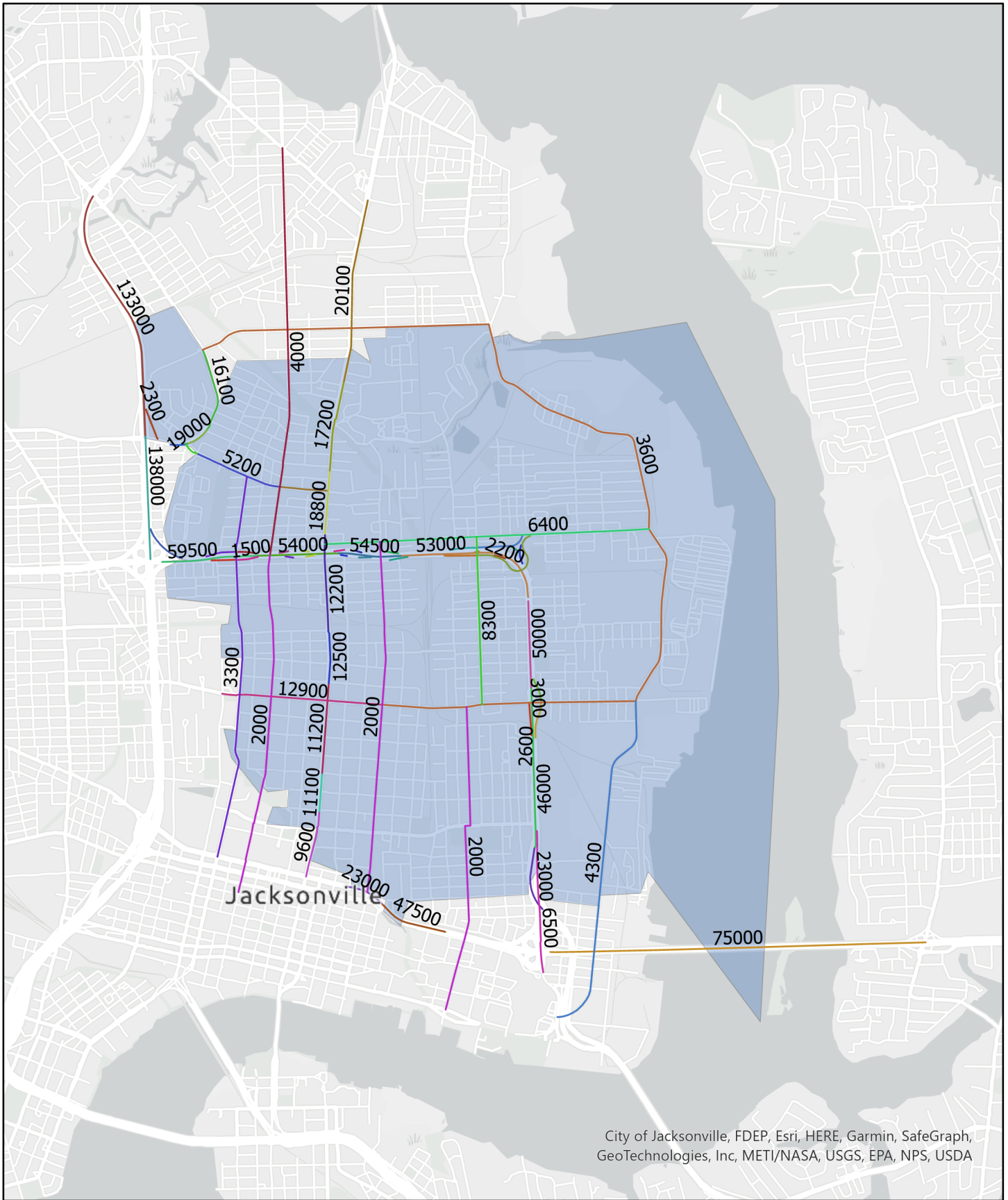
**32244  
2020 Crashes**

**Legend**

-  Fatalities
-  Serious Injuries
-  Bike/Ped
-  32244 Crashes 2020

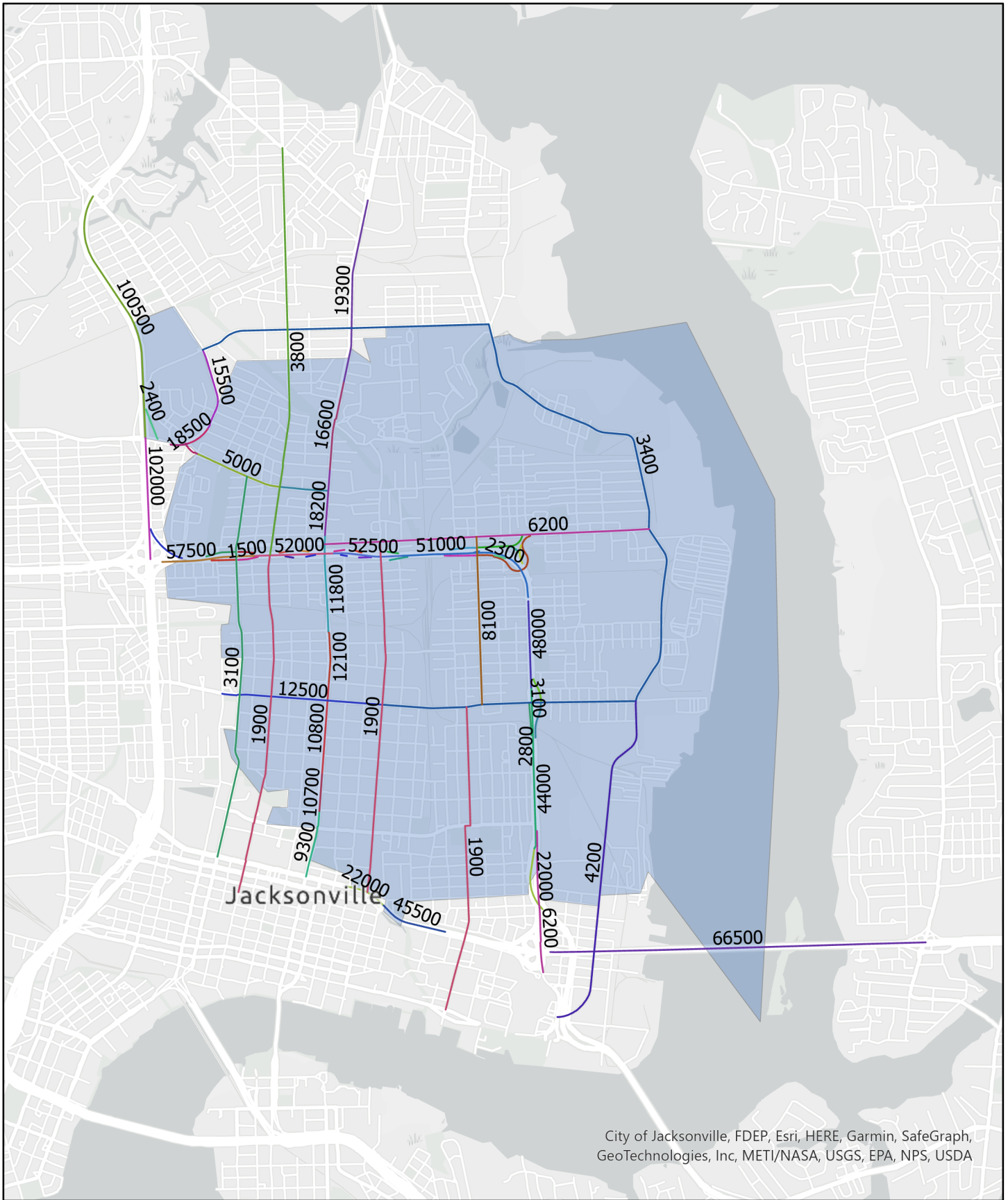
# **Appendix B. AADT Maps**





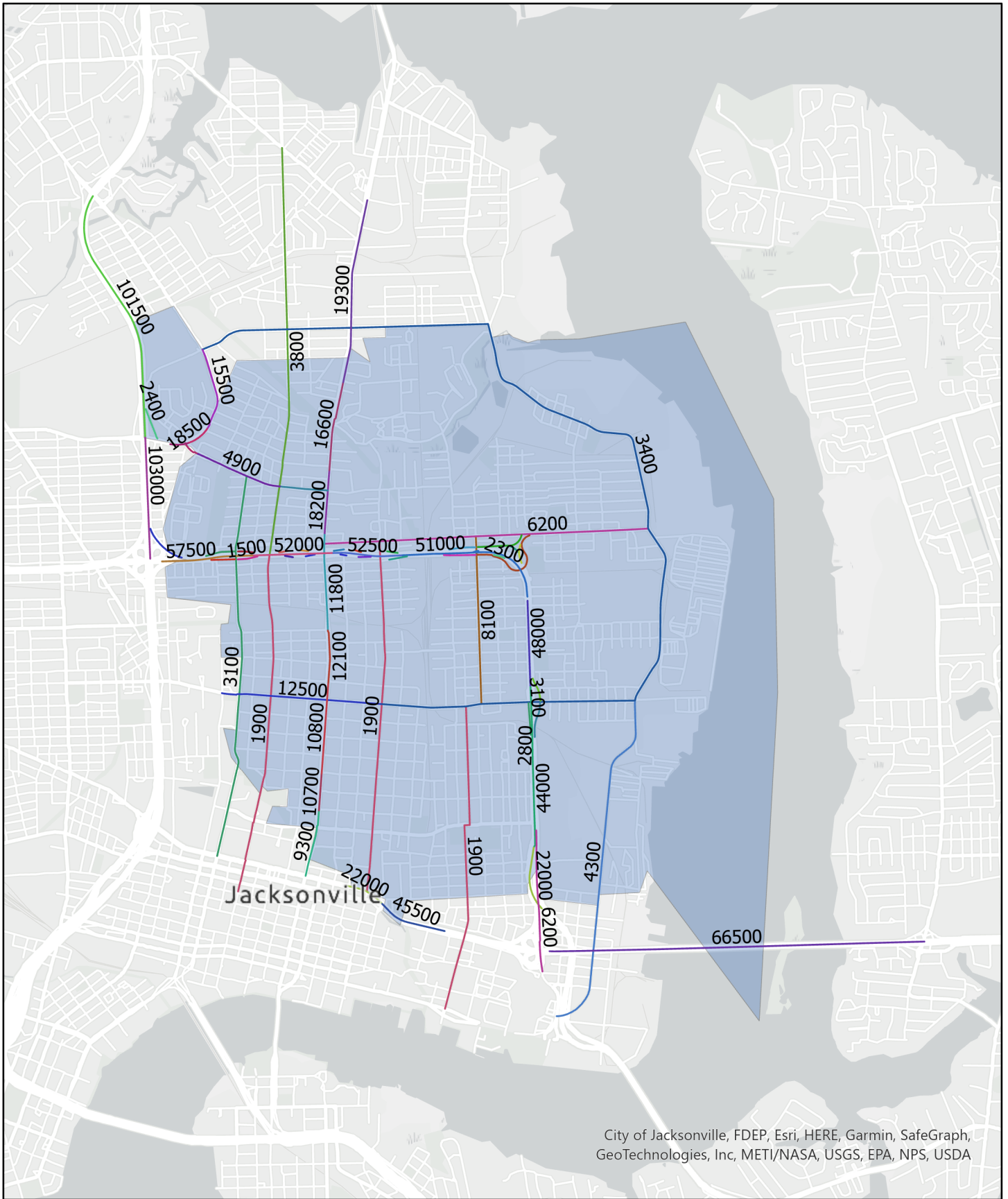
City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA





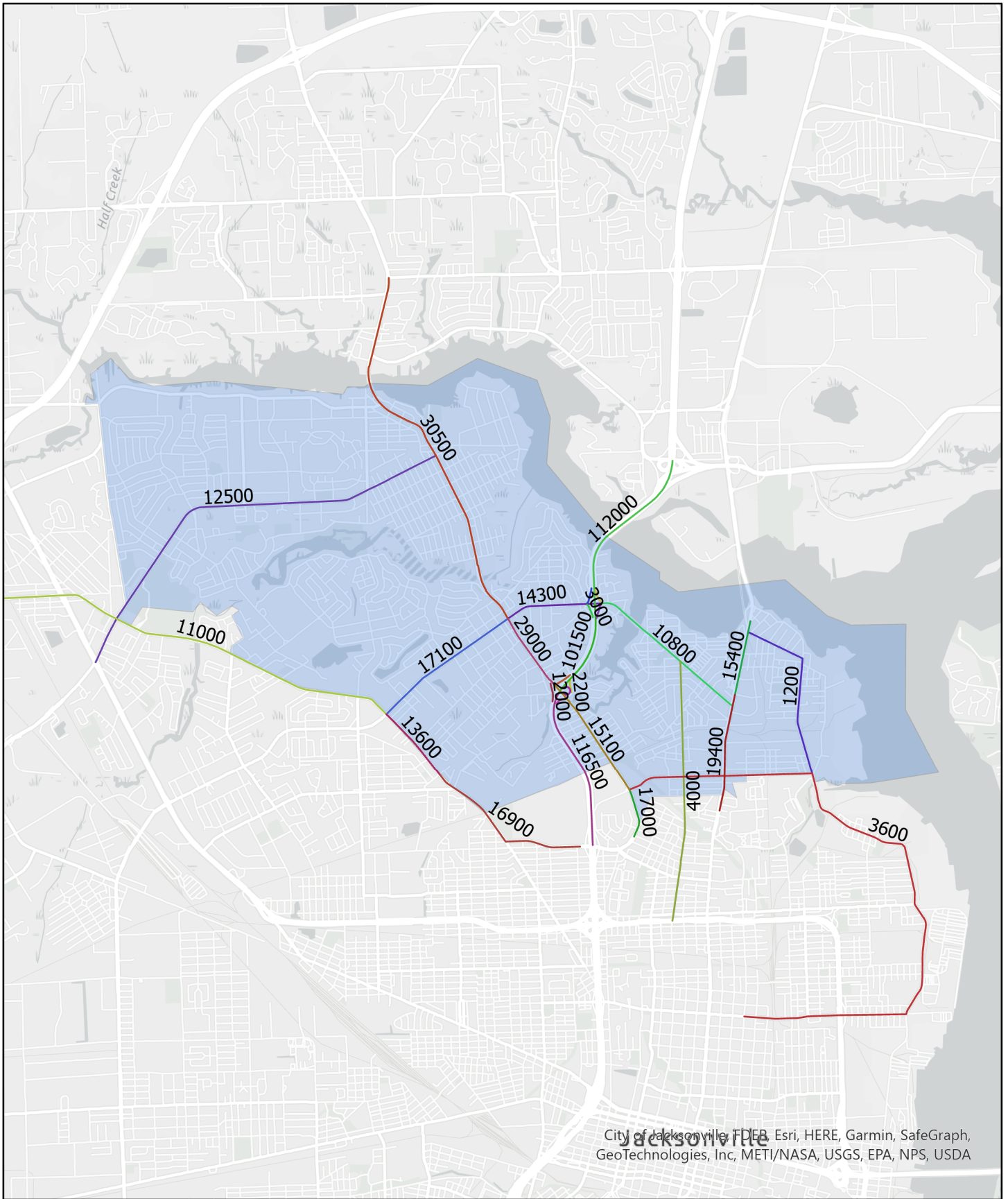
City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



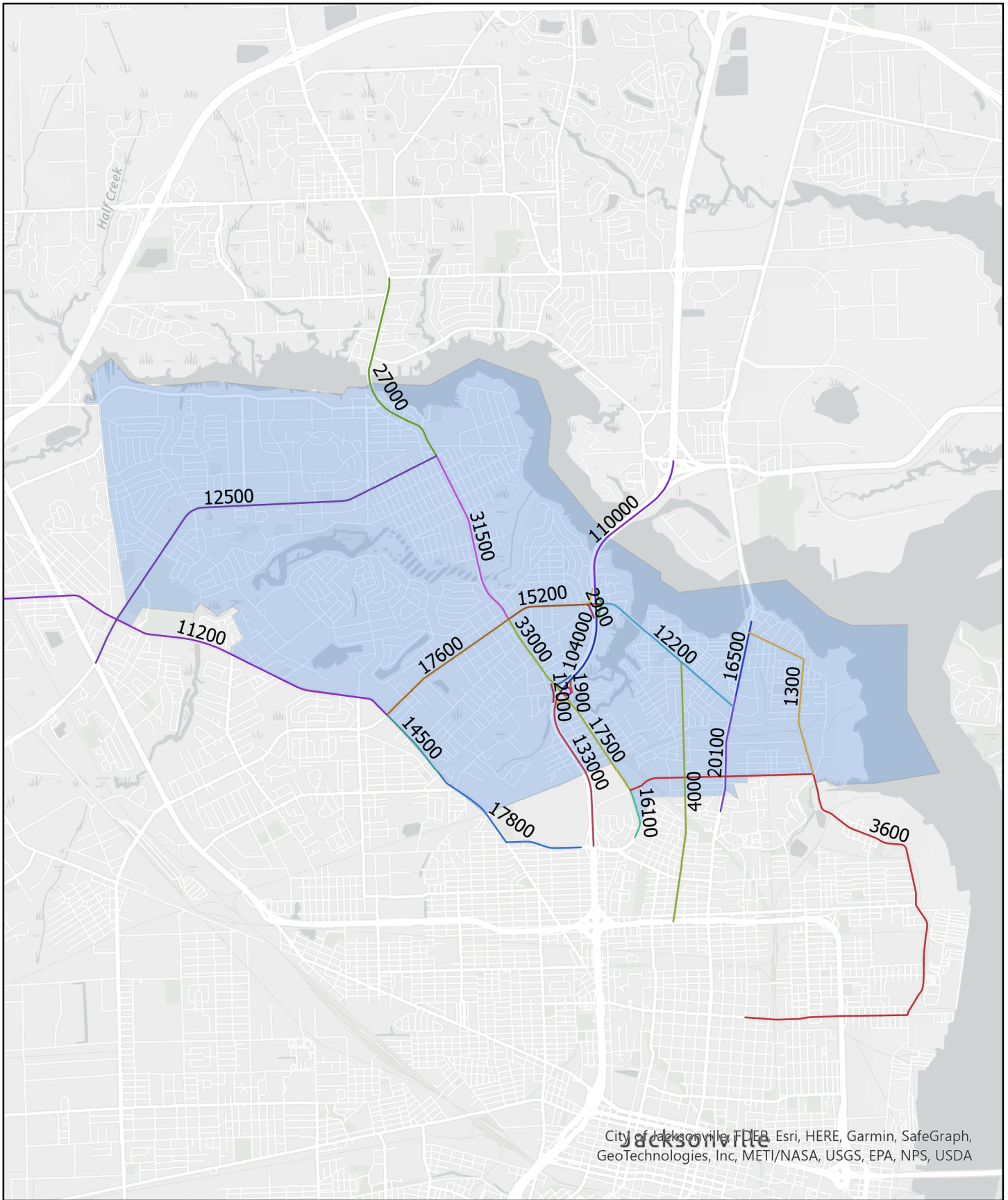


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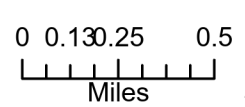




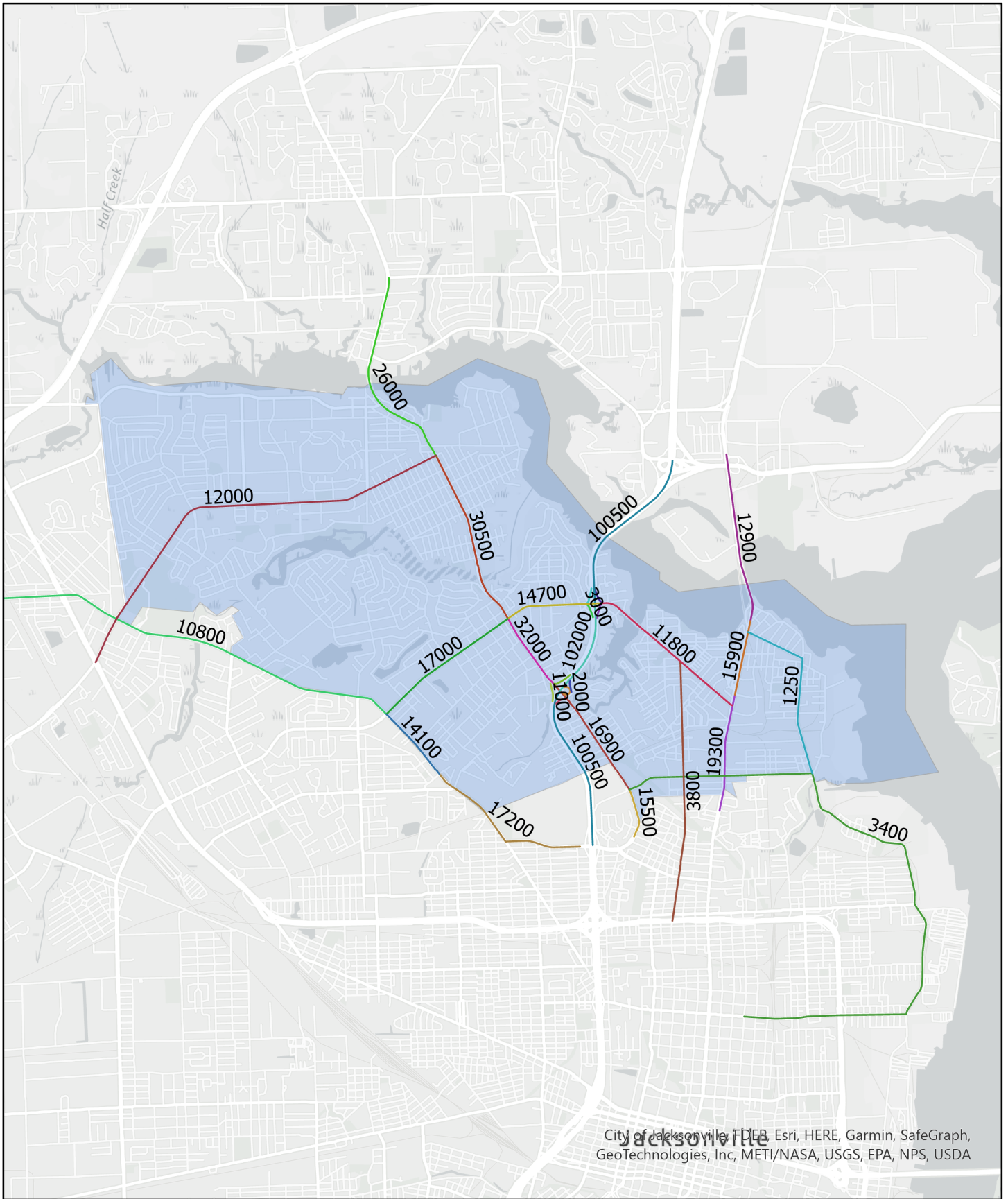
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Kimley»Horn

32208  
2019 AADT



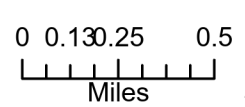


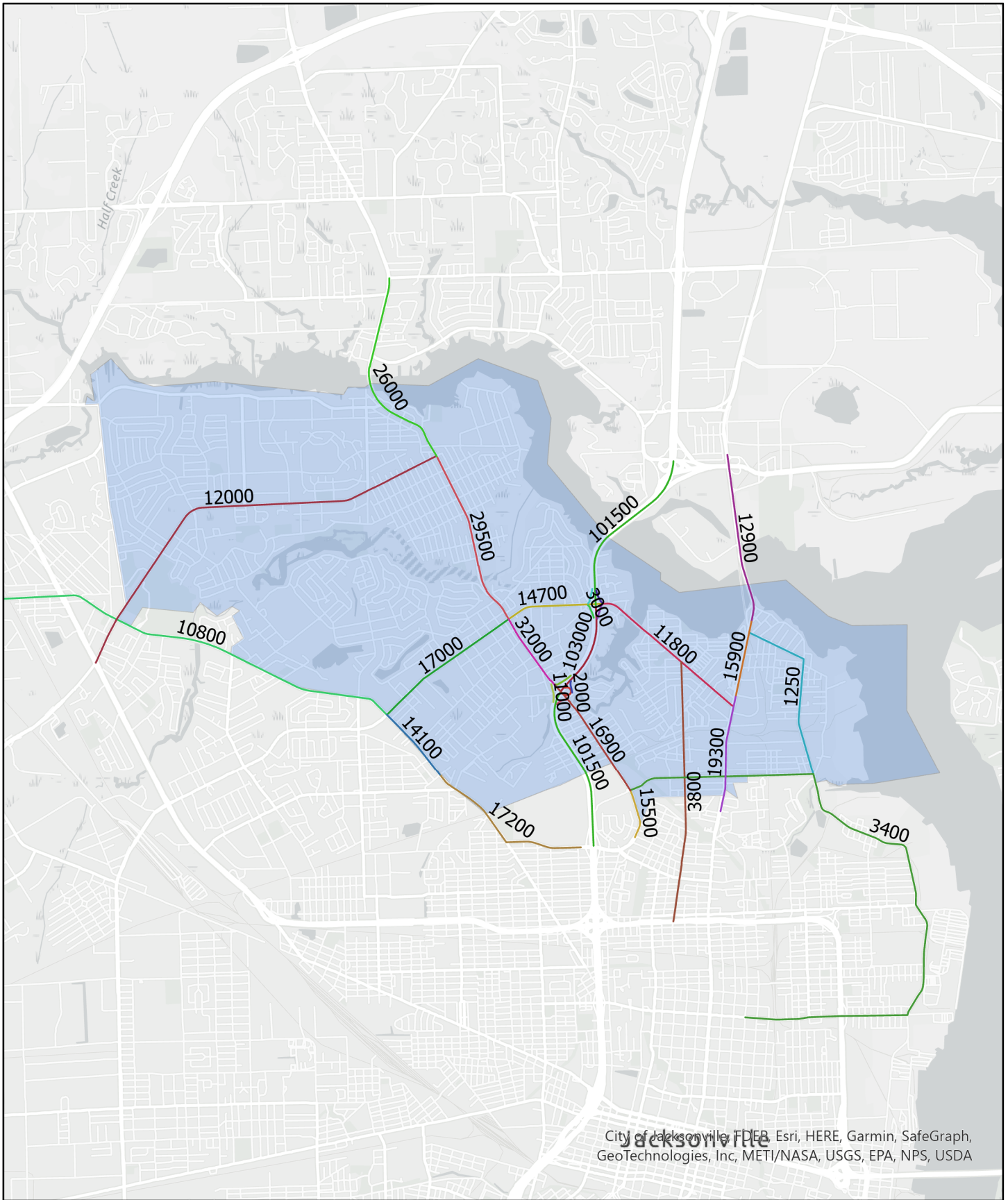


City of Jacksonville, FDEB, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

**Kimley»Horn**

**32208  
2020 AADT**

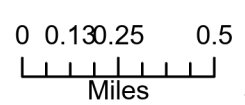




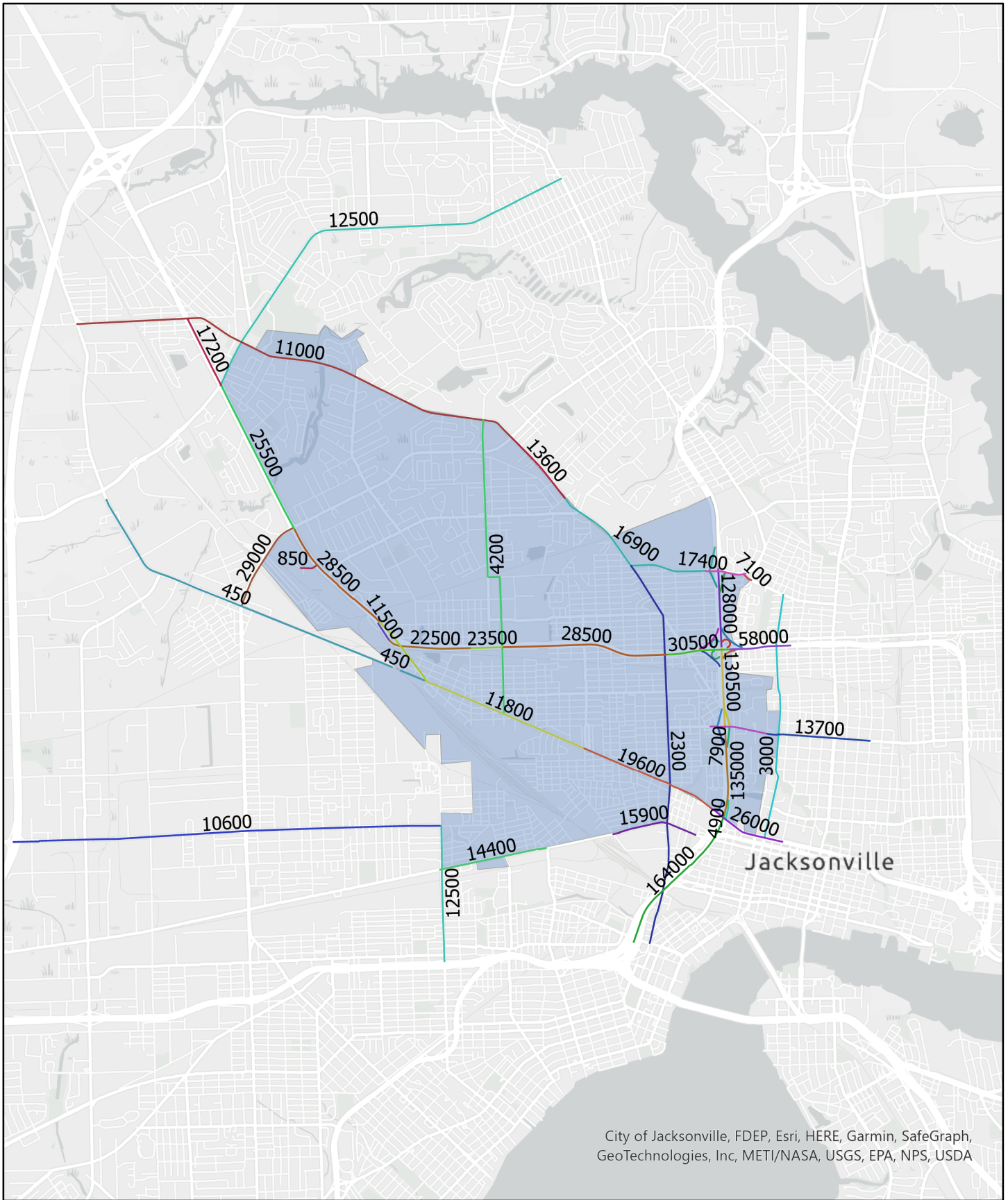
City of Jacksonville, FDEB, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA

**Kimley»Horn**

**32208  
2021 AADT**

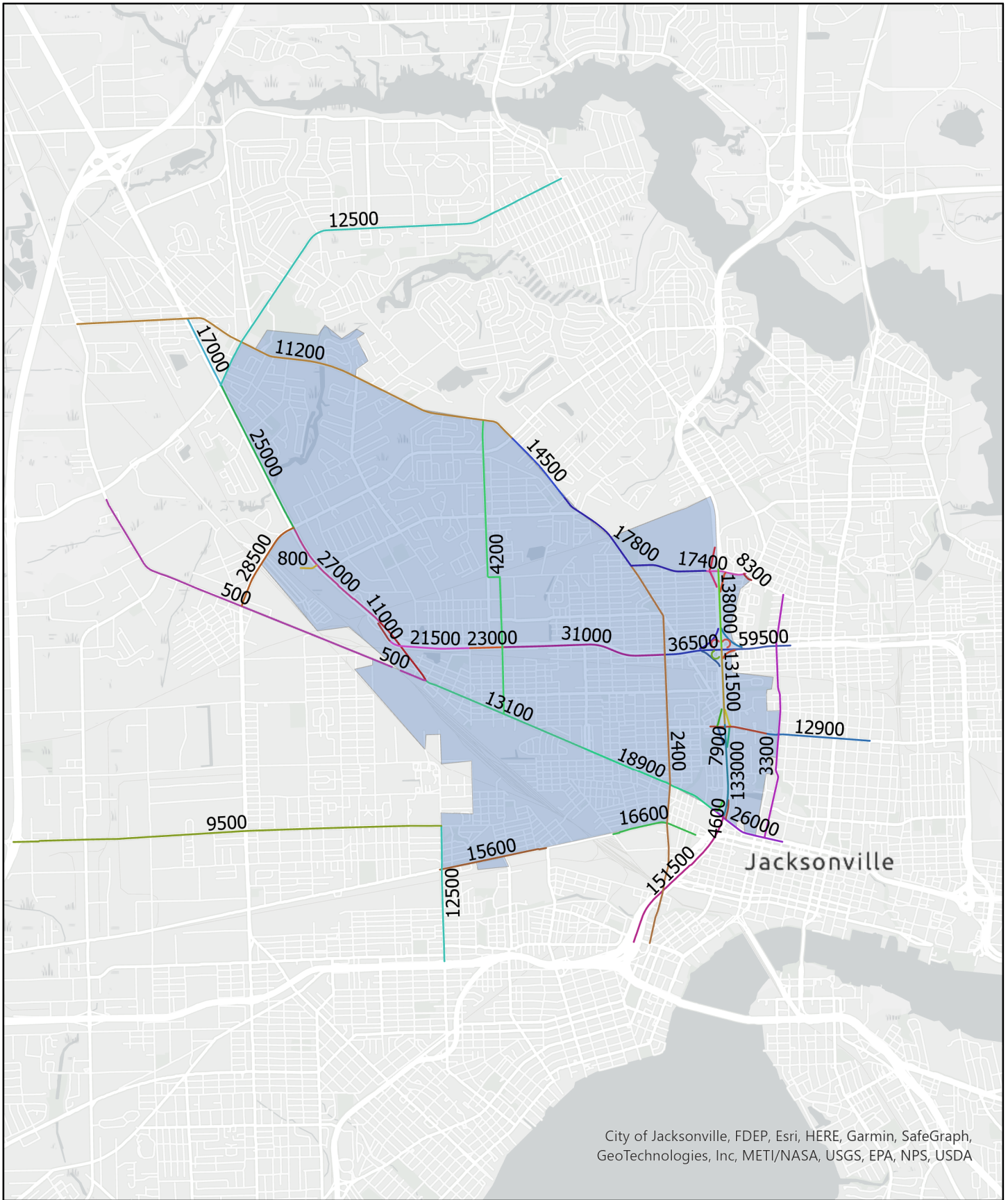






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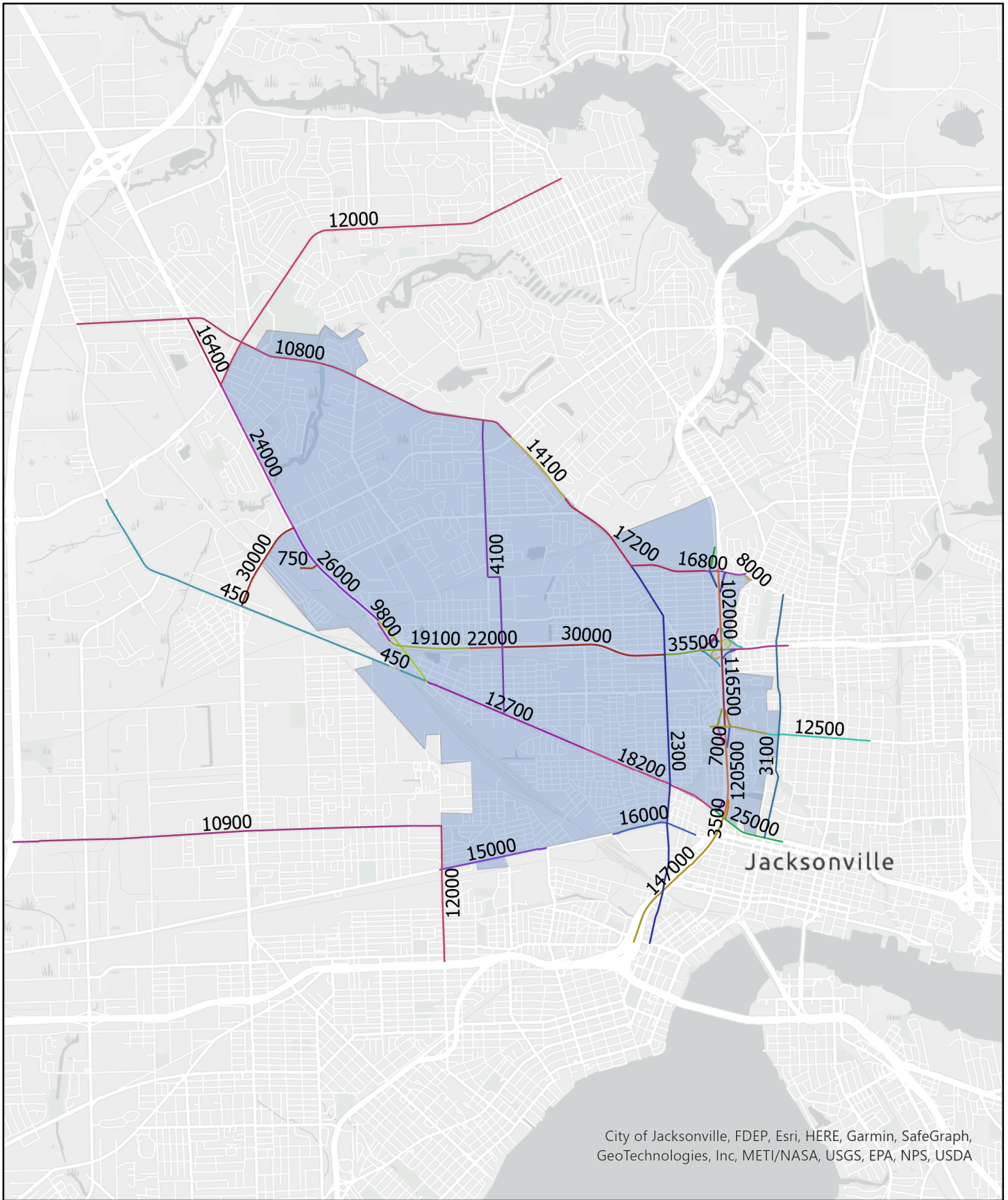




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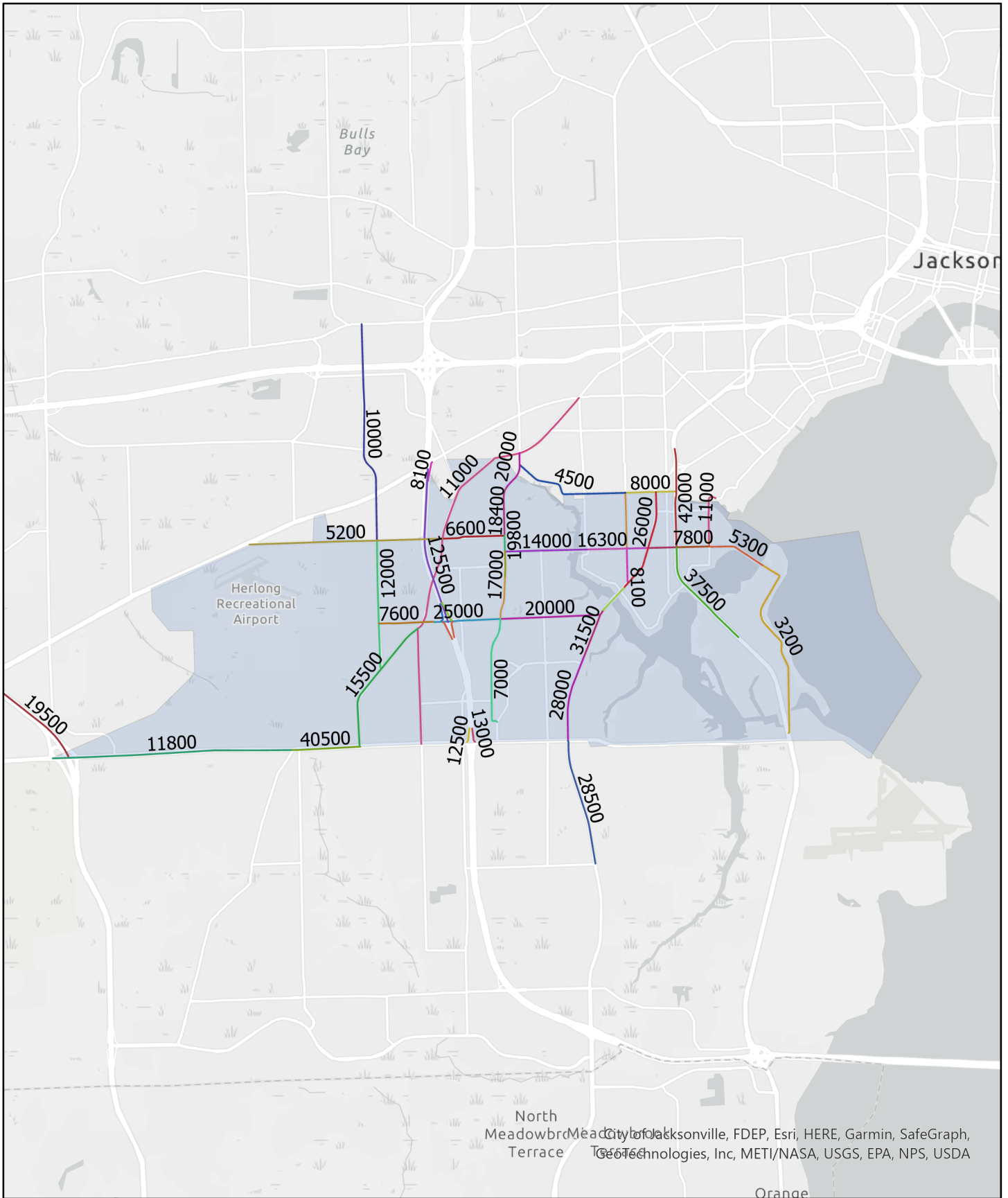


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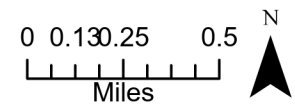








North  
Meadowbrook  
Terrace  
City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph,  
Geotechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA



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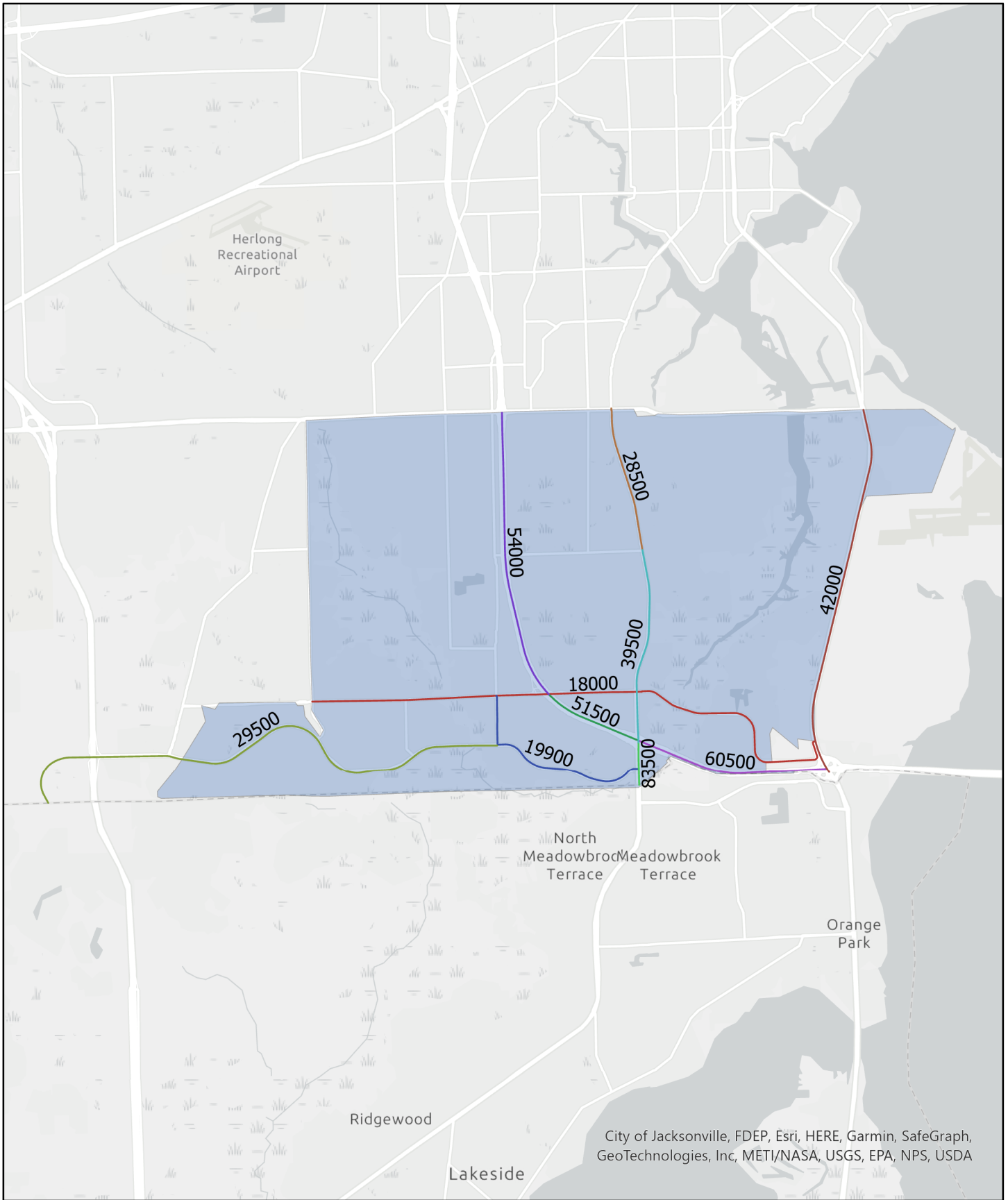
32210  
2018 AADT





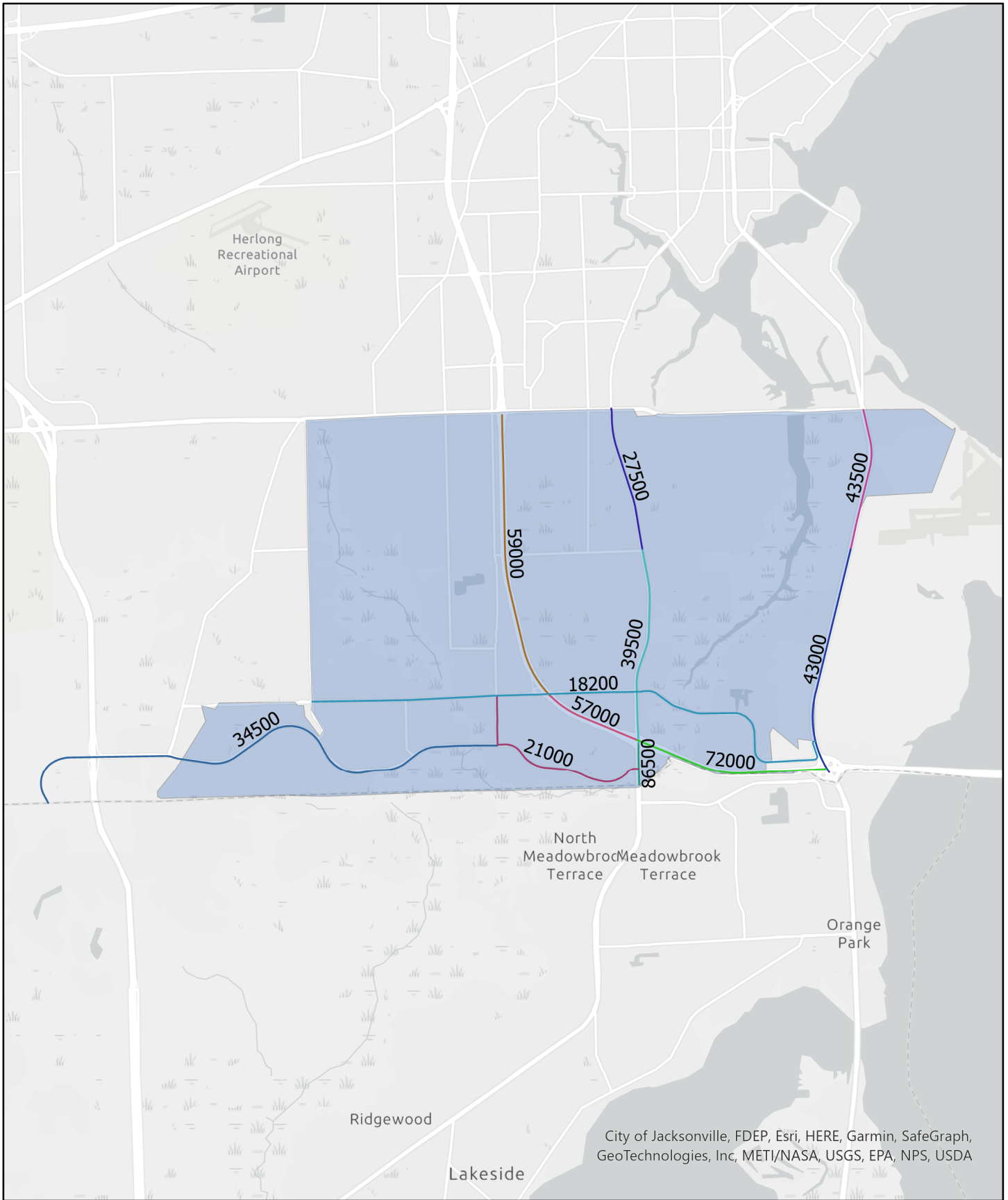


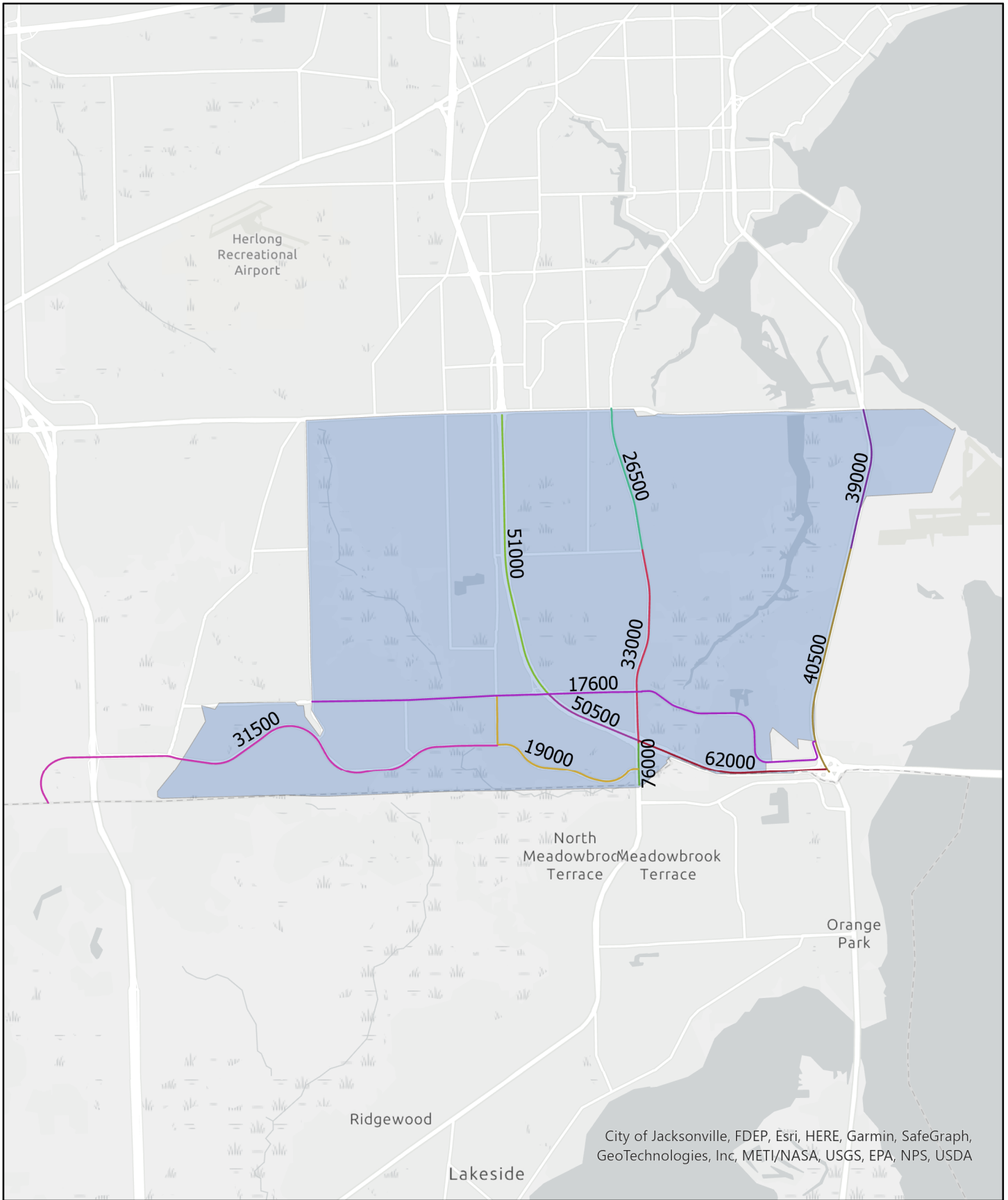




City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA







City of Jacksonville, FDEP, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA





