JOINT FLORIDA
Model Task Force & Transportation
Data and Analytics Workshop

FTO FORECASTING & TRENDS OFFICE

FDOT TDA TRANSPORTATION DATA & ANALYTICS

Statewide Non-Motorized Traffic Monitoring Program

Site Selection Process

Agenda

- Site Selection Process
  - Proposed NMTM Locations
  - Evaluated NMTM Locations
  - Short-term NMTM Count Deployments
  - Continuous NMTM Counts Station Installations
- Questions

Proposed NMTM Count Sites

Survey blurb

Bicycle & Pedestrian Data Collection Survey

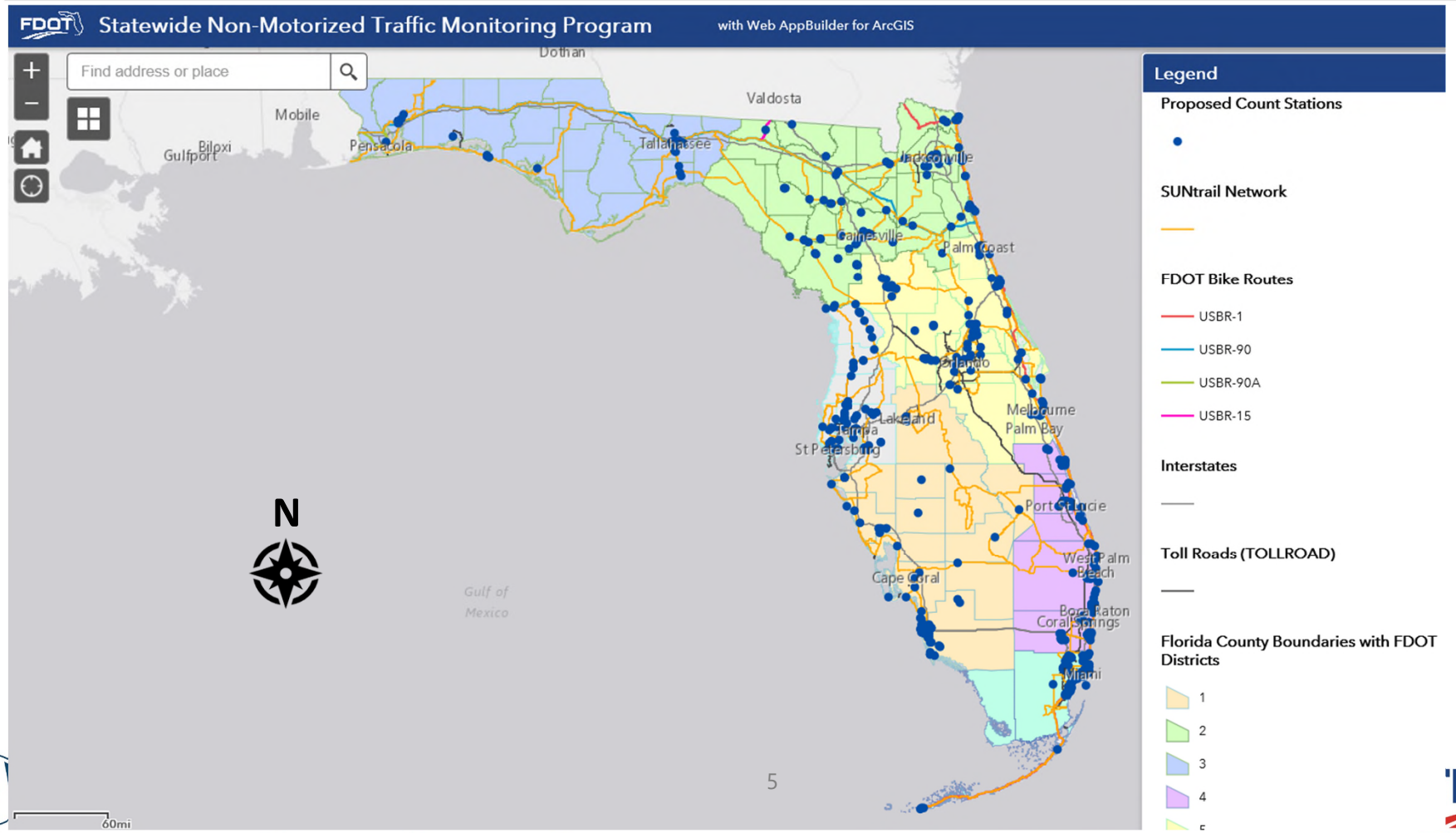
The Florida Department of Transportation (FDOT) is implementing a non-motorized statewide traffic count program. The first step is to conduct a stakeholder survey which includes a review of current bicycle and pedestrian count activities and recommended future locations. Understanding the baseline equipment and methods for existing bicycle and pedestrian counts occurring in the state of Florida will assist FDOT in creating a statewide database/repository of non-motorized traffic data.

The FDOT Transportation Data and Analytics Office (TDA) is coordinating this effort in partnership with City, County, MPO, District and State representatives to help in gathering, sharing, and supporting the non-motorized data collection efforts. This is a great opportunity to participate in the department's effort to establish standardized data collection practices, statewide training, and to foster state and local data collection partnerships.

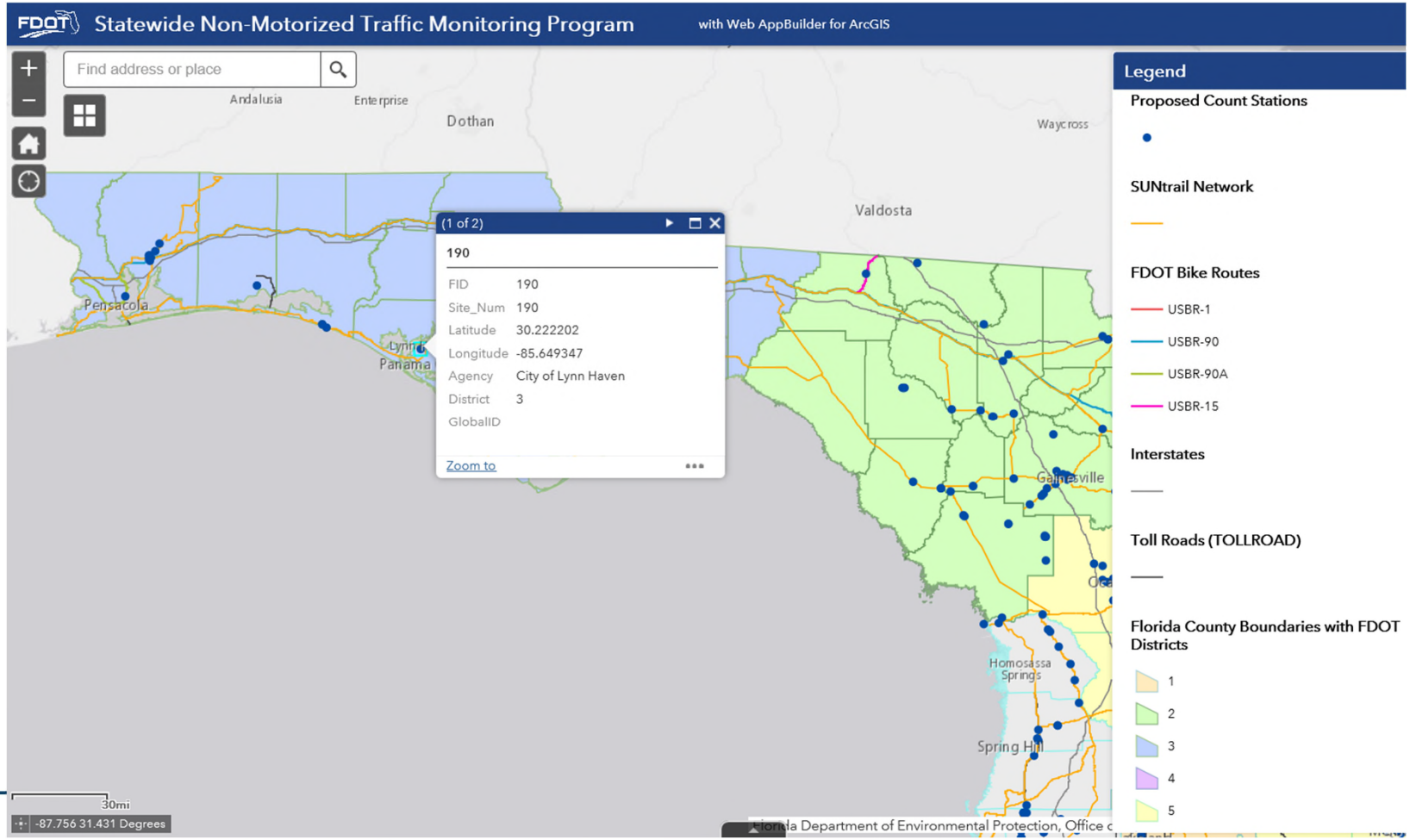
https://www.surveymonkey.com/r/FDOTBikePedDataCollectionSurvey

Please respond to this survey by June 21, 2018. Survey results and program updates will be provided to all respondents. Your participation and responses are extremely valuable to develop this program. Please feel free to share this survey with others. The survey is estimated to take 15 – 20 minutes to complete.

Survey Results



Survey Results



Takeaways

- Proposing a site is the first step in establishing a non-motorized count
- The Survey remains open on the NMTM Webpage, please encourage your local constituents to fill it out.
- You can develop a similar effort at a District scale
- Incorporate all your local agencies, advocacy groups, public health organizations, etc.

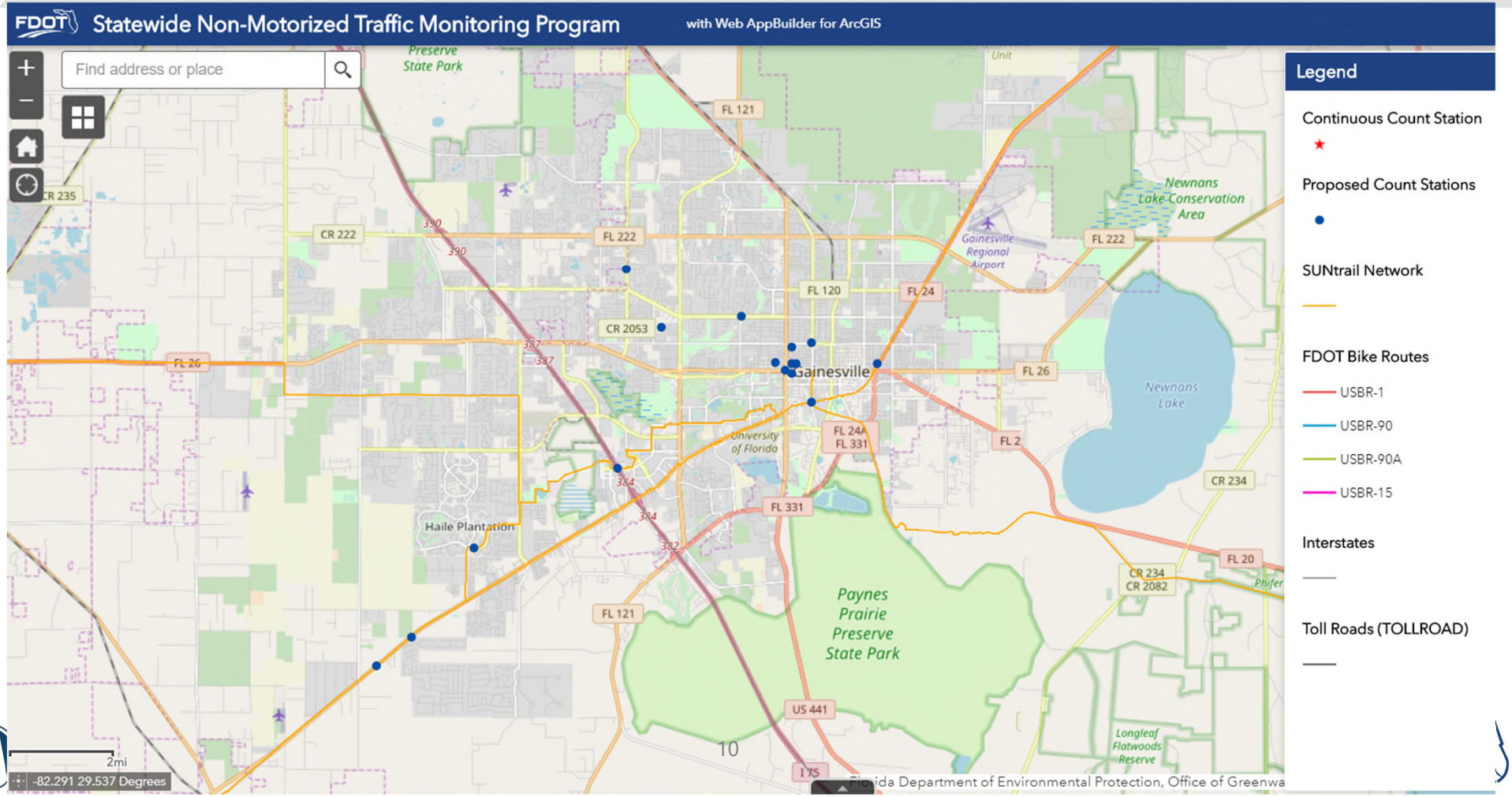
Evaluated Count Sites

2 – Step process

1. **Virtual Site Visit**
   a) Before you spend resources going into the field, there is plenty you can do from your desk using Google Maps, Earth, and Street View

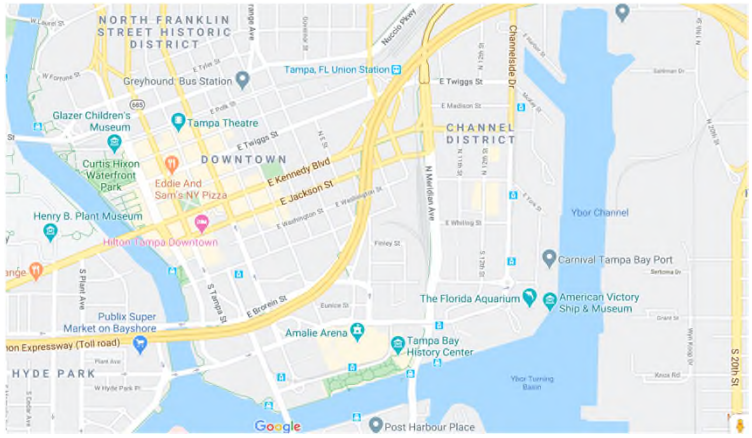
2. **On-site Evaluations**

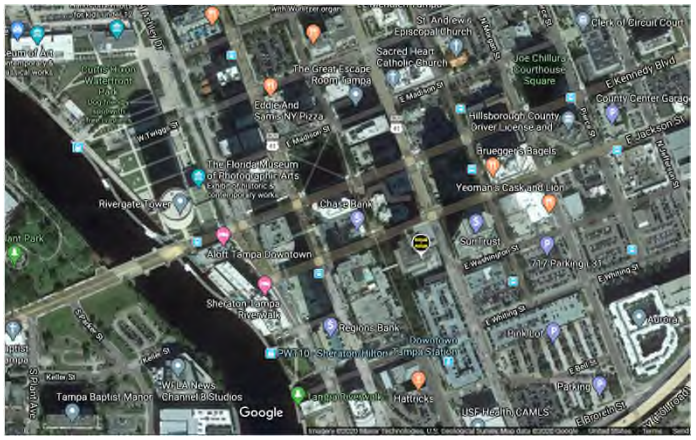
Virtual Site Visits



Virtual Site Visits

Take note of land use and local connectivity





Take a close look at corridor and its context classification

Take note of roadway characteristics and facility

Look for any infrastructure constraints

On-site Evaluations

On-site Evaluations

Take measurements

Document land use and facility characteristics

Learn details about future plans for the facility / corridor

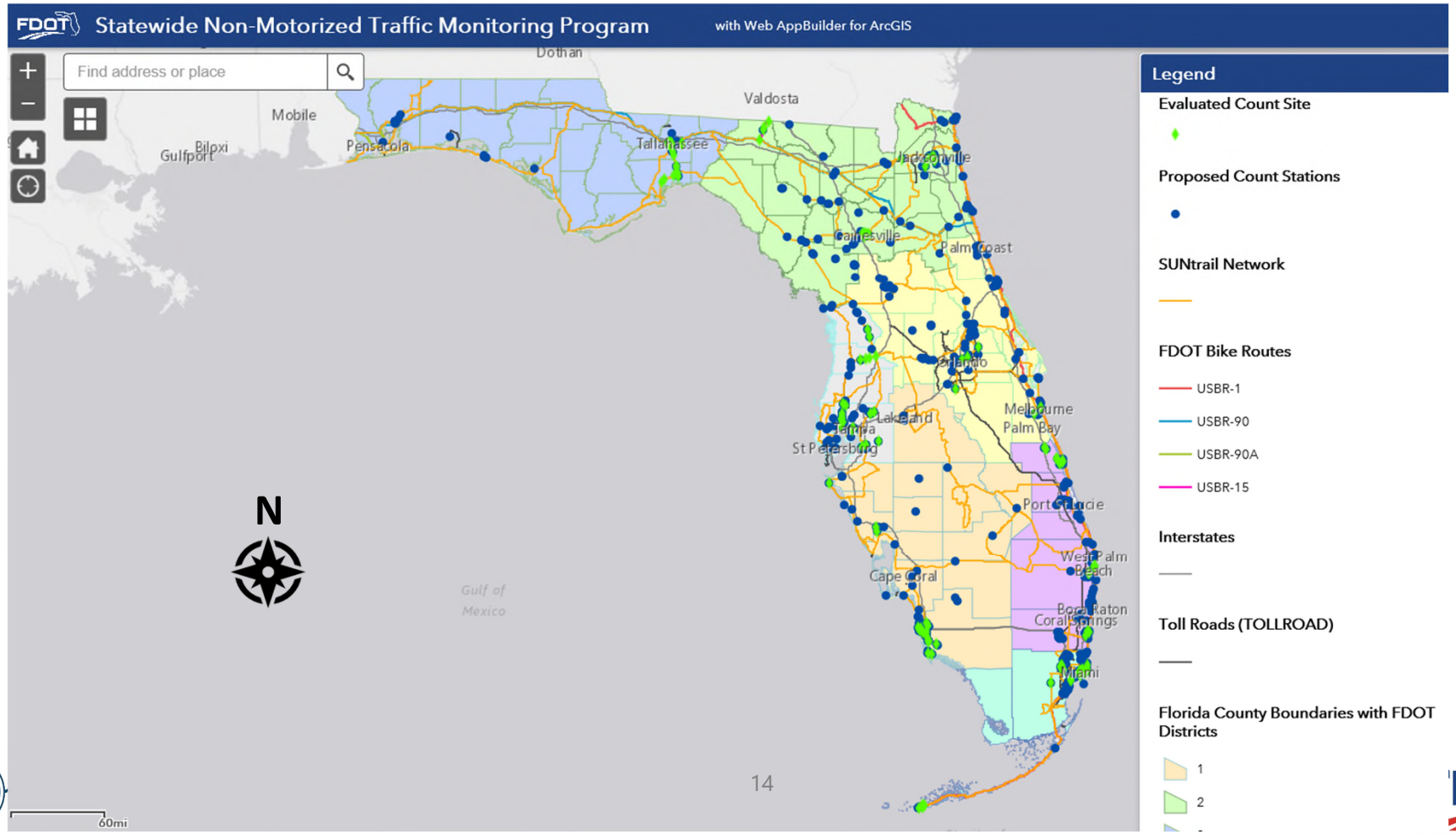
Document behaviors

Look for how weather effects infrastructure

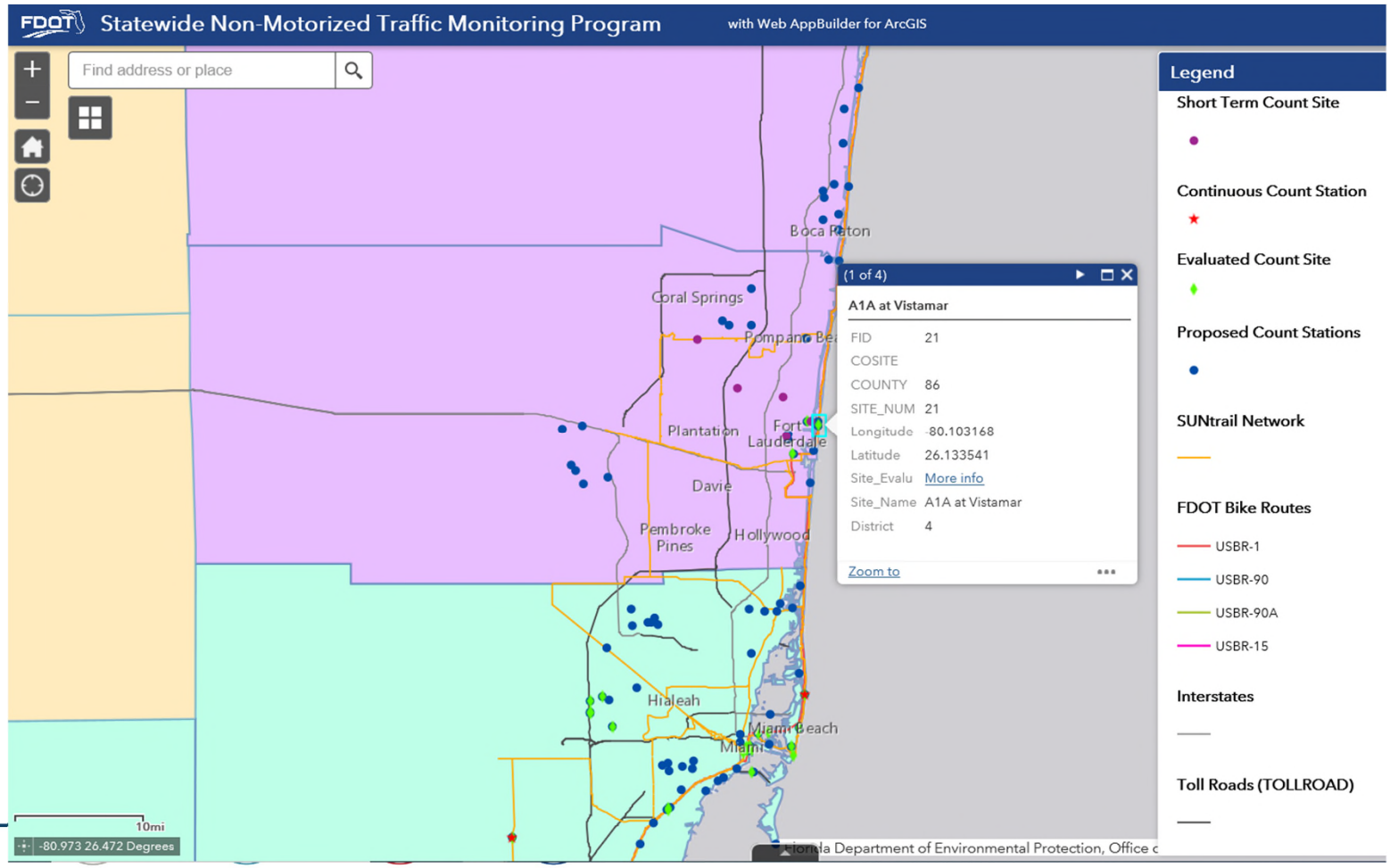
Let the local experts share the nuances about the site.

Build partnership with local agency.

Evaluated Sites



Evaluated Sites



On-Site Visit Form

SITE NAME:	Stadium Trail		**DATE OF SITE VISIT:**	**1/12/2020**	
LOCATION:	Tallahassee		**WEATHER CONDITIONS:**	**cold/windy/clear**	
FACTOR GROUP:	Urban University Mixed		**PICTURES TAKEN:**	**Yes**	
GPS:	30.440075, -84.306400		**CITY AND DOT DISTRICT:**	**FSU/Tallahassee/D3**	
LANE WIDTH:		**# of LANES**	**COUNT TYPE:**	Short Term	
SIDEWALK WIDTH:		**# of SIDEWALKS**	**SITE RANKING:**		**RANKING NOTE:**

NOTES: ON-SITE VISIT # 136

1 - ON-SITE CHARACTERISTICS

Step 1 - Evaluate On-Site Characteristics. Below are some guidelines and things to look for when choosing sites for continuous counting purposes. Check the boxes as applicable below.

1. Avoid power lines	☑ Good Mid-Block Location ☐ Curves ☑ Special Events Nearby
2.Avoid water bodies	☑ Powerlines ☐ Hills
3. Avoid installation of counters that point towards traffic (Infrared counters)	☐ Water Bodies ☑ Choke Points ☑ School or University Nearby ☑ Motorized Traffic Present ☐ People Hanging Around Area (milling around) ☐ Parks and/or Recreation Facility Nearby
4. Avoid areas where people stop and mill around an area	NOTES: Slight hill
5. Avoid curves	
6. Avoid hills	
7. Select locations with pinch points that allows a counter to capture all travelers	
8.Avoid counting at the intersection, preferred counting locations are mid-block	

2 -SITE SPECIFIC OBSERVATIONS and BEHAVIORS

Step 2 -- Determine Baseline Activity Levels and Evaluate Site Specific Observations and Behaviors. When on-site, evaluate conditions and baseline activity levels using the checklist below. If the site has no bicycle and/or pedestrian activity during the site visit and there is no evidence to substantiate activity may occur at other time periods at the site, note that further investigation would be needed before investing in CCS equipment. Activity and behavioral observations on-site can influence and potentially increase the site's ranking such as a diversity of users from differing perceived socioeconomic status to a diversity of bicyclist types (commuter, recreational, mixed).

1. Determine Baseline Activity Levels and Behaviors	NOTES:
2. Test for Interference, are there visible power lines	NOTES:
3. Watch Traffic, Look for Origin and Destinations	NOTES:
4. Look for Choke Points (natural funneling point such as bridges, tunnels or overpasses)	NOTES:
5. Note all Observations during the On-Site visit	NOTES: Student Traffic
6. Gather additional information from recommending Agency	NOTES:
7. Search for data sources such as Strava	NOTES:
8. Other sources of information	NOTES:
9. Perform Short Duration Counts at potential CCS!!!	NOTES:

3 - INSTALLATION DETAILS

Step 3 - Evaluate the site for potential continuous counting installation of equipment. During this step, make sure to consider all the items below and check the yes/no boxes and provide notes if necessary

Installation Details to evaluate are listed below.	**Check the Boxes if Applicable Below and Select Surface, Installation, and Count Types:**
1. Look and observe bicycle, pedestrian, and motorized traffic behaviors	☑ Travelers Present ☑ Pictures Taken ☑ Good Pinch Points for Install ☑ Smooth Surface ☑ Sidewalks Present ☐ Roadways Present ☑ Trails Present ☑ Post Required SELECT SURFACE TYPE: Other SELECT INSTALLATION TYPE: Loop, Piezo, IR, and Camera SELECT COUNT TYPE(S): Both Short Term and Continuous Countin
2. Take pictures of bicycle travelers to determine the best counter installation location	
3. Look for the pinch points where all travelers will pass within a 12 to 15' detection zone	
4. Look at the surface type and note whether it is asphalt, concrete, gravel, etc.	
5. Look at facilities to count on-site and make note of sidewalks, roadway, trails, etc.	**NOTES: 2 infrared/potential continuous location. St. Marks light pole tubes and infrared**
6. Look for travel volume generators such as hospitals, shopping malls, schools, etc.	
7. Sites should be evaluated as a potential short-duration versus continuous counting site	
8. Document site technology types (tube, infrared, video, etc.)	

4 - ORIGIN and DESTINATION OBSERVATIONS

Step 4 -- Look at Origins and Destinations Finding where trips begin and end can help to determine the anticipated pattern (e.g. Recreational, Commuting, or Mixed) for assigning a factor group. Even general observations such as bicyclists wearing backpacks or having saddle bags, the type of bicycle utilized, or the clothing type are good indications of traveler type. Making such observations of environment or users helps locate specifically where equipment should be placed to capture these trips. Look for downtown business districts, hospitals, transit stops, major employers, universities, public recreation lands, and bodies of water as examples of non-motorized travel generators. Look for sites to populate all factor groups with an emphasis on finding sites uniquely qualified to capture those patterns.

Check the boxes to the right that apply during on-site observation evaluation and provide more specific details in the notes box below:	☐ Downtown Business District ☐ Hospitals Nearby ☐ Transit Stop Nearby ☑ Major Employers Nearby ☑ Universities Nearby ☑ Public Recreational Lands Nearby ☐ Bodies of Water Nearby ☑ Other Nearby Origin/Destination Observations

NOTES: Verified named by city.

FDOT

5 - ADDITIONAL INFRASTRUCTURE SITE OBSERVATIONS and SITE DRAWING

STEP 5 - Evaluate Infrastructure by making site specific observations and make additional site observations of bicyclists and pedestrians and the surrounding environmental conditions. For some sites, specific factors that could make it a complicated install include proximity to transit stops, no funneling point, etc. If these complicated installation conditions exist on site, refine the site location (i.e. moved up, down, or over a block), or drop the site lower in ranking and provide a descriptive explanation.

NOTES:

Check Boxes Below if Observed While On-Site:

- [x] Trees Present Nearby
- [x] Polls Present Nearby
- [ ] Bollards Present Nearby
- [ ] Parallel Parked Vehicles Present Nearby
- [ ] Obstacles (in trail or road) Nearby
- [ ] Outdoor Siting Areas Nearby
- [ ] Vehicles Queuing in Roadway Nearby

ENTER SITE DRAWING:

Virtual Site Visit Map:

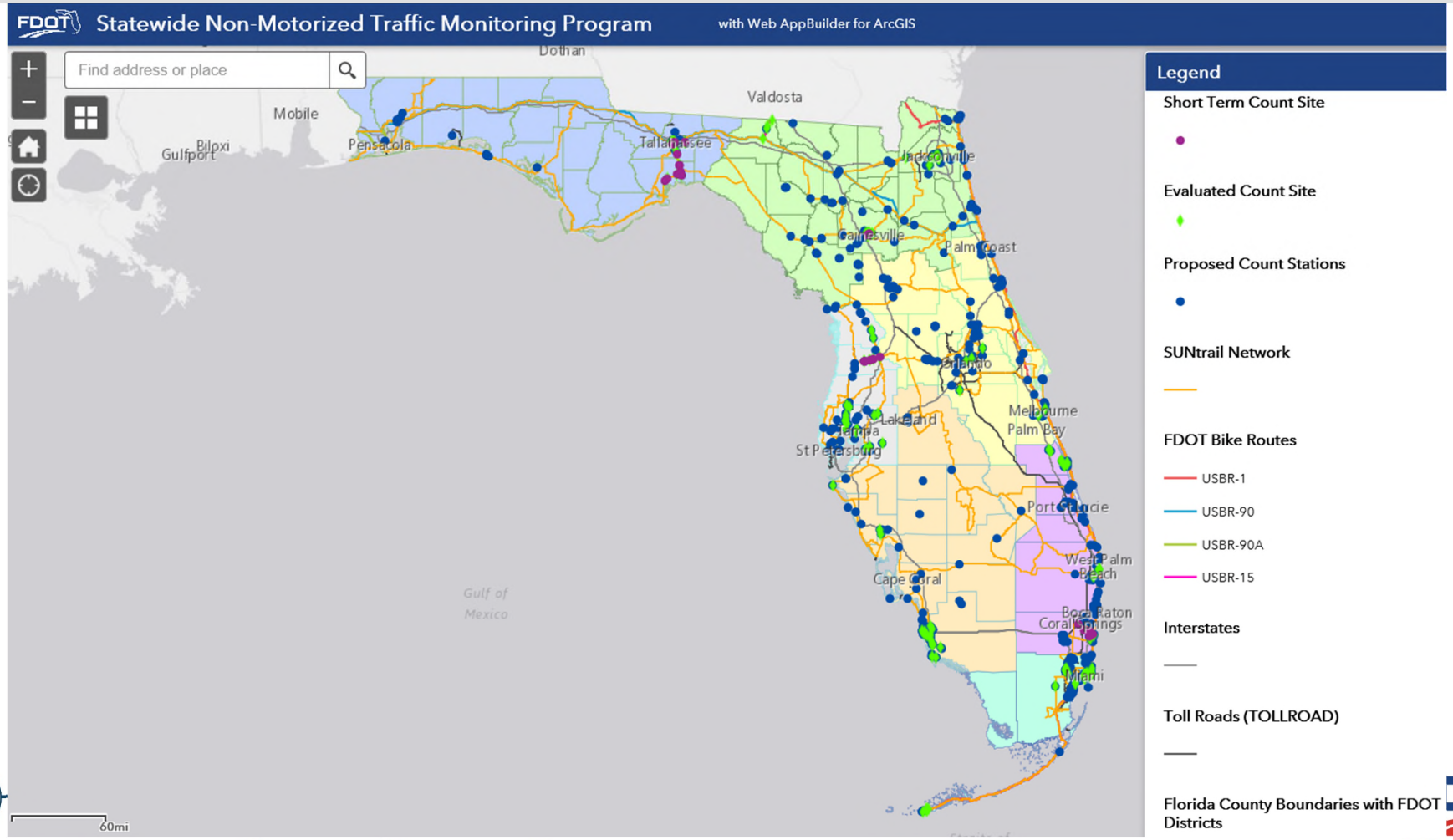
On Site Photos

Takeaways

- Site Evaluations are critical when deciding on a count station
- Take note of land uses, roadway characteristics, observed bike/ped. behaviors, infrastructure constraints
- Look for the magic pinch-point
- Some locations are not feasible for counting currently

Short term Counts

Short Term Counts



Deployment

Deployment

Deployment

Deployment

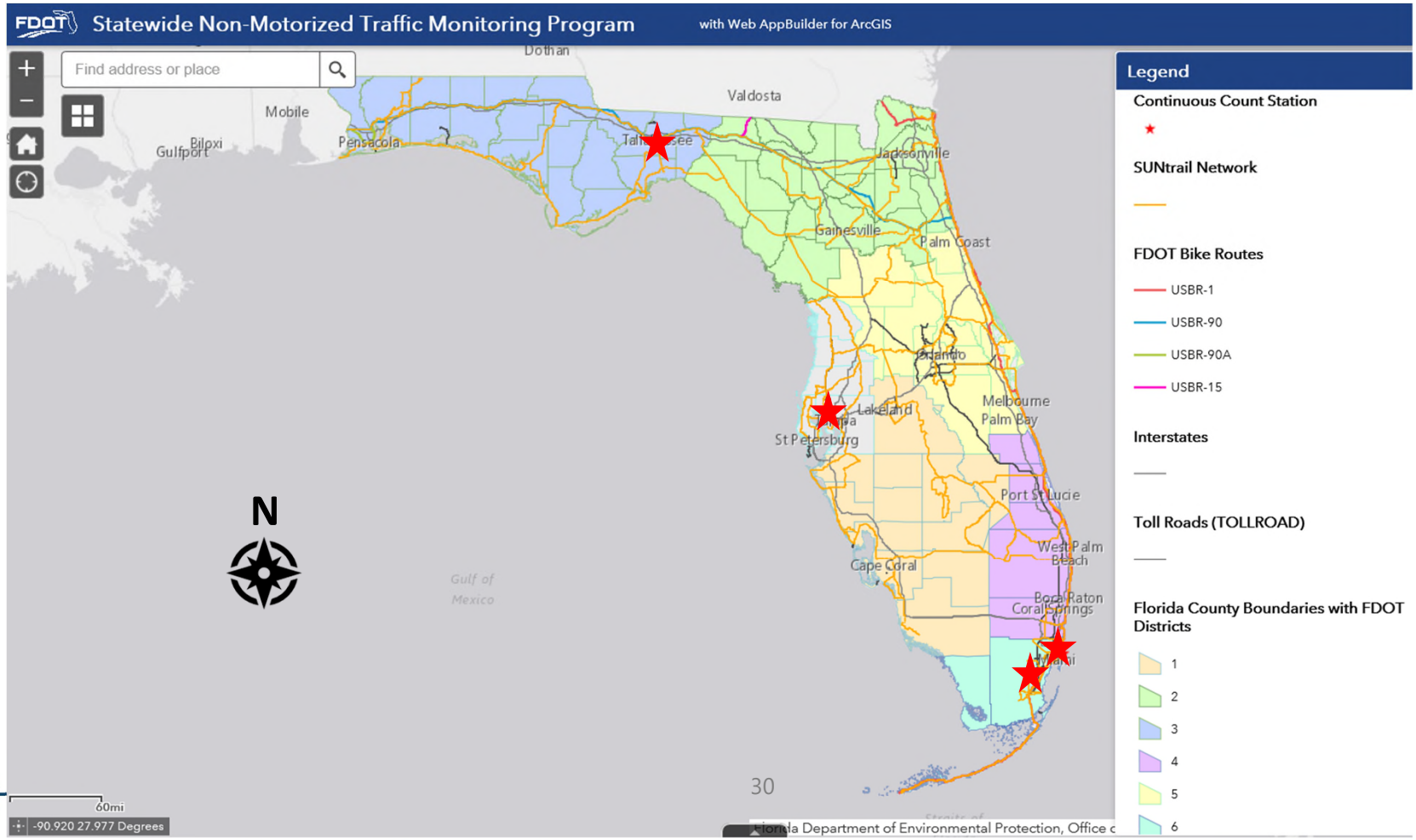
Deployment – Lessons Learned

Takeaways

- Short-term counts are a great way to determine if a site is worth investing in a continuous count station.
  - The facility might be right, but maybe you should have installed a block up the road... learn that lesson while collecting short-term counts, and not after installing a continuous count station!
- Make sure you monitor your site, don't just "set it and forget it!"
- Share your short-term data with TDA! :-)

Continuous Count Stations

Continuous Counts



Takeaways

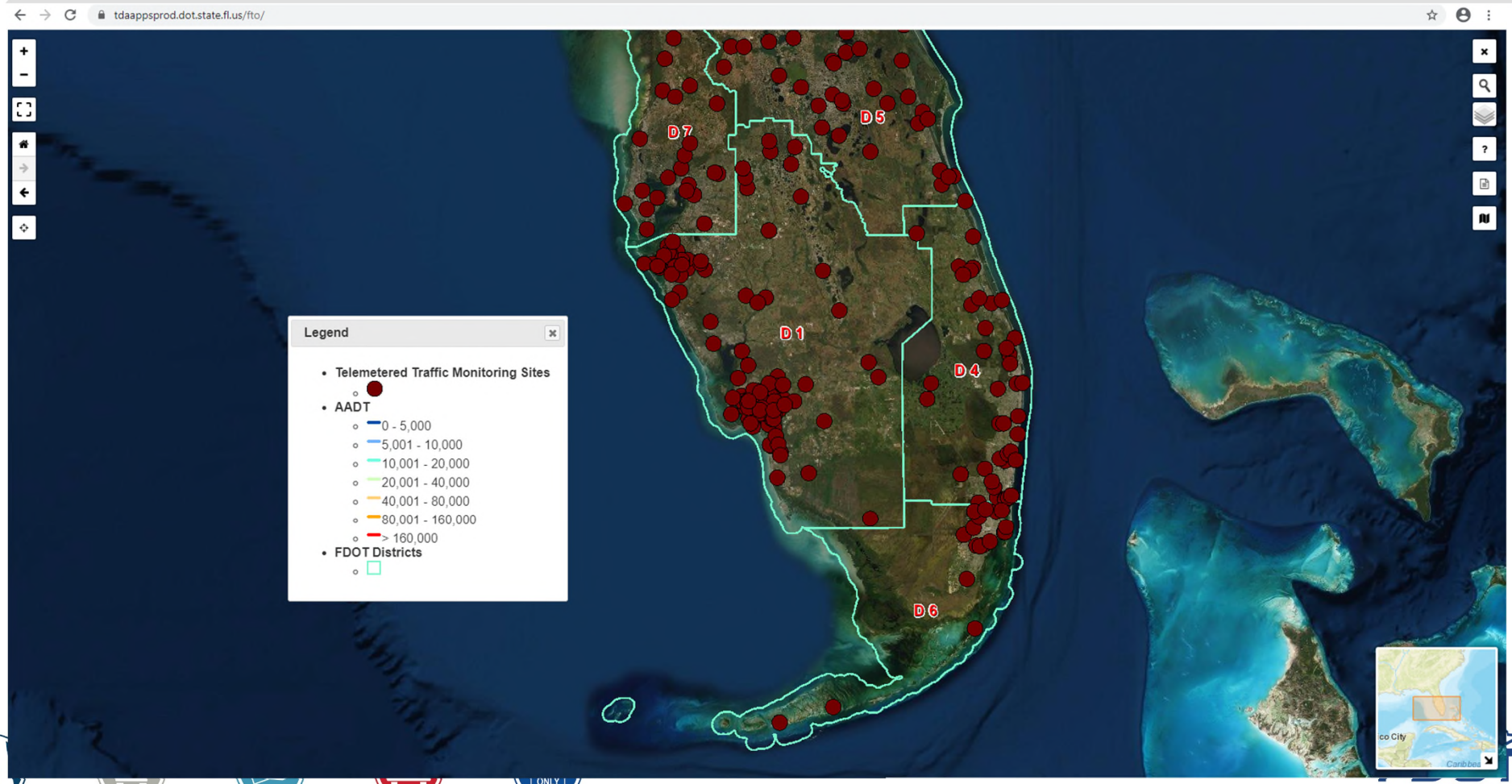
- Continuous Counters may already exist in your district, please let us know where they are, and who manages them.
- TDA will continue to collaborate with FDOT Districts and local agencies to determine optimal locations for continuous count installations
- Some locations just are not feasible for counting at this time...

Non-Motorized Data Repository

Transportation Data Management System (TDMS)

- Motorized and Non-Motorized Data Migration is underway
- New TDMS is expected to go Live Mid - 2020
- All Non-Motorized Traffic Monitoring (NMTM) Program counts will be displayed on TDMS platform
- Data Sharing is welcome from partnering agencies and organizations

Transportation Data Management System

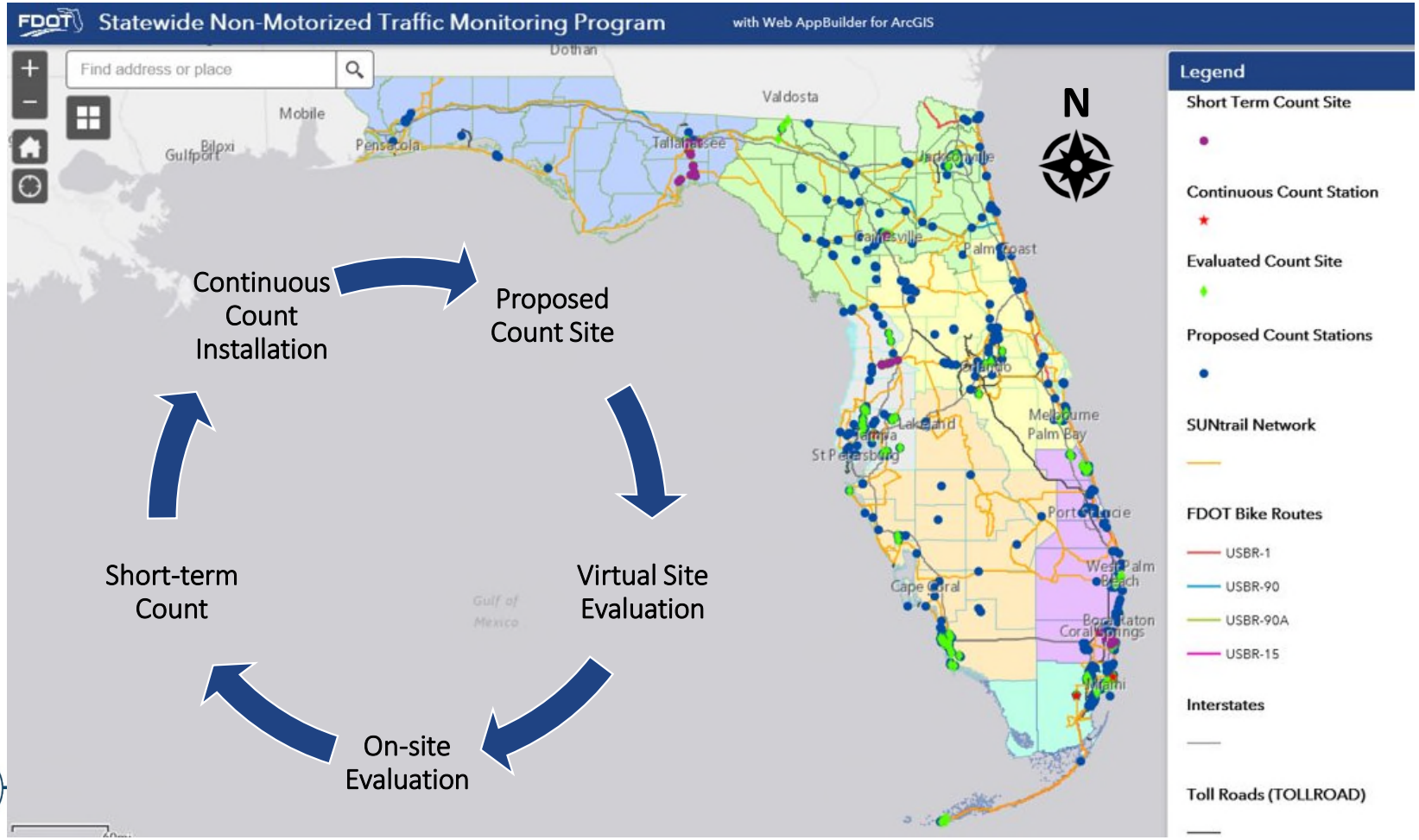


Reporting Goals

- Provide FDOT and the Public with access to high quality non-motorized traffic volume data and statistics to assist in local, regional, and statewide efforts

- Data that is formatted and reported to FHWA Travel Monitoring Analysis System to assist in national efforts

Questions?


FDOT Statewide Non-Motorized Traffic Monitoring Program
with Web AppBuilder for ArcGIS
Find address or place
Dothan
Valdosta
Mobile
Bilpxi
Gulfport
Pensacola
Tallahassee
Jacksonville
Gainesville
Palm Coast
Orlando
Lakeland
Tampa
St Petersburg
Melbourne
Palm Bay
Port St Lucie
West Palm Beach
Cape Coral
Boca Raton
Coral Springs
Miami
Gulf of Mexico
N
Continuous Count Installation
Proposed Count Site
Virtual Site Evaluation
On-site Evaluation
Short-term Count
Legend
Short Term Count Site
Continuous Count Station
Evaluated Count Site
Proposed Count Stations
SUNtrail Network
FDOT Bike Routes
USBR-1
USBR-90
USBR-90A
USBR-15
Interstates
Toll Roads (TOLLROAD)