

**Interim Status Report:**  
**Update and Development of Wind Speed Line Maps for the Florida Building Code, 7<sup>th</sup> Edition (2020)**

**March 31, 2020**

The State of Florida Department of Business and Professional Regulation  
Florida Building Commission  
and

University of Florida, GeoPlan Center

Project Leader: Katherine Norris, Univ. of Florida

**1. Introduction**

In this project, the University of Florida (UF) GeoPlan Center is providing Geographic Information System (GIS) technical assistance for preparation of local wind speed line maps. Maps will be created for each building code jurisdiction dissected by the wind speed contours, as depicted in the draft Florida Building Code, 7<sup>th</sup> Edition (2020) Figure 1609.3(3) Risk Category IV Buildings and Structures.

This interim report addresses details the project progress to date on each task listed in the scope of work. In summary, Task A is complete, Task B is in progress, and Task C is awaiting the completion of Task B.

**2. Tasks**

The following tasks were outlined in the Scope of Work:

- a. The Contractor shall create local wind speed line maps for impacted jurisdictions utilizing GIS maps and relevant data (datasets in shapefile format from the Florida Geographic Data Library for major roads, canals, rivers, and lakes) for use in determining the exact location of the local wind speed lines.
- b. The Contractor shall work with jurisdictions which require more detailed support including those that make changes or updates to their local wind speed line maps.
- c. The Contractor shall provide digital copies of the local wind speed line maps (suitable for E size plot) to the Department of Business and Professional Regulation in the following format: (1) Raster: .png file (2) Raw: ArcGIS file, and (3) Vector: Adobe Illustrator file. In addition, the Contractor shall provide at least one copy of the wind speed line map(s) to the impacted local jurisdiction upon request.

**3. Status for each Task (A-C)**

Detailed below is the progress completed for each task outlined in the Scope of Work:

## **Task A (Completed)**

The following work was completed on Task A:

- a. The UF GeoPlan Center worked with Peter Vickery to obtain the GIS data (line work) for the 3,000 Year (Risk Cat IV) Map in ASCE 7-16.
- b. Using the GIS data obtained above, UF GeoPlan created 67 Countywide Risk Category IV wind speed line maps. These maps are currently referred to as “preliminary” and can be found at the following web address:  
[https://ad hoc.geoplan.ufl.edu/downloads/kate/windspeed\\_2020/preliminary\\_county\\_pdfs\\_2020/](https://ad hoc.geoplan.ufl.edu/downloads/kate/windspeed_2020/preliminary_county_pdfs_2020/)
- c. UF GeoPlan emailed all 67 County Building Code Officials to notify them of the preliminary maps and to offer free assistance to update/modify existing line work and maps to better align with on the ground landmarks.
- d. Mo Madani, Technical Director, provided a mailing list of building officials licensed in the State of Florida. The UF GeoPlan Center used that list to notify 995 municipal building officials with the information in c above.
- e. The UF GeoPlan Center created an ArcGIS Online (AGOL) web map to facilitate the creation of updated local wind speed maps based off local landmarks. Additionally, the AGOL web map is being used to track the status of each county’s wind speed map adoption. The web map is pictured on the following page and can be accessed at following URL: <https://arcg.is/y1ayK>

## **Task B (In progress)**

Task B is in progress. To date, the UF GeoPlan Center has been in contact with 19 counties, as detailed below.

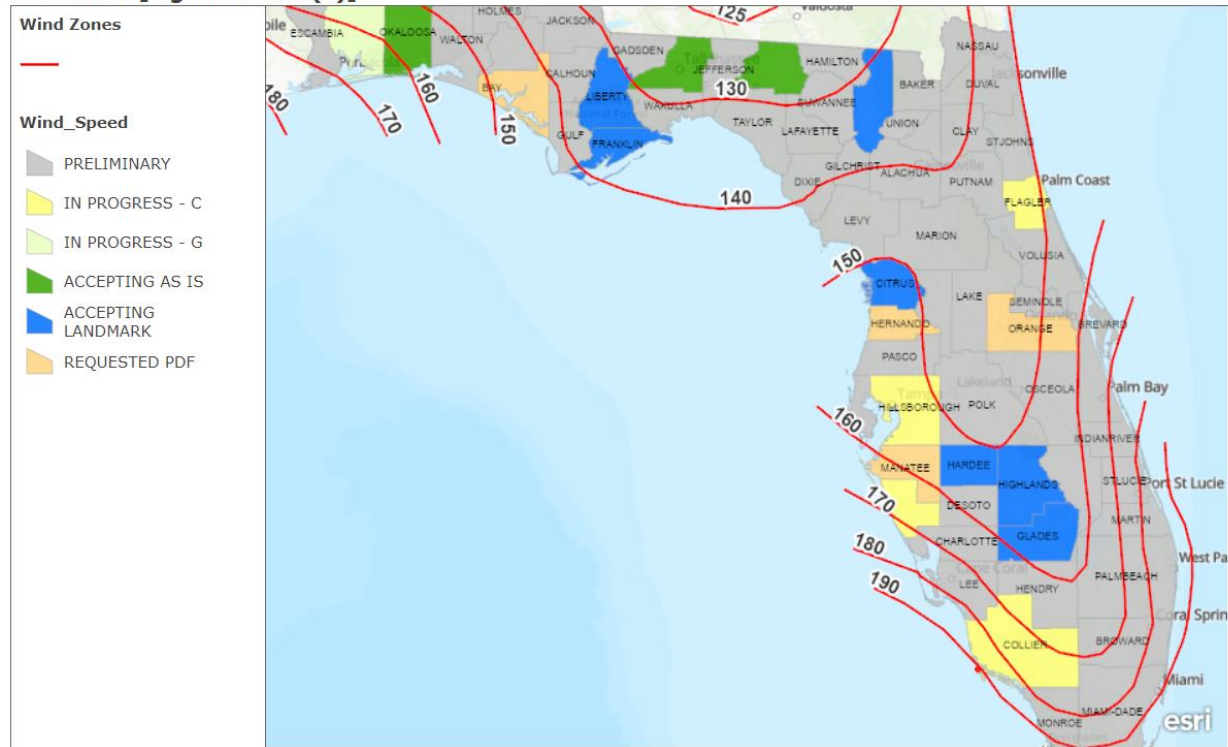
- a. The following 3 counties wish to adopt the preliminary map “As Is.”: Leon, Madison, and Okaloosa
- b. The following 8 counties want help modifying the preliminary line work to better align with local landmarks: Citrus, Columbia, Franklin, Glades, Hardee, Highlands, Liberty, and Santa Rosa.

The modified maps can be found at the following URL:

[https://ad hoc.geoplan.ufl.edu/downloads/kate/windspeed\\_2020/landmark\\_county\\_pdfs\\_2020/](https://ad hoc.geoplan.ufl.edu/downloads/kate/windspeed_2020/landmark_county_pdfs_2020/)

- c. The following 4 counties want to develop their own modified version of the preliminary line work to better align with local landmarks. Flagler, Collier, Hillsborough, and Sarasota
- d. The following 4 counties are still determining how they would like to move forward with their map. Bay, Hernando, Manatee, and Orange

**FBC 2020: Preliminary - Ultimate Design Wind Speeds Vult For Risk Category IV Buildings and Other Structures [Figure 1609.3(3)]**



The basic wind speed in miles per hour, for the development of wind loads, shall be determined from Figure 1609.3.

**Task C (Upcoming)**

Task C is waiting completion of Task B

**4. Plans for Continuation of Task B and Product Creation of Task C.**

The UF GeoPlan Center is continuing to contact the remaining counties by phone to determine how best to assist them. UF GeoPlan reviewed the remaining preliminary maps to determine which counties might need minimal line work modifications to place the entire county within one wind speed zone. So far, this has been the preference of most building officials whose county have just barely been clipped by a wind speed line. This approach applies to six counties, including: Lafayette, Levy, Gadsden, Marion, Putnam, and Taylor. Additionally, Baker, Lake and Union counties are entirely contained within one wind speed zone, for which as “As Is” adoption of the preliminary map is most likely to occur.

Once Task B is completed, the UF GeoPlan Center will move forward with Task C and work with Mo Madani to provide the final product to the State of Florida.