



Patel, Greene & Associates, PLLC

August 9, 2017

Mr. Brandon Boss
Boss and Mennie Luxury Home Builders
711 W. Fletcher Ave., Suite B
Tampa, FL 33612

**Subject: Wetland Delineation for Parcel 03-29-16-00000-330-0700
910 South Bayshore Boulevard, Safety Harbor**

Dear Mr. Boss,

On July 24, 2017, Patel, Greene and Associates, PLLC (PGA) was contracted to provide environmental services at Parcel 03-29-16-00000-330-0700, 910 South Bayshore Boulevard, Safety Harbor (project site). The environmental services consisted of assessing existing conditions and delineating wetlands at the project site as detailed in the Scope of Services dated May 31, 2017.

Prior to the field visit, the following information was reviewed to characterize habitat features and land use patterns within the project area:

- U.S. Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map, Safety Harbor, FL, 2015;
- Aerial photos, scale varies (Google Earth Pro, January 2017);
- U.S. Department of Agriculture (USDA), Natural Resource Conservation Service, Web Soil Survey, <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>;
- U.S. Fish and Wildlife Service (FWS), National Wetlands Inventory Mapper, <https://www.fws.gov/wetlands/data/Mapper.html>;
- Florida Department of Transportation (FDOT), *Florida Land Use, Cover and Forms Classification System Handbook* (FLUCFCS) (Third edition, 1999); and
- FWS, *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et. al., 1979).

On August 1, 2017, a PGA environmental scientist familiar with Florida natural communities conducted a field review of the project site. The purpose of the review was to verify and refine preliminary wetland boundaries and classification codes established through literature reviews and photointerpretation. During the field review, each vegetative community and land use type within the project area was visually inspected to verify approximate boundaries and dominant vegetation. Field activities also included identifying wildlife and signs of wildlife usage at each wetland and adjacent upland habitat.



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Based on the Web Soil Survey, soils at the project site consist entirely of Matlacha and St. Augustine soils and Urban Land (16), which are not classified as hydric soils. However, minor components of this soils group include Kesson Fine Sand, very frequently flooded (14) and Wulfert Muck, very frequently flooded (32), which are both classified as hydric soils.

Based on in-house and field reviews, two land use/vegetative cover types were identified within the project site. All vegetative habitats and land uses within the project area were classified using the *Florida Land Use, Cover and Forms Classification System (FLUCFCS)* (FDOT 1999). Wetland and surface water habitats were also classified using the *U.S. Fish and Wildlife Service Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et. al., 1979).

Residential, Medium Density

FLUCFCS: 120

Residential, medium density land use consists fixed single-family units with two to five dwelling units per acre. Within the project site, this upland land use is comprised of a two-story, single-family residence, maintained yard, landscaping, and a forested buffer of live oak (*Quercus virginiana*), cabbage palms (*Sabal palmetto*), and saw palmetto (*Serenoa repens*). A fenced driveway provides access to the project site from South Bayshore Boulevard. Except for the project site's connection to South Bayshore Boulevard, the property boundary is lined with riprap boulders which separate the maintained yard from an adjacent mangrove swamp.

Mangrove Swamps

FLUCFCS: 612

Cowardin: E2SS3N (Estuarine, Intertidal, Scrub-Shrub, Broad-leaved Evergreen, Regularly Flooded).

Mangrove swamps are coastal hardwood wetlands consisting of homogenous or predominantly pure stand of mangroves. A mangrove swamp surrounds the project site except for its upland connection to South Bayshore Boulevard. Dominant vegetation in this community includes red mangrove (*Rhizophora mangle*) and black mangrove (*Avicennia germinans*). During the field review, fiddler crab (*Uca pugnax*) burrows, mangrove crabs (*Aratus pisonii*), and white ibis (*Eudocimus albus*) were observed within the mangrove swamp. Brazilian pepper (*Schinus terebinthifolius*) was dominant along the natural, transitional edges of the mangrove swamp.

As part of the field review, wetland boundaries at the project site were delineated using the procedures within Chapter 62-340 "Delineation of the Landward Extent of Wetlands and Surface Waters," Florida Administrative Code (FAC), and the criteria found within the U.S. Army Corps of Engineers (USACE) *Regional Supplement to the USACE Wetlands Delineation Manual: Atlantic and Gulf Coastal Plain Region* (Version 2.0). The wetland boundary at the project site was marked with 14 pink flags labeled as "Boss WL (1-14)" beginning on the southwest side of the property as shown on **Figure 1**. Most of the flags were set along the riprap top-of-bank except for Flags 1, 2, 12, 13, and 14, which show the wetland



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boundary transitioning north and south of the project site. The flag locations were approximated on an aerial in the project file field notes. It is PGA's understanding that the wetland flags were surveyed, by others, on August 8, 2017 for inclusion on a site plan to be used for permitting through the City of Safety Harbor.



Figure 1: Aerial showing 910 S. Bayshore Boulevard with wetland boundary and flag locations that were delineated by Terry Cartwright, Lead Environmental Scientist with Patel, Green and Associates, PLLC on August 1, 2017.

By submission of this deliverable, PGA has completed the requirements from the scope of services dated May 31, 2017. If you have any questions or need anything further, please contact me at (813) 978-3100, Extension 324, or by email at terry@patelgreene.com.

Sincerely,

Terry Cartwright
Lead Environmental Scientist
Patel, Greene & Associates, PLLC

cc: Project File