

**Survey Report
Town of Hillsboro Summer 2020
Coastal Monitoring Survey
Broward County, Florida
Onshore/Offshore Profiles
R- 1 to R-18 along with R-7+500
August 13, 2020**

Location of Work: This submittal is for the Town of Hillsboro monitoring profiles along FDEP ranges R-1 to R-18 along with R-7+500, north Broward County, Florida.

Date of Work: This monitoring survey was performed in August 2020. The offshore data was collected on August 11, 2020. The onshore data was collected on August 11 through August 13, 2020.

Scope of Work: Onshore and offshore profiles were performed along FDEP survey transects spaced at approximately 1000' intervals from R-1 through R-18 and approximately 500' intervals from R-7 to R-8.

Onshore profiles were collected along the alignments as shown in the control tabulation using a combination of RTK/GPS measurements together with differential leveling (for elevations) and a hand-held laser (for stationing).

Offshore profile data collection was performed to FDEP specifications using Trimble R-8, SPS 852 Real-Time Kinematic GPS, Hypack Navigation Software, an Odom CVM Digital Echosounder, TSS CMS 25 Motion Compensator, together with a tide staff.

**Horizontal and
Vertical Datum:**

Surveys were conducted in NAD 83/90 Horizontal and NAVD88 vertical datum per FDEP Specifications. Coordinates and elevations of R monuments were provided by FDEP

Horizontal Data:

- a) Coordinate values for FDEP Monuments were supplied by FDEP and verified with RTK/GPS measurements during a previous survey.
- b) Two temporary control points were set along the published profile alignment using RTK/GPS.
- c) The RTK base station for this project was set on 5/8" rebar & cap #112, and RTK check vectors were measured to 5/8" rebar & cap #111.

Point #	Northing (NAD 83)	Easting (NAD 83)	Elev. (NAVD 88)
111	714610.51	958357.55	11.64
112	714706.25	958364.04	11.19

Vertical Data:

- a) Elevation values for the FDEP range monuments were supplied by FDEP and verified during previous surveys.
- b) Elevations for the onshore profile line were based on the two temporary control points set with RTK/GPS.
- c) Elevations for the offshore portion of the profile lines relied on Real-time Kinematic tide files and were verified with a tide staff set near control monument 111 and recorded in field book Broward 68 page 2. (see control table)

Point #	Northing (NAD 83)	Easting (NAD 83)	Elev. (NAVD 88)
111	714610.51	958357.55	11.64

All leveling and bathymetric surveying conformed to the FDEP specifications for monitoring surveys and the Florida Standards of Practice.

The Odom CVM fathometer was calibrated at the beginning and end of each survey day using a “bar check” to compensate for variations of the speed of sound in water together with the calibration of the vessel for squat, settlement, and draft. See Hypack bar. log file for calibration.