

# Horizontal and Vertical Control Report

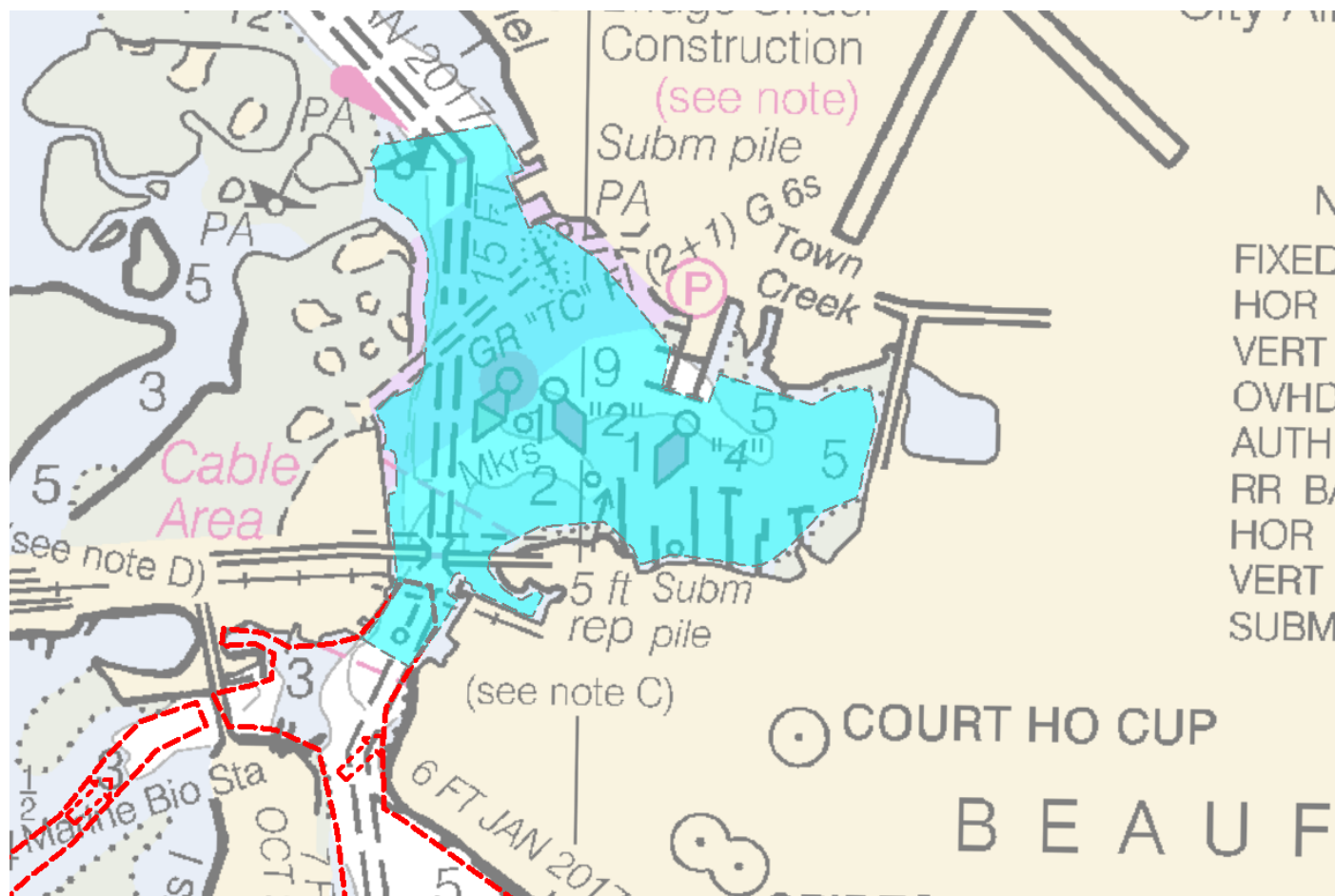
## Project Metadata

<b>Project Name:</b>	Beaufort, NC
<b>Project Number:</b>	S-F933NR T2-18
<b>General Locality:</b>	Beaufort, NC
<b>State or Territory:</b>	North Carolina
<b>Field Unit:</b>	Navigation Response Team 2
<b>Chief of Party:</b>	James Kirkpatrick
<b>Project Start Date:</b>	2018-07-10
<b>Project End Date:</b>	2018-07-11
<b>Field Year:</b>	2018
<b>DAPR Version:</b>	1

## Positional and Height Information Utilized for this Project

<b>Horizontal Datum:</b>	North American Datum 1983
<b>Realization:</b>	CORS96
<b>Ellipsoid:</b>	GRS 80

**Image of all Site Locations pertaining to the HVCR**



**Figure:** - Survey Area

**Non- User Installed Gauges and Stations**

There were no NWLON stations utilized for this project.

CORS Stations		
Station ID	Position	Ellipsoid Height
NCBE	Latitude:34.7190302778 Longitude: 76.6719420556	-27.858 meters

## User Installed Stations

Site Information	
Site ID	Site Name
9999	NA

Vertical Control was not established at this site.

Horizontal Control was not established at this site.

## Vertical Techniques

**Overview:** Soundings were collected as ellipsoidal heights using POS/MV positioning system. Ellipsoid referenced depths were post-processed using POSPAC MMS 8.3.1. Soundings were transformed to MLLW using Caris 10.4.

## VDATUM

Software Version	Geoid	Regiona lArea	Regional Area Version
3.6.1	2012		NCinner11_8301

**Discussion:** The field unit used the separation model supplied with the project instructions to transform ellipsoid heights to MLLW.

## Horizontal Techniques

**Overview:** Horizontal control was established using a PPK solution.

### Post-Processing Kinematic (PPK)

#### Single Base

<b>Non-User Installed Sites</b>
<b>User Installed Sites</b>

**Discussion:** Horizontal positions were collected using POS/MV GNSS positioning system. Raw position data was used to create an SBET in POSPAC MMS 8.3.1. SBET's were applied to data in Caris 10.4.

## Approval Sheet

**Supervision Statement:** As Chief of Party, field operations for this hydrographic survey were conducted under my direct supervision, with frequent personal checks of progress and adequacy. I have reviewed the attached survey data and reports.

**Approval Statement:** All field sheets, this Descriptive Report, and all accompanying records and data are approved. All records are forwarded for final review and processing to the Processing Branch.

**Adequacy Statement:** The survey data meets or exceeds requirements as set forth in the NOS Hydrographic Surveys Specifications and Deliverables, Field Procedures Manual, Standing and Letter Instructions, and all HSD Technical Directives. These data are adequate to supersede charted data in their common areas. This survey is complete and no additional work is required with the exception of deficiencies noted in the Descriptive Report.

**Any Additional Statements:**

Signing Personnel		
Approver Name	Approver Title	Approval Date