C.1 Vertical Control

The vertical datum for this project is Mean Lower Low Water.

ERS Datum Transformation

The following ellipsoid-to-chart vertical datum transformation was used:

Method	Ellipsoid to Chart Datum Separation File
ERS via ERTDM	OPR-T383-RA-19_ERTDM_NAD83(2011)_MLLW_Extended2

Table 12: ERS method and SEP file

C.2 Horizontal Control

The horizontal datum for this project is North American Datum of 1983 (NAD 83).

The projection used for this project is Universal Transverse Mercator (UTM) Zone 4.

The following PPK methods were used for horizontal control:

- RTX

WAAS

The Wide Area Augmentation System (WAAS) was used for real-time horizontal control during data acquisition. Post Processed-Real-Time (PP-RTX) processing methods were used in Applanix POSPac MMS 8.3 SP3 software to produce SBETs for post-processing horizontal correction.

C.3 Additional Horizontal or Vertical Control Issues

C.3.1 Vertical Offset Issue in Section of Data

After initial processing a vertical offset was observed in line 0001_20190918_182144_2803_400S_261, located inside the Barbers Point Harbor. The offset was inspected and the cause determined to be an unknown issue with the SBET. The SBET was corrected using PPK and a Honolulu station of the WAAS network. This reduced the apparent offset to under 10cm. See figures below.