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_ext.csar

Table 12: ERS method and SEP file

Immediately following each H13272 MBES acquisition day, predicted tides were applied to the data using preliminary TCARI grid T383RA2019.tc. This was done solely to provide an initial vertical reference datum during QC analysis and preparation of the next day's survey launch materials. All submitted H13272 MBES data were reduced to MLLW using ERTDM processing methods. Final water levels were not requested and no other traditional vertical control steps were taken.

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

Precise Positioning-Real Time Extended (PP-RTX) processing methods were used in Applanix POSPac MMS (8.2.1) software to produce SBETs for post-processing horizontal correction.

WAAS

The Wide Area Augmentation System (WAAS) was used for real-time horizontal control for this survey.