

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-R385-KR-20_ERTDM_NAD83-MLLW_04162020.csar

Table 11: ERS method and SEP file

All soundings were reduced to MLLW using the ERTDM NAD83 to MLLW separation model grid file provided by NOAA using ERS methodology.

Tide gauges and ERTDM validation sites (GPS buoys) were installed as part of the overall project but were not used for reduction of soundings. Gauge data and validation results have been separately provided to NOAA CO-OPS. Reports (with accompanying data packages) that have been submitted directly to CO-OPS are itemized in Section E of this report.

Discrete tide zones were generated using project gauge data but were not used for sounding reduction. Zones were used for an ERZT comparison to the provided ERTDM grid, with the two methods having an overall agreement of 0.02 m with a standard deviation of 0.12 m. Zones are provided in the Water Levels directory. Additional detail is available with the project HVCR.

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 3.

The following PPK methods were used for horizontal control:

- Smart Base
- RTX