

## 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 VDATUM	buffer_newVdatum2_Merge_Diss_100m_NAD83- MLLW_geoid12b.csar buffer_newVdatum2_Merge_Diss_100m_NAD83- MHW_geoid12b.csar

*Table 11: 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 18.

The following PPK methods were used for horizontal control:

- Smart Base

The following CORS Stations were used for horizontal control:

<b>HVCR Site ID</b>	<b>Base Station ID</b>
Central Islip	NYCI
Valhalla	NYVH
Darien	CTDA
Brooklyn Pier	NYBR
NJ Inst of Tech 2	NJI2
New York WAAS 1	ZNY1
Lake Carmel	NYLC
Riverhead	NYRH
Brookfield	CTBR
NJMT	NJMT
Neptune Township	NJNT
Guilford	CTGU

*Table 12: CORS Base Stations*

The following user installed stations were used for horizontal control:

<b>HVCR Site ID</b>	<b>Base Station ID</b>
Ocean Surveys New Rochelle	OSNR

*Table 13: User Installed Base Stations*