The primary ground elevation data source was a photogrammetrically derived Digital Terrain Model created by the Rhode Island Department of Transportation (RIDOT). This data was supplemented with several other elevation data sources listed below:

- FEMA Map Mod LiDAR, portions of Washington County (Terraplan LLC, 2006)
- South Kingston, Cranston, and Charlestown Digital Terrain Models (EarthData International, 2001-2006)
- Providence Digital Terrain Model (Sanborn, 2004)
- Narragansett and Middletown Digital Terrain Models (Chas. H. Sells, Inc., 2005)
- US禅/MMDD LiDAR (Pepro Palazzi, Inc., 2005)

The hurricane surge elevations were identified by the National Hurricane Center using the Boston SLOSH model basins, and assumed peak hurricane surge arriving at mean high water.

The hurricane surge inundation areas shown on this map depict the inundation that can be expected to result from a worst-case combination of hurricane landfall location, forward speed, and direction for each hurricane category. The source of base map transportation features such as roads and railroads is Tele Atlas 2008. The source of other base map features is the Rhode Island Geographic Information System (RIGIS).

The horizontal projection of this map is Rhode Island State Plane North and South, for all elevations data referenced to the NAVD88 vertical datum.