Bench Mark Database Help

The Bench Mark database consists of two types of bench marks. These bench marks are a survey grade geodetic point location.

1. Department of Natural Resources established bench marks are designated with 5.0 foot steel rebar with an aluminum cap.
2. N.G.S. or U.S.G.S. established bench marks are designated with have a brass cap set in the top of a concrete monument. N.G.S or U.S.G.S. established the elevation on the monument, but DNR established the Geodetic Coordinates.

You can search by BenchmarkID, Point ID, Designation or County. The select button can be used to view the details of the bench mark as listed below.

- DESIGNATION: Bench Mark Name
- POINT ID # - Point Identification Number, AR stands for Allan Ruhge MD stands for Mike Donovan, and the Number are incremental added
- NGS PID #: National Geodetic Survey #, Federal assigned.
- USGS QUAD: Name of 7 ½ min. quadrangle where bench mark is located.
- COUNTY: In the County where the bench mark is located
- STATE: The State where Bench Mark is located.
- HORIZ. DATUM: NAD83 (1995) indicates positions on the NAD83 datum for the North American Adjustment. Completed in 1995.
- HORIZ. ORDER: B = 1: 10 million
- POSITION: Geodetic coordinates, Latitude and Longitude rounded to 5 decimal places.
- SPC NE: Grid Coordinate System: State Plane Coordinate System of 1983(SPC) Rounded to 3 decimal places.
- VERT DATUM: NAVD 88 – adjusted Nationally in 1988
- VERT ORDER: Vertical station order and class for first-, second-, and third-order. Stations are defined in the Federal Geodetic Control Committee Publication (Standards and Specifications for Geodetic Control Networks)
- HEIGHT: Is the Sea Level Elevation on the Bench Mark
- GEOID: The geoid height is the elevation of the geoid above the horizontal datum's Reference ellipsoid. The geoid is a specific equigeopotential surface, that Best fits global mean sea level. The geoid is a reference surface for how the World acts, with respect to the geopotential force of gravity.
- ELLIPS: The ellipsoid height is the elevation of the station above the reference Ellipsoid for horizontal datum, currently the NAD83 ellipsoid. The ellipsoid Is a reference surface for how the world appears, with respect to physical Location. As a very close approximation.
- VERT SHIFT: Vertcon is a program to convert the two vertical datums. (88 & 29)

- DATE ESTABLISHED: When DNR established or occupied the station.