

Discovering a Forgotten Bound

By David Pierce

The straight line border between Goffstown and Bedford was originally marked with eight granite monuments. All were reportedly visited up through 1969. Then hazards of development slowly took their toll on five monuments. Through the years, one was known to be removed when a road was absorbed into the adjoining private land; two became victims of snow plows; and two were found dislodged for unknown reasons and removed from their sites.

Of the remaining three, one was claimed "not found" in 1984, and subsequent reports never even mentioned the site. Apparently, when a perambulation party prepared for their effort, they only referred to the most current previous report.

In preparing for my 2010 perambulation efforts, I read reports going back to 1939. The post "not found" in 1984 peaked my interest. It was deep in a forest, surrounded by land never developed and far from the normal hazards. The road through which the boundary line crosses is within a private parcel and appears to never have seen a motorized vehicle. Today, the road is so deeply rutted that a few feet of snow might make it passable to snowmobiles.

My intuition told me the monument just might be still standing, and technology could help in its discovery. Old perambulation reports provided bearing and distances between the bounds. The "north 2 degrees west" bearing of the entire boundary line was not useful, as there is no mention of how the angle compared a known base direction or to other lines still recoverable today; however, knowing that the line was "straight" was important.

By having geographic coordinates for the end points, the entire line could be mathematically defined. In theory, one could plug the coordinates into a geographic information system (GIS), together with the distances between bounds, and let software calculate coordinates of the intermediate bounds.

While a GIS was available through outside support, I relied upon simple geometry equations and Microsoft Excel to calculate the coordinates. I obtained coordinates for the end points using a recreational-grade GPS receiver. The coordinates used were expressed in the UTM system, as the metric system allows for simpler math than using coordinates expressed by degrees-minutes-seconds. The length of the entire line, derived by GPS, showed a length significantly different than the length documented in old boundary reports. I guessed that the error might be on the side where surveyors had to cross a large swamp. So, using the distance from the other end point, I mathematically derived a UTM coordinate for the missing bound.

Using the GPS receiver, I walked about one-quarter mile from a public road into the forest, roughly following the remains of the former road bed. When my GPS receiver indicated I was at the location of the bound's coordinates, I slowly turned around and, sure enough, spotted the granite monument 40 feet away. It was firmly in the ground and still upright. It had the letters "G "and "B" carved into the appropriate faces. It had been missing for 39 years, and was now rediscovered.