

Norfolk County Engineering Department

Medfield EDM Baseline

In keeping with the concept of having an EDM baseline available to the public and private sector, the department has established a baseline on Route 27 (North Meadows Road) in the town of Medfield.

For instructions on the use of a calibrated baseline consult National Geodetic Survey's publication NOAA Technical Memorandum NOS NGS-10, Use of Calibration Baselines, December 1977 (reprinted 1980).

To reach the baseline from the intersection of Routes 27 and 109:

Proceed north on Route 27 approximately 2.2 miles through the intersection of Dale Street and through the intersection of West Street to the 0 mark which is on the west side of the roadway in the grass shoulder between the guardrail and the edge of pavement.

To reach the baseline from the Sherborn town line at the Charles River:

Proceed south on Route 27 approximately 0.6 miles to the 0 mark which is on the west side of the roadway in the grass shoulder between the guardrail and the edge of pavement.

Description of the Medfield Baseline

The baseline consists of four monuments set in a seven-foot-wide grass strip on the west side of Route 27 in Medfield, Massachusetts. Each monument consists of a 3-1/4" aluminum disk set in concrete in a hand dug hole approximately three and one half feet deep. The top three inches of the monument is formed to a diameter of twelve inches. The disk was firmly imbedded in the concrete, which was slightly mounded at the top. The top of the surface of the disk is approximately two inches below the surrounding ground surface. Station disks are enclosed in a covered sleeve. Reinforcing bars were added to the concrete as an aid in locating the monuments with a metal detector. Numbered witness posts (orange in color) were placed behind the guardrail opposite each monument. The baseline is approximately 915 meters in length with monuments at the 0-meter mark, at approximately the 150-meter mark, at approximately the 430-meter mark, and at the terminus of the baseline, approximately 915-meters.



Station

0 0 meters mark
 1 150± meters mark
 2 430± meters mark
 3 914± meters mark

MHD Point Station ID	NAVD88*	Instrument At	Reflector At	Meters	US Survey Feet
		0+0	150+	150.0386	492.251
7043	39.6222	0+0	430+	430.0565	1410.944
		0+0	914+	914.8286	3001.400
		150+	0+0	150.0386	492.251
7042	38.7620	150+	430+	280.0216	918.704
		150+	914+	764.7930	2509.158
		430+	0+0	430.0565	1410.944
7041	37.3828	430+	150+	280.0216	918.704
		430+	914+	484.7736	1590.461
		914+	0+0	914.8286	3001.400
7040	38.0301	914+	150+	764.7930	2509.158
		914+	430+	484.7736	1590.461

Each distance shown is the results of an average 20 measurements taken with two different EDMs by the Massachusetts Highways Geodetic Survey Section on October 31, 2001.

* Meters



Each station on the Medfield Baseline is indicated by a sign post with its corresponding identification number.

The disk is enclosed inside a monument cover to protect the face of the disk.



Be careful when exposing the disk should the cover be filled with dirt, snow, or ice. The point on the face of the disks are in danger of being obliterated.

