

Walstad, John M.

From: Candie <Candie@ndpelsboard.org>
Sent: Friday, October 05, 2012 9:50 AM
To: Walstad, John M.
Cc: Bassler, Rod E.
Subject: RE: Code Revisor

Mr. Walstad,

I spoke with Mr. Bassler today. Mr. Bassler reiterated his position that both the US survey foot and the international foot need to be defined. I spoke with my Board members and explained Mr. Bassler's concerns. They are in concurrence with Mr. Bassler. The mapping professions of land surveying and cartography frequently approach data development from differing points of view, with surveyors preferring the US Survey Foot based on large-scale mapping and historical needs, whereas the cartographic side typically integrates a wide variety of data (survey, satellite, aerial photography, GPS, older maps, etc.) that frequently use meters for units. In these cases, the International Foot provides a cleaner conversion factor for mapping coordinates and projections commonly used by the general public. For example, two of the most commonly used coordinate systems used in North Dakota are the North Dakota State Plane Coordinate System and the UTM Coordinate System. Both systems are commonly used by public and private entities; both frequently use either the US Survey Foot or the International Foot as their unit of measure. The discrepancies between these units of measure can result in positional differences as great as 36 feet in North Dakota. Depending on the application, 36 feet of positional difference can be quite significant. (Imagine how your home's property boundaries could move with that kind of error). Clear definitions of the units of measure need to be readily available and understood for dissemination of the data so that errors are not propagated. In any case, both units are widely used and accepted, and both need to be precisely defined as measuring standards. Based on that, the suggested corrections are:

1. **One surveyor's chain, ~~thirty-three standards~~ ~~sixty-six U.S. survey feet~~ [10.06 meters] in length.**
2. **One yard [~~0.9144 meter~~ ~~36 divided by 39.37 meter~~] measure.**
3. **One U.S. survey foot [~~0.3048 meter~~ ~~12 divided by 39.37 meters~~] measure.; one international foot [0.3048 meters exactly] measure.**

The 1 inch expression is correct as stated. The conversion factor for inches to millimeters is (one inch = 25.4 mm). The expression for inches to meters as used in 1, 2, and 3 is **1 inch = 0.0254 meters.**

Again, these suggested changes simply correct and further define information that is not currently correct in the NDCC and removes an apparent ambiguity between the US Survey foot and the international foot. If you need any additional information at all, please let me know.

With Regard,

Candie L. Robinson
 Executive Director
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 Professional Engineers and Land Surveyors

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