



**DATE:** December 4, 2009

**TO:** AREA SURVEYORS

**FROM:** Floyd R. Smith, R.L.S., Technical Services Administrator *FRS*

**SUBJECT: SURVEY CONTROL DATA – 2007 READJUSTMENT**

The City of Knoxville's Survey Control System has recently been adjusted to conform to the National Geodetic Survey's *National Spatial Reference System of 2007 (NSRS2007)*. The NSRS2007 is a nationwide merger and readjustment of the various state *High Accuracy Reference Network (HARN)* systems to the *Continuously Operating Reference Station (CORS)* system. For detailed information concerning this readjustment and about the history, development, and use of the City's survey control system, link to the following location on the Department of Engineering's website: [www.cityofknoxville.org/engineering/civil/About-the-data.pdf](http://www.cityofknoxville.org/engineering/civil/About-the-data.pdf).

The readjusted location data for all existing survey control points, plus fifty-five new points, were published at the above link on **December 1, 2009**. For existing points, only the north and east coordinates and the latitude and longitude changed. Elevations and the orientation of Grid North were not affected. The amount of horizontal change varies from point to point but appears to be adjusted between 0.01 and 0.25 feet.

## **EFFECT ON SUBDIVISION PLATS**

Paragraph 44-92.2 of the *Minimum Subdivision Regulations for Knoxville and Knox County (MSR)* requires certain surveys to be tied and rotated to the City's survey control system. To clarify issues with this regulation, *Policy 17* in the Department of Engineering's Land Development Manual (LDM) gives additional details. As recently revised, this policy is available on the Engineering Department's website at [www.cityofknoxville.org/engineering/ldmanual/LD-EP17.pdf](http://www.cityofknoxville.org/engineering/ldmanual/LD-EP17.pdf).

Item 3 in *Policy 17* is new. It discusses referencing a *horizontal datum* when coordinates for survey control points are shown on a plat. Prior to December 1, 2009, the published coordinates were based on the North American Datum of 1983, 1995 adjustment [NAD83(1995)]. The coordinates published on December 1, 2009, are based on the National Spatial Reference System of 2007 [NAD83(NSRS2007)]. Beginning January 1, 2010, the appropriate *horizontal datum* shall be noted on plats inside the City of Knoxville.

Item 4 in *Policy 17* has also been revised. It now includes information about noting the *horizontal datum* on plats; e.g., NAD83(NSRS2007), NAD83(1995), etc.

### **NINETY-DAY GRACE PERIOD**

If it becomes necessary to revise the published coordinates of one or more existing control points, the revised coordinates may be used as soon as they are published. However, there is a **ninety-day grace period** before they must be used to comply with the *Minimum Subdivision Regulations*. Plats submitted to MPC more than ninety days after the date shown in the “Last Revision” field in the latest published data shall use those latest coordinates as the basis for the survey.

The same **ninety-day grace period** also applies to new control points. When first published, these points may also be used immediately. However, plats submitted to MPC more than ninety days after the date shown in the “Date Established” field in the latest published data shall use those points as the basis for the survey.

### **FUTURE CHANGES**

The Engineering Department continues to maintain and add new points to the City’s survey control network. Users should monitor the Department’s website for new control points, destroyed points, and possible changes to the published information. These changes may occur at any time and without any advance notice.

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