


# Ground Control Monument Modernization

**Shared Solution**

PID: BBFL25  
 Designation: NRGCC001  
 Stamping: ALPHA 2016  
 Stability: Most reliable; expected to hold position well  
 Setting: Set on top of concrete monument  
 Description: Mark is 50 feet north of the centerline of Metro Road on the way to the public entrance of the regional landfill and 480' east of the centerline of Bryan Stock Trail. Monument was set among 4 other monuments by CompassData, Inc. to monitor the landfill and provide updated coordinates as NAD83 (2011) within the vicinity. The monuments are the base points for a denser panel layout to support UAV acquisition so that volumes and ortho-images can be produced with a repeatable georeference.  
 Observed: 2016-12-22T14:57:00Z  
 Source: OPUS - page5 1209 04




Close-up View


| REF FRAME:   | EPOCH:    | SOURCE:                          | UNITS: | SET     | DETAILS |
|--------------|-----------|----------------------------------|--------|---------|---------|
| NAD_83(2011) | 2010.0000 | NAVD88 (Computed using GEOID12B) | m      | PROFILE |         |

|                           |           |                             |                |
|---------------------------|-----------|-----------------------------|----------------|
| LAT: 42° 52' 19.08032"    | ± 0.009 m | UTM 13                      | SPC 4902(W/EC) |
| LONG: -106° 17' 43.81548" | ± 0.003 m | NORTHING: 4747411.032m      | 363953.797m    |
| ELL HT: 1566.570          | ± 0.016 m | EASTING: 394185.912m        | 484786.133m    |
| X: -1313950.622           | ± 0.003 m | CONVERGENCE: -0.88149394°   | 0.70814178°    |
| Y: -4494669.850           | ± 0.010 m | POINT SCALE: 0.99973774     | 1.00002595     |
| Z: 4318154.426            | ± 0.017 m | COMBINED FACTOR: 0.99949219 | 0.99978051     |
| ORTHO HT: 1579.814        | ± 0.032 m |                             |                |

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Horizon View



Map Satellite  
 rrrrGCC001  
 Get directions: [To here](#) (nearest road)

The numerical values for this position solution have satisfied the quality control criteria of the National Geodetic Survey. The contributor has verified that the information submitted is accurate and complete.

In 2016 the City of Casper requested that new control monuments be set and surveyed to update the existing control network for the City and County along with a regional landfill survey. CompassData performed an areal collection of the area along with surveying local monuments to transform the ground control data to NAD83 (86) NGVD 29 datums.

The five monuments collected were approved for blue booking from the National Geodetic Association (NGA) based on the design of the physical monuments, survey plan, and post processing of the GNSS data. However, the blue book process was replaced by their OPUS Shared Solutions Program. To accommodate this new Standard, our Licensed PLS, Philipp Hummel, flew to Tucson, AZ to undergo special training and received a certificate to use OPUS Shared Solutions. The five monuments were approved and published in NOAA's monument database.