

GPS Calibration Report

Project : U3326SiteCalibration

TIP Number	U-3326	Date & Time	11:02:16 AM 3/25/2008
User name	khudson	Zone	North Carolina 3200
Coordinate System	US State Plane 1983(at ground)	Geoid Model	GEOID03 (Conus)
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88		
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	U3326-6
Latitude	36°21'25.92651"N
Longitude	79°41'10.87168"W
Site Scale Factor	0.9999780600
Height	685.185sft

The North Carolina Department of Transportation uses a **Localized Coordinate System** which is very similar to North Carolina Zone 3200 from which it is derived.

Please take care in utilizing these coordinates to eliminate confusion of the two systems.

This file is to aid in the use of Real Time Kinematic (RTK) GPS during construction layout.

Datum Transformation Parameters

Datum Transformation computation not requested

Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

Horizontal Adjustment Parameters

Northing coordinate of rotation center	935807.776sft
Easting coordinate of rotation center	1797152.859sft
Rotation about the center point	0°00'00"
Translation north	-0.011sft
Translation east	-0.012sft
Scale factor	1.00000016

Vertical Adjustment Parameters

Northing coordinate of origin point	933308.603sft
Easting coordinate of origin point	1802566.161sft
Vertical separation at origin	0.073sft
Slope north	0.820ppm
Slope east	-1.188ppm

Geoid Model Definition

GEOID03 (Conus)

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary

	Maximum error	Root Mean Square error	Point
Horizontal	0.016sft	0.002	WYRICK_GPS
Vertical	0.083sft	0.012	SADLER_GPS
Three-dimensional	0.084sft	0.013	SADLER_GPS

Point Residuals

WGS84 Coordinates

Point	u3326-1_GPS
Latitude	36°18'44.79166"N
Longitude	79°40'12.21044"W
Height	714.503sft

Calculated point FOR DISPLAY ONLY

Northing	933308.603sft
Easting	1802566.161sft
Elevation	818.527sft
Horz error	0.006sft
Vert error	0.037sft
3D error	0.037sft

Local Coordinates

Point	u3326-1
Northing	933308.599sft
Easting	1802566.157sft
Elevation	818.490sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-2_GPS
Latitude	36°18'54.47453"N
Longitude	79°40'18.90837"W
Height	718.422sft

Northing	934291.507sft
Easting	1802024.600sft
Elevation	822.508sft
Horz error	0.005sft
Vert error	0.031sft
3D error	0.031sft

Point	u3326-2
Northing	934291.506sft
Easting	1802024.595sft
Elevation	822.477sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-3_GPS
Latitude	36°20'00.72492"N
Longitude	79°41'51.59621"W
Height	729.277sft

Northing	941043.559sft
Easting	1794485.947sft
Elevation	833.919sft
Horz error	0.004sft
Vert error	0.031sft
3D error	0.031sft

Point	u3326-3
Northing	941043.555sft
Easting	1794485.947sft
Elevation	833.950sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-4_GPS
Latitude	36°20'02.99461"N
Longitude	79°41'34.61732"W
Height	744.926sft

Northing	941263.357sft
Easting	1795876.813sft
Elevation	849.527sft
Horz error	0.003sft
Vert error	0.024sft
3D error	0.024sft

Point	u3326-4
Northing	941263.356sft
Easting	1795876.810sft
Elevation	849.551sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-5_GPS
Latitude	36°21'29.71574"N
Longitude	79°41'26.13560"W
Height	678.407sft

Northing	950028.494sft
Easting	1796631.818sft
Elevation	783.337sft
Horz error	0.002sft
Vert error	0.046sft
3D error	0.046sft

Point	u3326-5
Northing	950028.494sft
Easting	1796631.820sft
Elevation	783.383sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-6_GPS
Latitude	36°21'25.92658"N

Northing	949636.640sft
Easting	1797877.737sft

Point	u3326-6
Northing	949636.642sft

Longitude	79°41'10.87153"W
Height	685.056sft

Elevation	789.928sft
Horz error	0.001sft
Vert error	0.038sft
3D error	0.038sft

Easting	1797877.737sft
Elevation	789.966sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-8_GPS
Latitude	36°22'55.33780"N
Longitude	79°39'44.52638"W
Height	611.078sft

Northing	958630.801sft
Easting	1805001.017sft
Elevation	716.075sft
Horz error	0.005sft
Vert error	0.025sft
3D error	0.025sft

Point	u3326-8
Northing	958630.804sft
Easting	1805001.022sft
Elevation	716.100sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3326-7_GPS
Latitude	36°22'44.57548"N
Longitude	79°39'37.72532"W
Height	626.106sft

Northing	957538.698sft
Easting	1805549.923sft
Elevation	731.042sft
Horz error	0.005sft
Vert error	0.018sft
3D error	0.019sft

Point	u3326-7
Northing	957538.702sft
Easting	1805549.927sft
Elevation	731.061sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	WYRICK_GPS
Latitude	36°10'59.62328"N
Longitude	79°46'26.92349"W
Height	697.827sft

Northing	886492.471sft
Easting	1771531.194sft
Elevation	800.866sft
Horz error	0.016sft
Vert error	0.041sft
3D error	0.044sft

Point	WYRICK
Northing	886492.455sft
Easting	1771531.192sft
Elevation	800.907sft
Utilized	Horz and Vert
Quality	Control quality

Point	LITTLE_GPS
Latitude	36°14'47.18905"N
Longitude	79°55'14.26323"W
Height	817.331sft

Northing	909872.972sft
Easting	1728515.874sft
Elevation	923.235sft
Horz error	0.008sft
Vert error	0.054sft
3D error	0.055sft

Point	LITTLE
Northing	909872.976sft
Easting	1728515.881sft
Elevation	923.181sft
Utilized	Horz and Vert
Quality	Control quality

Point	SADLER_GPS
Latitude	36°24'20.54256"N
Longitude	79°37'14.13133"W
Height	693.865sft

Northing	967168.202sft
Easting	1817353.271sft
Elevation	798.805sft
Horz error	0.010sft
Vert error	0.083sft
3D error	0.084sft

Point	SADLER
Northing	967168.208sft
Easting	1817353.280sft
Elevation	798.722sft
Utilized	Horz and Vert
Quality	Control quality

Point	WADE_GPS
Latitude	36°13'22.25937"N
Longitude	79°30'49.89789"W
Height	657.028sft

Northing	900417.873sft
Easting	1848419.803sft
Elevation	757.824sft
Horz error	0.013sft
Vert error	0.018sft
3D error	0.022sft

Point	WADE
Northing	900417.881sft
Easting	1848419.793sft
Elevation	757.807sft
Utilized	Horz and Vert
Quality	Control quality