

GPS Calibration Report

Project : u3324_071807

TIP Number	U3324	Date & Time	8:13:08 AM 9/10/2009
User name	asmith	Zone	North Carolina 3200
Coordinate System	US State Plane 1983(at ground)	Geoid Model	Geoid99 (Conus) NC Sub Grid
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	U3324-1
Latitude	35°10'20.39603"N
Longitude	79°24'17.49427"W
Site Scale Factor	1.0001371690
Height	409.898sft

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	516599.097sft
Easting coordinate of rotation center	1878519.210sft
Rotation about the center point	0°00'00"
Translation north	0.000sft
Translation east	0.001sft
Scale factor	0.99999975

Vertical Adjustment Parameters

Northing coordinate of origin point	512946.507sft
Easting coordinate of origin point	1876683.595sft
Vertical separation at origin	-0.023sft
Slope north	-7.652ppm
Slope east	0.376ppm

Geoid Model Definition

Geoid99 (Conus) NC Sub Grid

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary			
	Maximum error	Root Mean Square error	Point
Horizontal	0.003sft	0.001	u3324-7_GPS
Vertical	0.001sft	0.000	u3324-4_GPS
Three-dimensional	0.003sft	0.001	u3324-7_GPS

Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
Point	u3324-5_GPS	Northing	512946.507sft	Point	u3324-5
Latitude	35°09'31.36955"N	Easting	1876683.595sft	Northing	512946.507sft
Longitude	79°24'45.32217"W	Elevation	470.798sft	Easting	1876683.597sft
Height	366.758sft	Horz error	0.001sft	Elevation	470.799sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.001sft	Quality	Adjusted quality
Point	u3324-3_GPS	Northing	518408.529sft	Point	u3324-3
Latitude	35°10'25.49872"N	Easting	1879348.427sft	Northing	518408.530sft
Longitude	79°24'13.49696"W	Elevation	502.022sft	Easting	1879348.426sft
Height	398.116sft	Horz error	0.000sft	Elevation	502.022sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.000sft	Quality	Adjusted quality
Point	u3324-4_GPS	Northing	519334.021sft	Point	u3324-4
Latitude	35°10'34.68473"N	Easting	1880163.576sft	Northing	519334.021sft
Longitude	79°24'03.72329"W	Elevation	456.650sft	Easting	1880163.575sft
Height	352.755sft	Horz error	0.001sft	Elevation	456.651sft
		Vert error	0.001sft	Utilized	Horz and Vert
		3D error	0.001sft	Quality	Adjusted quality
Point	u3324-6_GPS	Northing	514246.361sft	Point	u3324-6
Latitude	35°09'44.25554"N	Easting	1877417.915sft	Northing	514246.361sft
Longitude	79°24'36.54338"W	Elevation	522.316sft	Easting	1877417.915sft
Height	418.307sft	Horz error	0.000sft	Elevation	522.317sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.000sft	Quality	Adjusted quality
Point	u3324-7_GPS	Northing	517731.995sft	Point	u3324-7
Latitude	35°10'18.72970"N	Easting	1877426.320sft	Northing	517731.998sft
Longitude	79°24'36.61559"W	Elevation	578.620sft	Easting	1877426.321sft
Height	474.739sft	Horz error	0.003sft	Elevation	578.620sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.003sft	Quality	Adjusted quality
Point	u3324-8_GPS	Northing	516934.647sft	Point	u3324-8
Latitude	35°10'10.90475"N	Easting	1878929.204sft	Northing	516934.647sft

Longitude	79°24'18.47417"W
Height	430.335sft

Elevation	534.283sft
Horz error	0.000sft
Vert error	0.000sft
3D error	0.000sft

Easting	1878929.204sft
Elevation	534.282sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	u3324-9_GPS
Latitude	35°10'07.54174"N
Longitude	79°24'09.58962"W
Height	405.586sft

Northing	516591.619sft
Easting	1879665.446sft
Elevation	509.566sft
Horz error	0.003sft
Vert error	0.000sft
3D error	0.003sft

Point	u3324-9
Northing	516591.617sft
Easting	1879665.444sft
Elevation	509.565sft
Utilized	Horz and Vert
Quality	Adjusted quality