

GPS Calibration Report

Project : u3615 control sheet site cal

TIP Number	U3615	Date & Time	1:34:25 PM 12/9/2005
User name	khudson	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	NAVD 88		
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	HAWTHORNE RESET
Latitude	36°05'07.81284"N
Longitude	79°56'20.42091"W
Site Scale Factor	1.0000722152
Height	787.618sft

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	829543.045sft
Easting coordinate of rotation center	1700034.937sft
Rotation about the center point	0°00'00"
Translation north	-0.015sft
Translation east	-0.017sft
Scale factor	1.00000054

Vertical Adjustment Parameters

Northing coordinate of origin point	821044.700sft
Easting coordinate of origin point	1693426.270sft
Vertical separation at origin	-0.042sft
Slope north	11.347ppm
Slope east	-5.055ppm

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	0.006sft	0.001	U3615-6_WGS84
Vertical	0.002sft	0.000	U3615-1_WGS84
Three-dimensional	0.007sft	0.001	U3615-6_WGS84

Point Residuals

WGS84 Coordinates

Point	U3615-1_WGS84
Latitude	36°00'05.42076"N
Longitude	80°02'11.23798"W
Height	778.414sft

Calculated point FOR DISPLAY ONLY

Northing	821044.700sft
Easting	1693426.270sft
Elevation	881.654sft
Horz error	0.004sft
Vert error	0.002sft
3D error	0.005sft

Local Coordinates

Point	U3615-1
Northing	821044.701sft
Easting	1693426.266sft
Elevation	881.652sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-2_WGS84
Latitude	36°00'10.49593"N
Longitude	80°02'15.48986"W
Height	764.608sft

Northing	821561.548sft
Easting	1693082.273sft
Elevation	867.894sft
Horz error	0.001sft
Vert error	0.001sft
3D error	0.002sft

Point	U3615-2
Northing	821561.548sft
Easting	1693082.272sft
Elevation	867.895sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-3_WGS84
Latitude	36°00'56.79173"N
Longitude	80°02'36.17724"W
Height	802.456sft

Northing	826260.774sft
Easting	1691431.698sft
Elevation	906.085sft
Horz error	0.003sft
Vert error	0.000sft
3D error	0.003sft

Point	U3615-3
Northing	826260.772sft
Easting	1691431.697sft
Elevation	906.084sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-4_WGS84
Latitude	36°01'04.58615"N
Longitude	80°02'33.47252"W
Height	803.007sft

Northing	827046.610sft
Easting	1691662.175sft
Elevation	906.667sft
Horz error	0.002sft
Vert error	0.001sft
3D error	0.002sft

Point	U3615-4
Northing	827046.608sft
Easting	1691662.175sft
Elevation	906.668sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-5_WGS84
Latitude	36°02'03.41932"N
Longitude	80°01'30.97717"W
Height	775.228sft

Northing	832942.370sft
Easting	1696857.600sft
Elevation	878.953sft
Horz error	0.005sft
Vert error	0.001sft
3D error	0.005sft

Point	U3615-5
Northing	832942.367sft
Easting	1696857.603sft
Elevation	878.952sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-6_WGS84
Latitude	36°02'06.30992"N

Northing	833228.122sft
Easting	1697495.257sft

Point	U3615-6
Northing	833228.125sft

Longitude	80°01'23.25016"W
Height	756.449sft

Elevation	860.157sft
Horz error	0.006sft
Vert error	0.002sft
3D error	0.007sft

Easting	1697495.262sft
Elevation	860.159sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-7_WGS84
Latitude	36°02'23.27647"N
Longitude	79°59'58.47215"W
Height	708.883sft

Northing	834872.859sft
Easting	1704475.563sft
Elevation	812.337sft
Horz error	0.001sft
Vert error	0.001sft
3D error	0.002sft

Point	U3615-7
Northing	834872.860sft
Easting	1704475.562sft
Elevation	812.338sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-8_WGS84
Latitude	36°02'26.19511"N
Longitude	79°59'47.18968"W
Height	743.991sft

Northing	835158.680sft
Easting	1705405.130sft
Elevation	847.412sft
Horz error	0.002sft
Vert error	0.002sft
3D error	0.003sft

Point	U3615-8
Northing	835158.680sft
Easting	1705405.132sft
Elevation	847.410sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-9_WGS84
Latitude	36°01'55.66402"N
Longitude	79°58'15.49087"W
Height	754.936sft

Northing	831996.705sft
Easting	1712905.891sft
Elevation	857.781sft
Horz error	0.001sft
Vert error	0.001sft
3D error	0.001sft

Point	U3615-9
Northing	831996.706sft
Easting	1712905.892sft
Elevation	857.780sft
Utilized	Horz and Vert
Quality	Control quality

Point	U3615-10_WGS84
Latitude	36°01'49.01996"N
Longitude	79°58'06.87093"W
Height	788.771sft

Northing	831317.934sft
Easting	1713607.342sft
Elevation	891.542sft
Horz error	0.004sft
Vert error	0.001sft
3D error	0.004sft

Point	U3615-10
Northing	831317.935sft
Easting	1713607.338sft
Elevation	891.543sft
Utilized	Horz and Vert
Quality	Control quality