

GPS Calibration Report

Project : R2611 Static Site Cal

TIP Number	R-2611	Date & Time	4:28:14 PM 5/10/2005
User name	khudson	Zone	North Carolina 3200(3)
Coordinate System	Site(at ground)		
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88	Geoid Model	Geoid03 (Conus) NC Sub Grid(2)
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	R2413-10
Latitude	36°10'05.55757"N
Longitude	79°56'44.02392"W
Site Scale Factor	1.0000364200
Height	781.389sft

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	857189.035sft
Easting coordinate of rotation center	1708610.862sft
Rotation about the center point	0°00'00"
Translation north	-0.012sft
Translation east	-0.026sft
Scale factor	1.00000005

Vertical Adjustment Parameters

Northing coordinate of origin point	861338.289sft
Easting coordinate of origin point	1696348.844sft
Vertical separation at origin	-0.031sft
Slope north	-0.831ppm
Slope east	0.621ppm

Geoid Model Definition

Geoid03 (Conus) NC Sub Grid(2)

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary			
	Maximum error	Root Mean Square error	Point
Horizontal	0.003sft	0.001	R2611-3_GPS
Vertical	0.000sft	0.000	R2611-1_GPS
Three-dimensional	0.003sft	0.001	R2611-3_GPS

Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
Point	R2611-1_GPS	Northing	861338.289sft	Point	R2611-1
Latitude	36°06'44.15922"N	Easting	1696348.844sft	Northing	861338.286sft
Longitude	80°01'40.76297"W	Elevation	967.883sft	Easting	1696348.845sft
Height	862.827sft	Horz error	0.002sft	Elevation	967.883sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.002sft	Quality	Adjusted quality
Point	R2611-2_GPS	Northing	861687.346sft	Point	R2611-2
Latitude	36°06'47.74378"N	Easting	1697650.782sft	Northing	861687.346sft
Longitude	80°01'24.94105"W	Elevation	970.154sft	Easting	1697650.784sft
Height	865.137sft	Horz error	0.002sft	Elevation	970.154sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.002sft	Quality	Adjusted quality
Point	R2611-3_GPS	Northing	859633.619sft	Point	R2611-3
Latitude	36°06'27.90610"N	Easting	1702295.403sft	Northing	859633.622sft
Longitude	80°00'28.08554"W	Elevation	962.441sft	Easting	1702295.402sft
Height	857.707sft	Horz error	0.003sft	Elevation	962.441sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.003sft	Quality	Adjusted quality
Point	R2611-4_GPS	Northing	858930.143sft	Point	R2611-4
Latitude	36°06'21.01982"N	Easting	1702991.751sft	Northing	858930.143sft
Longitude	80°00'19.51330"W	Elevation	953.849sft	Easting	1702991.750sft
Height	849.175sft	Horz error	0.001sft	Elevation	953.849sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.001sft	Quality	Adjusted quality
Point	R2611-5_GPS	Northing	857876.621sft	Point	R2611-5
Latitude	36°06'11.26032"N	Easting	1709635.716sft	Northing	857876.624sft
Longitude	79°58'58.42713"W	Elevation	944.235sft	Easting	1709635.715sft
Height	839.900sft	Horz error	0.002sft	Elevation	944.235sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.002sft	Quality	Adjusted quality
Point	R2611-6_GPS	Northing	857338.028sft	Point	R2611-6
Latitude	36°06'06.00285"N	Easting	1710333.878sft	Northing	857338.028sft

Longitude	79°58'49.85524"W
Height	831.933sft

Elevation	936.213sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Easting	1710333.877sft
Elevation	936.213sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	R2413-2_GPS
Latitude	36°05'37.01434"N
Longitude	79°57'58.36226"W
Height	791.818sft

Northing	854365.266sft
Easting	1714530.965sft
Elevation	895.772sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	R2413-2
Northing	854365.267sft
Easting	1714530.964sft
Elevation	895.772sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	R2413-1_GPS
Latitude	36°05'26.28972"N
Longitude	79°57'54.51566"W
Height	766.841sft

Northing	853277.721sft
Easting	1714836.113sft
Elevation	870.729sft
Horz error	0.002sft
Vert error	0.000sft
3D error	0.002sft

Point	R2413-1
Northing	853277.719sft
Easting	1714836.112sft
Elevation	870.729sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	R2611-7_GPS
Latitude	36°05'32.84984"N
Longitude	79°57'14.19872"W
Height	816.321sft

Northing	853909.097sft
Easting	1718151.435sft
Elevation	920.084sft
Horz error	0.001sft
Vert error	0.000sft
3D error	0.001sft

Point	R2611-7
Northing	853909.096sft
Easting	1718151.436sft
Elevation	920.084sft
Utilized	Horz and Vert
Quality	Adjusted quality

Point	R2611-8_GPS
Latitude	36°05'29.25384"N
Longitude	79°56'59.75371"W
Height	790.986sft

Northing	853534.099sft
Easting	1719333.479sft
Elevation	894.674sft
Horz error	0.002sft
Vert error	0.000sft
3D error	0.002sft

Point	R2611-8
Northing	853534.098sft
Easting	1719333.481sft
Elevation	894.674sft
Utilized	Horz and Vert
Quality	Adjusted quality