

# GPS Calibration Report

*Project : U4011*

## TIP Number

User name	ggreen	Date & Time	3:10:18 PM 12/5/2007
Coordinate System	US State Plane 1983(at ground)	Zone	North Carolina 3200
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88	Geoid Model	Geoid03 (Conus) NC Sub Grid
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

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## LOCAL SITE INFORMATION

Localized around	
Latitude	35°56'44.40526"N
Longitude	78°50'15.83937"W
Site Scale Factor	1.0000006968
Height	319.616sft

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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.

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## Datum Transformation Parameters

Datum Transformation computation not requested

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## Updated Default Projection (Transverse Mercator) Definition

Updated default projection not requested

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## Horizontal Adjustment Parameters

Northing coordinate of rotation center	799159.717sft
Easting coordinate of rotation center	2048030.742sft
Rotation about the center point	0°00'08"
Translation north	0.059sft
Translation east	0.022sft
Scale factor	0.99997946

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## Vertical Adjustment Parameters

Northing coordinate of origin point	799159.776sft
Easting coordinate of origin point	2048030.765sft
Vertical separation at origin	0.715sft
Slope north	-0.047ppm
Slope east	-0.010ppm

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# Geoid Model Definition

Geoid03 (Conus) NC Sub Grid

## Residual Differences Between GPS (WGS84) And Local Coordinates

Summary			
	Maximum error	Root Mean Square error	Point
Horizontal	0.000sft	0.000	U4011-1_GPS
Vertical	0.000sft	0.000	U4011-1_GPS
Three-dimensional	0.000sft	0.000	U4011-1_GPS

### Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
<b>Point</b>	U4011-1_GPS	<b>Northing</b>	799159.776sft	<b>Point</b> U4011-1	
<b>Latitude</b>	35°56'44.40467"N	<b>Easting</b>	2048030.765sft	<b>Northing</b>	799159.776sft
<b>Longitude</b>	78°50'15.83966"W	<b>Elevation</b>	423.599sft	<b>Easting</b>	2048030.765sft
<b>Height</b>	318.901sft	<b>Horz error</b>	0.000sft	<b>Elevation</b>	423.599sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.000sft	<b>Quality</b>	Adjusted quality
<b>Point</b>	U4011-2_GPS	<b>Northing</b>	797612.769sft	<b>Point</b> U4011-2	
<b>Latitude</b>	35°56'29.10990"N	<b>Easting</b>	2047714.566sft	<b>Northing</b>	797612.769sft
<b>Longitude</b>	78°50'19.71520"W	<b>Elevation</b>	414.922sft	<b>Easting</b>	2047714.566sft
<b>Height</b>	310.202sft	<b>Horz error</b>	0.000sft	<b>Elevation</b>	414.922sft
		<b>Vert error</b>	0.000sft	<b>Utilized</b>	Horz and Vert
		<b>3D error</b>	0.000sft	<b>Quality</b>	Adjusted quality