

GPS Calibration Report

Project : y4807f_sc

TIP Number	Y-4807-F		
User name	khudson	Date & Time	11:34:20 AM 9/30/2013
Coordinate System	US State Plane 1983(at ground)	Zone	North Carolina 3200
Horizontal Datum	NAD 1983 (Conus)		
Vertical Datum	NAVD88	Geoid Model	G09NC
Coordinate Units	US survey feet		
Distance Units	US survey feet		
Height Units	US survey feet		

LOCAL SITE INFORMATION

Localized around	Y4807F-1
Latitude	36°06'27.32388"N
Longitude	79°39'30.18036"W
Site Scale Factor	1.0000475096
Height	662.322sft

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	858187.456sft
Easting coordinate of rotation center	1808903.621sft
Rotation about the center point	0°00'00"
Translation north	0.005sft
Translation east	-0.008sft
Scale factor	0.99999818

Vertical Adjustment Parameters

Northing coordinate of origin point	858709.328sft
Easting coordinate of origin point	1805511.680sft
Vertical separation at origin	0.019sft
Slope north	-3.735ppm
Slope east	0.138ppm

Geoid Model Definition

G09NC

Residual Differences Between GPS (WGS84) And Local Coordinates

Summary

	Maximum error	Root Mean Square error	Point
Horizontal	0.006sft	0.002	Y4807F-3_GPS
Vertical	0.000sft	0.000	Y4807F-1_GPS
Three-dimensional	0.006sft	0.002	Y4807F-3_GPS

Point Residuals

WGS84 Coordinates		Calculated point FOR DISPLAY ONLY		Local Coordinates	
Point	Y4807F-1_GPS	Northing	858709.328sft	Point	Y4807F-1
Latitude	36°06'27.32386"N	Easting	1805511.680sft	Northing	858709.326sft
Longitude	79°39'30.18028"W	Elevation	762.732sft	Easting	1805511.675sft
Height	662.303sft	Horz error	0.005sft	Elevation	762.732sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.005sft	Quality	Adjusted quality
Point	Y4807F-2_GPS	Northing	859256.661sft	Point	Y4807F-2
Latitude	36°06'32.82159"N	Easting	1806819.665sft	Northing	859256.662sft
Longitude	79°39'14.28533"W	Elevation	759.718sft	Easting	1806819.670sft
Height	659.314sft	Horz error	0.005sft	Elevation	759.719sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.005sft	Quality	Adjusted quality
Point	Y4807F-3_GPS	Northing	856854.999sft	Point	Y4807F-3
Latitude	36°06'09.37397"N	Easting	1811496.628sft	Northing	856855.002sft
Longitude	79°38'17.10335"W	Elevation	751.004sft	Easting	1811496.622sft
Height	650.804sft	Horz error	0.006sft	Elevation	751.004sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.006sft	Quality	Adjusted quality
Point	Y4807F-4_GPS	Northing	857928.856sft	Point	Y4807F-4
Latitude	36°06'20.01113"N	Easting	1811786.479sft	Northing	857928.855sft
Longitude	79°38'13.65546"W	Elevation	761.576sft	Easting	1811786.484sft
Height	661.357sft	Horz error	0.005sft	Elevation	761.576sft
		Vert error	0.000sft	Utilized	Horz and Vert
		3D error	0.005sft	Quality	Adjusted quality