

6/14/2014
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Survey & Constr Alignment Data Sheets.dgn
Plotted By: Stewart Williams

PROJECT MANAGER _____
SURVEYED BY, DATE _____
DESIGN BY _____
SUBSURFACE UTILITY BY, DATE _____

Note: To Convert VA State Plane Coordinates NAD 83 Metric Values to VDOT Project Coordinates:
1. Reduce the Easting 2.5 Million Meters, and the South and North Zone Northing by 1 and 2 Million Respectively.
2. Multiply by the US Survey Foot (3,280,833.3333).
3. Multiply These Values by the Combined Scale and Elevation Factor (1.00005) for this County.
A Reverse of This Procedure will Transform VDOT Project Coordinates to NAD 83 Values.

DESIGN FEATURES RELATING TO CONSTRUCTION OR TO REGULATION AND CONTROL OF TRAFFIC MAY BE SUBJECT TO CHANGE AS DEEMED NECESSARY BY THE DEPARTMENT

REVISED	STATE	ROUTE	STATE PROJECT	SHEET NO.
	VA.	XXX	XXXX-XXX-XXX, C-50X R-XXX	IF

LD-200 (REV. 6/2000)

Virginia Department of Transportation Horizontal Control

Control Station I. D. 36 - 0053 Project 0615-036-156.P101.R201.C501

Route 615 City/County Gloucester Date Nov. 2011 East (X) 3844816.2142 ft.

Established By VDOT North (Y) 392927.3104 ft.

Vertical Datum Based On NAVD 88 Geoid 2009 Elevation 79.80 ft.

Horizontal Datum Based On NAD 83 (2007) Zone North (South) (circle one)

Azimuth to Station 36-0054 ~ 66°16'09"

Latitude: 37°23'47.62968" N (5 Decimal Places)

Longitude: 76°33'32.60557" W (5 Decimal Places)

Geoid Separation (N) ~ -35.292m

Ellipsoid Height (H) ~ -10.969m (WGS 84)

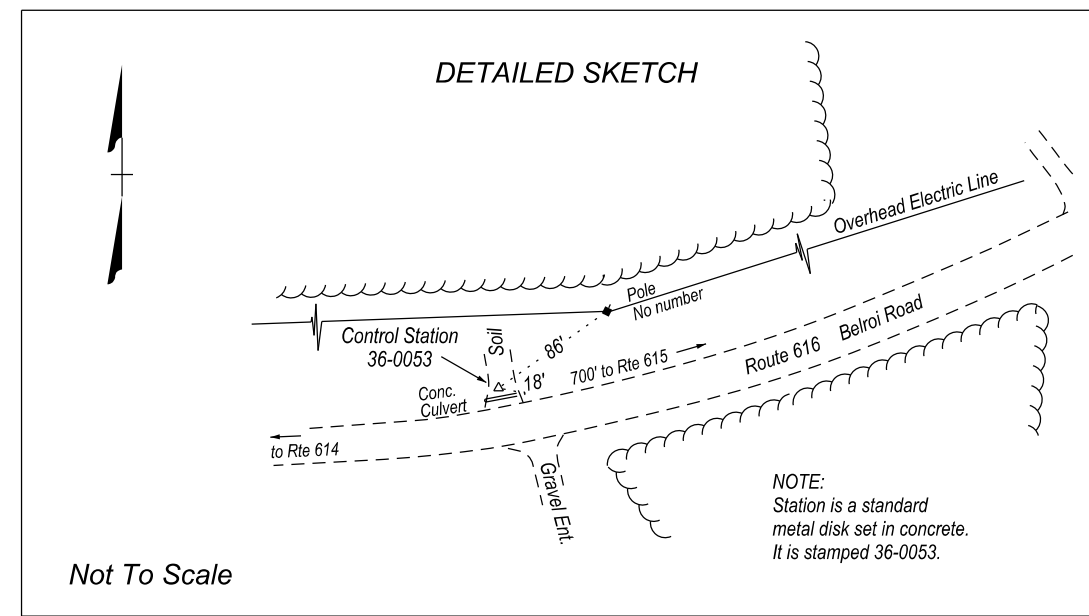
Control Based On: Station "040" (PID #GV9550) Horizontal "H 457" (PID #GV0579) Vertical

Virginia State Plane Coordinates - NAD 83 Metric Values
East (X) 3671843.7337 m
North (Y) 1119758.4988 m
Ortho. Elevation (H) 24.323 m

To convert state plane metric units to VDOT project values, use the following formula:
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U. S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.

Reverse This Procedure to Transform VDOT Project Coordinates to NAD 83 Metric Plane Coordinates

• Sketch and Detailed Description Below •



LD-200 (REV. 6/2000)

Virginia Department of Transportation Horizontal Control

Control Station I. D. 36 - 0054 Project 0615-036-156.P101.R201.C501 (aka 069)

Route 615 City/County Gloucester Date Nov. 2011 East (X) 3849195.0093 ft.

Established By VDOT North (Y) 393093.8331 ft.

Vertical Datum Based On NAVD 88 Geoid 2009 Elevation 80.25 ft.

Horizontal Datum Based On NAD 83 (2007) Zone North (South) (circle one)

Azimuth to Station 36-0053 ~ 246°16'09"

Latitude: 37°23'49.19899" N (5 Decimal Places)

Longitude: 76°33'27.87004" W (5 Decimal Places)

Geoid Separation (N) ~ -35.294m

Ellipsoid Height (H) ~ -10.834m (WGS 84)

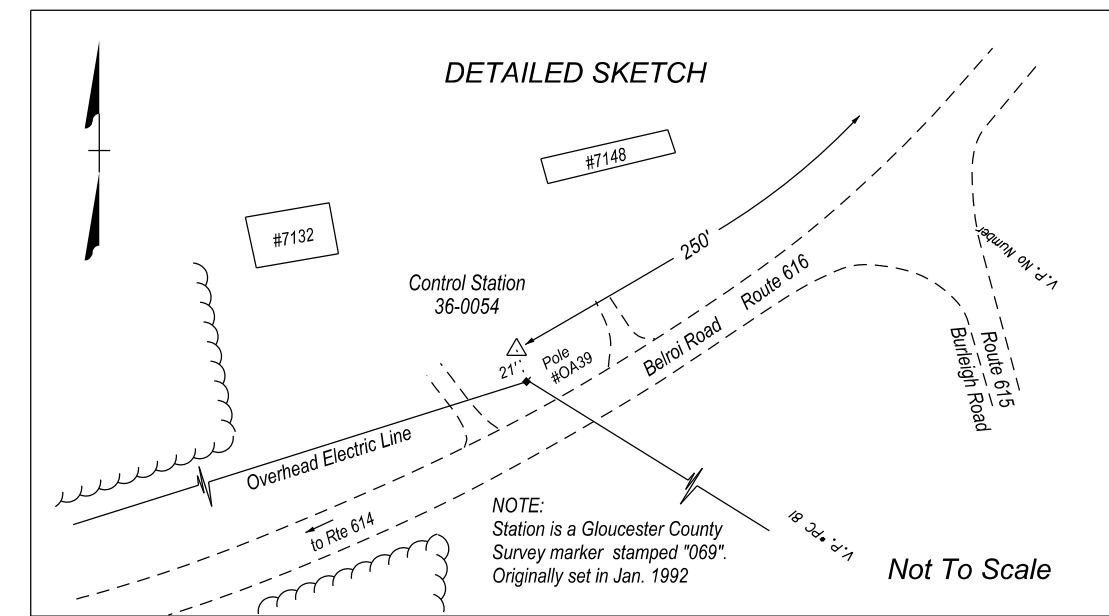
Control Based On: Station "040" (PID #GV9550) Horizontal "H 457" (PID #GV0579) Vertical

Virginia State Plane Coordinates - NAD 83 Metric Values
East (X) 3671959.1849 m
North (Y) 1119809.2495 m
Ortho. Elevation (H) 24.460 m

To convert state plane metric units to VDOT project values, use the following formula:
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U. S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.

Reverse This Procedure to Transform VDOT Project Coordinates to NAD 83 Metric Plane Coordinates

• Sketch and Detailed Description Below •



Horizontal Datum NAD 83/07
South Zone

SURVEY ALIGNMENTS

POINT ID.	STATION	BEARING	VDOT PROJECT NORTH (Y)	COORDINATES EAST (X)
	Rte 615 Traverse			
SS	10+00.000		393,179.482	3,845,448.908
PI	15+52.195	S 17° 30' 55" E	392,652.888	3,845,615.096
PI	20+50.100	S 56° 05' 52" E	392,375.168	3,846,028.353
PI	24+59.059	S 62° 02' 09" E	392,183.399	3,846,389.562
PI	30+75.058	S 55° 11' 54" E	391,831.826	3,846,895.379
PI	34+74.772	N 88° 29' 57" E	391,842.295	3,847,294.956
PI	38+67.181	S 35° 39' 04" E	391,523.431	3,847,523.671
PI	43+19.003	S 55° 52' 46" E	391,269.987	3,847,897.716
PI	47+45.936	S 42° 39' 14" E	390,955.995	3,848,186.992
PI	51+19.651	S 64° 52' 16" E	390,797.295	3,848,525.337
PI	55+15.198	S 57° 29' 37" E	390,566.491	3,848,846.564
PI	62+47.970	S 61° 52' 15" E	390,172.704	3,849,464.534
PI	68+83.614	S 14° 20' 42" E	389,873.023	3,850,025.100
PI	72+79.229	S 44° 17' 12" E	389,489.742	3,850,123.117
PI	78+23.949	S 44° 17' 12" E	389,099.802	3,850,503.467
PI	84+12.608	N 88° 23' 37" E	389,116.304	3,851,091.895
PI	89+90.685	S 68° 38' 43" E	388,905.802	3,851,630.283
PI	95+96.591	S 83° 09' 51" E	388,833.684	3,852,231.882

LD-200 (REV. 6/2000)

Virginia Department of Transportation Horizontal Control

Control Station I. D. 36 - 0055 Project 0615-036-156.P101.R201.C501

Route 615 City/County Gloucester Date Nov. 2011 East (X) 3852231.8634 ft.

Established By VDOT North (Y) 388833.8684 ft.

Vertical Datum Based On NAVD 88 Geoid 2009 Elevation 78.10 ft.

Horizontal Datum Based On NAD 83 (2007) Zone North (South) (circle one)

Azimuth to Station 36-0056 ~ 358°52'39"

Latitude: 37°23'05.64837" N (5 Decimal Places)

Longitude: 76°32'01.78621" W (5 Decimal Places)

Geoid Separation (N) ~ -35.364m

Ellipsoid Height (H) ~ -11.559m (WGS 84)

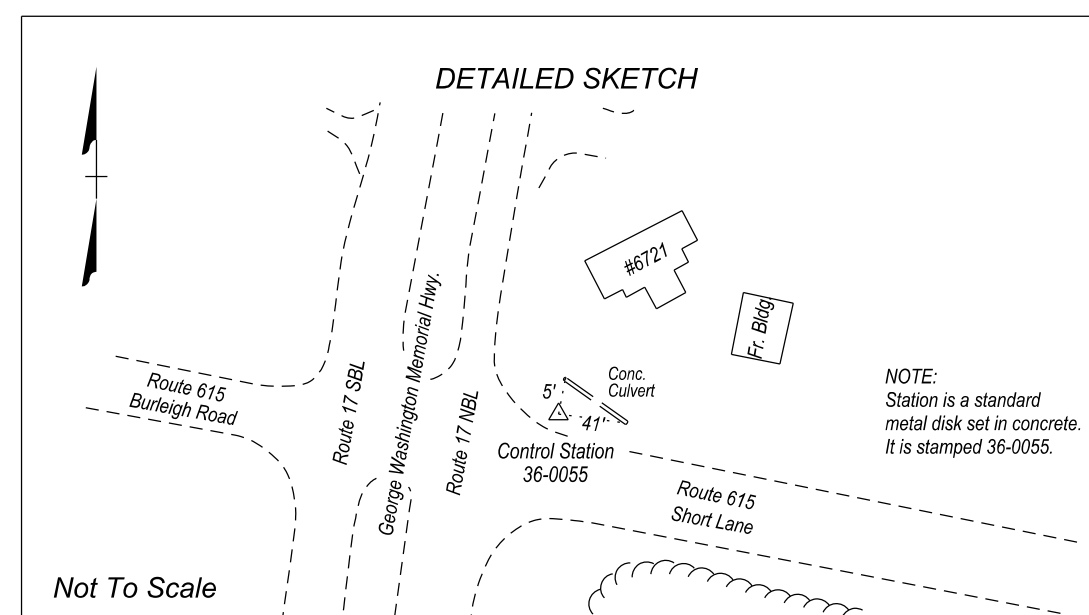
Control Based On: Station "040" (PID #GV9550) Horizontal "H 457" (PID #GV0579) Vertical

Virginia State Plane Coordinates - NAD 83 Metric Values
East (X) 3674103.9212 m
North (Y) 1118510.8189 m
Ortho. Elevation (H) 23.805 m

To convert state plane metric units to VDOT project values, use the following formula:
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U. S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.

Reverse This Procedure to Transform VDOT Project Coordinates to NAD 83 Metric Plane Coordinates

• Sketch and Detailed Description Below •



LD-200 (REV. 6/2000)

Virginia Department of Transportation Horizontal Control

Control Station I. D. 36 - 0056 Project 0615-036-156.P101.R201.C501

Route 615 City/County Gloucester Date Nov. 2011 East (X) 3852224.5009 ft.

Established By VDOT North (Y) 389210.4523 ft.

Vertical Datum Based On NAVD 88 Geoid 2009 Elevation 79.26 ft.

Horizontal Datum Based On NAD 83 (2007) Zone North (South) (circle one)

Azimuth to Station 36-0055 ~ 178°52'39"

Latitude: 37°23'09.37420" N (5 Decimal Places)

Longitude: 76°32'01.78044" W (5 Decimal Places)

Geoid Separation (N) ~ -35.362m

Ellipsoid Height (H) ~ -11.204m (WGS 84)

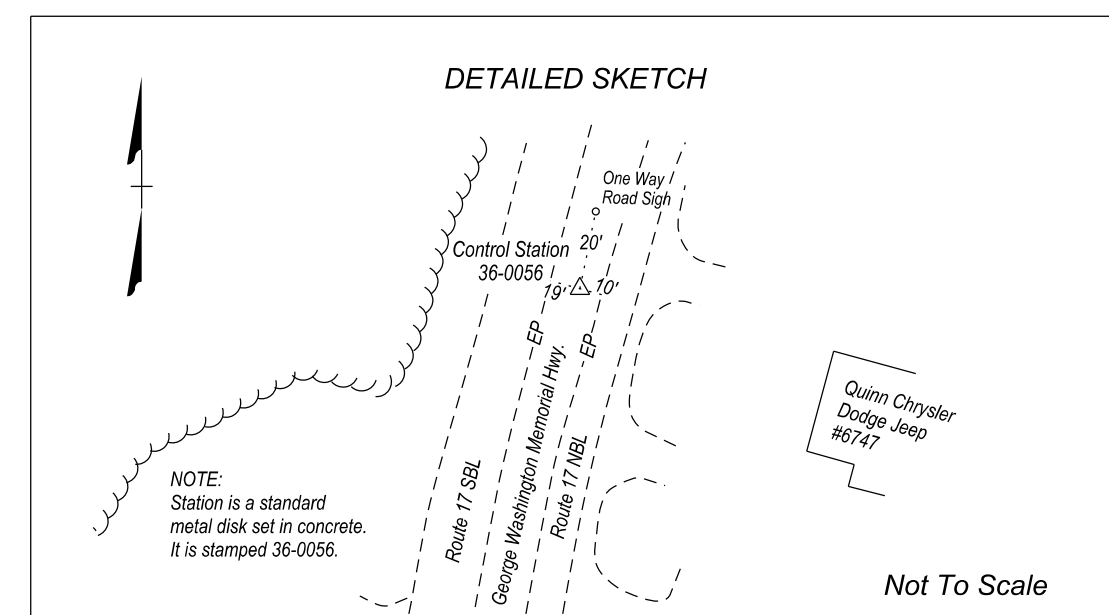
Control Based On: Station "040" (PID #GV9550) Horizontal "H 457" (PID #GV0579) Vertical

Virginia State Plane Coordinates - NAD 83 Metric Values
East (X) 3674101.6711 m
North (Y) 1118625.6549 m
Ortho. Elevation (H) 24.158 m

To convert state plane metric units to VDOT project values, use the following formula:
1. Reduce the Easting Metric Values By 2.5 Million Meters. The South and North Zone Northing Metric Values By 1 and 2 Million Respectively.
2. Multiply These Values by the U. S. Survey Foot (3.280833333)
3. Multiply These Values by Combined Scale and Elevation Factor (1.00005) for the County.

Reverse This Procedure to Transform VDOT Project Coordinates to NAD 83 Metric Plane Coordinates

• Sketch and Detailed Description Below •



Benchmarks ~ NAVD 88 Datum

Elev. Benchmark Description / Location

79.80'	VDOT Control Station 36-0053
80.25'	VDOT Control Station 36-0054
72.70'	NE corner of first brick step (*5802); 111' Rt. of Sta. 22+33 Rte 615 Traverse
36.40'	RR Spike set in base of 24" Ash; 92' Lt. of Sta. 35+93 Rte 615 Traverse
47.01'	RR Spike set in base of 20" Scyamore; 60' Rt. of Sta. 47+60 Rte 615 Traverse
79.87'	RR Spike set in base of Twin 48" Maple; 89' Lt. of Sta. 57+84 Rte 615 Traverse
79.91'	RR Spike set in base of 12" Beech; 34' Rt. of Sta. 73+10 Rte 615 Traverse
78.82'	SE corner of first brick step (*6433); 91' Rt. of Sta. 85+66 Rte 615 Traverse
78.10'	VDOT Control Station 36-0055
79.26'	VDOT Control Station 36-0056

FIGURE 2H - 8 SAMPLE SURVEY ALIGNMENT DATA SHEET

PROJECT	SHEET NO.
XXXX-XXX-XXX	IF