

Vertical Alignment Review with XY Coordinates Report

Report Created: Tuesday, October 31, 2023
Time: 1:46:53 PM

Project: Design

Description:

File Name: V:\1736\active\173620147\engineering\114496\400-Engineering\Roadway\Basemaps\114496_BK963.dgn

Last Revised: 10/27/2023 15:00:23

Note: All units in this report are in feet unless specified otherwise.

Horizontal Alignment: CLP_24

Horizontal Description:

Horizontal Style: Alignment\GE_P_Alignment

Vertical Alignment: CLP_24

Vertical Description:

Vertical Style: Alignment\GE_P_Alignment

		Station	Elevation	Northing	Easting
Element: Linear					
	POT	7042.911 R1	518.893	421727.334	1440212.388
	VPI	7049.911 R1	518.823	421720.894	1440209.647
	Tangent Grade:	-0.010			
	Tangent Length:	7.000			
Element: Linear					
	VPI	7049.911 R1	518.823	421720.894	1440209.647
	VPI	7059.911 R1	518.054	421711.693	1440205.730
	Tangent Grade:	-0.077			
	Tangent Length:	10.000			
Element: Linear					
	VPI	7059.911 R1	518.054	421711.693	1440205.730
	VPI	7106.945 R1	513.278	421668.417	1440187.306
	Tangent Grade:	-0.102			
	Tangent Length:	47.034			
Element: Linear					
	VPI	7106.945 R1	513.278	421668.417	1440187.306
	VPI	7116.945 R1	512.509	421659.216	1440183.389
	Tangent Grade:	-0.077			
	Tangent Length:	10.000			
Element: Linear					

Horizontal Alignment: CLP_24**Horizontal Description:****Horizontal Style:** Alignment\GE_P_Alignment

	VPI	7116.945 R1	512.509	421659.216	1440183.389
	VPI	7128.174 R1	512.333	421648.885	1440178.991
	Tangent Grade:	-0.016			
	Tangent Length:	11.229			
Element: Linear					
	VPI	7128.174 R1	512.333	421648.885	1440178.991
	VPI	7168.165 R1	510.068	421612.089	1440163.327
	Tangent Grade:	-0.057			
	Tangent Length:	39.991			
Element: Linear					
	VPI	7168.165 R1	510.068	421612.089	1440163.327
	VPI	7175.769 R1	509.950	421605.093	1440160.348
	Tangent Grade:	-0.016			
	Tangent Length:	7.604			
Element: Linear					
	VPI	7175.769 R1	509.950	421605.093	1440160.348
	VPI	7185.769 R1	509.181	421595.892	1440156.431
	Tangent Grade:	-0.077			
	Tangent Length:	10.000			
Element: Linear					
	VPI	7185.769 R1	509.181	421595.892	1440156.431
	VPI	7223.386 R1	505.127	421561.281	1440141.696
	Tangent Grade:	-0.108			
	Tangent Length:	37.617			
Element: Linear					
	VPI	7223.386 R1	505.127	421561.281	1440141.696
	VPI	7233.386 R1	504.358	421552.054	1440137.843
	Tangent Grade:	-0.077			
	Tangent Length:	10.000			
Element: Linear					
	VPI	7233.386 R1	504.358	421552.054	1440137.843
	VPI	7244.981 R1	504.177	421541.101	1440134.048
	Tangent Grade:	-0.016			
	Tangent Length:	11.595			
Element: Linear					
	VPI	7244.981 R1	504.177	421541.101	1440134.048
	VPI	7261.047 R1	504.240	421525.508	1440130.209

Horizontal Alignment: CLP_24**Horizontal Description:****Horizontal Style:** Alignment\GE_P_Alignment

Tangent Grade: 0.004

Tangent Length: 16.066

Element: Linear

VPI 7261.047 R1 504.240 421525.508 1440130.209

VPI 7274.122 R1 503.841 421512.573 1440128.331

Tangent Grade: -0.031

Tangent Length: 13.075

Element: Linear

VPI 7274.122 R1 503.841 421512.573 1440128.331

VPI 7281.122 R1 503.732 421505.594 1440127.790

Tangent Grade: -0.016

Tangent Length: 7.000

Element: Linear

VPI 7281.122 R1 503.732 421505.594 1440127.790

VPC 7361.122 R1 500.532 421428.320 1440144.479

Tangent Grade: -0.040

Tangent Length: 80.000

Element: Symmetrical Parabola

VPC 7361.122 R1 500.532 421428.320 1440144.479

VPI 7411.122 R1 498.532 421388.581 1440174.441

VPT 7461.122 R1 498.907 421360.832 1440215.756

VLP 7445.332 R1 498.848

Length: 100.000

Entrance Grade: -0.040

Exit Grade: 0.007

 $r = 100 * (g2 - g1) / L$: 4.750 $K = L / (g2 - g1)$: 21.053

Middle Ordinate: 0.594

Element: Linear

VPT 7461.122 R1 498.907 421360.832 1440215.756

VPC 7811.122 R1 501.532 421211.982 1440532.491

Tangent Grade: 0.007

Tangent Length: 350.000

Element: Symmetrical Parabola

VPC 7811.122 R1 501.532 421211.982 1440532.491

VPI 7861.122 R1 501.907 421190.249 1440577.520

VPT 7911.122 R1 500.532 421168.516 1440622.550

VHP 7832.551 R1 501.612

Horizontal Alignment: CLP_24**Horizontal Description:****Horizontal Style:** Alignment\GE_P_Alignment

Length: 100.000
 Entrance Grade: 0.007
 Exit Grade: -0.028
 $r = 100 * (g2 - g1) / L$: -3.500
 $K = l / (g2 - g1)$: 28.571
 Middle Ordinate: -0.438

Element: Linear

VPT	7911.122 R1	500.532	421168.516	1440622.550
VPC	8061.122 R1	496.407	421104.794	1440758.330
Tangent Grade:	-0.028			
Tangent Length:	150.000			

Element: Symmetrical Parabola

VPC	8061.122 R1	496.407	421104.794	1440758.330
VPI	8111.122 R1	495.032	421084.250	1440803.914
VPT	8161.122 R1	495.157	421063.925	1440849.597
VLP	8152.789 R1	495.147		
Length:	100.000			
Entrance Grade:	-0.028			
Exit Grade:	0.003			
$r = 100 * (g2 - g1) / L$:	3.000			
$K = l / (g2 - g1)$:	33.333			
Middle Ordinate:	0.375			

Element: Linear

VPT	8161.122 R1	495.157	421063.925	1440849.597
VPC	8381.122 R1	495.707	420974.499	1441050.602
Tangent Grade:	0.003			
Tangent Length:	220.000			

Element: Symmetrical Parabola

VPC	8381.122 R1	495.707	420974.499	1441050.602
VPI	8431.122 R1	495.832	420954.175	1441096.285
VPT	8481.122 R1	495.707	420933.904	1441141.991
VHP	8431.122 R1	495.769		
Length:	100.000			
Entrance Grade:	0.003			
Exit Grade:	-0.003			
$r = 100 * (g2 - g1) / L$:	-0.500			
$K = l / (g2 - g1)$:	200.000			
Middle Ordinate:	-0.062			

Element: Linear

Horizontal Alignment: CLP_24**Horizontal Description:****Horizontal Style:** Alignment\GE_P_Alignment

VPT	8481.122 R1	495.707	420933.904	1441141.991
VPC	8720.146 R1	495.109	420925.714	1441378.151
Tangent Grade:	-0.003			
Tangent Length:	239.024			
Element: Symmetrical Parabola				
VPC	8720.146 R1	495.109	420925.714	1441378.151
VPI	8745.146 R1	495.047	420919.300	1441402.297
VPT	8770.146 R1	495.547	420909.925	1441425.456
VLP	8725.702 R1	495.102		
Length:	50.000			
Entrance Grade:	-0.003			
Exit Grade:	0.020			
$r = 100 * (g2 - g1) / L$:	4.500			
$K = l / (g2 - g1)$:	22.222			
Middle Ordinate:	0.141			
Element: Linear				
VPT	8770.146 R1	495.547	420909.925	1441425.456
VPC	8813.287 R1	496.410	420887.294	1441462.092
Tangent Grade:	0.020			
Tangent Length:	43.140			
Element: Symmetrical Parabola				
VPC	8813.287 R1	496.410	420887.294	1441462.092
VPI	8823.287 R1	496.610	420881.352	1441470.136
VPT	8833.287 R1	496.434	420875.411	1441478.179
VHP	8823.921 R1	496.516		
Length:	20.000			
Entrance Grade:	0.020			
Exit Grade:	-0.018			
$r = 100 * (g2 - g1) / L$:	-18.806			
$K = l / (g2 - g1)$:	5.317			
Middle Ordinate:	-0.094			
Element: Linear				
VPT	8833.287 R1	496.434	420875.411	1441478.179
VPC	8861.180 R1	495.942	420858.838	1441500.615
Tangent Grade:	-0.018			
Tangent Length:	27.893			
Element: Symmetrical Parabola				
VPC	8861.180 R1	495.942	420858.838	1441500.615
VPI	8871.180 R1	495.766	420852.897	1441508.659

Horizontal Alignment: CLP_24**Horizontal Description:****Horizontal Style:** Alignment\GE_P_Alignment

VPT	8881.180 R1	495.762	420846.955	1441516.702
Length:	20.000			
Entrance Grade:	-0.018			
Exit Grade:	-0.000			
$r = 100 * (g2 - g1) / L$:	8.602			
$K = l / (g2 - g1)$:	11.625			
Middle Ordinate:	0.043			

Element: Linear

VPT	8881.180 R1	495.762	420846.955	1441516.702
POT	8920.133 R1	495.746	420824.933	1441548.798
Tangent Grade:	-0.000			
Tangent Length:	38.954			