

**607979 - Marion Shared-Use Path - Phase 1  
Horizontal Geometry Report  
100% Submission**

**Marion Shared-Use Path - Phase 1 Construction Baseline Geometry**

<u>Number</u>	<u>Type</u>	<u>Length</u>	<u>Radius</u>	<u>Direction</u>	<u>Start Station</u>	<u>End Station</u>	<u>Delta angle</u>	<u>Chord length</u>	<u>Chord Direction</u>	<u>PI Station</u>	<u>Degree of Curvature by Arc</u>	<u>PI Point</u>
1	Line	546.502'		N39° 46' 51"E	100+00.00'	105+46.50'						
2	Curve	79.841'	2000.000'		105+46.50'	106+26.34'	2°17'14.23"	79.836'	N40° 55' 28"E	105+86.43'	2°51'53.24"	(847020.391',2713361.468')
3	Line	68.454'		N42° 04' 05"E	106+26.34'	106+94.80'						
4	Curve	126.276'	2000.000'		106+94.80'	108+21.07'	3°37'03.18"	126.255'	N40° 15' 33"E	107+57.96'	2°51'53.24"	(847135.324',2713488.810')
5	Line	163.597'		N38° 27' 02"E	108+21.07'	109+84.67'						
6	Curve	87.829'	4000.000'		109+84.67'	110+72.50'	1°15'28.98"	87.827'	N39° 04' 46"E	110+28.59'	1°25'56.62"	(847303.639',2713700.786')
7	Line	504.565'		N39° 42' 31"E	110+72.50'	115+77.06'						
8	Curve	62.545'	5000.000'		115+77.06'	116+39.61'	0°43'00.17"	62.545'	N39° 21' 01"E	116+08.34'	1°08'45.30"	(847674.033',2714146.792')
9	Line	50.040'		N38° 59' 31"E	116+39.61'	116+89.65'						
10	Curve	61.962'	4500.000'		116+89.65'	117+51.61'	0°47'20.13"	61.962'	N39° 23' 11"E	117+20.63'	1°16'23.66"	(847744.690',2714234.072')
11	Line	318.288'		N39° 46' 51"E	117+51.61'	120+69.90'						
12	Curve	62.548'	5000.000'		120+69.90'	121+32.45'	0°43'00.29"	62.548'	N39° 25' 21"E	121+01.17'	1°08'45.30"	(847988.182',2714526.519')
13	Line	55.341'		N39° 03' 50"E	121+32.45'	121+87.79'						
14	Curve	80.598'	5000.000'		121+87.79'	122+68.39'	0°55'24.90"	80.597'	N39° 31' 33"E	122+28.09'	1°08'45.30"	(848068.162',2714625.061')
15	Line	531.414'		N39° 59' 15"E	122+68.39'	127+99.80'						
16	Curve	67.127'	18000.000'		127+99.80'	128+66.93'	0°12'49.22"	67.127'	N39° 52' 51"E	128+33.36'	0°19'05.92"	(848457.127',2715088.815')
17	Line	536.615'		N39° 46' 26"E	128+66.93'	134+03.54'						
18	Curve	61.076'	18000.000'		134+03.54'	134+64.62'	0°11'39.88"	61.076'	N39° 40' 36"E	134+34.08'	0°19'05.92"	(848841.441',2715550.510')
19	Line	292.517'		N39° 34' 46"E	134+64.62'	137+57.13'						
20	Curve	67.523'	4000.000'		137+57.13'	138+24.66'	0°58'01.92"	67.522'	N40° 03' 47"E	137+90.90'	1°25'56.62"	(849068.787',2715825.524')
21	Line	81.601'		N40° 32' 48"E	138+24.66'	139+06.26'						
22	Curve	67.438'	5000.000'		139+06.26'	139+73.70'	0°46'22.04"	67.438'	N40° 09' 37"E	139+39.98'	1°08'45.30"	(849165.701',2715938.809')
23	Line	772.721'		N39° 46' 26"E	139+73.70'	147+46.42'						
24	Curve	60.114'	10000.000'		147+46.42'	148+06.53'	0°20'39.95"	60.114'	N39° 36' 06"E	147+76.48'	0°34'22.65"	(849700.859',2716581.720')
25	Line	114.554'		N39° 25' 46"E	148+06.53'	149+21.09'						
26	Curve	60.114'	10000.000'		149+21.09'	149+81.20'	0°20'39.95"	60.114'	N39° 36' 06"E	149+51.14'	0°34'22.65"	(849811.796',2716716.635')
27	Line	60.775'		N39° 46' 26"E	149+81.20'	150+41.98'						
28	Curve	61.990'	7500.000'		150+41.98'	151+03.97'	0°28'24.85"	61.990'	N40° 00' 39"E	150+72.97'	0°45'50.20"	(849889.736',2716810.268')
29	Line	65.048'		N40° 14' 51"E	151+03.97'	151+69.01'						

30	Curve	61.990'	7500.000'		151+69.01'	152+31.00'	0°28'24.85"	61.990'	N40° 00' 39"E	152+00.01'	0°45'50.20"	(849971.814',2716907.231')
31	Line	1282.880'		N39° 46' 26"E	152+31.00'	165+13.88'						
32	Curve	65.464'	4500.000'		165+13.88'	165+79.35'	0°50'00.67"	65.464'	N39° 21' 26"E	165+46.62'	1°16'23.66"	(850833.320',2717942.200')
33	Line	140.761'		N38° 56' 25"E	165+79.35'	167+20.11'						
34	Curve	65.464'	4500.000'		167+20.11'	167+85.57'	0°50'00.67"	65.464'	N39° 21' 26"E	167+52.84'	1°16'23.66"	(850962.936',2718102.603')
35	Line	1482.291'		N39° 46' 26"E	167+85.57'	182+67.86'						
36	Curve	65.347'	8000.000'		182+67.86'	183+33.21'	0°28'04.84"	65.347'	N39° 32' 24"E	183+00.54'	0°42'58.31"	(851953.091',2719292.124')
37	Line	84.419'		N39° 18' 21"E	183+33.21'	184+17.63'						
38	Curve	66.301'	8000.000'		184+17.63'	184+83.93'	0°28'29.45"	66.301'	N39° 32' 36"E	184+50.78'	0°42'58.31"	(852048.264',2719408.378')
39	Line	3304.314'		N39° 46' 51"E	184+83.93'	217+88.24'						
40	Curve	701.142'	3000.000'		217+88.24'	224+89.39'	13°23'26.99"	699.548'	N33° 05' 07"E	221+40.42'	1°54'35.49"	(854409.087',2722243.861')
41	Curve	89.678'	100.000'		224+89.39'	225+79.06'	51°22'53.52"	86.703'	N52° 04' 51"E	225+37.49'	57°17'44.81"	(854587.004',2722602.430')
42	Line	253.114'		N77° 46' 17"E	225+79.06'	228+32.18'						
43	Curve	7.949'	5.000'		228+32.18'	228+40.13'	91°05'11.15"	7.138'	N32° 13' 42"E	228+37.27'	1145°54'56.13"	(854886.371',2722667.312')
44	Line	51.264'		N13° 18' 54"W	228+40.13'	228+91.39'						
45	Curve	52.015'	44.000'		228+91.39'	229+43.41'	67°43'57.92"	49.039'	N20° 33' 05"E	229+20.92'	130°13'03.65"	(854866.590',2722750.892')
46	Line	41.410'		N54° 25' 04"E	229+43.41'	229+84.82'						
47	Curve	14.939'	250.000'		229+84.82'	229+99.76'	3°25'25.96"	14.937'	N52° 42' 21"E	229+92.29'	22°55'05.92"	(854930.361',2722796.518')
48	Line	237.218'		N50° 59' 38"E	229+99.76'	232+36.98'						
49	Curve	79.231'	500.000'		232+36.98'	233+16.21'	9°04'45.03"	79.148'	N46° 27' 16"E	232+76.67'	11°27'32.96"	(855151.354',2722975.513')
50	Curve	96.313'	500.000'		233+16.21'	234+12.52'	11°02'12.08"	96.164'	N47° 25' 59"E	233+64.51'	11°27'32.96"	(855210.143',2723041.000')
51	Line	189.888'		N52° 57' 05"E	234+12.52'	236+02.41'						
52	Curve	102.495'	3000.000'		236+02.41'	237+04.90'	1°57'27.06"	102.490'	N51° 58' 22"E	236+53.66'	1°54'35.49"	(855441.157',2723215.390')
53	Line	391.378'		N50° 59' 38"E	237+04.90'	240+96.28'						
54	Curve	95.895'	3000.000'		240+96.28'	241+92.18'	1°49'53.26"	95.891'	N51° 54' 35"E	241+44.23'	1°54'35.49"	(855822.378',2723524.163')
55	Line	216.992'		N52° 49' 31"E	241+92.18'	244+09.17'						
56	Curve	95.895'	3000.000'		244+09.17'	245+05.06'	1°49'53.26"	95.891'	N51° 54' 35"E	244+57.12'	1°54'35.49"	(856071.692',2723713.229')
57	Line	287.920'		N50° 59' 38"E	245+05.06'	247+92.98'						
58	Curve	161.952'	100.000'		247+92.98'	249+54.93'	92°47'30.13"	144.824'	N4° 35' 53"E	248+97.98'	57°17'44.81"	(856414.281',2723990.712')
59	Line	69.223'		N41° 47' 52"W	249+54.93'	250+24.16'						
60	Curve	153.348'	100.000'		250+24.16'	251+77.51'	87°51'43.38"	138.758'	N85° 43' 44"W	251+20.49'	57°17'44.81"	(856233.955',2724192.411')
61	Line	55.586'		S50° 20' 25"W	251+77.51'	252+33.09'						
62	Curve	123.193'	80.000'		252+33.09'	253+56.29'	88°13'50.59"	111.377'	N85° 32' 40"W	253+10.66'	71°37'11.01"	(856057.284',2724045.944')
63	Line	143.629'		N41° 25' 45"W	253+56.29'	254+99.91'						

64	Curve	96.631'	100.000'		254+99.91'	255+96.55'	55°21'56.21"	92.915'	N69° 06' 43"W	255+52.38'	57°17'44.81"	(855876.206',2724251.127')
65	Line	51.995'		S83° 12' 19"W	255+96.55'	256+48.54'						
66	Curve	55.619'	100.000'		256+48.54'	257+04.16'	31°52'02.72"	54.905'	N80° 51' 40"W	256+77.09'	57°17'44.81"	(855744.132',2724235.390')
67	Line	89.124'		N64° 55' 38"W	257+04.16'	257+93.28'						
68	Curve	47.967'	100.000'		257+93.28'	258+41.25'	27°28'58.53"	47.508'	N78° 40' 08"W	258+17.74'	57°17'44.81"	(855615.398',2724295.619')
69	Line	192.619'		S87° 35' 23"W	258+41.25'	260+33.87'						
70	Curve	130.312'	100.000'		260+33.87'	261+64.18'	74°39'47.11"	121.285'	N55° 04' 43"W	261+10.14'	57°17'44.81"	(855322.317',2724283.283')
71	Line	209.835'		N17° 44' 50"W	261+64.18'	263+74.02'						
72	Curve	80.107'	250.000'		263+74.02'	264+54.12'	18°21'33.29"	79.765'	N26° 55' 36"W	264+14.42'	22°55'05.92"	(855222.794',2724594.246')
73	Line	86.166'		N36° 06' 23"W	264+54.12'	265+40.29'						
74	Curve	6.509'	5.000'		265+40.29'	265+46.80'	74°35'09.27"	6.059'	N73° 23' 58"W	265+44.10'	1145°54'56.12"	(855145.967',2724699.578')
75	Curve	98.603'	760.000'		265+46.80'	266+45.40'	7°26'00.93"	98.534'	S65° 35' 27"W	265+96.17'	7°32'20.11"	(855096.218',2724680.788')
76	Line	134.147'		S61° 52' 27"W	266+45.40'	267+79.55'						
77	Curve	7.854'	5.000'		267+79.55'	267+87.40'	90°00'00.00"	7.071'	N73° 07' 33"W	267+84.55'	1145°54'56.12"	(854929.962',2724591.918')
78	Line	19.302'		N28° 07' 33"W	267+87.40'	268+06.70'						
79	Curve	2.780'	5.000'		268+06.70'	268+09.48'	31°51'29.47"	2.744'	N12° 11' 48"W	268+08.13'	1145°54'56.13"	(854917.833',2724614.609')
80	Line	2156.667'		N3° 43' 56"E	268+09.48'	289+66.15'						
81	Curve	147.973'	175.000'		289+66.15'	291+14.12'	48°26'49.40"	143.604'	N27° 57' 21"E	290+44.89'	32°44'25.60"	(855063.439',2726846.694')
82	Curve	64.117'	125.000'		291+14.12'	291+78.24'	29°23'20.97"	63.417'	N37° 29' 05"E	291+46.91'	45°50'11.84"	(855151.528',2726915.074')
83	Line	274.784'		N22° 47' 25"E	291+78.24'	294+53.03'						
84	Curve	104.787'	1000.000'		294+53.03'	295+57.81'	6°00'13.90"	104.739'	N19° 47' 18"E	295+05.47'	5°43'46.48"	(855290.979',2727246.974')
85	Line	72.845'		N16° 47' 11"E	295+57.81'	296+30.66'						
86	Curve	77.147'	1000.000'		296+30.66'	297+07.81'	4°25'12.81"	77.128'	N18° 59' 47"E	296+69.25'	5°43'46.48"	(855338.308',2727403.870')
87	Line	304.507'		N21° 12' 24"E	297+07.81'	300+12.31'						