

ORCHARD DRIVE ALIGNMENT

Point ORCHARD1 N 1,752,286.46 E 1,162,783.60 Sta
100+00.00
Course from ORCHARD1 to PC ORCHARD-1 N 27° 28' 31.32" E Dist 192.36

Curve Data

Curve ORCHARD-1
P.I. Station 102+48.26 N 1,752,506.71 E
1,162,898.14
Delta = 9° 07' 53.46" (LT)
Degree = 8° 11' 06.40"
Tangent = 55.90
Length = 111.56
Radius = 700.00
External = 2.23
Long Chord = 111.44
Mid. Ord. = 2.22
P.C. Station 101+92.36 N 1,752,457.12 E
1,162,872.35
P.T. Station 103+03.92 N 1,752,559.77 E
1,162,915.73
C.C. N 1,752,780.08 E
1,162,251.31
Back = N 27° 28' 31.32" E
Ahead = N 18° 20' 37.86" E
Chord Bear = N 22° 54' 34.59" E

Curve ORCHARD-4
P.I. Station 112+74.70 N 1,753,485.43 E
1,162,756.48
Delta = 27° 47' 27.92" (RT)
Degree = 24° 54' 40.35"
Tangent = 56.90
Length = 111.56
Radius = 230.00
External = 6.93
Long Chord = 110.47
Mid. Ord. = 6.73
P.C. Station 112+17.80 N 1,753,435.39 E
1,162,783.57
P.T. Station 113+29.36 N 1,753,542.33 E
1,162,755.86
C.C. N 1,753,544.87 E
1,162,985.84
Back = N 28° 25' 29.91" W
Ahead = N 0° 38' 01.98" W
Chord Bear = N 14° 31' 45.94" W

Course from PT ORCHARD-4 to PC ORCHARD-5 N 0° 38' 01.98" W Dist 372.97

Curve ORCHARD-7
P.I. Station 127+37.78 N 1,754,780.45 E
1,162,246.73
Delta = 28° 09' 40.90" (RT)
Degree = 7° 38' 21.97"
Tangent = 188.12
Length = 368.63
Radius = 750.00
External = 23.23
Long Chord = 364.93
Mid. Ord. = 22.53
P.C. Station 125+49.66 N 1,754,640.99 E
1,162,372.97
P.T. Station 129+18.30 N 1,754,962.99 E
1,162,201.25
C.C. N 1,755,144.31 E
1,162,929.00
Back = N 42° 09' 06.54" W
Ahead = N 13° 59' 25.63" W
Chord Bear = N 28° 04' 16.09" W

Curve ORCHARD-10
P.I. Station 157+45.90 N 1,757,659.92 E
1,162,552.46
Delta = 37° 02' 03.19" (LT)
Degree = 9° 32' 57.47"
Tangent = 200.96
Length = 387.82
Radius = 600.00
External = 32.76
Long Chord = 381.11
Mid. Ord. = 31.06
P.C. Station 155+44.94 N 1,757,498.59 E
1,162,432.63
P.T. Station 159+32.76 N 1,757,860.87 E
1,162,550.94
C.C. N 1,757,856.35 E
1,161,950.96
Back = N 36° 36' 09.77" E
Ahead = N 0° 25' 53.42" W
Chord Bear = N 18° 05' 08.18" E

Course from PT ORCHARD-10 to ORCHARD2 N 0° 25' 53.42" W Dist 620.90

Point ORCHARD2 N 1,758,481.75 E 1,162,546.27 Sta
165+53.66

Course from ORCHARD2 to PC ORCHARD-11 N 0° 43' 03.31" W Dist 1,262.81

Curve ORCHARD-2
P.I. Station 103+84.05 N 1,752,635.83 E
1,162,940.95
Delta = 18° 57' 20.69" (LT)
Degree = 11° 56' 11.83"
Tangent = 80.13
Length = 158.80
Radius = 480.00
External = 6.64
Long Chord = 158.08
Mid. Ord. = 6.55
P.C. Station 103+03.92 N 1,752,559.77 E
1,162,915.73
P.T. Station 104+62.72 N 1,752,715.96 E
1,162,940.10
C.C. N 1,752,710.84 E
1,162,460.13
Back = N 18° 20' 37.86" E
Ahead = N 0° 36' 42.83" W
Chord Bear = N 8° 51' 57.52" E

Course from PT ORCHARD-2 to PC ORCHARD-3 N 0° 36' 42.83" W Dist 367.12

Curve ORCHARD-5
P.I. Station 117+35.52 N 1,753,948.46 E
1,162,751.36
Delta = 8° 26' 10.53" (LT)
Degree = 12° 43' 56.62"
Tangent = 33.19
Length = 66.26
Radius = 450.00
External = 1.22
Long Chord = 66.20
Mid. Ord. = 1.22
P.C. Station 117+02.33 N 1,753,915.28 E
1,162,751.73
P.T. Station 117+68.59 N 1,753,981.24 E
1,162,746.13
C.C. N 1,753,910.30 E
1,163,301.76
Back = N 0° 38' 01.98" W
Ahead = N 9° 04' 12.51" W
Chord Bear = N 4° 51' 07.25" W

Course from PT ORCHARD-5 to PC ORCHARD-6 N 9° 04' 12.51" W Dist 164.74

Curve ORCHARD-8
P.I. Station 131+25.08 N 1,755,163.64 E
1,162,151.26
Delta = 13° 17' 43.69" (RT)
Degree = 3° 13' 45.32"
Tangent = 206.79
Length = 411.72
Radius = 1,774.27
External = 12.01
Long Chord = 410.80
Mid. Ord. = 11.93
P.C. Station 129+18.30 N 1,754,962.99 E
1,162,201.25
P.T. Station 133+30.02 N 1,755,370.42 E
1,162,148.75
C.C. N 1,755,391.94 E
1,163,922.89
Back = N 13° 59' 25.63" W
Ahead = N 0° 41' 41.94" W
Chord Bear = N 7° 20' 33.79" W

Course from PT ORCHARD-8 to PC ORCHARD-9 N 0° 41' 41.94" W Dist 1,518.91

Curve ORCHARD-11
P.I. Station 179+77.00 N 1,759,904.98 E
1,162,528.44
Delta = 29° 57' 24.07" (LT)
Degree = 9° 32' 57.47"
Tangent = 160.53
Length = 313.71
Radius = 600.00
External = 21.10
Long Chord = 310.14
Mid. Ord. = 20.39
P.C. Station 178+16.47 N 1,759,744.46 E
1,162,530.45
P.T. Station 181+30.18 N 1,760,043.04 E
1,162,446.55
C.C. N 1,759,736.95 E
1,161,930.50
Back = N 0° 43' 03.31" W
Ahead = N 30° 40' 27.38" W
Chord Bear = N 15° 41' 45.34" W

Course from PT ORCHARD-11 to PC ORCHARD-12 N 30° 40' 27.38" W Dist 346.95

Curve ORCHARD-3
P.I. Station 109+01.64 N 1,753,154.86 E
1,162,935.41
Delta = 27° 48' 47.08" (LT)
Degree = 19° 45' 25.80"
Tangent = 71.80
Length = 140.77
Radius = 290.00
External = 8.76
Long Chord = 139.40
Mid. Ord. = 8.50
P.C. Station 108+29.84 N 1,753,083.06 E
1,162,936.18
P.T. Station 109+70.61 N 1,753,218.00 E
1,162,901.23
C.C. N 1,753,079.96 E
1,162,646.19
Back = N 0° 36' 42.83" W
Ahead = N 28° 25' 29.91" W
Chord Bear = N 14° 31' 06.37" W

Course from PT ORCHARD-3 to PC ORCHARD-4 N 28° 25' 29.91" W Dist 247.19

Curve ORCHARD-6
P.I. Station 120+72.91 N 1,754,281.75 E
1,162,698.16
Delta = 33° 04' 54.03" (LT)
Degree = 12° 11' 26.13"
Tangent = 139.58
Length = 271.37
Radius = 470.00
External = 20.29
Long Chord = 267.62
Mid. Ord. = 19.45
P.C. Station 119+33.33 N 1,754,143.91 E
1,162,720.16
P.T. Station 122+04.70 N 1,754,385.24 E
1,162,604.48
C.C. N 1,754,069.82 E
1,162,256.04
Back = N 9° 04' 12.51" W
Ahead = N 42° 09' 06.54" W
Chord Bear = N 25° 36' 39.53" W

Course from PT ORCHARD-6 to PC ORCHARD-7 N 42° 09' 06.54" W Dist 344.97

Curve ORCHARD-9
P.I. Station 150+48.05 N 1,757,088.32 E
1,162,127.91
Delta = 37° 17' 51.71" (RT)
Degree = 9° 42' 40.14"
Tangent = 199.12
Length = 384.07
Radius = 590.00
External = 32.69
Long Chord = 377.33
Mid. Ord. = 30.98
P.C. Station 148+48.93 N 1,756,889.22 E
1,162,130.32
P.T. Station 152+33.00 N 1,757,248.17 E
1,162,246.64
C.C. N 1,756,896.37 E
1,162,720.28
Back = N 0° 41' 41.94" W
Ahead = N 36° 36' 09.77" E
Chord Bear = N 17° 57' 13.92" E

Course from PT ORCHARD-9 to PC ORCHARD-10 N 36° 36' 09.77" E Dist 311.94

Curve ORCHARD-12
P.I. Station 186+38.19 N 1,760,479.97 E
1,162,187.38
Delta = 30° 03' 04.72" (RT)
Degree = 9° 32' 57.47"
Tangent = 161.06
Length = 314.70
Radius = 600.00
External = 21.24
Long Chord = 311.10
Mid. Ord. = 20.51
P.C. Station 184+77.13 N 1,760,341.45 E
1,162,269.55
P.T. Station 187+91.83 N 1,760,641.02 E
1,162,185.63
C.C. N 1,760,647.54 E
1,162,785.60
Back = N 30° 40' 27.38" W
Ahead = N 0° 37' 22.66" W
Chord Bear = N 15° 38' 55.02" W

Course from PT ORCHARD-12 to PC ORCHARD-13 N 0° 37' 22.66" W Dist 149.56

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 PROJECT NO. 060670-PH2-ALIGN-TIES1.SHT
 DATE: 01/23/11



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CHECKED - TAO	REVISED -
DATE - 01/23/11	FILE - 060670-PH2-ALIGN-TIES1.SHT

**STATE OF ILLINOIS
ORCHARD DRIVE IMPROVEMENTS**

ALIGNMENT

SCALE:	STA.	TO STA.	F.A.U. RTE. 2836	SECTION 06-00090-00-FP	COUNTY COOK	TOTAL SHEETS 200	SHEET NO. 25
			FED. ROAD DIST. NO. 1 ILLINOIS		FED. AID PROJECT	M-8003(665) CONTRACT NO. 63635	