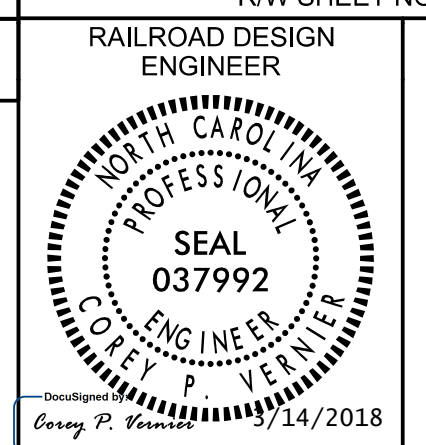


DATE: MARCH 16, 2018



**PROPOSED S1 TRACK ALIGNMENT**

Point 15901 (PS #15 LH TO)  
N 545,364.5649 E 1,449,017.5662 Sta 10+00.00

Course from 15901 to 15902  
S 44° 14' 25.62" W Dist 39.9800

Point 15902 (PI TO #15 LH TO)  
N 545,335.9225 E 1,448,989.6733 Sta 10+39.98

Course from 15902 to TS S1-1B  
S 40° 25' 19.62" W Dist 116.7890

Curve 101 Ea = 0.50", V(Passenger) = 30 mph

PISCS S1-1 N 545,195.0570 E 1,448,869.6936 STA 12+25.02

Total Tangent = 68.2468  
Total Length = 136.4737  
Total Delta = 2° 24' 42.35" (LT)  
Back Tangent = S 40° 25' 19.62" W  
Ahead Tangent = S 38° 00' 37.27" W

Spiral S1-1B

Chord Definition

Angle 0° 29' 59.86" (LT) P 0.0291  
LS 40.0000 K 19.9999  
R 2,292.0130 LT 26.6668  
YS 0.1163 ST 13.3334  
XS 39.9997 LC 39.9999  
BK S 40° 25' 19.62" W  
AH S 39° 55' 19.76" W  
CB S 40° 15' 19.67" W  
Defl 0° 09' 59.95"  
Deg 2° 30' 00.00"

Spiral Coordinates

Point North East Station  
TS 545,247.0124 1,448,913.9457 11+56.77  
PI 545,226.7113 1,448,896.6546 11+83.44  
SC 545,216.4857 1,448,888.0979 11+96.77  
CC 543,745.5949 1,450,645.8818

Curve S1-1

Chord Definition

P.I. Station 12+25.01 N 545,194.8276 E 1,448,869.9747  
Delta = 1° 24' 42.63" (LT)  
Degree = 2° 30' 00.00"  
Tangent = 28.2405  
Length = 56.4737  
Radius = 2,292.0130  
External = 0.1740  
Long Chord = 57.4767  
Mid. Ord. = 0.1740  
P.C. Station 11+96.77 N 545,216.4857 E 1,448,888.0979  
P.T. Station 12+53.24 N 545,172.7295 E 1,448,852.3906  
C.C. N 543,745.5949 E 1,450,645.8818  
Back S 39° 55' 19.76" W  
Ahead S 38° 30' 37.13" W  
Chord Bear S 39° 12' 58.45" W

Spiral S1-1A

Chord Definition

Angle 0° 29' 59.86" (LT) P 0.0291  
LS 40.0000 K 19.9999  
R 2,292.0130 LT 26.6668  
YS 0.1163 ST 13.3334  
XS 39.9997 LC 39.9999  
BK S 38° 30' 37.13" W  
AH S 38° 00' 37.27" W  
CB S 38° 10' 37.23" W  
Defl 0° 09' 59.95"  
Deg 2° 30' 00.00"

Spiral Coordinates

Point North East Station  
CS 545,172.7295 1,448,852.3906 12+53.24  
PI 545,162.2961 1,448,844.0884 12+66.58  
ST 545,141.2854 1,448,827.6669 12+93.24  
CC 543,745.5949 1,450,645.8818

Course from ST S1-1A to 15903  
S 38° 00' 37.27" W Dist 5.0000

Point 15903 (PS #15 LH TO - FUTURE)  
N 545,137.3459 E 1,448,824.5879 Sta 12+98.24

Course from 15903 to 15904  
S 38° 00' 37.27" W Dist 39.9800

Point 15904 (PI TO #15 LH TO - FUTURE)  
N 545,105.8457 E 1,448,799.9681 Sta 13+38.22

Course from 15904 to 15905  
S 38° 00' 37.27" W Dist 121.5198

Point 15905 (PS #15 RH TO)  
N 545,010.1003 E 1,448,725.1357 Sta 14+59.74

Course from 15905 to 15906  
S 38° 00' 37.27" W Dist 39.9800

Point 15906 (PI TO #15 RH TO)  
N 544,978.6001 E 1,448,700.5159 Sta 14+99.72

Course from 15906 to TS S1-2B  
S 38° 00' 37.27" W Dist 173.6042

Curve 102 Ea = 1.00", V(Passenger) = 30 mph

PISCS S1-2 N 544,759.5694 E 1,448,529.3266 STA 17+77.72

Total Tangent = 104.3890  
Total Length = 208.6021  
Total Delta = 6° 13' 47.95" (RT)  
Back Tangent = S 38° 00' 37.27" W  
Ahead Tangent = S 44° 14' 25.23" W

Spiral S1-2B

Chord Definition

Angle 1° 19' 01.91" (RT) P 0.1188  
LS 62.0000 K 30.9995  
R 1,348.4451 LT 41.3345  
YS 0.4751 ST 20.6677  
XS 61.9967 LC 61.9985  
BK S 38° 00' 37.27" W  
AH S 39° 19' 39.19" W  
CB S 38° 26' 57.90" W  
Defl 0° 26' 20.63"  
Deg 4° 15' 00.00"

Spiral Coordinates

Point North East Station  
TS 544,841.8174 1,448,593.6098 16+73.33  
PI 544,809.2500 1,448,568.1558 17+14.66  
SC 544,793.2628 1,448,555.0576 17+35.33  
CC 545,647.8438 1,447,511.9874

Curve S1-2

Chord Definition

P.I. Station 17+77.65 N 544,760.5232 E 1,448,528.2342  
Delta = 3° 35' 44.13" (RT)  
Degree = 4° 15' 00.00"  
Tangent = 42.3247  
Length = 84.6021  
Radius = 1,348.4451  
External = 0.6641  
Long Chord = 84.6077  
Mid. Ord. = 0.6637  
P.C. Station 17+35.33 N 544,793.2628 E 1,448,555.0576  
P.T. Station 18+19.93 N 544,729.5302 E 1,448,499.4104  
C.C. N 545,647.8438 E 1,447,511.9874  
Back S 39° 19' 39.19" W  
Ahead S 42° 55' 23.31" W  
Chord Bear S 41° 07' 31.25" W

Spiral S1-2A

Chord Definition

Angle 1° 19' 01.91" (RT) P 0.1188  
LS 62.0000 K 30.9995  
R 1,348.4451 LT 41.3345  
YS 0.4751 ST 20.6677  
XS 61.9967 LC 61.9985  
BK S 42° 55' 23.31" W  
AH S 44° 14' 25.23" W  
CB S 43° 48' 04.60" W  
Defl 0° 26' 20.63"  
Deg 4° 15' 00.00"

Spiral Coordinates

Point North East Station  
CS 544,729.5302 1,448,499.4104 18+19.93  
PI 544,714.3959 1,448,485.3354 18+40.60  
ST 544,684.7830 1,448,456.4976 18+81.93  
CC 545,647.8438 1,447,511.9874

Course from ST S1-2A to TS S1-3B  
S 44° 14' 25.23" W Dist 971.1063

Curve 103 Ea = 0.50", V(Passenger) = 30 mph

PISCS S1-3 N 543,877.7552 E 1,447,670.5910 STA 30+08.40

Total Tangent = 155.3674  
Total Length = 310.5709  
Total Delta = 4° 39' 34.19" (RT)  
Back Tangent = S 44° 14' 25.23" W  
Ahead Tangent = S 48° 53' 59.42" W

Spiral S1-3B

Chord Definition

Angle 0° 15' 29.97" (RT) P 0.0116  
LS 31.0000 K 15.5000  
R 3,437.8680 LT 20.6667  
YS 0.0466 ST 10.3334  
XS 30.9999 LC 31.0000  
BK S 44° 14' 25.23" W  
AH S 44° 29' 55.19" W  
CB S 44° 19' 35.22" W  
Defl 0° 05' 09.99"  
Deg 1° 40' 00.00"

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