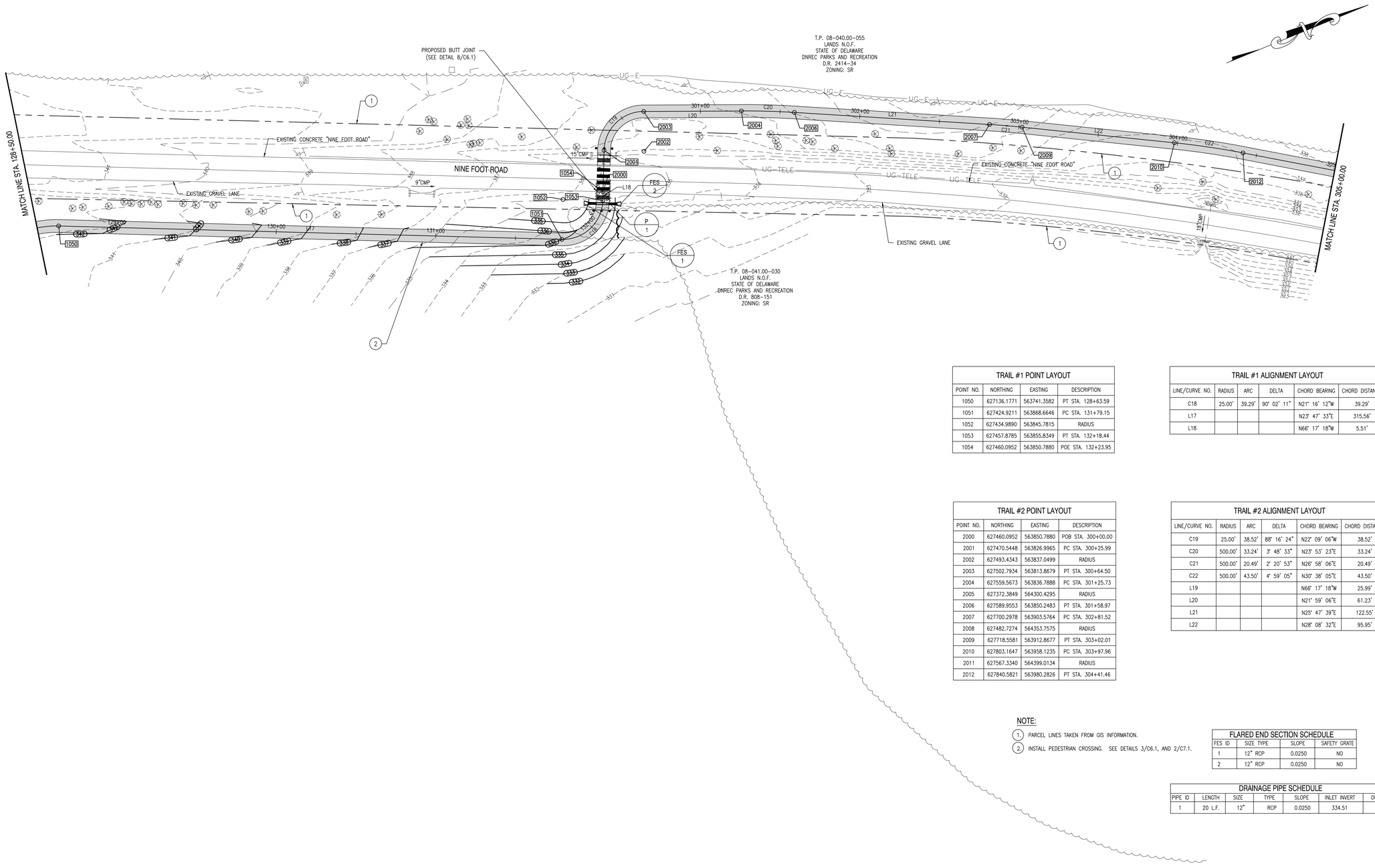


TRAIL #1 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
1050	627136.1771	563741.3582	PT STA. 128+63.59
1051	627424.9211	563868.6646	PC STA. 131+79.15
1052	627434.9890	563845.7815	RADIUS
1053	627457.8785	563855.8349	PT STA. 132+18.44
1054	627460.0952	563850.7880	POE STA. 132+23.95

TRAIL #1 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C18	25.00'	39.29'	90° 02' 11"	N21° 16' 12"W	39.29'
L17				N23° 47' 33"E	315.56'
L18				N66° 17' 18"W	5.51'

TRAIL #2 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
2000	627460.0952	563850.7880	POB STA. 300+00.00
2001	627470.5448	563826.9965	PC STA. 300+25.99
2002	627493.4343	563837.0499	RADIUS
2003	627502.7934	563813.8679	PT STA. 300+64.50
2004	627559.5673	563836.7888	PC STA. 301+25.73
2005	627372.3849	564300.4295	RADIUS
2006	627589.9553	563850.2483	PT STA. 301+58.97
2007	627700.2978	563903.5764	PC STA. 302+81.52
2008	627482.7274	564353.7575	RADIUS
2009	627718.5581	563912.8677	PT STA. 303+02.01
2010	627803.1647	563958.1235	PC STA. 303+97.96
2011	627567.3340	564399.0134	RADIUS
2012	627840.5821	563980.2826	PT STA. 304+41.46

TRAIL #2 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C19	25.00'	38.52'	88° 16' 24"	N22° 09' 06"W	38.52'
C20	500.00'	33.24'	3° 48' 33"	N23° 53' 23"E	33.24'
C21	500.00'	20.49'	2° 20' 53"	N26° 58' 06"E	20.49'
C22	500.00'	43.50'	4° 59' 05"	N30° 38' 05"E	43.50'
L19				N66° 17' 18"W	25.99'
L20				N21° 59' 06"E	61.23'
L21				N25° 47' 39"E	122.55'
L22				N28° 08' 32"E	95.95'

NOTE:

1. PARCEL LINES TAKEN FROM GIS INFORMATION.
2. INSTALL PEDESTRIAN CROSSING. SEE DETAILS 3/C6.1, AND 2/C7.1.

FLARED END SECTION SCHEDULE			
FES ID	SIZE TYPE	SLOPE	SAFETY GRATE
1	12" RCP	0.0250	NO
2	12" RCP	0.0250	NO

DRAINAGE PIPE SCHEDULE						
PIPE ID	LENGTH	SIZE	TYPE	SLOPE	INLET INVERT	OUTLET INVERT
1	20 L.F.	12"	RCP	0.0250	334.51	334.01

0' 30' 60' 90'
SCALE: 1" = 30'

REVISIONS:
DATE: DESCRIPTION: BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

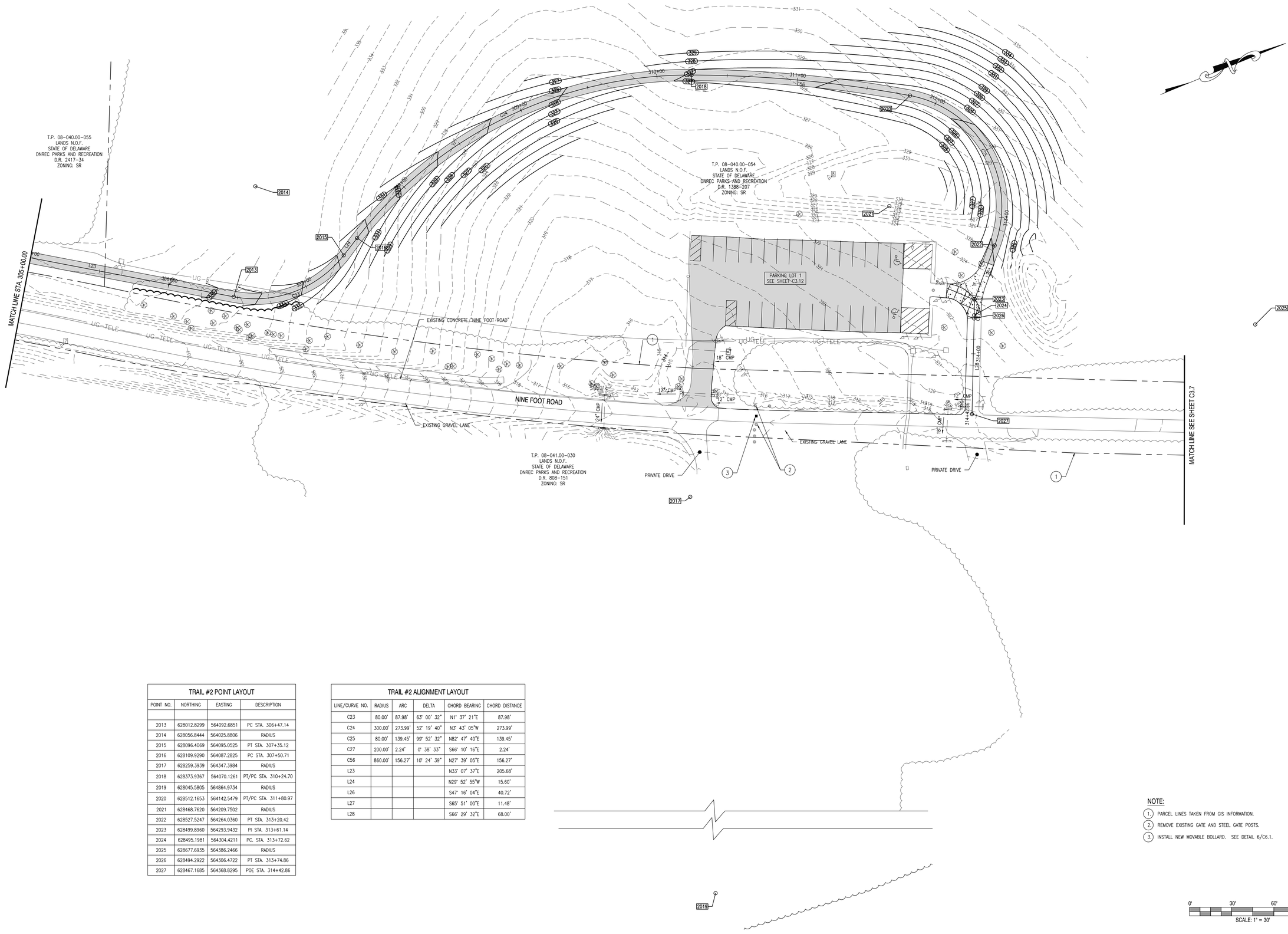
SITE ALIGNMENT & SITE GRADING PLAN

SEAL:
WALTER J. HOSKY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901
CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE: 1" = 30'
SHEET NO.: C3.4
CONTRACT NO.: 2016-WCCSP-100



TRAIL #2 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
2013	628012.8299	564092.6851	PC STA. 306+47.14
2014	628056.8444	564025.8806	RADIUS
2015	628096.4069	564095.0525	PT STA. 307+35.12
2016	628109.9290	564087.2825	PC STA. 307+50.71
2017	628259.3939	564347.3984	RADIUS
2018	628373.9367	564070.1261	PT/PC STA. 310+24.70
2019	628045.5805	564864.9734	RADIUS
2020	628512.1653	564142.5479	PT/PC STA. 311+80.97
2021	628468.7620	564209.7502	RADIUS
2022	628527.5247	564264.0360	PT STA. 313+20.42
2023	628499.8960	564293.9432	PI STA. 313+61.14
2024	628495.1981	564304.4211	PC. STA. 313+72.62
2025	628677.6935	564386.2466	RADIUS
2026	628494.2922	564306.4722	PT STA. 313+74.86
2027	628467.1685	564368.8295	POE STA. 314+42.86

TRAIL #2 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C23	80.00'	87.98'	63° 00' 32"	N1° 37' 21"E	87.98'
C24	300.00'	273.99'	52° 19' 40"	N3° 43' 05"W	273.99'
C25	80.00'	139.45'	99° 52' 32"	N82° 47' 40"E	139.45'
C27	200.00'	2.24'	0° 38' 33"	S66° 10' 16"E	2.24'
C56	860.00'	156.27'	10° 24' 39"	N27° 39' 05"E	156.27'
L23				N33° 07' 37"E	205.68'
L24				N29° 52' 55"W	15.60'
L26				S47° 16' 04"E	40.72'
L27				S65° 51' 00"E	11.48'
L28				S66° 29' 32"E	68.00'

NOTE:

1. PARCEL LINES TAKEN FROM GIS INFORMATION.
2. REMOVE EXISTING GATE AND STEEL GATE POSTS.
3. INSTALL NEW MOVABLE BOLLARD. SEE DETAIL 6/C6.1.

0' 30' 60' 90'
SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:

WALTER J. HOEY, II
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

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CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

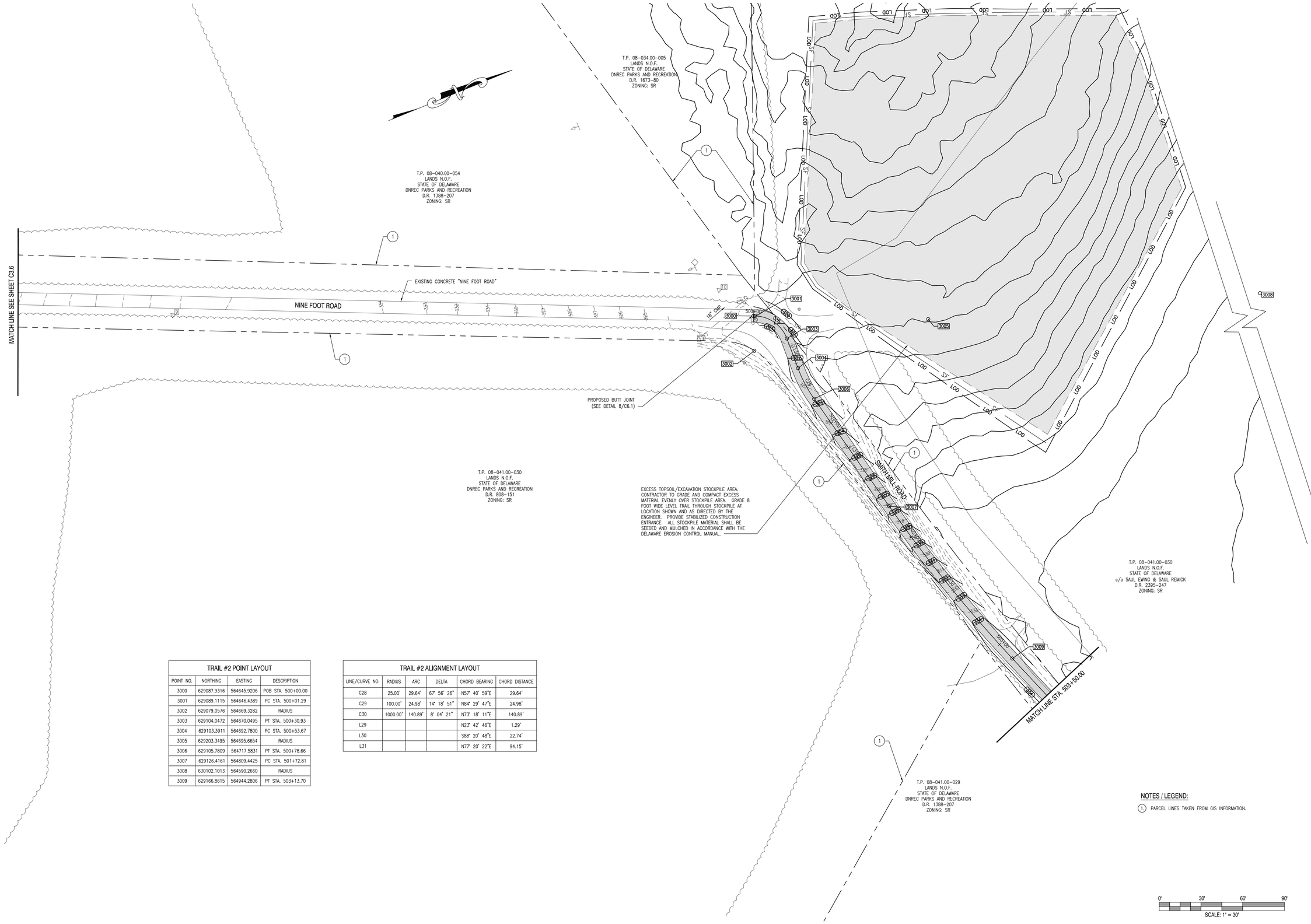
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 30'

SHEET NO.: C3.5

CONTRACT NO.: 2016-WCCSP-100



TRAIL #2 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
3000	629087.9316	564645.9206	POB STA. 500+00.00
3001	629089.1115	564646.4389	PC STA. 500+01.29
3002	629079.0576	564669.3282	RADIUS
3003	629104.0472	564670.0495	PT STA. 500+30.93
3004	629103.3911	564692.7800	PC STA. 500+53.67
3005	629203.3495	564695.6654	RADIUS
3006	629105.7809	564717.5831	PT STA. 500+78.66
3007	629126.4161	564809.4425	PC STA. 501+72.81
3008	630102.1013	564590.2660	RADIUS
3009	629166.8615	564944.2806	PT STA. 503+13.70

TRAIL #2 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C28	25.00'	29.64'	67° 56' 26"	N57° 40' 59"E	29.64'
C29	100.00'	24.98'	14° 18' 51"	N84° 29' 47"E	24.98'
C30	1000.00'	140.89'	8° 04' 21"	N73° 18' 11"E	140.89'
L29				N23° 42' 46"E	1.29'
L30				S88° 20' 48"E	22.74'
L31				N77° 20' 22"E	94.15'

NOTES / LEGEND:

(1.) PARCEL LINES TAKEN FROM GIS INFORMATION.

0' 30' 60' 90'

SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:

WALTER J. HOBBS, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

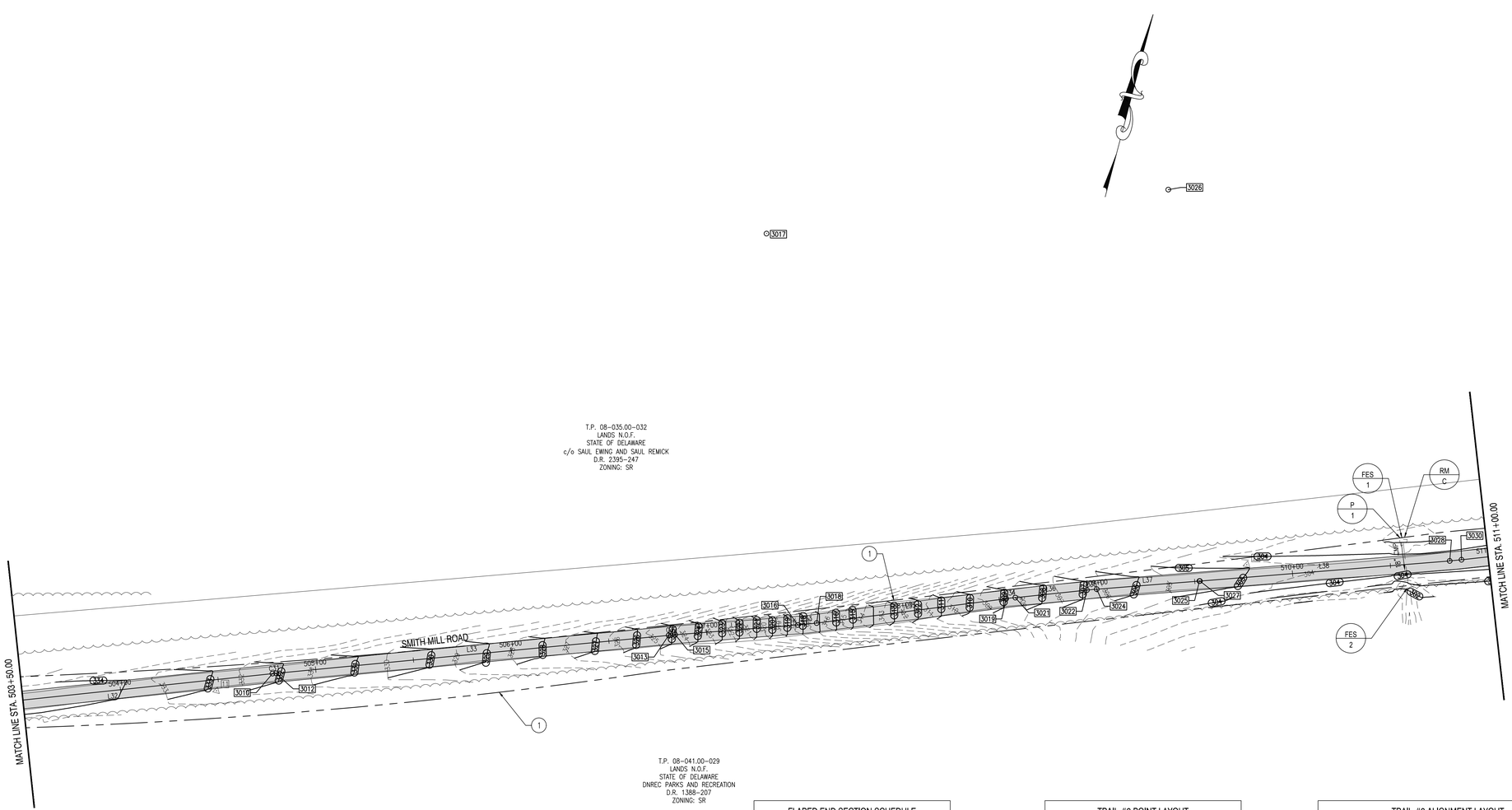
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 30'

SHEET NO.: C3.6

CONTRACT NO.: 2016-WCCSP-100



FLARED END SECTION SCHEDULE			
NO.	SIZE / TYPE	SLOPE	SAFETY GRATE
1	18" RCP	0	NONE
2	18" RCP	0	NONE

DRAINAGE PIPE SCHEDULE						
NO.	SIZE / TYPE	CLASS	LENGTH	SLOPE	INLET EL.	DIS. EL.
1	18" RCP	IV	20.2'	6.24%	301.49	300.23

NOTE:
REMOVE EXISTING CMP AT STATION 510+50 AND INSTALL NEW 18" RCP & FLARED END SECTION TO MATCH EXISTING PIPE INVERTS

TRAIL #3 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
3010	629224.9916	565097.8494	PC STA. 504+77.90
3011	629037.9436	565168.6523	RADIUS
3012	629225.6179	565099.5268	PT STA. 504+79.69
3013	629295.0575	565288.0539	PC STA. 506+80.60
3014	629107.3831	565357.1794	RADIUS
3015	629296.2019	565291.2440	PT STA. 506+83.99
3016	629316.8266	565350.3069	PC STA. 507+46.55
3017	629505.6454	565284.3715	RADIUS
3018	629320.2502	565359.3957	PT STA. 507+56.26
3019	629356.7478	565449.5864	PC STA. 508+53.56
3020	629171.3527	565524.6106	RADIUS
3021	629358.4716	565453.9953	PT STA. 508+58.29
3022	629371.4132	565488.2886	PC STA. 508+94.94
3023	629184.2943	565558.9039	RADIUS
3024	629373.1248	565493.0022	PT STA. 508+99.96
3025	629390.4097	565542.5291	PC STA. 509+52.41
3026	629579.2404	565476.6273	RADIUS
3027	629390.4880	565542.7530	PT TA. 509+52.65
3028	629432.6946	565663.2294	PC STA. 510+80.31
3029	629621.4468	565597.1038	RADIUS
3030	629434.7866	565668.9227	PT STA. 510+86.37

TRAIL #3 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C31	200.00'	1.79'	0° 30' 47"	N69° 31' 24"E	1.79'
C32	200.00'	3.39'	0° 58' 15"	N70° 15' 55"E	3.39'
C33	200.00'	9.71'	2° 46' 57"	N69° 21' 34"E	9.71'
C34	200.00'	4.73'	1° 21' 22"	N68° 38' 47"E	4.73'
C35	200.00'	5.01'	1° 26' 12"	N70° 02' 34"E	5.01'
L32				N69° 16' 01"E	164.20'
L33				N69° 46' 48"E	200.91'
L34				N70° 45' 03"E	62.56'
L35				N67° 58' 06"E	97.30'
L36				N69° 19' 28"E	36.65'
L37				N70° 45' 40"E	52.46'
L38				N70° 41' 35"E	127.89'

NOTE:
1. PARCEL LINES TAKEN FROM GIS INFORMATION.

0' 30' 60' 90'
SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:
WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE: 1" = 30'
SHEET NO.: C3.7
CONTRACT NO.: 2016-WCCSP-100

NOTE:

1. PARCEL LINES TAKEN FROM GIS INFORMATION.

TRAIL #3 POINT LAYOUT

POINT NO.	NORTHING	EASTING	DESCRIPTION
3031	629464.4588	565746.0419	PC STA. 511+69.00
3032	623807.0555	567889.7476	RADIUS
3033	629464.9024	565747.2056	PT STA. 511+710.25
3034	629468.8620	565757.6911	PC STA. 511+81.46
3035	629281.7582	565828.3464	RADIUS
3036	629469.2983	565758.8575	PT STA. 511+82.70
3037	629526.8550	565914.1943	PC STA. 513+48.36
3038	629339.3148	565983.6832	RADIUS
3039	629527.1987	565915.1291	PT STA. 513+49.36
3040	629553.4703	565987.1308	PC STA. 514+26.00
3041	629083.7607	566158.5161	RADIUS
3042	629564.5504	566021.2525	PT STA. 514+61.88
3043	629572.4778	566049.0196	PC STA. 514+90.76
3044	629332.0830	566117.6514	RADIUS
3045	629581.8019	566129.5028	PT STA. 515+72.14
3046	629578.3226	566202.8147	PC STA. 516+45.54
3047	629378.5474	566193.3336	RADIUS
3048	629578.0502	566207.4277	PT STA. 516+50.16
3049	629566.2405	566374.5957	PC STA. 518+17.74
3050	629765.7433	566388.6898	RADIUS
3051	629566.0369	566377.8553	PT STA. 318+21.01

TRAIL #3 ALIGNMENT LAYOUT

LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C36	200.00'	1.25'	0° 21' 24"	N69° 08' 02"E	1.25'
C37	200.00'	1.25'	0° 21' 24"	N69° 29' 26"E	1.25'
C38	200.00'	1.00'	0° 17' 07"	N69° 48' 42"E	1.00'
C39	500.00'	35.88'	4° 06' 43"	N72° 00' 37"E	35.88'
C40	250.00'	81.38'	18° 39' 04"	N83° 23' 30"E	81.38'
C41	200.00'	4.62'	1° 19' 26"	S86° 37' 15"E	4.62'
C42	200.00'	3.27'	0° 56' 08"	S86° 25' 37"E	3.27'
L39				N68° 57' 19"E	82.63'
L40				N69° 18' 44"E	11.21'
L41				N69° 40' 08"E	165.66'
L42				N69° 57' 15"E	76.64'
L43				N74° 03' 58"E	28.88'
L44				S87° 16' 58"E	73.39'
L45				S85° 57' 32"E	167.58'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:

WALTER J. HOEY, III
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DELAWARE
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CIVIL ENGINEER:

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DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

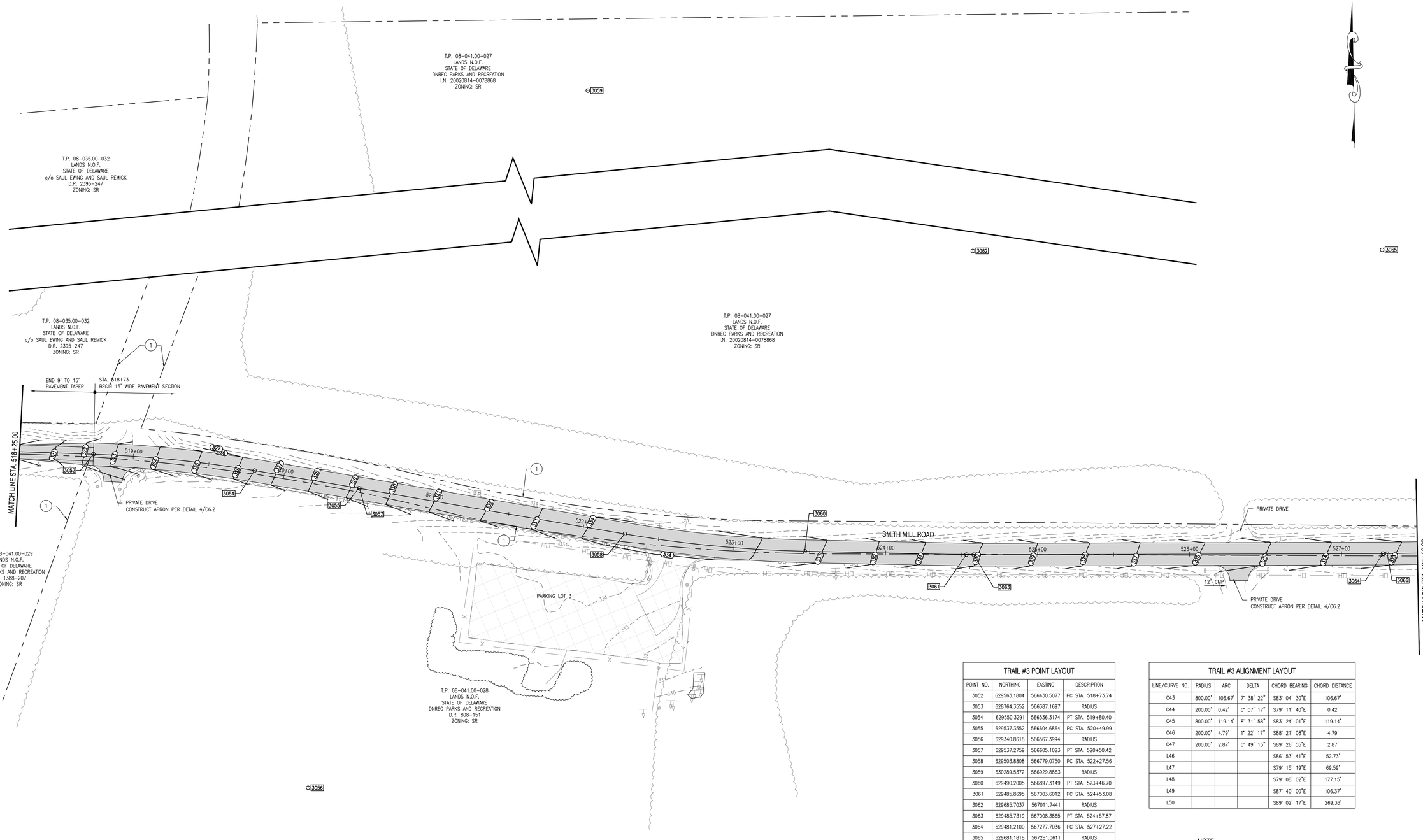
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 30'

SHEET NO.: C3.8

CONTRACT NO.: 2016-WCCSP-100



TRAIL #3 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
3052	629563.1804	566430.5077	PC STA. 518+73.74
3053	628764.3552	566387.1697	RADIUS
3054	629550.3291	566536.3174	PT STA. 519+80.40
3055	629537.3552	566604.6864	PC STA. 520+49.99
3056	629340.8618	566567.3994	RADIUS
3057	629537.2759	566605.1023	PT STA. 520+50.42
3058	629503.8808	566779.0750	PC STA. 522+27.56
3059	630289.5372	566929.8863	RADIUS
3060	629490.2005	566897.3149	PT STA. 523+46.70
3061	629485.8695	567003.6012	PC STA. 524+53.08
3062	629685.7037	567011.7441	RADIUS
3063	629485.7319	567008.3865	PT STA. 524+57.87
3064	629481.2100	567277.7036	PC STA. 527+27.22
3065	629681.1818	567281.0611	RADIUS
3066	629481.1824	567280.5691	PT STA. 527+30.09

TRAIL #3 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C43	800.00'	106.67'	7° 38' 22"	S83° 04' 30"E	106.67'
C44	200.00'	0.42'	0° 07' 17"	S79° 11' 40"E	0.42'
C45	800.00'	119.14'	8° 31' 58"	S83° 24' 01"E	119.14'
C46	200.00'	4.79'	1° 22' 17"	S88° 21' 08"E	4.79'
C47	200.00'	2.87'	0° 49' 15"	S89° 26' 55"E	2.87'
L46				S86° 53' 41"E	52.73'
L47				S79° 15' 19"E	69.59'
L48				S79° 08' 02"E	177.15'
L49				S87° 40' 00"E	106.37'
L50				S89° 02' 17"E	269.36'

NOTE:

(1.) PARCEL LINES TAKEN FROM GIS INFORMATION.

0' 30' 60' 90'

SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:

WALTER J. HOEY, III
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NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

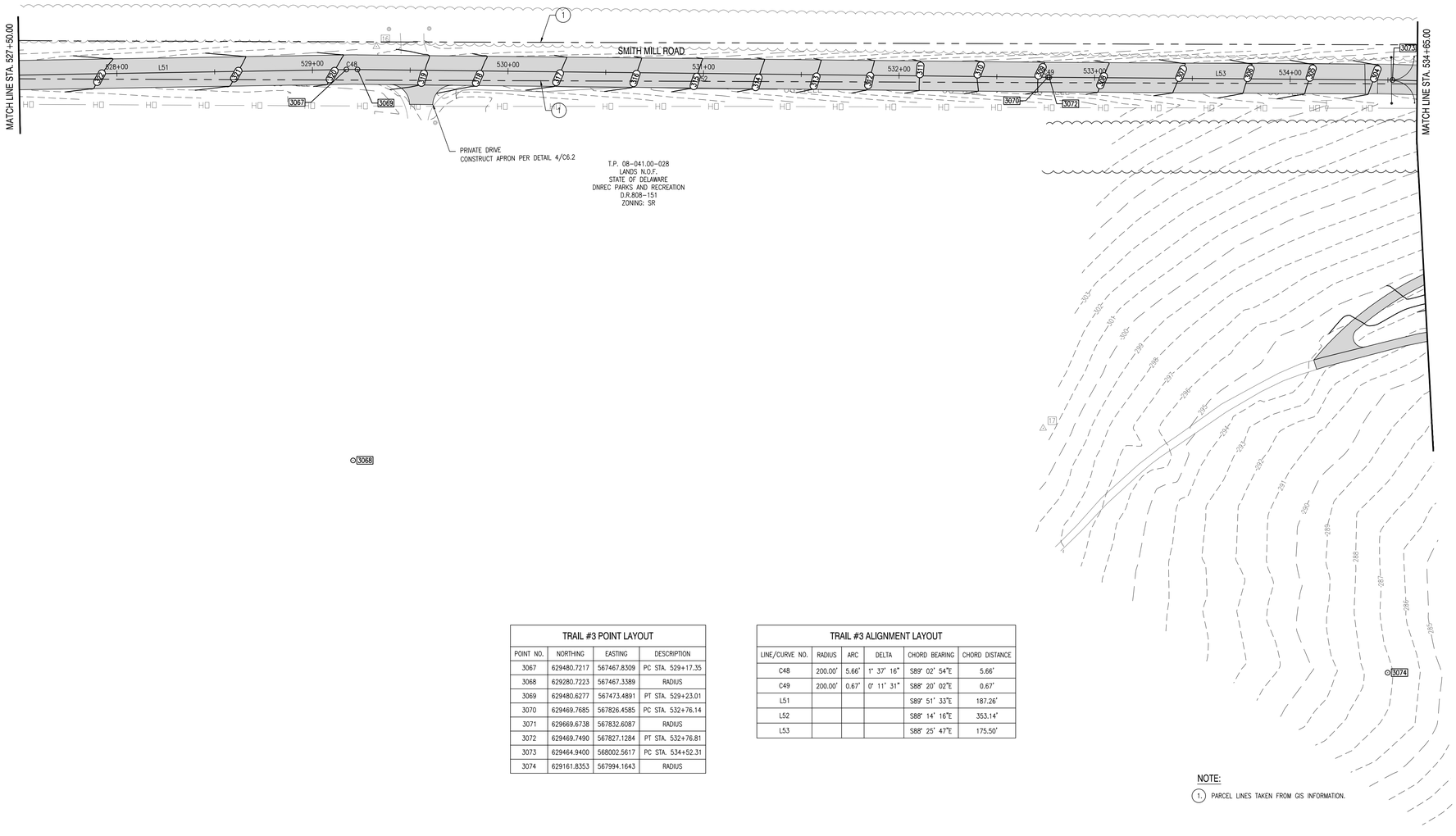
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 30'

SHEET NO.: C3.9

CONTRACT NO.: 2016-WCCSP-100



TRAIL #3 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
3067	629480.7217	567467.8309	PC STA. 529+17.35
3068	629280.7223	567467.3389	RADIUS
3069	629480.6277	567473.4891	PT STA. 529+23.01
3070	629469.7685	567826.4585	PC STA. 532+76.14
3071	629669.6738	567832.6087	RADIUS
3072	629469.7490	567827.1284	PT STA. 532+76.81
3073	629464.9400	568002.5617	PC STA. 534+52.31
3074	629161.8353	567994.1643	RADIUS

TRAIL #3 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C48	200.00'	5.66'	1° 37' 16"	S89° 02' 54"E	5.66'
C49	200.00'	0.67'	0° 11' 31"	S88° 20' 02"E	0.67'
L51				S89° 51' 33"E	187.26'
L52				S88° 14' 16"E	353.14'
L53				S88° 25' 47"E	175.50'

NOTE:

(1.) PARCEL LINES TAKEN FROM GIS INFORMATION.

0' 30' 60' 90'

SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

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CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

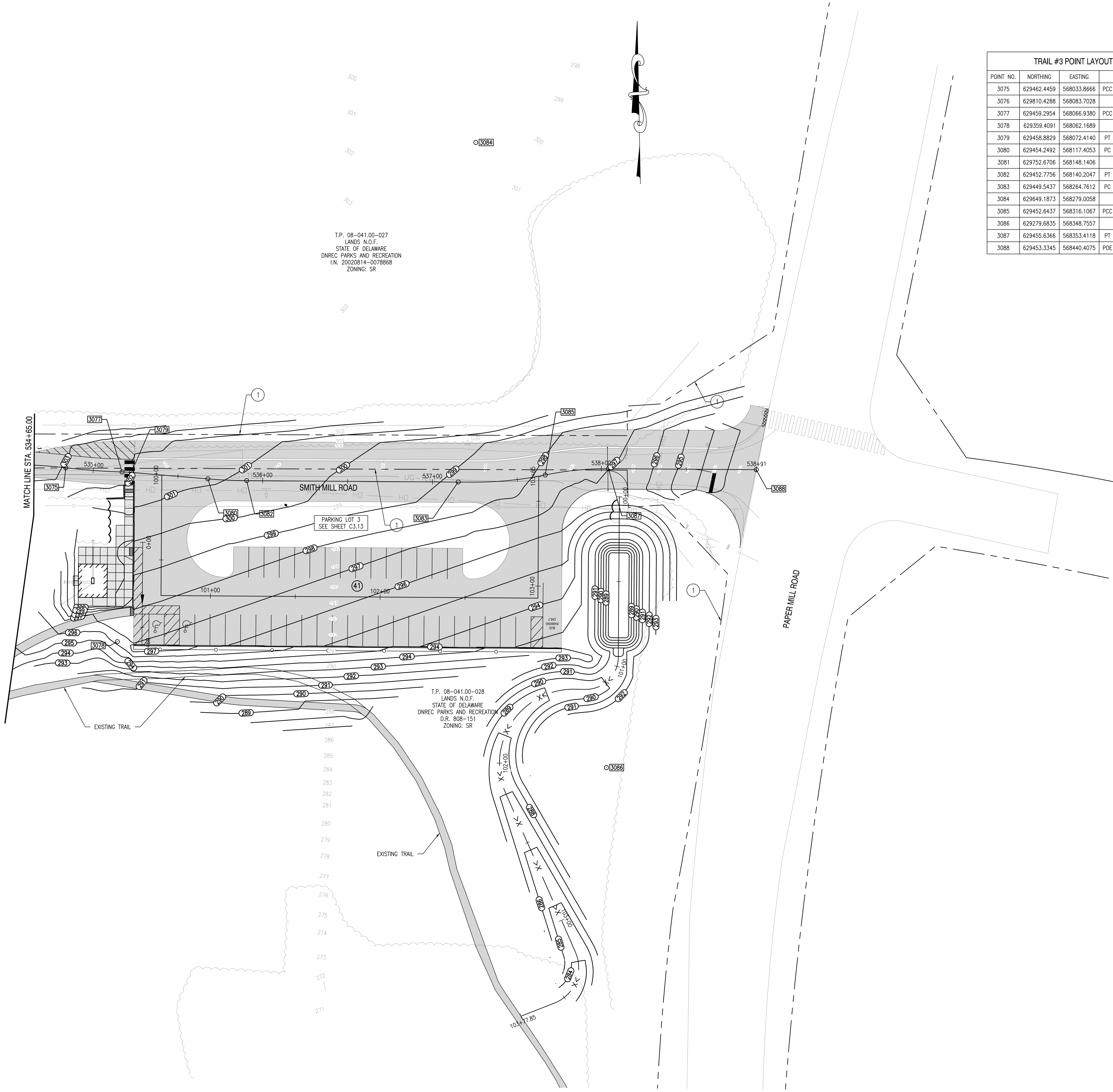
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 30'

SHEET NO.: C3.10

CONTRACT NO.: 2016-WCCSP-100



TRAIL #3 POINT LAYOUT			
POINT NO.	NORTHING	EASTING	DESCRIPTION
3075	629462.4459	568033.8666	PCC STA. 534+83.73
3076	629810.4288	568083.7028	RADIUS
3077	629459.2954	568066.9380	PCC STA. 535+16.97
3078	629359.4091	568062.1689	RADIUS
3079	629458.8829	568072.4140	PT STA. 535+22.46
3080	629454.2492	568117.4053	PC STA. 535+67.69
3081	629752.6706	568148.1406	RADIUS
3082	629452.7756	568140.2047	PT STA. 535+90.54
3083	629449.5437	568264.7612	PC STA. 537+24.10
3084	629649.1873	568279.0058	RADIUS
3085	629452.6437	568316.1067	PCC STA. 537+66.70
3086	629279.6835	568348.7557	RADIUS
3087	629455.6366	568353.4118	PT STA. 538+04.20
3088	629453.3345	568440.4075	POE STA. 538+91.23

TRAIL #3 ALIGNMENT LAYOUT					
LINE/CURVE NO.	RADIUS	ARC	DELTA	CHORD BEARING	CHORD DISTANCE
C50	303.22'	31.42'	5° 56' 12"	S85° 26' 41"E	31.42'
C51	351.53'	33.23'	5° 25' 00"	S84° 33' 29"E	33.23'
C52	100.00'	5.49'	3° 08' 49"	S85° 41' 35"E	5.49'
C53	300.00'	22.85'	4° 21' 52"	S86° 18' 07"E	22.85'
C54	200.01'	42.61'	12° 12' 20"	N85° 24' 47"E	42.61'
C55	176.01'	37.50'	12° 12' 20"	N85° 24' 47"E	37.50'
L54				S84° 07' 11"E	45.23'
L55				S88° 29' 03"E	133.56'
L56				S88° 29' 03"E	87.03'

NOTE:

1. PARCEL LINES TAKEN FROM GIS INFORMATION.

0' 30' 60' 90'
SCALE: 1" = 30'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE ALIGNMENT & SITE GRADING PLAN

SEAL:
WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
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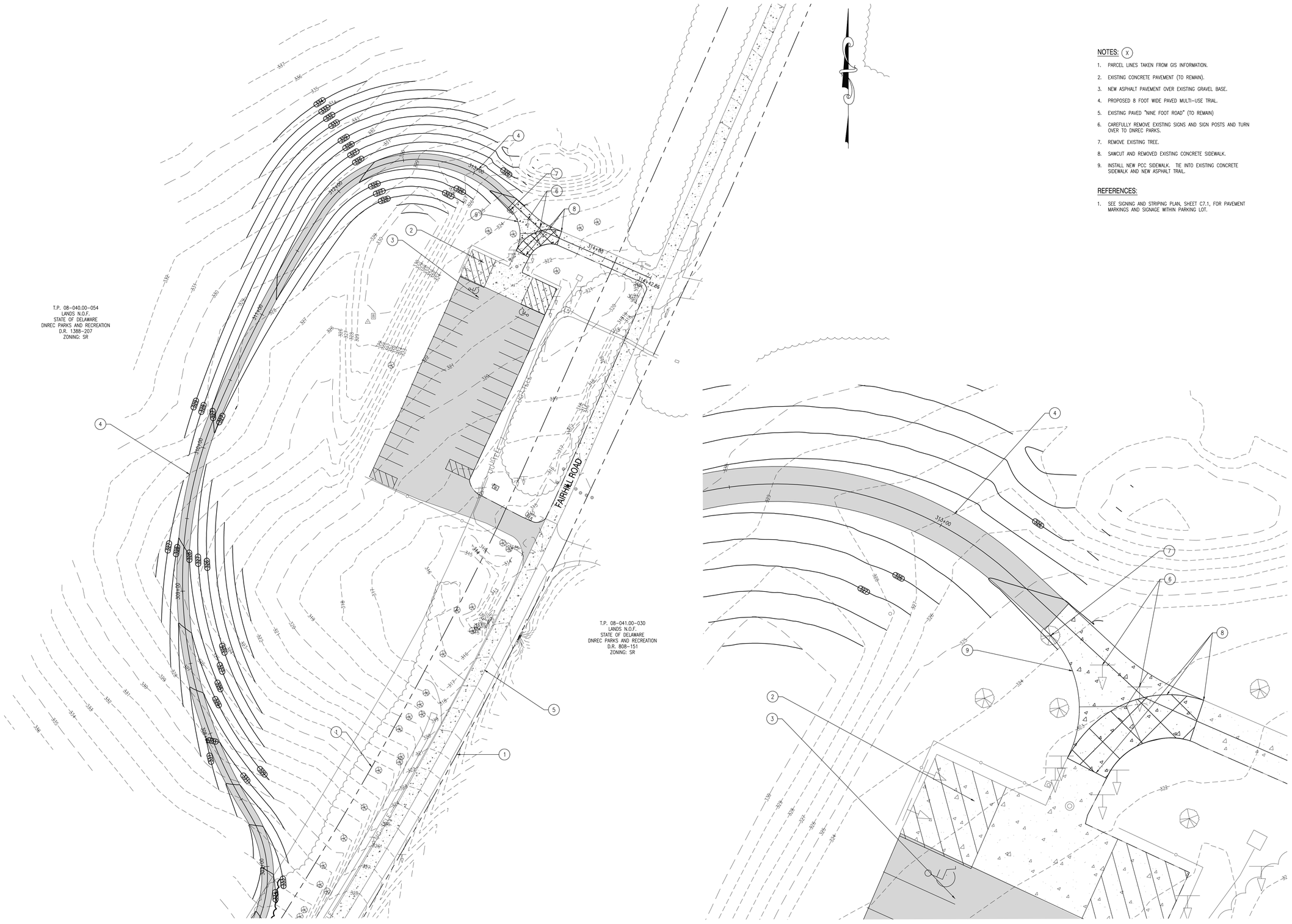
SCALE: 1" = 30'

SHEET NO.: C3.11

CONTRACT NO.: 2016-WCCSP-100



NOTES: (X)

1. PARCEL LINES TAKEN FROM GIS INFORMATION.
2. EXISTING CONCRETE PAVEMENT (TO REMAIN).
3. NEW ASPHALT PAVEMENT OVER EXISTING GRAVEL BASE.
4. PROPOSED 8 FOOT WIDE PAVED MULTI-USE TRIAL.
5. EXISTING PAVED "NINE FOOT ROAD" (TO REMAIN)
6. CAREFULLY REMOVE EXISTING SIGNS AND SIGN POSTS AND TURN OVER TO DNREC PARKS.
7. REMOVE EXISTING TREE.
8. SAWCUT AND REMOVED EXISTING CONCRETE SIDEWALK.
9. INSTALL NEW PCC SIDEWALK. TIE INTO EXISTING CONCRETE SIDEWALK AND NEW ASPHALT TRAIL.

REFERENCES:

1. SEE SIGNING AND STRIPING PLAN, SHEET C7.1, FOR PAVEMENT MARKINGS AND SIGNAGE WITHIN PARKING LOT.

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE GRADING PLAN - PARKING LOT 1

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

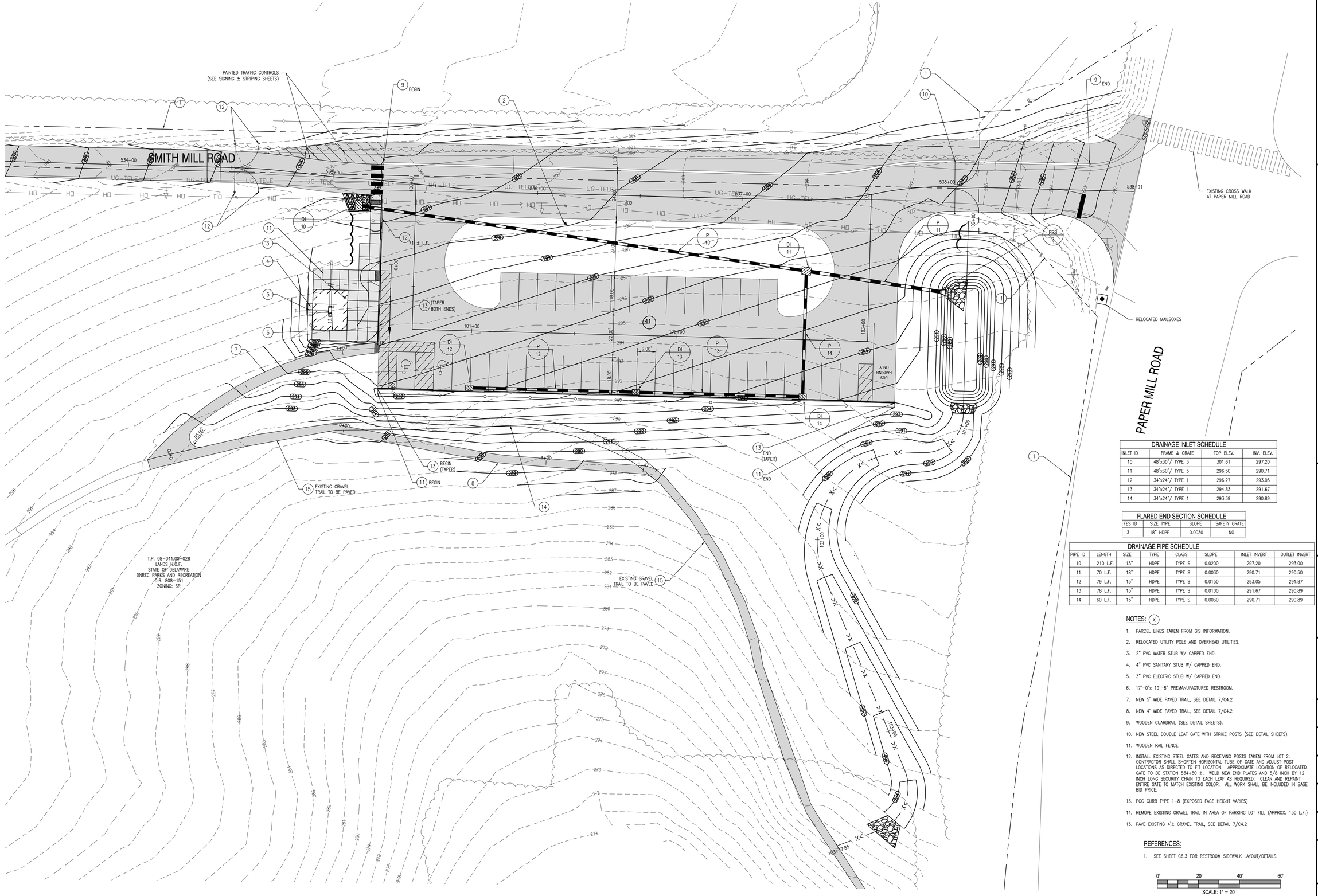
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: AS SHOWN

SHEET NO.: C3.12

CONTRACT NO.: 2016-WCCSP-100



DRAINAGE INLET SCHEDULE			
INLET ID	FRAME & GRATE	TOP ELEV.	INV. ELEV.
10	48"x30"/ TYPE 3	301.61	297.20
11	48"x30"/ TYPE 3	296.50	290.71
12	34"x24"/ TYPE 1	296.27	293.05
13	34"x24"/ TYPE 1	294.83	291.67
14	34"x24"/ TYPE 1	293.39	290.89

FLARED END SECTION SCHEDULE			
FES ID	SIZE TYPE	SLOPE	SAFETY GRATE
3	18" HDPE	0.0030	NO

DRAINAGE PIPE SCHEDULE						
PIPE ID	LENGTH	SIZE	TYPE	CLASS	SLOPE	INLET INVERT	OUTLET INVERT
10	210 L.F.	15"	HDPE	TYPE S	0.0200	297.20	293.00
11	70 L.F.	18"	HDPE	TYPE S	0.0030	290.71	290.50
12	79 L.F.	15"	HDPE	TYPE S	0.0150	293.05	291.87
13	78 L.F.	15"	HDPE	TYPE S	0.0100	291.67	290.89
14	60 L.F.	15"	HDPE	TYPE S	0.0030	290.71	290.89

NOTES: (X)

1. PARCEL LINES TAKEN FROM GIS INFORMATION.
2. RELOCATED UTILITY POLE AND OVERHEAD UTILITIES.
3. 2" PVC WATER STUB W/ CAPPED END.
4. 4" PVC SANITARY STUB W/ CAPPED END.
5. 3" PVC ELECTRIC STUB W/ CAPPED END.
6. 17'-0"x 19'-8" PREMANUFACTURED RESTROOM.
7. NEW 5' WIDE PAVED TRAIL, SEE DETAIL 7/C4.2
8. NEW 4' WIDE PAVED TRAIL, SEE DETAIL 7/C4.2
9. WOODEN GUARDRAIL (SEE DETAIL SHEETS).
10. NEW STEEL DOUBLE LEAF GATE WITH STRIKE POSTS (SEE DETAIL SHEETS).
11. WOODEN RAIL FENCE.
12. INSTALL EXISTING STEEL GATES AND RECEIVING POSTS TAKEN FROM LOT 2. CONTRACTOR SHALL SHORTEN HORIZONTAL TUBE OF GATE AND ADJUST POST LOCATIONS AS DIRECTED TO FIT LOCATION. APPROXIMATE LOCATION OF RELOCATED GATE TO BE STATION 534+50 ±. WELD NEW END PLATES AND 5/8 INCH BY 12 INCH LONG SECURITY CHAIN TO EACH LEAF AS REQUIRED. CLEAN AND REPAINT ENTIRE GATE TO MATCH EXISTING COLOR. ALL WORK SHALL BE INCLUDED IN BASE BID PRICE.
13. PCC CURB TYPE 1-8 (EXPOSED FACE HEIGHT VARIES)
14. REMOVE EXISTING GRAVEL TRAIL IN AREA OF PARKING LOT FILL (APPROX. 150 L.F.)
15. PAVE EXISTING 4'± GRAVEL TRAIL, SEE DETAIL 7/C4.2

REFERENCES:

1. SEE SHEET C6.3 FOR RESTROOM SIDEWALK LAYOUT/DETAILS.

0' 20' 40' 60'
SCALE: 1" = 20'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

SITE GRADING PLAN - PARKING LOT 3

SEAL:

WALTER J. HOSEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

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SHEET NO.: C3.13

CONTRACT NO.: 2016-WCCSP-100