PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas,L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
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Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
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STORM SEWER COMPUTATIONS

FORM LD-229
ROUTE: Sycolin Rd.
PROJECT NUMBER: 102895
STORM FREQUENCY 10-Year

DESIGNED BY: ADH   DATE: 2/20/2018
CHECKED BY: SCT   UNITS: ENGLISH

From Point Reference	To Point Reference	Drain Area "A" (Acre)	Runoff Coeff. "C"	CA Increment	CA Accumulated	Inlet Time (Minutes)	Rain Fall (In/Hr)	Runoff Q (CFS)	Invert Elevations Upper End	Invert Elevations Lower End	Length of Pipe (Ft)	Slope (Ft/Ft)	Size Dia.or Span/Rise (In)	Capacity (CFS)	Velocity (Ft/Sec)	Flow Time (Sec)	Remarks
6-2	6-4	0.42	0.68	0.29	0.29	5.00	7.27	2.09	384.40	382.40	122	0.0163	15	8.88	5.6	0.36	
6-4	6-3	0.16	0.68	0.11	0.40	5.37	7.14	2.85	382.30	381.20	107	0.0102	15	7.03	5.1	0.35	
6-3	7-3	0.18	0.72	0.13	0.53	5.73	7.01	3.69	380.85	376.50	163	0.0267	15	11.35	7.8	0.35	
7-3	7-11	0.24	0.80	0.19	0.72	6.08	6.89	4.95	374.50	372.40	50	0.0417	15	14.19	10.0	0.08	
7-11	7-4	0.02	0.62	0.01	0.73	6.17	6.86	5.03	372.30	371.45	45	0.0191	15	9.60	7.5	0.10	
7-4	7-5	0.04	0.81	0.03	0.77	6.27	6.84	5.24	370.60	370.00	70	0.0086	15	6.43	5.5	0.21	
7-6	7-7	0.19	0.90	0.17	0.17	5.00	7.27	1.21	364.75	364.05	28	0.0247	15	10.92	5.6	0.08	
7-5	7-7	0.16	0.86	0.14	0.91	6.43	6.79	6.17	368.00	364.05	122	0.0323	15	12.48	9.6	0.21	
7-7	7-8	0.19	0.72	0.14	1.21	6.65	6.73	8.18	363.80	362.70	70	0.0158	18	14.21	7.9	0.15	
8-6	8-5	0.20	0.89	0.18	0.18	5.00	7.27	1.27	358.45	357.90	88	0.0062	15	5.49	3.5	0.43	
8-4	8-5	0.25	0.90	0.23	0.23	5.00	7.27	1.64	358.30	357.90	83	0.0048	15	4.83	3.4	0.41	
8-2	8-5	0.41	0.53	0.22	0.22	5.00	7.27	1.59	357.00	356.80	28	0.0071	15	5.84	3.8	0.12	
8-9	8-8	0.43	0.81	0.35	0.35	5.00	7.27	2.56	357.00	356.00	37	0.0269	15	11.40	7.1	0.09	
8-7	8-8	0.40	0.68	0.27	0.27	5.00	7.27	1.99	357.30	356.90	82	0.0049	15	4.86	3.6	0.38	
8-5	8-8	0.11	0.90	0.10	0.72	5.44	7.11	5.11	356.55	356.35	40	0.0050	18	7.96	4.5	0.15	
8-8	8-27	0.21	0.76	0.16	1.50	5.60	7.06	10.62	355.75	355.00	36	0.0210	18	16.37	9.3	0.06	
8-27	8-1			0.00	1.50	5.60	7.06	10.62	354.25	353.50	35	0.0212	18	16.47	9.4	0.06	
Ex 33	Ex 32							148.60	353.20	352.30	29	0.0306	24	42.56	48.5	0.01	★
Ex 32	Ex 73							148.60	352.10	351.88	41	0.0054	48	113.14	12.1	0.06	
Ex 73	8-11	0.30	0.40	0.12	0.12	5.06	7.23	149.46	351.86	350.19	173	0.0096	48	151.79	12.8	0.23	
10-3	10-2	0.24	0.55	0.13	0.13	5.00	7.27	0.94	381.90	381.55	28	0.0124	15	7.72	4.1	0.12	
10-2	10-1	0.28	0.90	0.25	0.38	5.13	7.22	2.74	381.45	380.20	44	0.0286	15	11.76	7.4	0.10	
10-1	10-6	0.76	0.63	0.48	0.86	5.23	7.19	6.18	379.90	378.60	146	0.0089	15	6.57	5.6	0.43	
9-14	9-8	0.14	0.59	0.08	0.08	5.00	7.27	0.58	380.00	379.45	36	0.0153	15	8.60	3.8	0.16	
9-13	9-7	0.22	0.68	0.15	0.15	5.00	7.27	1.10	378.40	378.30	14	0.0072	15	5.88	3.5	0.07	
10-6	9-7	0.29	0.72	0.21	1.07	5.67	7.03	7.53	378.30	377.80	95	0.0052	18	8.18	4.9	0.32	
9-8	9-7	0.15	0.90	0.14	0.22	5.17	7.21	1.56	379.35	378.10	52	0.0239	15	10.74	5.9	0.15	
9-7	9-6	0.33	0.81	0.27	1.71	6.00	6.91	11.80	377.30	376.50	100	0.0080	24	21.75	6.7	0.25	
9-6	9-10	0.37	0.86	0.32	2.02	6.26	6.84	13.85	376.20	375.75	92	0.0049	24	16.99	5.7	0.27	
9-10	9-15	0.18	0.78	0.14	2.16	6.54	6.77	14.64	375.65	375.30	71	0.0049	24	17.04	5.7	0.21	
9-9	9-5	0.15	0.90	0.13	0.13	5.00	7.27	0.97	377.10	376.65	47	0.0095	15	6.79	3.7	0.21	
9-15	9-12	0.10	0.68	0.07	2.23	6.75	6.71	14.96	375.25	375.15	21	0.0047	24	16.62	5.6	0.06	
9-5	9-12	0.04	0.90	0.04	0.17	5.22	7.19	1.23	376.55	376.25	28	0.0107	15	7.18	4.2	0.11	
9-12	9-4			0.00	2.40	6.83	6.69	16.06	375.05	374.45	122	0.0049	24	17.07	5.7	0.36	
9-4	9-3	0.20	0.66	0.14	2.54	7.19	6.59	16.72	374.35	374.20	22	0.0067	24	19.92	6.6	0.06	
9-3	9-11	0.04	0.61	0.03	2.56	7.25	6.57	16.86	374.10	373.90	29	0.0070	24	20.35	6.8	0.07	
9-11	9-2			0.00	2.56	7.25	6.57	16.86	373.80	373.30	97	0.0052	24	17.48	5.9	0.27	
8-21	8-17	0.14	0.53	0.07	0.07	5.00	7.27	0.53	368.40	366.50	52	0.0363	15	13.24	5.0	0.17	
9-2	9-1	0.03	0.75	0.02	2.58	7.25	6.57	16.98	373.20	372.75	31	0.0144	24	29.21	9.1	0.06	
8-17	8-16	0.24	0.90	0.22	0.29	5.18	7.20	2.09	365.50	365.00	28	0.0177	15	9.23	5.8	0.08	
9-1	8-16	0.58	0.68	0.40	2.98	7.68	6.46	19.28	369.50	366.15	198	0.0170	24	31.69	10.0	0.33	
8-24	8-26	0.39	0.88	0.34	0.34	5.00	7.27	2.51	359.85	359.15	43	0.0165	15	8.92	5.9	0.12	
8-16	8-26	0.24	0.73	0.18	3.45	8.01	6.38	22.01	362.00	359.85	138	0.0156	24	30.41	9.9	0.23	
8-26	8-23			0.00	3.80	8.25	6.32	23.99	359.05	358.05	71	0.0140	24	28.83	9.7	0.12	
8-22	8-25							17.55	354.00	353.60	76	0.0053	18	8.20	10.3	0.12	★★
Ex 16	Ex 15	0.10	0.81	0.08	0.08	5.00	7.27	0.58	389.00	388.63	29	0.0126	15	7.81	3.6	0.14	
Ex 14	Ex 13	0.10	0.86	0.08	0.08	5.00	7.27	0.61	391.06	389.73	139	0.0096	15	6.80	3.3	0.71	
Ex 15	Ex 12	0.11	0.83	0.09	0.17	5.15	7.22	1.23	388.58	388.33	105	0.0024	15	3.39	2.4	0.73	
Ex 13	Ex 12	0.17	0.81	0.14	0.22	5.72	7.01	1.56	389.65	389.60	58	0.0009	15	2.04	1.7	0.57	
Ex 12	Ex 10	0.28	0.71	0.20	0.59	6.32	6.82	4.05	386.26	385.08	204	0.0058	18	8.59	4.5	0.75	
Ex 11	Ex 10	0.19	0.72	0.14	0.14	5.00	7.27	1.01	392.67	392.31	58	0.0062	15	5.45	3.2	0.30	
Ex 10	Ex 9	0.41	0.64	0.26	0.99	7.09	6.62	6.56	385.01	383.67	273	0.0049	18	7.91	4.7	0.96	
Ex 9	Ex 7			0.00	0.99	7.09	6.62	6.56	383.61	382.03	294	0.0054	18	8.29	4.9	1.00	
Ex 8	Ex 7	0.21	0.86	0.18	0.18	5.00	7.27	1.33	391.81	389.81	65	0.0307	15	12.17	6.2	0.18	
Ex 7	Ex 6	0.92	0.55	0.51	1.68	9.08	6.12	10.30	381.96	380.23	297	0.0058	21	13.00	5.6	0.88	
Ex 5	Ex 4	0.74	0.87	0.64	0.64	5.00	7.27	4.64	387.92	383.46	71	0.0626	15	17.39	11.4	0.10	
Ex 6	Ex 3	0.80	0.66	0.53	2.21	9.97	5.93	13.09	380.18	379.22	170	0.0057	21	12.82	5.6	0.51	
Ex 4	Ex 3	0.43	0.75	0.32	0.96	5.11	7.23	6.96	383.38	382.45	128	0.0073	15	5.93	5.8	0.37	
Ex 3	Ex 2			0.00	3.17	10.48	5.83	18.50	379.13	377.69	260	0.0055	24	18.12	6.0	0.72	
Ex 2	Ex 1			0.00	3.17	10.48	5.83	18.50	377.59	374.74	120	0.0238	24	37.56	11.3	0.18	
Ex	Ex 30	0.23	0.80	0.18	0.18	5.00	7.27	1.33	372.45	370.80	100	0.0166	18	14.55	4.9	0.34	
6-1	7-1	0.37	0.85	0.32	0.32	5.00	7.27	2.31	383.70	379.65	272	0.0149	15	8.47	5.6	0.81	

STORM SEWER COMPUTATIONS

FORM LD-229
ROUTE: Sycolin Rd.
PROJECT NUMBER: 102895
STORM FREQUENCY 10-Year

DESIGNED BY: ADH   DATE: 2/20/2018
CHECKED BY: SCT   UNITS: ENGLISH

From Point Reference	To Point Reference	Drain Area "A" (Acre)	Runoff Coeff. "C"	CA Increment	CA Accumulated	Inlet Time (Minutes)	Rain Fall (In/Hr)	Runoff Q (CFS)	Invert Elevations Upper End	Invert Elevations Lower End	Length of Pipe (Ft)	Slope (Ft/Ft)	Size Dia.or Span/Rise (In)	Capacity (CFS)	Velocity (Ft/Sec)	Flow Time (Sec)	Remarks
Ex 30	Ex 29	0.52	0.80	0.41	0.60	5.35	7.14	4.27	370.58	369.75	83	0.0100	18	11.29	5.6	0.25	
7-10	7-2	0.04	0.90	0.04	0.04	5.00	7.27	0.28	374.57	372.95	29	0.0567	15	16.54	4.8	0.10	
7-1	7-2	0.27	0.79	0.21	0.53	5.82	6.97	3.71	379.55	378.00	71	0.0219	15	10.28	7.3	0.16	
Ex 29	Ex 27	0.45	0.80	0.36	0.95	5.60	7.05	6.74	368.19	367.79	204	0.0020	24	10.77	3.4	1.00	
7-2	Ex 27	0.02	0.70	0.01	0.59	5.99	6.91	4.04	372.69	371.67	18	0.0555	15	16.38	10.5	0.03	
Ex 27	Ex 26	0.21	0.80	0.17	1.71	6.61	6.74	11.53	367.72	367.42	35	0.0086	24	22.58	6.9	0.08	
Ex Bldg	Ex 25	0.42	0.80	0.34	0.34	5.00	7.27	2.45	367.00	364.77	37	0.0595	12	9.35	9.5	0.07	
Ex 26	Ex 25			0.00	1.71	6.61	6.74	11.53	367.39	366.22	110	0.0106	24	25.11	7.4	0.25	
7-14	7-12	0.18	0.89	0.16	0.16	5.00	7.27	1.13	367.80	367.55	30	0.0082	15	6.31	3.7	0.14	
Ex 25	Ex 24	0.10	0.37	0.04	2.08	6.96	6.65	13.86	364.67	364.57	15	0.0065	24	19.56	6.4	0.04	
7-12	Ex 24	0.19	0.49	0.09	0.25	5.15	7.22	1.81	367.45	367.25	34	0.0058	15	5.30	3.7	0.15	
Ex 24	Ex 23	0.22	0.76	0.17	2.50	7.01	6.64	16.62	364.47	360.94	62	0.0567	48	367.93	14.1	0.07	
8-18	8-19	0.17	0.81	0.14	0.14	5.00	7.27	1.01	365.55	365.10	32	0.0140	15	8.23	4.3	0.12	
8-19	Ex 39			0.00	0.14	5.00	7.27	1.01	363.13	362.93	22	0.0089	12	3.63	3.7	0.10	
11-1	11-4	0.29	0.76	0.22	0.22	5.00	7.27	1.58	384.05	383.85	40	0.0050	15	4.89	3.4	0.20	
11-4	11-2	0.12	0.90	0.11	0.33	5.21	7.19	2.35	383.75	382.25	91	0.0164	15	8.90	5.8	0.26	
11-3	11-2	0.44	0.47	0.21	0.21	5.00	7.27	1.49	381.60	381.40	25	0.0079	15	6.18	3.9	0.11	
Ex 57	Ex 56	0.26	0.70	0.18	0.18	5.00	7.27	1.32	379.32	379.10	43	0.0051	15	4.98	3.2	0.22	
11-2	Ex 56			0.00	0.53	5.48	7.10	3.78	381.30	380.65	90	0.0072	15	5.89	4.8	0.31	
Ex 56	Ex 53	0.00	0.36	0.00	0.72	5.81	6.98	4.99	379.00	378.86	29	0.0049	15	4.87	4.2	0.11	
Ex 54	Ex 53	0.90	0.54	0.48	0.48	5.00	7.27	3.50	382.92	378.72	42	0.1000	15	21.97	12.4	0.06	
Ex 59	Ex 58	0.18	0.75	0.14	0.14	5.00	7.27	1.01	377.41	377.04	71	0.0052	15	5.00	3.0	0.39	
Ex 53	Ex 52	0.00	0.58	0.00	1.20	5.93	6.94	8.31	378.21	376.79	174	0.0082	24	21.98	6.2	0.47	
Ex 58	Ex 51	0.12	0.86	0.10	0.24	5.41	7.12	1.73	376.94	376.09	72	0.0118	15	7.54	4.7	0.25	
Ex 52	Ex 51	0.22	0.79	0.18	1.37	6.41	6.80	9.34	376.59	376.19	75	0.0053	24	17.77	5.5	0.23	
10-5	10-4	0.18	0.72	0.13	0.13	5.00	7.27	0.94	390.10	389.75	47	0.0074	15	5.98	3.4	0.23	
10-4	Ex 78	0.43	0.64	0.27	0.40	5.25	7.18	2.90	389.03	388.50	96	0.0055	15	5.17	4.1	0.39	
Ex 78	Ex 77	0.17	0.79	0.13	0.53	5.64	7.04	3.76	388.33	387.49	132	0.0063	15	5.54	4.6	0.48	
Ex 77	Ex 76	0.94	0.78	0.73	1.27	6.13	6.87	8.71	387.39	386.71	46	0.0149	18	13.78	7.8	0.10	

★ 10-year Q per approved plan TLPF-1986-0014

★★ 10-year Q per proposed SWM routing computations

ENGINEER:
Rinker Design Associates, P.C.
Engineering * Surveying * Land Planning * Transportation * Environmental Services
9385 Discovery Blvd. Suite 200, Manassas Virginia 20109 on the web @ www.rdacivil.com
Telephone: (703) 368-7373 , Fax: (703) 257-5443
"We Welcome the Opportunity to Make Your Vision Reality"
www.rdacivil.com
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
STORM SEWER COMPUTATIONS
Town of Leesburg Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.02.22 09:49:29 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

100% PLANS

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

HYDRAULIC GRADE LINE COMPUTATIONS

FORM LD-347
ROUTE: Sycolin Rd.
PROJECT NUMBER: 102895
DESIGNED BY: ADH **DATE:** 7/12/2018
CHECKED BY: SCT **UNITS:** ENGLISH
Remarks: Computations done using Geopak Drainage

LOCATION OF UPPER END: ALIGNMENT NAME / STATION	OFFSET DISTANCE (ft.)	SIDE	STRUCTURE END.: UPPER / LOWER	VDOT STANDARD (UPPER)	TYPE OF STRUCTURE (UPPER)	DRAINAGE AREA (ac.or ha.): COMPOSITE C VALUE	AREA	SUB-TOTAL (C*A)	CUMULATIVE TIME OF CONCENTRATION (min)	INTENSITY (in/hr OR mm/hr)	TOTAL ACCUMULATED (C*A)	TOTAL RUNOFF Q (cfsOR cms	INLET THROAT OR MANHOLE TOP ELEVATION (ft or m)	HGL CLEARANCE (ft or m)	HYDRAULIC GRADE LINE ELEVATION: CROWN ELEVATION / FLOWLINE ELEVATION: Upper End (ft or m)	LOWER END (ft or m)	FALL (ft or m)	PIPE LENGTH (ft or m)	PIPE SIZE (In or mm): RISE / SPAN	NUMBER OF BARRELS	FRICTION SLOPE (%): PIPE SLOPE (%)	FLOW VELOCITY (fps or mps)	PIPE CAPACITY (cfs or cms)	TIME OF FLOW IN SECTION (min)	NOTES AND REMARKS: COUNTY or CITY : Town of Leesburg / FREQUENCY (yrs) :10 / MANNINGS "n" : .013 / NOTES/ REMARKS
MAINLINE			6-2												385.24	382.83	2.41								
115+48.08	35.00	Rt.	6-4	DI-3B 8	Curb	0.68	0.42	0.29	5.00	7.27	0.29	2.09	388.48	3.24	385.65	383.65	2.00	122	15	1	0.11% 1.63%	5.61	8.88	0.36	
															384.40	382.40	2.00								
MAINLINE			6-4												383.00	381.78	1.23								
116+72.96	35.00	Rt.	6-3	DI-3B 6	Curb	0.68	0.16	0.40	5.37	7.14	0.40	2.85	386.63	3.63	383.55	382.45	1.10	107	15	1	0.20% 1.02%	5.13	7.03	0.35	
															382.30	381.20	1.10								
MAINLINE			6-3												381.69	377.01	4.68								
117+82.30	47.00	Rt.	7-3	DI-3B 6	Curb	0.72	0.18	0.53	5.73	7.01	0.53	3.69	384.82	3.13	382.10	377.75	4.35	163	15	1	0.33% 2.67%	7.84	11.35	0.35	
															380.85	376.50	4.35								
MAINLINE			7-3												375.51	372.94	2.56								
119+47.76	47.00	Rt.	7-11	DI-3B 10	Curb	0.80	0.24	0.72	6.08	6.89	0.72	4.95	380.69	5.18	375.75	373.65	2.10	50	15	1	0.59% 4.17%	9.98	14.19	0.08	
															374.50	372.40	2.10								
MAINLINE			7-11												373.26	372.13	1.13								
119+93.63	78.19	Rt.	7-4	DI-3A	Curb	0.62	0.02	0.73	6.17	6.86	0.73	5.03	376.33	3.07	373.55	372.70	0.85	45	15	1	0.61% 1.91%	7.49	9.60	0.10	
															372.30	371.45	0.85								
ENT12015			7-4												371.40	370.20	1.20								
10+78.93	-26.10	Lt.	7-5	DI-3B 4	Curb	0.81	0.04	0.77	6.27	6.84	0.77	5.24	375.37	3.82	371.85	371.25	0.60	70	15	1	0.67% 2.00%	5.49	6.43	0.21	
															370.60	369.20	0.60								
MAINLINE			7-6												365.35	364.34	1.00								
122+24.75	4.00	Rt.	7-7	DI-3B 14 No Gutter	Curb	0.90	0.19	0.17	5.00	7.27	0.17	1.21	368.78	3.44	366.00	365.30	0.70	28	15	1	0.04% 2.47%	5.57	10.92	0.08	
															364.75	364.05	0.70								
MAINLINE			7-5												367.39	366.30	1.09								
120+98.50	35.00	Rt.	7-7	DI-3B 8	Curb	0.86	0.16	0.91	6.49	6.78	0.91	6.16	374.31	5.23	369.25	365.30	3.95	122	15	1	0.92% 3.23%	9.59	12.48	0.21	
															368.00	364.05	3.95								
MAINLINE			7-7												366.30	363.63	2.67								
122+24.92	35.00	Rt.	7-8	DI-3B 8	Curb	0.72	0.19	1.21	6.71	6.72	1.21	8.16	368.02	3.05	365.30	364.20	1.10	70	2.3 x 14	1	0.61% 1.58%	7.87	14.21	0.15	
															363.80	362.70	1.10								
MAINLINE			8-6												359.07	358.33	0.74								
126+50.24	-8.00	Lt.	8-5	DI-3B 10 No Gutter	Curb	0.89	0.20	0.18	5.00	7.27	0.18	1.27	362.45	3.38	359.70	359.15	0.55	88	15	1	0.04% 0.62%	3.45	5.49	0.43	
															358.45	357.90	0.55								
MAINLINE			8-4												359.02	358.41	0.61								
124+74.75	-8.00	Lt.	8-5	DI-3B 12 No Gutter	Curb	0.90	0.25	0.23	5.00	7.27	0.23	1.64	362.40	3.38	359.55	359.15	0.40	83	15	1	0.06% 0.48%	3.37	4.83	0.41	
															358.30	357.90	0.40								
MAINLINE			8-2												357.71	357.26	0.44								
125+59.84	-35.00	Lt.	8-5	DI-3C 6 (CG-6)	Curb	0.53	0.41	0.22	5.00	7.27	0.22	1.59	362.28	4.57	358.25	358.05	0.20	28	15	1	0.06% 0.71%	3.85	5.84	0.12	
															357.00	356.80	0.20								
MAINLINE			8-9												357.95	356.43	1.52								
126+00.06	38.32	Rt.	8-8	DI-3B 6	Curb	0.81	0.43	0.35	5.00	7.27	0.35	2.56	360.98	3.03	358.25	357.25	1.00	37	15	1	0.16% 2.69%	7.11	11.40	0.09	
															357.00	356.00	1.00								
MAINLINE			8-7												358.11	357.46	0.65								
124+74.75	35.00	Rt.	8-8	DI-3B 8	Curb	0.68	0.40	0.27	5.00	7.27	0.27	1.99	361.41	3.30	358.55	358.15	0.40	82	15	1	0.10% 0.49%	3.58	4.86	0.38	
															357.30	356.90	0.40								
MAINLINE			8-5												357.48	357.22	0.26								
125+59.84	-8.00	Lt.	8-8	DI-3C 8 (CG-2)	Curb	0.90	0.11	0.72	5.44	7.11	0.72	5.11	361.95	4.47	358.05	357.85	0.20	40	18	1	0.24% 0.50%	4.53	7.96	0.15	
															356.55	356.35	0.20								
MAINLINE			8-8												357.07	355.97	1.10								
125+59.84	35.00	Rt.	8-27	DI-3C 10 (CG-6)	Curb	0.76	0.21	1.50	5.60	7.06	1.50	10.62	360.96	3.89	357.25	356.50	0.75	36	18	1	1.03% 2.10%	9.30	16.37	0.06	
															355.75	355.00	0.75								
MAINLINE			8-27												355.54	354.47	1.07								
125+59.36	76.06	Rt.	8-1	MH-12	Junction			1.50	5.60	7.06	1.50	10.62	361.15	5.61	355.75	355.00	0.75	35	18	1	1.03% 2.12%	9.36	16.47	0.06	
															354.25	353.50	0.75								
MAINLINE			Ex 33												449.54	356.16	93.38								
126+35.57	-155.01	Lt.	Ex 32	Pipe End_Non-Outlet	Other							148.60	365.00	-84.54	355.20	354.30	0.90	29	24	1	0.00% 3.06%	48.53	42.56	0.01	Per approved plan TLPF-1986-0014, peak 10-year WSE at Ex.33 = 361.14. HGL calculation included for information only.
															353.20	352.30	0.90								
MAINLINE			Ex 32												356.16	355.46	0.70								
126+38.33	-123.72	Lt.	Ex 73	MH-12	Junction							148.60	363.00	6.84	356.10	355.88	0.22	41	48	1	0.00% 0.54%	12.13	113.14	0.06	
															352.10	351.88	0.22								
MAINLINE			Ex 73												355.45	353.74	1.71								
126+36.74	-79.22	Lt.	8-11	DI-5 Grate	Grate	0.40	0.30	0.12	5.06	7.23	0.12	149.46	359.86	4.41	355.86	354.19	1.67	173	48	1	1.09% 0.96%	12.76	151.79	0.23	
															351.86	350.19	1.67								

100% PLANS

Office Locations
Fairfax: 10632 Main Street, Suite 200, Fairfax, VA 22030, Phone: (703) 385-1779, Fax: (703) 385-1569
Leesburg: 1 East Market Street, Suite 300, Leesburg, VA 20176, Phone: (703) 443-2775, Fax: (703) 443-2461
Gainesville: 7501 Limestone Drive, Suite 100, Gainesville, VA 20155, Phone: (703) 753-1403, Fax: (703) 753-1404
Fredericksburg: 2300 Dandridge Garrison Road, Suite 100, Fredericksburg, VA 22401, Phone: (540) 479-2277, Fax: (540) 479-2278
Civil Engineering - Surveying - Land Planning
Water Resources - Transportation - Environmental
Right-of-Way Services
Rinker Design Associates, P.C.
www.rinkerdesign.com

ENGINEER:
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Engineering * Surveying * Land Planning * Transportation * Environmental Services
3020 Gateway Drive, Suite 100, Pittsburgh, PA 15220 * www.rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
HYDRAULIC GRADE LINE COMPUTATIONS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER
Nikhil V Deshpande
2018.07.17 17:38:34 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

HYDRAULIC GRADE LINE COMPUTATIONS

FORM LD-347

ROUTE: Sycolin Rd.

PROJECT NUMBER: 102895

DESIGNED BY: ADH **DATE:** 2/20/2018

CHECKED BY: SCT **UNITS:** ENGLISH

Remarks: Computations done using Geopak Drainage

LOCATION OF UPPER END			STRUCTURE END.	VDOT STANDARD (UPPER)	TYPE OF STRUCTURE (UPPER)	DRAINAGE AREA (ac.or ha.)			CUMULATIVE TIME OF CONCENTRATION (min)	INTENSITY (in/hr OR mm/hr)	TOTAL ACCUMULATED (C*A)	TOTAL RUNOFF Q (cfsOR cms	INLET THROAT OR MANHOLE TOP ELEVATION (ft or m)	HGL CLEARANCE (ft or m)	HYDRAULIC GRADE LINE ELEVATION			PIPE LENGTH (ft or m)	PIPE SIZE (In or mm)		NUMBER OF BARRELS	FRICTION SLOPE (%)	FLOW VELOCITY (fps or mps)	PIPE CAPACITY (cfs or cms)	TIME OF FLOW IN SECTION (min)	NOTES AND REMARKS
ALIGNMENT NAME			UPPER												CROWN ELEVATION				RISE							COUNTY or CITY : Town of Leesburg
STATION	OFFSET DISTANCE (ft.)	SIDE	LOWER			COMPOSITE C VALUE	AREA	SUB-TOTAL (C*A)							FLOWLINE ELEVATION				SPAN			PIPE SLOPE (%)				FREQUENCY (yrs) :10
															Upper End (ft or m)	LOWER END (ft or m)	FALL (ft or m)								MANNINGS "n" : .013
MAINLINE			10-3	DI-3B 6	Curb	0.55	0.24	0.13	5.00	7.27	0.13	0.94	385.92	3.51	382.40	381.86	0.55	28	15		1	0.02%	4.05	7.72	0.12	
139+76.07	35.00	Rt.	10-2												383.15	382.80	0.35					1.24%				
															381.90	381.55	0.35									
MAINLINE			10-2	DI-3B 14 No Gutter	Curb	0.90	0.28	0.38	5.13	7.22	0.38	2.74	385.50	3.31	382.19	380.63	1.56	44	15		1	0.18%	7.40	11.76	0.10	
139+75.26	8.00	Rt.	10-1												382.70	381.45	1.25					2.86%				
															381.45	380.20	1.25									
MAINLINE			10-1	DI-3B 10	Curb	0.63	0.76	0.86	5.23	7.19	0.86	6.18	384.31	3.34	380.97	379.60	1.36	146	15		1	0.93%	5.64	6.57	0.43	
139+75.15	-38.37	Lt.	10-6												381.15	379.85	1.30					0.89%				
															379.90	378.60	1.30									
MAINLINE			9-14	DI-2B 4	Curb	0.59	0.14	0.08	5.00	7.27	0.08	0.58	383.95	3.58	380.37	379.68	0.69	36	15		1	0.01%	3.80	8.60	0.16	
137+50.66	35.00	Rt.	9-8												381.25	380.70	0.55					1.53%				
															380.00	379.45	0.55									
MAINLINE			9-13	DI-7 Grate	Grate	0.68	0.22	0.15	5.00	7.27	0.15	1.10	381.80	2.84	378.96	378.68	0.28	14	15		1	0.03%	3.49	5.88	0.07	
137+27.00	-65.69	Lt.	9-7												379.65	379.55	0.10					0.72%				
															378.40	378.30	0.10									
MAINLINE			10-6	DI-3B 6	Curb	0.72	0.29	1.07	5.67	7.03	1.07	7.53	382.54	3.02	379.52	378.86	0.66	95	18		1	0.52%	4.93	8.18	0.32	
138+24.98	-47.00	Lt.	9-7												379.80	379.30	0.50					0.52%				
															378.30	377.80	0.50									
MAINLINE			9-8	DI-3B 10 No Gutter	Curb	0.90	0.15	0.22	5.17	7.21	0.22	1.56	383.42	3.51	379.91	378.44	1.47	52	15		1	0.06%	5.92	10.74	0.15	
137+26.40	8.00	Rt.	9-7												380.60	379.35	1.25					2.39%				
															379.35	378.10	1.25									
MAINLINE			9-7	DI-3C 8 (CG-6)	Curb	0.81	0.33	1.71	6.00	6.91	1.71	11.80	382.03	3.47	378.55	377.60	0.95	100	24		1	0.27%	6.66	21.75	0.25	
137+25.09	-47.00	Lt.	9-6												379.30	378.50	0.80					0.80%				
															377.30	376.50	0.80									
MAINLINE			9-6	DI-3B 4	Curb	0.86	0.37	2.02	6.26	6.84	2.02	13.85	381.42	3.76	377.66	377.19	0.48	92	24		1	0.38%	5.67	16.99	0.27	
136+21.96	-38.04	Lt.	9-10												378.20	377.75	0.45					0.49%				
															376.20	375.75	0.45									
MAINLINE			9-10	DI-3B 6	Curb	0.78	0.18	2.16	6.54	6.77	2.16	14.64	380.54	3.36	377.19	376.83	0.36	71	24		1	0.42%	5.70	17.04	0.21	
135+24.98	-35.00	Lt.	9-15												377.65	377.30	0.35					0.49%				
															375.65	375.30	0.35									
MAINLINE			9-9	DI-3B 8 No Gutter	Curb	0.90	0.15	0.13	5.00	7.27	0.13	0.97	381.10	3.48	377.62	376.98	0.63	47	15		1	0.02%	3.72	6.79	0.21	
134+75.00	-4.00	Lt.	9-5												378.35	377.90	0.45					0.95%				
															377.10	376.65	0.45									
MAINLINE			9-15	DI-3A	Curb	0.680	0.098	2.231	6.75	6.71	2.231	14.96	380.20	3.41	376.83	376.71	0.12	21.44	24		1	0.442%	5.61	16.62	0.06	
134+50.00	-35.00	Lt.	9-12												377.25	377.15	0.10					0.47%				
															375.25	375.15	0.10									
MAINLINE			9-5	DI-3B 6 No Gutter	Curb	0.90	0.04	0.17	5.22	7.19	0.17	1.23	380.91	3.88	377.02	376.61	0.41	28	15		1	0.04%	4.15	7.18	0.11	
134+25.25	-4.00	Lt.	9-12												377.80	377.50	0.30					1.07%				
															376.55	376.25	0.30									
MAINLINE			9-12	MH-12	Junction			2.40	6.83	6.69	2.40	16.06	380.16	3.45	376.71	375.90	0.81	122	24		1	0.51%	5.72	17.07	0.36	
134+25.23	-37.40	Lt.	9-4												377.05	376.45	0.60					0.49%				
															375.05	374.45	0.60									
MAINLINE			9-4	DI-3B 4	Curb	0.66	0.20	2.54	7.19	6.59	2.54	16.72	379.54	3.68	375.86	375.67	0.18	22	24		1	0.55%	6.63	19.92	0.06	
133+00.00	-35.00	Lt.	9-3												376.35	376.20	0.15					0.67%				
															374.35	374.20	0.15									
MAINLINE			9-3	DI-3A	Curb	0.61	0.04	2.56	7.25	6.57	2.56	16.86	379.47	3.92	375.60	375.37	0.24	29	24		1	0.56%	6.83	20.35	0.07	
132+75.11	-35.00	Lt.	9-11												376.10	375.90	0.20					0.70%				
															374.10	373.90	0.20									
MAINLINE			9-11	MH-12	Junction			2.56	7.25	6.57	2.56	16.86	379.95	4.52	375.49	374.78	0.71	97	24		1	0.56%	5.92	17.48	0.27	
132+75.13	-5.06	Lt.	9-2												375.80	375.30	0.50					0.52%				
															373.80	373.30	0.50									
MAINLINE			8-21	DI-3B 6	Curb	0.53	0.14	0.07	5.00	7.27	0.07	0.53	372.34	3.55	368.79	366.68	2.11	52	15		1	0.01%	5.01	13.24	0.17	
129+72.59	-47.00	Lt.	8-17												369.65	367.75	1.90					3.63%				
															368.40	366.50	1.90									
MAINLINE			9-2	DI-3B 6 No Gutter	Curb	0.75	0.03	2.58	7.25	6.57	2.58	16.98	378.37	3.64	374.72	373.97	0.76	31	24		1	0.57%	9.14	29.21	0.06	
131+75.05	1.11	Rt.	9-1												375.20	374.75	0.45					1.44%				
															373.20	372.75	0.45									
MAINLINE			8-17	DI-3B 16 No Gutter	Curb	0.90	0.24	0.29	5.18	7.20	0.29	2.09	371.55	5.43	366.12	365.43	0.70	28	15		1	0.11%	5.77	9.23	0.08	
129+72.59	4.00	Rt.	8-16												366.75	366.25	0.50					1.77%				
															365.50	365.00	0.50									
MAINLINE			9-1	DI-3BB 10	Curb	0.68	0.58	2.98	7.68	6.46	2.98	19.28	377.55	6.43	371.12	367.33	3.79	198	24		1	0.73%	9.99	31.69	0.33	
131+74.99	35.00	Rt.	8-16												371.50	368.15	3.35					1.70%				
															369.50	366.15	3.35									
MAINLINE			8-24	DI-3B 10	Curb	0.88	0.39	0.34	5.00	7.27	0.34	2.51	363.86	2.34	361.52	361.45	0.07	43	15		1	0.15%	5.91	8.92	0.12	
127+83.86	47.00	Rt.	8-26												361.10	360.40	0.70					1.65%				
															359.85	359.15	0.70									

100% PLANS

Office Locations
Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services

ENGINEER:
Rinker Design Associates, P.C.
Engineering * Surveying * Land Planning * Transportation * Environmental Services
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Telephone: (703) 368-7373 Fax: (703) 257-5445
e-mail: rda@rinkerdesign.com
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
HYDRAULIC GRADE LINE COMPUTATIONS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.04.13 16:07:57 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 21(5) of 20

REV. #1: 07/12/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

HYDRAULIC GRADE LINE COMPUTATIONS

FORM LD-347
ROUTE: Sycolin Rd.
PROJECT NUMBER: 102895

DESIGNED BY: ADH **DATE:** 7/12/2018
CHECKED BY: SCT **UNITS:** ENGLISH

Remarks: Computations done using Geopak Drainage

LOCATION OF UPPER END: ALIGNMENT NAME / STATION	OFFSET DISTANCE (ft.)	SIDE	STRUCTURE END.: UPPER / LOWER	VDOT STANDARD (UPPER)	TYPE OF STRUCTURE (UPPER)	DRAINAGE AREA (ac.or ha.): COMPOSITE C VALUE	AREA	SUB-TOTAL (C*A)	CUMULATIVE TIME OF CONCENTRATION (min)	INTENSITY (in/hr OR mm/hr)	TOTAL ACCUMULATED (C*A)	TOTAL RUNOFF Q (cfs OR cms	INLET THROAT OR MANHOLE TOP ELEVATION (ft or m)	HGL CLEARANCE (ft or m)	HYDRAULIC GRADE LINE ELEVATION: CROWN ELEVATION / FLOWLINE ELEVATION: Upper End (ft or m)	LOWER END (ft or m)	FALL (ft or m)	PIPE LENGTH (ft or m)	PIPE SIZE (In or mm): RISE / SPAN	NUMBER OF BARRELS	FRICTION SLOPE (%): PIPE SLOPE (%)	FLOW VELOCITY (fps or mps)	PIPE CAPACITY (cfs or cms)	TIME OF FLOW IN SECTION (min)	NOTES AND REMARKS: NOTES/ REMARKS
																										COUNTY or CITY : Town of Leesburg
																										FREQUENCY (yrs) :10
																										MANNINGS "n" : .013
MAINLINE			8-16	DI-3BB 8	Curb	0.73	0.24	3.45	8.01	6.38	3.45	22.01	370.88	7.15	365.12	362.57	2.55									
129+72.59	35.00	Rt.	8-26												364.00	361.85	2.15	138	24	1	0.96%	9.94	30.41	0.23	
															362.00	359.85	2.15				1.56%				
MAINLINE			8-26	MH-12	Junction			3.80	8.25	6.32	3.80	23.99	365.10	3.65	362.67	359.42	3.25									
128+30.34	50.08	Rt.	8-23												361.05	360.05	1.00	71	30 x 19	1	1.13%	9.67	28.83	0.12	
															359.05	358.05	1.00				1.40%				
MAINLINE			8-22	Pipe End_Non-Outlet-Headwall	UG SWM							17.55	362.00	2.92	359.08	355.05	4.03									
126+86.10	147.09	Rt.	8-25												355.50	355.10	0.40	76	18	1	0.00%	10.3	8.20	0.12	
															354.00	353.60	0.40				0.53%				
MAINLINE			Ex 16	DI-3B 6	Curb	0.81	0.10	0.08	5.00	7.27	0.08	0.58	393.73	4.36	389.37	388.87	0.50									
97+87.27	102.11	Rt.	Ex 15												390.25	389.88	0.37	29	15	1	0.01%	3.6	7.81	0.14	
															389.00	388.63	0.37				1.26%				
MAINLINE			Ex 14	DI-3A	Curb	0.86	0.10	0.08	5.00	7.27	0.08	0.61	394.86	3.42	391.44	389.99	1.45									
97+52.78	-21.95	Lt.	Ex 13												392.31	390.98	1.33	139	15	1	0.01%	3.3	6.80	0.71	
															391.06	389.73	1.33				0.96%				
MAINLINE			Ex 15	DI-3B 8	Curb	0.83	0.11	0.17	5.15	7.22	0.17	1.23	393.78	4.65	389.13	388.77	0.36									
98+14.19	109.63	Rt.	Ex 12												389.83	389.58	0.25	105	15	1	0.04%	2.4	3.39	0.73	
															388.58	388.33	0.25				0.24%				
MAINLINE			Ex 13	DI-3B 4	Curb	0.81	0.17	0.22	5.72	7.01	0.22	1.56	395.68	5.34	390.34	390.09	0.25									
98+94.41	-22.13	Lt.	Ex 12												390.90	390.85	0.05	58	15	1	0.06%	1.7	2.04	0.57	
															389.65	389.60	0.05				0.09%				
MAINLINE			Ex 12	DI-3B 4	Curb	0.71	0.28	0.59	6.32	6.82	0.59	4.05	395.84	8.80	387.04	385.84	1.21									
98+93.69	34.70	Rt.	Ex 10												387.76	386.58	1.18	204	18	1	0.15%	4.5	8.59	0.75	
															386.26	385.08	1.18				0.58%				
MAINLINE			Ex 11	DI-3B 4	Curb	0.72	0.19	0.14	5.00	7.27	0.14	1.01	397.02	3.82	393.20	392.69	0.51									
101+01.29	-22.21	Lt.	Ex 10												393.92	393.56	0.36	58	15	1	0.02%	3.2	5.45	0.30	
															392.67	392.31	0.36				0.62%				
MAINLINE			Ex 10	DI-3B 6	Curb	0.64	0.41	0.99	7.09	6.62	0.99	6.56	396.81	10.68	386.13	384.69	1.43									
101+00.53	34.93	Rt.	Ex 9												386.51	385.17	1.34	273	18	1	0.39%	4.7	7.91	0.96	
															385.01	383.67	1.34				0.49%				
MAINLINE			Ex 9	MH-12	Junction			0.99	7.09	6.62	0.99	6.56	397.70	13.01	384.69	383.28	1.41									
103+77.09	38.28	Rt.	Ex 7												385.11	383.53	1.58	294	18	1	0.39%	4.9	8.29	1.00	
															383.61	382.03	1.58				0.54%				
MAINLINE			Ex 8	DI-3B 4	Curb	0.86	0.21	0.18	5.00	7.27	0.18	1.33	395.97	3.53	392.44	390.10	2.34									
106+72.92	-28.99	Lt.	Ex 7												393.06	391.06	2.00	65	15	1	0.04%	6.2	12.17	0.18	
															391.81	389.81	2.00				3.07%				
MAINLINE			Ex 7	DI-3B 6	Curb	0.55	0.92	1.68	9.08	6.12	1.68	10.30	395.86	12.58	383.28	382.20	1.08									
106+74.15	34.88	Rt.	Ex 6												383.71	381.98	1.73	297	21	1	0.43%	5.6	13.00	0.88	
															381.96	380.23	1.73				0.58%				
MAINLINE			Ex 5	DI-3B 6	Curb	0.87	0.74	0.64	5.00	7.27	0.64	4.64	391.57	2.24	389.33	383.92	5.41									
112+76.45	-35.32	Lt.	Ex 4												389.17	384.71	4.46	71	15	1	0.52%	11.4	17.39	0.10	
															387.92	383.46	4.46				6.26%				
MAINLINE			Ex 6	DI-3B 8	Curb	0.66	0.80	2.21	9.97	5.93	2.21	13.09	394.21	12.01	382.20	381.02	1.18									
109+73.89	34.64	Rt.	Ex 3												381.93	380.97	0.96	170	21	1	0.69%	5.6	12.82	0.51	
															380.18	379.22	0.96				0.57%				
MAINLINE			Ex 4	DI-3B 6	Curb	0.75	0.43	0.96	5.11	7.23	0.96	6.96	391.58	6.47	385.11	383.51	1.60									
112+77.55	34.56	Rt.	Ex 3												384.63	383.70	0.93	128	15	1	1.18%	5.8	5.93	0.37	
															383.38	382.45	0.93				0.73%				
MAINLINE			Ex 3	MH-12	Junction			3.17	10.48	5.83	3.17	18.50	393.10	12.08	381.02	379.25	1.78									
111+46.66	42.33	Rt.	Ex 2												381.13	379.69	1.44	260	24	1	0.67%	6.0	18.12	0.72	
															379.13	377.69	1.44				0.55%				
MAINLINE			Ex 2	MH-12	Junction			3.17	10.48	5.83	3.17	18.50	384.79	5.54	379.25	375.79	3.46									
111+57.70	305.30	Rt.	Ex 1												379.59	376.74	2.85	120	24	1	0.67%	11.3	37.56	0.18	
															377.59	374.74	2.85				2.38%				

100% PLANS

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Gda Rinker Design Associates, P.C.
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3020 Gateway Drive, Suite 180, Pittsburgh, PA 15220 www.rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
HYDRAULIC GRADE LINE COMPUTATIONS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:39:10 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2J(6) of 20

Office Locations
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Civil Engineering – Surveying – Land Planning
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www.gdarinker.com
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Loudoun Office: 20863 Stone Oak Parkway, Suite 200, Sterling, VA 20164, Phone: (703) 444-7755, Fax: (703) 444-7756

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

HYDRAULIC GRADE LINE COMPUTATIONS

FORM LD-347

ROUTE: Sycolin Rd.

PROJECT NUMBER: 102895

DESIGNED BY: ADH **DATE:** 2/20/2018

CHECKED BY: SCT **UNITS:** ENGLISH

Remarks: Computations done using Geopak Drainage

LOCATION OF UPPER END: ALIGNMENT NAME / STATION	OFFSET DISTANCE (ft.)	SIDE	STRUCTURE ENO.: UPPER / LOWER	VDOT STANDARD (UPPER)	TYPE OF STRUCTURE (UPPER)	DRAINAGE AREA (ac.or ha.): COMPOSITE C VALUE	AREA	SUB-TOTAL (C*A)	CUMULATIVE TIME OF CONCENTRATION (min)	INTENSITY (in/hr OR mm/hr)	TOTAL ACCUMULATED (C*A)	TOTAL RUNOFF Q (cfs OR cms	INLET THROAT OR MANHOLE TOP ELEVATION (ft or m)	HGL CLEARANCE (ft or m)	HYDRAULIC GRADE LINE ELEVATION: CROWN ELEVATION / FLOWLINE ELEVATION: Upper End (ft or m)	LOWER END (ft or m)	FALL (ft or m)	PIPE LENGTH (ft or m)	PIPE SIZE (In or mm): RISE / SPAN	NUMBER OF BARRELS	FRICTION SLOPE (%): PIPE SLOPE (%)	FLOW VELOCITY (fps or mps)	PIPE CAPACITY (cfs or cms)	TIME OF FLOW IN SECTION (min)	NOTES AND REMARKS: NOTES/ REMARKS
																										COUNTY or CITY : Town of Leesburg
																										FREQUENCY (yrs) : 10
																										MANNINGS "n" : .013
MAINLINE			Ex	DI-3B 10	Curb	0.80	0.23	0.18	5.00	7.27	0.18	1.33	378.16	5.14	373.02	371.12	1.90	100	18	1	0.02%	4.87	14.55	0.34	
116+41.53	-203.80	Lt.	Ex 30												373.95	372.30	1.65				1.66%				
															372.45	370.80	1.65								
MAINLINE			6-1	DI-3B 10	Curb	0.85	0.37	0.32	5.00	7.27	0.32	2.31	387.73	3.14	384.59	380.11	4.48	272	15	1	0.13%	5.59	8.47	0.81	
115+99.75	-35.00	Lt.	7-1												384.95	380.90	4.05				1.49%				
															383.70	379.65	4.05								
MAINLINE			Ex 30	DI-3B 8	Curb	0.80	0.52	0.60	5.35	7.14	0.60	4.27	377.65	6.25	371.40	370.42	0.98	83	18	1	0.17%	5.64	11.29	0.25	
116+63.39	-106.16	Lt.	Ex 29												372.08	371.25	0.83				1.00%				
															370.58	369.75	0.83								
MAINLINE			7-10	DI-3B 6 No Gutter	Curb	0.90	0.04	0.04	5.00	7.27	0.04	0.28	381.97	7.05	374.92	373.07	1.85	29	15	1	0.00%	4.84	16.54	0.10	
119+44.13	-8.00	Lt.	7-2												375.82	374.20	1.62				5.67%				
															374.57	372.95	1.62								
MAINLINE			7-1	DI-3B 8	Curb	0.79	0.27	0.53	5.82	6.97	0.53	3.71	383.60	3.22	380.38	378.54	1.84	71	15	1	0.33%	7.28	10.28	0.16	
118+74.75	-35.00	Lt.	7-2												380.80	379.25	1.55				2.19%				
															379.55	378.00	1.55								
MAINLINE			Ex 29	DI-3C 16 (CG-6)	Curb	0.80	0.45	0.95	5.60	7.05	0.95	6.74	376.39	7.00	369.39	368.97	0.42	204	24	1	0.09%	3.41	10.77	1.00	
117+43.64	-74.86	Lt.	Ex 27												370.19	369.79	0.40				0.20%				
															368.19	367.79	0.40								
MAINLINE			7-2	DI-3AA	Curb	0.70	0.02	0.59	5.99	6.91	0.59	4.04	381.99	8.34	373.65	372.16	1.50	18	15	1	0.40%	10.48	16.38	0.03	
119+48.07	-35.00	Lt.	Ex 27												373.94	372.92	1.02				5.55%				
															372.69	371.67	1.02								
MAINLINE			Ex 27	DI-3B 12	Curb	0.80	0.21	1.71	6.61	6.74	1.71	11.53	375.84	6.87	368.97	368.49	0.47	35	24	1	0.26%	6.85	22.58	0.08	
119+49.90	-59.97	Lt.	Ex 26												369.72	369.42	0.30				0.86%				
															367.72	367.42	0.30								
MAINLINE			Ex Bldg	DI-5 Grate	Grate	0.80	0.42	0.34	5.00	7.27	0.34	2.45	400.00	31.94	368.06	365.14	2.92	37	12	1	0.48%	9.51	9.35	0.07	
119+70.39	-173.65	Lt.	Ex 25												368.00	365.77	2.23				5.95%				
															367.00	364.77	2.23								
MAINLINE			Ex 26	MH-12	Junction			1.71	6.61	6.74	1.71	11.53	377.30	8.65	368.65	367.22	1.43	110	24	1	0.26%	7.40	25.11	0.25	
119+84.72	-71.07	Lt.	Ex 25												369.39	368.22	1.17				1.06%				
															367.39	366.22	1.17								
ENT12010			7-14	DI-3A (CG-6)	Curb	0.89	0.18	0.16	5.00	7.27	0.16	1.13	371.81	3.44	368.37	367.92	0.45	30	15	1	0.03%	3.68	6.31	0.14	
12+16.60	14.48	Rt.	7-12												369.05	368.80	0.25				0.82%				
															367.80	367.55	0.25								
MAINLINE			Ex 25	DI-7 Grate	Grate	0.37	0.10	2.08	6.96	6.65	2.08	13.86	371.12	5.09	366.03	365.88	0.15	15	24	1	0.38%	6.38	19.56	0.04	
120+07.90	-182.15	Lt.	Ex 24												366.67	366.57	0.10				0.65%				
															364.67	364.57	0.10								
ENT12010			7-12	DI-3A (CG-6)	Curb	0.49	0.19	0.25	5.15	7.22	0.25	1.81	371.77	3.77	368.00	367.77	0.22	34	15	1	0.08%	3.72	5.30	0.15	
12+17.18	-14.54	Lt.	Ex 24												368.70	368.50	0.20				0.58%				
															367.45	367.25	0.20								
ENT12010			Ex 24	DI-2B 8	Curb	0.76	0.22	2.50	7.01	6.64	2.50	16.62	372.51	6.78	365.73	361.57	4.16	62	48	1	0.01%	14.06	367.93	0.07	
11+74.58	-14.63	Lt.	Ex 23												368.47	364.94	3.53				5.67%				
															364.47	360.94	3.53								
MAINLINE			8-18	DI-3A (CG-6)	Curb	0.81	0.17	0.14	5.00	7.27	0.14	1.01	369.65	3.57	366.08	365.41	0.67	32	15	1	0.02%	4.31	8.23	0.12	
129+22.05	-95.96	Lt.	8-19												366.80	366.35	0.45				1.40%				
															365.55	365.10	0.45								
MAINLINE			8-19	MH-12	Junction			0.14	5.00	7.27	0.14	1.01	370.74	7.15	363.59	363.31	0.28	22	12	1	0.08%	3.74	3.63	0.10	
129+58.37	-94.22	Lt.	Ex 39												364.13	363.93	0.20				0.89%				
															363.13	362.93	0.20								

ENGINEER:
Rinker Design Associates, P.C.
Engineering • Surveying • Land Planning • Transportation • Environmental Services
20863 Stone Oak Parkway, Suite 200, Sterling, VA 20164
Telephone: (703) 444-7755 Fax: (703) 257-0449
"We Welcome the Opportunity"
"To Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
HYDRAULIC GRADE LINE COMPUTATIONS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.02.22 09:51:02 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 21(7) of 20

100% PLANS

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

HYDRAULIC GRADE LINE COMPUTATIONS

FORM LD-347

ROUTE: Sycolin Rd.

PROJECT NUMBER: 102895

DESIGNED BY: ADH **DATE:** 2/20/2018

CHECKED BY: SCT **UNITS:** ENGLISH

Remarks: Computations done using Geopak Drainage

LOCATION OF UPPER END ALIGNMENT NAME / STATION	OFFSET DISTANCE (ft.)	SIDE	STRUCTURE END. UPPER / LOWER	VDOT STANDARD (UPPER)	TYPE OF STRUCTURE (UPPER)	DRAINAGE AREA (ac.or ha.) COMPOSITE C VALUE	AREA	SUB-TOTAL (C*A)	CUMULATIVE TIME OF CONCENTRATION (min)	INTENSITY (in/hr OR mm/hr)	TOTAL ACCUMULATED (C*A)	TOTAL RUNOFF Q (cfs OR cms	INLET THROAT OR MANHOLE TOP ELEVATION (ft or m)	HGL CLEARANCE (ft or m)	HYDRAULIC GRADE LINE ELEVATION: CROWN ELEVATION / FLOWLINE ELEVATION Upper End (ft or m)	LOWER END (ft or m)	FALL (ft or m)	PIPE LENGTH (ft or m)	PIPE SIZE (In or mm) RISE / SPAN	NUMBER OF BARRELS	PIPE SLOPE (%) / FRICTION SLOPE (%)	FLOW VELOCITY (fps or mps)	PIPE CAPACITY (cfs or cms)	TIME OF FLOW IN SECTION (min)	NOTES AND REMARKS / NOTES/ REMARKS
																										COUNTY or CITY : Town of Leesburg
																										FREQUENCY (yrs) :10
																										MANNINGS "n" : .013
MAINLINE			11-1	DI-3B 8	Curb	0.76	0.29	0.22	5.00	7.27	0.22	1.58	388.01	3.25	384.76	384.42	0.34	40	15	1	0.06%	3.37	4.89	0.20	
146+23.09	-35.00	Lt.	11-4												385.30	385.10	0.20				0.50%					
															384.05	383.85	0.20									
MAINLINE			11-4	DI-3B 12 No Gutter	Curb	0.90	0.12	0.33	5.21	7.19	0.33	2.35	388.95	4.53	384.42	382.71	1.71	91	15	1	0.13%	5.81	8.90	0.26	
146+23.08	8.00	Rt.	11-2												385.00	383.50	1.50				1.64%					
															383.75	382.25	1.50									
MAINLINE			11-3	DI-2B 8	Curb	0.47	0.44	0.21	5.00	7.27	0.21	1.49	385.60	3.32	382.28	381.84	0.45	25	15	1	0.05%	3.92	6.18	0.11	
147+17.78	35.00	Rt.	11-2												382.85	382.65	0.20				0.79%					
															381.60	381.40	0.20									
MAINLINE			Ex 57	DI-3B 6	Curb	0.70	0.26	0.18	5.00	7.27	0.18	1.32	383.16	3.08	380.08	380.07	0.01	43	15	1	0.04%	3.25	4.98	0.22	
148+09.84	-34.75	Lt.	Ex 56												380.57	380.35	0.22				0.51%					
															379.32	379.10	0.22									
MAINLINE			11-2	MH-12	Junction			0.53	5.48	7.10	0.53	3.78	386.03	3.92	382.10	381.41	0.69	90	15	1	0.35%	4.83	5.89	0.31	
147+17.78	6.22	Rt.	Ex 56												382.55	381.90	0.65				0.72%					
															381.30	380.65	0.65									
MAINLINE			Ex 56	DI-3B 10 No Gutter	Curb	0.36	0.00	0.72	5.81	6.98	0.72	4.99	384.47	4.40	380.07	379.77	0.30	29	15	1	0.61%	4.18	4.87	0.11	
148+10.23	8.00	Rt.	Ex 53												380.25	380.11	0.14				0.49%					
															379.00	378.86	0.14									
MAINLINE			Ex 54	DI-7 Grate	Grate	0.54	0.90	0.48	5.00	7.27	0.48	3.50	389.59	5.52	384.07	379.08	4.99	42	15	1	0.30%	12.44	21.97	0.06	
147+83.68	71.89	Rt.	Ex 53												384.17	379.97	4.20				10.00%					
															382.92	378.72	4.20									
MAINLINE			Ex 59	DI-3B 4	Curb	0.75	0.18	0.14	5.00	7.27	0.14	1.01	381.33	3.39	377.94	377.43	0.50	71	15	1	0.02%	3.04	5.00	0.39	
149+90.29	-34.87	Lt.	Ex 58												378.66	378.29	0.37				0.52%					
															377.41	377.04	0.37									
MAINLINE			Ex 53	DI-3B 6	Curb	0.58	0.00	1.20	5.93	6.94	1.20	8.31	384.08	4.82	379.26	377.68	1.58	174	24	1	0.14%	6.17	21.98	0.47	
148+11.69	35.19	Rt.	Ex 52												380.21	378.79	1.42				0.82%					
															378.21	376.79	1.42									
MAINLINE			Ex 58	DI-3C 6 (CG-6)	Curb	0.86	0.12	0.24	5.41	7.12	0.24	1.73	381.24	3.76	377.48	376.51	0.97	72	15	1	0.07%	4.73	7.54	0.25	
150+64.23	-34.86	Lt.	Ex 51												378.19	377.34	0.85				1.18%					
															376.94	376.09	0.85									
MAINLINE			Ex 52	DI-3B 6	Curb	0.79	0.22	1.37	6.41	6.80	1.37	9.34	381.44	3.75	377.69	377.26	0.43	75	24	1	0.17%	5.45	17.77	0.23	
149+88.25	35.04	Rt.	Ex 51												378.59	378.19	0.40				0.53%					
															376.59	376.19	0.40									
MAINLINE			10-5	DI-3A (CG-6)	Curb	0.72	0.18	0.13	5.00	7.27	0.13	0.94	394.40	3.80	390.60	390.10	0.51	47	15	1	0.02%	3.38	5.98	0.23	
143+61.77	69.03	Rt.	10-4												391.35	391.00	0.35				0.74%					
															390.10	389.75	0.35									
MAINLINE			10-4	DI-3B 6	Curb	0.64	0.43	0.40	5.25	7.18	0.40	2.90	394.84	5.10	389.74	389.18	0.55	96	15	1	0.20%	4.12	5.17	0.39	
143+16.88	67.04	Rt.	Ex 78												390.28	389.75	0.53				0.55%					
															389.03	388.50	0.53									
MAINLINE			Ex 78	DI-3B 8	Curb	0.79	0.17	0.53	5.64	7.04	0.53	3.76	394.20	5.06	389.14	388.55	0.59	132	15	1	0.34%	4.55	5.54	0.48	
142+21.21	81.23	Rt.	Ex 77												389.58	388.74	0.84				0.63%					
															388.33	387.49	0.84									
MAINLINE			Ex 77	DI-3B 16	Curb	0.78	0.94	1.27	6.13	6.87	1.27	8.71	392.76	4.21	388.55	387.64	0.92	46	18	1	0.69%	7.79	13.78	0.10	
140+95.86	107.48	Rt.	Ex 76												388.89	388.21	0.68				1.49%					
															387.39	386.71	0.68									

Remarks: Computations done using Geopak Drainage

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Transportation – Environmental – Right of Way Services

ENGINEER:
Rinker Design Associates, P.C.
Engineering • Surveying • Land Planning • Transportation • Environmental Services

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
HYDRAULIC GRADE LINE COMPUTATIONS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

NIKHIL V. DESHPANDE Lic. No. 045430 — COMMONWEALTH OF VIRGINIA — PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.02.22 09:51:25 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 21(8) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

NOTE:
All storm sewer pipe and culvert joints shall be leak-resistant in accordance with VDOT Road & Bridge Specifications Section 302.

Sheet 6

6-1	I St'd.DI-3B Req'd. L=10' H= 4.0' Inv.= 383.70 Top=387.73 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
6-1 to 7-1	272' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 383.70 Inv.Out= 379.65
6-2	I St'd.DI-3B Req'd. L=8' H= 4.1' Inv.= 384.40 Top=388.48 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
6-2 to 6-4	122' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 384.40 Inv.Out= 382.40
6-3	I St'd.DI-3B Req'd. L=6' H= 4.0' Inv.= 380.85 Top=384.82 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
6-3 to 7-3	163' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 380.85 Inv.Out= 376.50
6-4	I St'd.DI-3B Req'd. L=6' H= 4.3' Inv.= 382.30 Top= 386.63 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
6-4 to 6-3	107' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 382.30 Inv.Out= 381.20
Sheet 7	
7-1	I St'd.DI-3B Req'd. L=8' H= 4.1' Inv.= 379.55 Top=383.60 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-1 to 7-2	71' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 379.55 Inv.Out= 378.00
7-2	I St'd.DI-3AA Req'd. H= 9.3' Inv.= 372.69 Top=381.99 I St'd B-2 Doghouse With Footing Base Unit Req'd. Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-3	I St'd.DI-3B Req'd. L=10' H= 6.2' Inv.= 374.50 Top=380.69 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-3 to 7-11	50' - 15" Reinforced Concrete Pipe Req'd.(5.0' Cover) Inv.In= 374.50 Inv.Out= 372.40
7-4	I St'd.DI-3B Req'd. L=4' H= 4.8' Inv.= 370.60 Top=375.37 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-4 to 7-5	70' - 15" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.In= 370.60 Inv.Out= 369.20
7-5	I St'd.DI-3B Req'd. L=8' H= 6.3' Inv.= 368.00 Top=374.31 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-5 to 7-7	122' - 15" Reinforced Concrete Pipe Req'd.(5.0' Cover) Inv.In= 368.00 Inv.Out= 364.05
7-6	I St'd.DI-3B Req'd. L=14' H= 4.0' Inv.= 364.75 Top=368.78 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-6 to 7-7	28' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 364.75 Inv.Out= 364.05
7-7	I St'd.DI-3B Req'd. L=8' H= 4.2' Inv.= 363.80 Top=368.02 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-7 to 7-8	70' - 23" x 14" Elliptical Concrete Pipe Req'd.(3.0' Cover) Inv.In= 363.80 Inv.Out= 362.70
7-8	I St'd.ES-1A (23"x14") Req'd. Inv.= 362.70 1.7 Cu.Yds.Of EC-1 Class A1 Type A Installation Req'd.
7-9	86'- 5'x3' Double Box Culvert Req'd.(3.0' Cover) (10 Deg.Skew) (Extensions at both ends - 59' upstream,27' downstream) Inv.In= 359.75 Inv.Out= 358.34 St'd.BCD-DT,BCD-05 and BCW-21 Req'd. St'd.BCE-01 Req'd. 4 St'd Type A Wings Req'd. 12.0 Cu.Yds.Of EC-1 Class I Type B Installation Req'd. Undercut 24" and backfill with bedding material. 87 C.Y.VDOT Bedding Material Aggregate Size 25 or 26 Req'd. 247 C.Y.Minor Structure Excavation Req'd.
7-10	I St'd.DI-3B Req'd. L= 6' H= 7.4' Inv.= 374.57 Top= 381.97 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-10 to 7-2	Existing Pipe to Be Extended with 3' - 15" RCP Req'd. (6.0' Cover) Inv.In= 374.57 Inv.Out= 372.95
7-11	I St'd.DI-3A Req'd. H= 4.0' Inv.= 372.30 Top= 376.33 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-11 to 7-4	45' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 372.30 Inv.Out= 371.45
Ex 26	Modify Existing Grate Inlet Adjust to Grade.Raise 4.03' Add St'd.MH-1 Frame & Cover Req'd. Proposed Top Elev.=377.30 Remove Existing Structure Top Modify to Accept UD-4 Convert Existing DI to Manhole
7-12	I St'd.DI-3A Req'd. H= 4.3' Inv.= 367.45 Top= 371.77 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-12 to Ex 24	34' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 367.45 Inv.Out= 367.25
Ex 24	Modify Existing Curb Inlet Adjust to Grade.Raise 0.91' Remove Existing Structure Top Add St'd.1-DI-2 (L= 8') Req'd. Proposed Top Elev.= 372.51 Modify to Accept 15" RCP Modify to Accept UD-4
7-13	Not Used
7-14	I St'd.DI-3A Req'd. H= 4.0' Inv.= 367.80 Top= 371.81 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
7-14 to 7-12	30' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 367.80 Inv.Out= 367.55
Sheet 8	
8-1	I St'd.ES-1 (18") Req'd. Inv.=353.50 2.3 Cu.Yds.Of EC-1 Class I Type A Installation Req'd.
8-2	I St'd.DI-3C Req'd. L=6' H= 5.3' Inv.= 357.00 Top= 362.28 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-2 to 8-5	28' - 15" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.In= 357.00 Inv.Out= 356.80
8-3	Not Used
8-4	I St'd.DI-3B Req'd. L=12' H= 4.1' Inv.= 358.30 Top=362.40 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 and UD-2 to DI
8-4 to 8-5	83' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 358.30 Inv.Out= 357.90
8-5	I St'd.DI-3C Req'd. L=8' H= 5.4' Inv.= 356.55 Top= 361.95 Type B Nose Req'd. St'd.IS-1 Req'd.
8-5 to 8-8	40' - 18" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.In= 356.55 Inv.Out= 356.35
8-6	I St'd.DI-3B Req'd. L=10' H= 4.0' Inv.= 358.45 Top= 362.45 Type B Nose Req'd. St'd.IS-1 Req'd.
8-6 to 8-5	88' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 358.45 Inv.Out= 357.90
8-7	I St'd.DI-3B Req'd. L=8' H= 4.1' Inv.= 357.30 Top= 361.41 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-7 to 8-8	82' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 357.30 Inv.Out= 356.90
8-8	I St'd.DI-3C Req'd. L=10' H= 5.2' Inv.= 355.75 Top= 360.96 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-8 to 8-27	36' - 18" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.In= 355.75 Inv.Out= 355.00
8-9	I St'd.DI-3B Req'd. L=6' H= 4.0' Inv.= 357.00 Top= 360.98 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-9 to 8-8	37' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 357.00 Inv.Out= 356.00
8-10	Not Used
8-11	I St'd.ES-1 (48") Req'd. Inv.=350.19 23.2 Cu.Yds.of EC-1 Class I Type B Installation Req'd.
8-12	Not Used
8-13	Not Used
8-14	Not Used
8-15	Not Used
8-16	I St'd.DI-3BB Req'd. L=8' H= 8.9' Inv.= 362.00 Top=370.88 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-16 to 8-26	138' - 24" Reinforced Concrete Pipe Req'd.(7.0' Cover) Inv.In= 362.00 Inv.Out= 359.85
8-17	I St'd.DI-3B Req'd. L=16' H= 6.7' Inv.= 365.50 Top=371.55 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-17 to 8-16	28' - 15" Reinforced Concrete Pipe Req'd.(5.0' Cover) Inv.In= 365.50 Inv.Out= 365.00
8-18	I St'd.DI-3A Req'd. H= 4.1' Inv.= 365.55 Top=369.65 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-18 to 8-19	32' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 365.55 Inv.Out= 365.10
8-19	6.9 Lin.Ft.St'd.MH-1 or 2 Req'd. I St'd.Frame & Cover Req'd. Prop.Top= 370.74 Inv.= 363.13 St'd.IS-1 Req'd. Connect to Ex.12" pipe
8-20	Not Used
8-21	I St'd.DI-3B Req'd. L=6' H= 3.9' Inv.= 368.40 Top=372.34 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-21 to 8-17	52' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 368.40 Inv.Out= 366.50
8-22	I Mod.JB-1 Req'd. H= 8.0',W= 4.5',D= 30.5' 2 Type B Towers Req'd. 2 St'd.MH-1 Frame & Cover Req'd. Inv.= 354.00 Tops= 362.00 (Both) Provide 6" of bedding material between structure and subgrade. 4 C.Y.VDOT Bedding Material Aggregate Size 25 or 26 Req'd. See Sheet 2K(18) for Detail.
8-22 to 8-25	76' - 18" Gasketed Reinforced Concrete Pipe Req'd.(6.5' Cover) Inv.In= 354.00 Inv.Out= 353.60 76' Concrete Cradle Req'd. Pipe-Spec.Section 232 (AASHTO M170) Gasket-Spec.Section 212 (AASHTO C443)
8-23	I Mod. JB-1 Req'd. H= 10.3',W= 4',D= 30.5' 2 Type A Towers Req'd. 2 St'd.MH-1 Frame & Cover Req'd. Inv.= 354.95 Tops= 365.25 (East),365.00 (West) Provide 6" of bedding material between structure and subgrade. 3 C.Y.VDOT Bedding Material Aggregate Size 25 or 26 Req'd. See Sheet 2K(18) for Detail.
8-23 to 8-22	130' - Quadruple 54" Reinforced Concrete Pipes Req'd.(6.0' Cover) Inv.In= 354.95 Inv.Out= 354.20 Provide 6" of bedding material between pipes and subgrade. 69 C.Y.VDOT Bedding Material Aggregate Size 25 or 26 Req'd.
8-24	I St'd.DI-3B Req'd. L=10' H=4.0' Inv.= 359.85 Top=363.86 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
8-24 to 8-26	43' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 359.85 Inv.Out= 359.15
8-25	I St'd.ES-1 (18") Req'd. Inv.= 353.60 7.3 Cu.Yds.of EC-1 Class I Type A Installation Req'd.
Ex.73 to 8-11	Existing Pipe to Be Extended with 49' - 48" RCP Req'd. (6.0' Cover) Inv.In= 351.86 Inv.Out= 350.19 Provide 6" of bedding material between pipe and subgrade. 11 C.Y.VDOT Bedding Material Aggregate Size 25 or 26 Req'd. 63 C.Y.Minor Structure Excavation Req'd. (If groundwater is encountered above the proposed foundation subgrade during construction,a layer of #57 stone be placed to a minimum 6 inches above the groundwater prior to placing the regular bedding materials)
8-26	5.4 Lin.Ft.St'd.MH-1 or 2 Req'd. I St'd.Frame & Cover Req'd. Prop.Top= 365.10 Inv.= 359.05 St'd.IS-1 Req'd.
8-26 to 8-23	71' - 30" x 19" Elliptical Concrete Pipe Req'd.(4.0' Cover) Inv.In= 359.05 Inv.Out= 358.05
8-27	6.2 Lin.Ft.St'd.MH-1 or 2 Req'd. I St'd.Frame & Cover Req'd. Prop.Top= 361.15 Inv.= 354.25 St'd.IS-1 Req'd.
8-27 to 8-1	35' - 18" Reinforced Concrete Pipe Req'd.(5.0' Cover) Inv.In= 354.25 Inv.Out= 353.50
Sheet 9	
9-1	I St'd.DI-3BB Req'd. L=10' H= 8.1' Inv.= 369.50 Top=377.55 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-1 to 8-16	198' - 24" Reinforced Concrete Pipe Req'd.(6.0' Cover) Inv.In= 369.50 Inv.Out= 366.15
9-2	I St'd.DI-3B Req'd. L=6' H= 5.2' Inv.= 373.20 Top=378.37 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 and UD-2 to DI
9-2 to 9-1	31' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 373.20 Inv.Out= 372.75
9-3	I St'd.DI-3A Req'd. H= 5.4' Inv.= 374.10 Top=379.47 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-3 to 9-11	29' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 374.10 Inv.Out= 373.90
9-4	I St'd.DI-3B Req'd. L=4' H= 5.2' Inv.= 374.35 Top=379.54 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-4 to 9-3	22' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 374.35 Inv.Out= 374.20
9-5	I St'd.DI-3B Req'd. L=6' H= 4.4' Inv.= 376.55 Top=380.91 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-5 to 9-12	28' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 376.55 Inv.Out= 376.25
9-6	I St'd.DI-3B Req'd. L=4' H= 5.2' Inv.= 376.20 Top=381.42 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-6 to 9-10	92' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 376.20 Inv.Out= 375.75
9-7	I St'd.DI-3C Req'd. L=8' H= 4.7' Inv.= 377.30 Top=382.03 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-7 to 9-6	100' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 377.30 Inv.Out= 376.50
9-8	I St'd.DI-3B Req'd. L=10' H= 4.7' Inv.= 379.35 Top=383.42 Type B Nose Req'd. St'd.IS-1 Req'd.
9-8 to 9-7	52' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 379.35 Inv.Out= 378.10
9-9	I St'd.DI-3B Req'd. L=8' H= 4.0' Inv.= 377.10 Top=381.10 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-9 to 9-5	47' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 377.10 Inv.Out= 376.65
9-10	I St'd.DI-3B Req'd. L=6' H= 4.9' Inv.= 375.65 Top=380.54 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-10 to 9-15	71' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 375.65 Inv.Out= 375.30
9-11	5.5 Lin.Ft.St'd.MH-1 or 2 Req'd. I St'd.Frame & Cover Req'd. Prop.Top= 379.95 Inv.= 373.80 St'd.IS-1 Req'd.
9-11 to 9-2	97' - 24" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.In= 373.80 Inv.Out= 373.30
9-12	4.4 Lin.Ft.St'd.MH-1 or 2 Req'd. I St'd.Frame & Cover Req'd. Prop.Top= 380.16 Inv.= 375.05 St'd.IS-1 Req'd.
9-12 to 9-4	122' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.In= 375.05 Inv.Out= 374.45
9-13	I St'd.DI-7 Req'd. H= 3.4' Inv.= 378.40 Top= 381.80 Grate A Type III Req'd. St'd.IS-1 Req'd.
9-13 to 9-7	14' - 15" Reinforced Concrete Pipe Req'd.(2.0' Cover) Inv.In= 378.40 Inv.Out= 378.30
9-14	I St'd.DI-2B Req'd. L=4' H=4.0' Inv.= 380.00 Top= 383.95 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI

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"We Welcome the Opportunity
to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROPOSED DRAINAGE DESCRIPTIONS

PROJECT NAME: Town of Leesburg
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:39:45 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

Proposed Drainage Descriptions and Underdrain Summary

NOTE:
All storm sewer pipe and culvert joints shall be leak-resistant in accordance with VDOT Road & Bridge Specifications Section 302.

9-14 to 9-8	36' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 380.00 Inv.(Out)= 379.45
9-15	1 St'd.DI-3A Req'd. H=5.0' Inv.= 378.25 Top= 380.20 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
9-15 to 9-12	21' - 24" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 375.25 Inv.(Out)= 375.15
Sheet 10	
10-1	1 St'd.DI-3B Req'd. L=10' H= 4.4' Inv.= 379.90 Top=384.31 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
10-1 to 10-6	146' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 379.90 Inv.(Out)= 378.60
10-2	1 St'd.DI-3B Req'd. L=14' H= 4.1' Inv.= 381.45 Top=385.50 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 and UD-2 to DI
10-2 to 10-1	44' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 381.45 Inv.(Out)= 380.20
10-3	1 St'd.DI-3B Req'd. L=6' H= 4.0' Inv.= 381.90 Top=385.92 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
10-3 to 10-2	28' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 381.90 Inv.(Out)= 381.55
10-4	1 St'd.DI-3B Req'd. L=6' H= 5.8' Inv.= 389.03 Top=394.84 1 St'd B-2 Doghouse With Footing Base Unit Req'd. Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
10-5	1 St'd.DI-3A Req'd. H= 4.3' Inv.= 390.10 Top=394.40 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
10-5 to 10-4	47' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 390.10 Inv.(Out)= 389.75
10-6	1 St'd.DI-3B Req'd. L=6' H= 4.2' Inv.= 378.30 Top=382.54 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
10-6 to 9-7	95' - 18" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 378.30 Inv.(Out)= 377.80
Sheet 11	
11-1	1 St'd.DI-3B Req'd. L=8' H= 4.0' Inv.= 384.05 Top=388.01 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
11-1 to 11-4	40' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 384.05 Inv.(Out)= 383.85
11-2	4 Lin.Ft.St'd.MH-1 or 2 Req'd. 1 St'd.Frame & Cover Req'd. Prop.Top= 386.03 Inv.= 381.30 St'd.IS-1 Req'd. Connect UD-4 to DI
11-2 to Ex.56	90' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 381.30 Inv.(Out)= 380.65
11-3	1 St'd.DI-2B Req'd. L=8' H= 4.0' Inv.= 381.60 Top=385.60 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
11-3 to 11-2	25' - 15" Reinforced Concrete Pipe Req'd.(3.0' Cover) Inv.(In)= 381.60 Inv.(Out)= 381.40
11-4	1 St'd.DI-3B Req'd. L=12' H= 5.2' Inv.= 383.75 Top=388.95 Type B Nose Req'd. St'd.IS-1 Req'd. Connect UD-4 to DI
11-4 to 11-2	91' - 15" Reinforced Concrete Pipe Req'd.(4.0' Cover) Inv.(In)= 383.75 Inv.(Out)= 382.25
Ex.56	Modify Existing Structure Adjust to Grade, Raise 0.47' Proposed Top Elev. 384.47 Modify to Accept 15" RCP

Underdrain Summary

Station to Station			UD-2	UD-4 Perf.	UD-4 NP	Outlet Pipe	EW-12 2sl
			LF	LF	LF	LF	EA
Sycolin Road							
Right							
113+73	to	115+48	-	172	-	2	-
115+50	to	116+75	-	120	-	2	-
116+75	to	117+79	-	105	-	-	-
117+84	to	119+48	-	161	-	2	-
120+47	to	120+88	-	40	-	2	-
120+89	to	122+25	-	131	-	2	-
122+27	to	124+75	-	242	-	2	-
124+77	to	125+60	-	79	-	2	-
125+60	to	126+12	-	48	-	2	-
126+14	to	127+60	-	87	55	2	-
127+62	to	129+72	-	204	-	2	-
129+72	to	131+73	-	195	-	2	-
131+75	to	134+75	-	298	-	2	-
134+25	to	136+47	-	200	-	74	-
136+99	to	137+49	-	81	-	-	-
137+52	to	139+74	-	225	-	-	-
139+76	to	142+93	-	321	-	2	-
143+88	to	147+04	-	319	-	-	-
147+20	to	147+77	-	57	-	-	-
Subtotal			0	3,085	55	100	0
Sycolin Road							
Left							
113+74	to	116+00	-	223	-	2	-
116+02	to	118+75	-	270	-	2	-
118+77	to	119+48	-	68	-	2	-
120+53	to	122+66	-	203	-	24	1
122+50	to	125+60	-	311	-	2	-
125+60	to	128+54	-	319	-	2	-
129+72	to	132+73	-	301	-	2	-
132+75	to	133+73	-	95	-	2	-
133+75	to	135+23	-	144	-	2	-
135+25	to	136+21	-	92	-	2	-
137+25	to	138+23	-	93	-	2	-
138+25	to	139+73	-	143	-	2	-
139+75	to	143+10	-	328	-	2	-
143+10	to	146+23	-	306	-	2	-
146+25	to	148+05	-	180	-	-	-
Subtotal			0	3,076	0	50	1
Sycolin Road							
Median							
115+17	to	117+83	217	-	-	70	-
117+33	to	117+58	26	-	-	-	-
117+58	to	119+45	-	185	-	2	-
119+45	to	119+60	-	16	-	2	-
120+65	to	122+25	-	158	-	2	-
122+25	to	124+75	-	248	-	2	-
122+69	to	124+75	201	-	-	9	-
124+75	to	125+10	28	-	-	9	-
124+75	to	125+10	-	34	-	2	-
129+53	to	129+72	-	19	-	2	-
129+72	to	131+75	-	200	-	2	-
131+75	to	132+50	-	74	-	2	-
131+68	to	131+75	5	-	-	4	-
131+75	to	132+83	106	-	-	4	-
132+83	to	134+25	-	140	-	-	-
134+25	to	134+75	-	49	-	-	-
134+75	to	135+95	-	120	-	2	-
139+75	to	143+00	290	-	-	40	-
139+75	to	143+00	-	322	-	2	-
145+90	to	146+25	-	32	-	2	-
146+25	to	147+15	-	92	-	2	-
145+90	to	148+10	208	-	-	19	-
148+10	to	149+37	114	-	-	19	-
Subtotal			1,195	1,689	0	198	0

Underdrain Summary

Station to Station			UD-2	UD-4 Perf.	UD-4 NP	Outlet Pipe	EW-12 2sl
			LF	LF	LF	LF	EA
Comm.Ent.120+10 (Airport)							
Right							
10+67	to	12+15	-	159	-	2	-
12+15	to	12+47	-	34	-	2	-
Subtotal			0	193	0	4	0
Comm.Ent.120+10 (Airport)							
Left							
10+33	to	10+66	-	69	-	15	-
10+66	to	10+85	-	51	-	-	-
11+20	to	11+75	-	88	-	-	-
11+75	to	12+15	-	33	-	2	-
12+15	to	12+20	-	1	-	2	-
Subtotal			0	242	0	19	0
Comm.Ent.120+18 (Warehouse)							
Right							
10+50	to	10+80	-	55	-	2	-
10+80	to	10+96	-	14	-	2	-
Subtotal			0	69	0	4	0
Comm.Ent.120+18 (Warehouse)							
Left							
10+44	to	10+87	-	44	-	2	-
10+87	to	10+96	-	6	-	2	-
Subtotal			0	50	0	4	0
Miller Drive SE							
Right							
10+50	to	10+98	-	76	-	2	-
10+98	to	11+12	-	11	-	2	-
Subtotal			0	87	0	4	0
Comm.Ent.136+66							
Right							
10+48	to	11+02	-	82	-	2	-
Subtotal			0	82	0	2	0
Comm.Ent.136+66							
Left							
10+42	to	10+91	-	59	-	2	-
Subtotal			0	59	0	2	0
Comm.Ent.143+44							
Right							
10+49	to	10+69	-	29	-	2	-
10+69	to	10+93	-	25	-	2	-
Subtotal			0	54	0	4	0
Comm.Ent.143+44							
Left							
10+35	to	10+68	-	42	-	2	-
10+68	to	10+83	-	20	-	2	-
Subtotal			0	62	0	4	0
Grand Total			1,195	8,748	55	395	1

Office Locations
Fairfax: 10632 Main Street, Suite 204, Fairfax, VA 22030, Phone: (703) 591-2626, Fax: (703) 591-2810
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Gordonsville: 111 Caroline Street, Suite 102, Gordonsville, VA 22942, Phone: (540) 832-3884, Fax: (540) 832-3885
Rinker Design Associates, P.C. — Civil Engineering – Surveying – Land Planning – Transportation – Environmental Services – Right-of-Way Services
www.rinkerdesign.com

ENGINEER:
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3020 Gateway Drive, Suite 200, Pelham, NC 27311 * e-mail: rda@rinkerdesign.com
Telephone: (703) 382-7373 Fax: (703) 257-5445
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROPOSED DRAINAGE DESCRIPTIONS AND UNDERDRAIN SUMMARY
Town of Leesburg, Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER
Nikhil V Deshpande
2018.07.11 10:54:40 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(1) of 20

100% PLANS

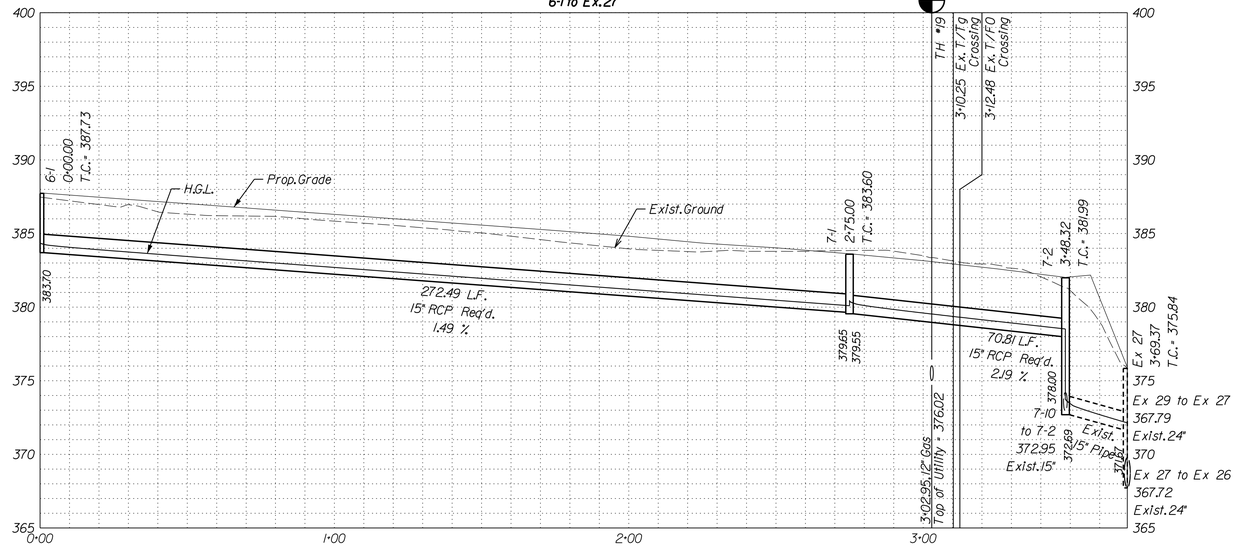
REV. #1: 07/12/2018

PROJECT MANAGER Anne Geiger, (703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark, (800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

Office Locations
Rinker Design Associates, P.C.
Civil Engineering · Surveying · Land Planning · Transportation · Environmental Services · Right-of-Way Services
Main Office: 10 Exchange Place, Suite 600, Jersey City, NJ 07302, Phone: (201) 610-1010, Fax: (201) 610-1020
Northern Virginia Office: 44865 Waxpool Road, Suite 101, Ashburn, VA 20147, Phone: (703) 726-2300, Fax: (703) 726-2345

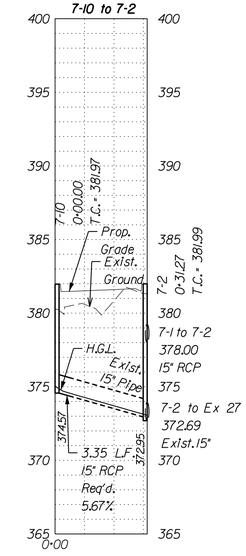
SCALE H: 25, V: 5
0 25' 50'
0 1 2

6-1 to Ex.27



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

7-10 to 7-2



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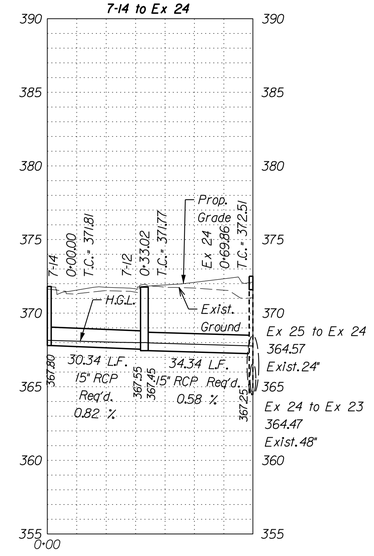
7-14 to Ex 24



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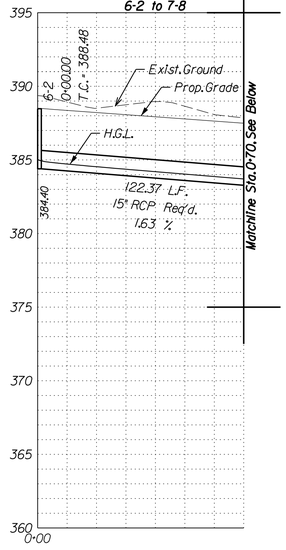
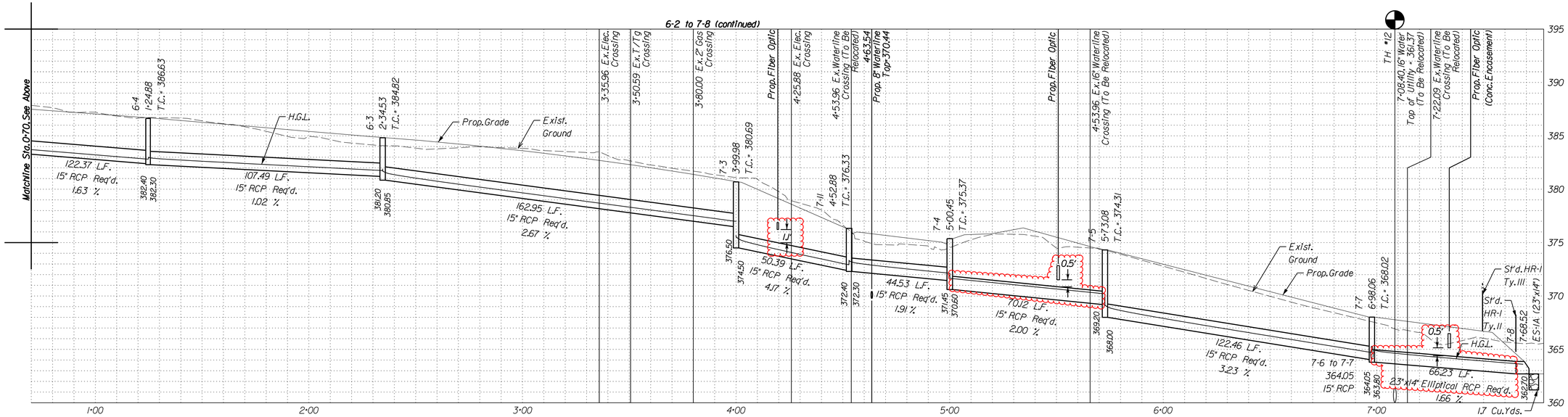
6-2 to 7-8



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

6-2 to 7-8 (continued)



1.7 Cu.Yds. St'd. EC-1 Cl. A1 Type A Installation

Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

Notes:

1) Pipe denotes Reinforced Concrete Pipe.

2) Storm Sewer Pipes shown on the profile are represented by their inner diameter dimension, and do not include wall thicknesses.

3) Only existing Utilities, at the time of the survey, are shown on the Storm Sewer Pipe Profiles. These profiles do not reflect either planned re-location of Utilities or proposed Utilities. The Contractor is also directed to any Utility Plans that may exist as part of this plan assembly.

4) Not all Utilities are shown on the Storm Sewer Profiles, only those Utilities listed on the Utility Test Hole Data Sheet with the addition of Sanitary Sewer line crossings.

5) All Utility locations are approximate, and are based on information from the project's Test Hole Data Sheet. Utility information shown is specific to its corresponding Utility Test Hole location.

6) Utility Test Hole information shall be provided as it is obtained.

7) Utility clearance dimensions uses Reinforced Concrete Pipe and corresponding pipe thicknesses (worst case scenario).

8) Pipe lengths are actual lengths from structure to structure. The drainage description lengths are rounded up to the nearest foot per VDM Chapter 3.3.4.

9) In addition to the visual inspection performed by the Town of Leesburg during the initial installation of storm sewer pipes and pipe culverts, a post installation visual/video camera inspection shall be conducted by the Contractor in accordance with the requirements of Specification 302.03(d) of the 2016 VDOT Road and Bridge Specifications.

ENGINEER:
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Telephone: (703) 386-7373 Fax: (703) 237-5445
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
STORM SEWER PROFILES
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:40:11 -04'00'

PLAN C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(2) of 20

100% PLANS

7/12/2018

REV. #1: 07/12/2018

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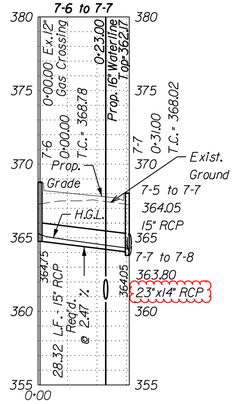
SCALE H: 25, V: 5
0 1" 2"
0 25' 50'

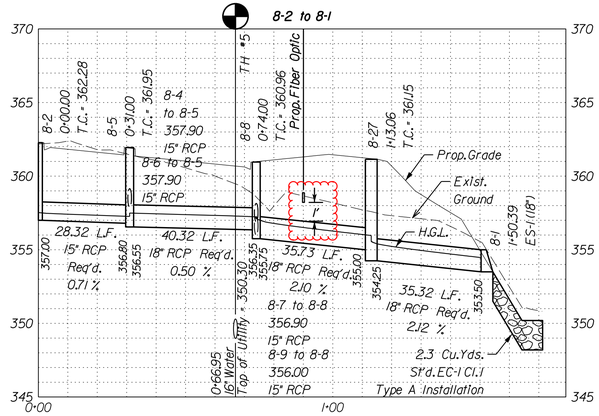
Office Locations
Fairfax: 10632 Main Street, Suite 201, Fairfax, VA 22030, Phone: (703) 385-1555, Fax: (703) 385-1569
Leesburg: 1 South Street, Suite 3, Leesburg, VA 20175, Phone: (703) 771-2742, Fax: (703) 771-2743
Manassas: 9324 Center Street, Suite 201, Manassas, VA 20110, Phone: (703) 330-2225, Fax: (703) 330-2226
Gda Rinker Design Associates, P.C. Civil Engineering - Surveying - Transportation - Land Planning - Environmental and Right-of-Way Services

7-6 to 7-7



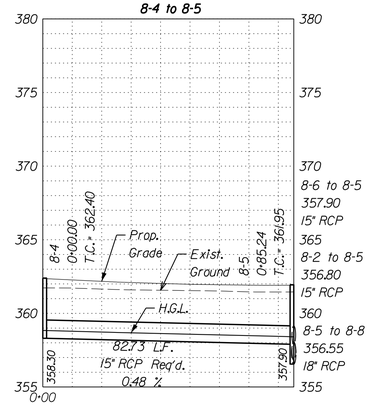
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-2 to 8-1



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-4 to 8-5



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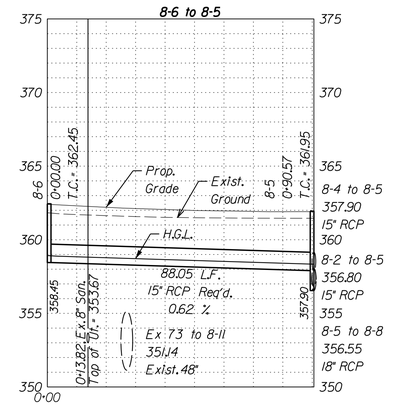
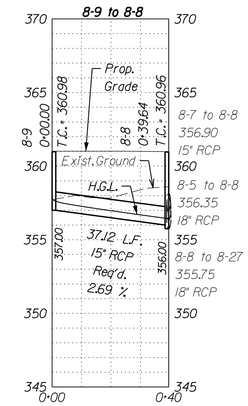
8-6 to 8-5



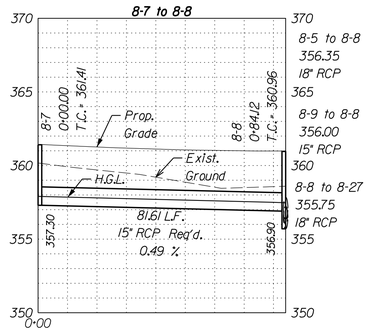
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-9 to 8-8



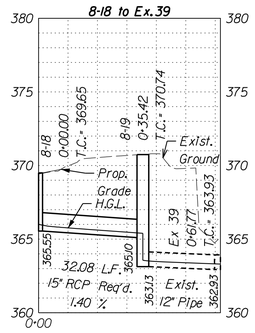
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-7 to 8-8



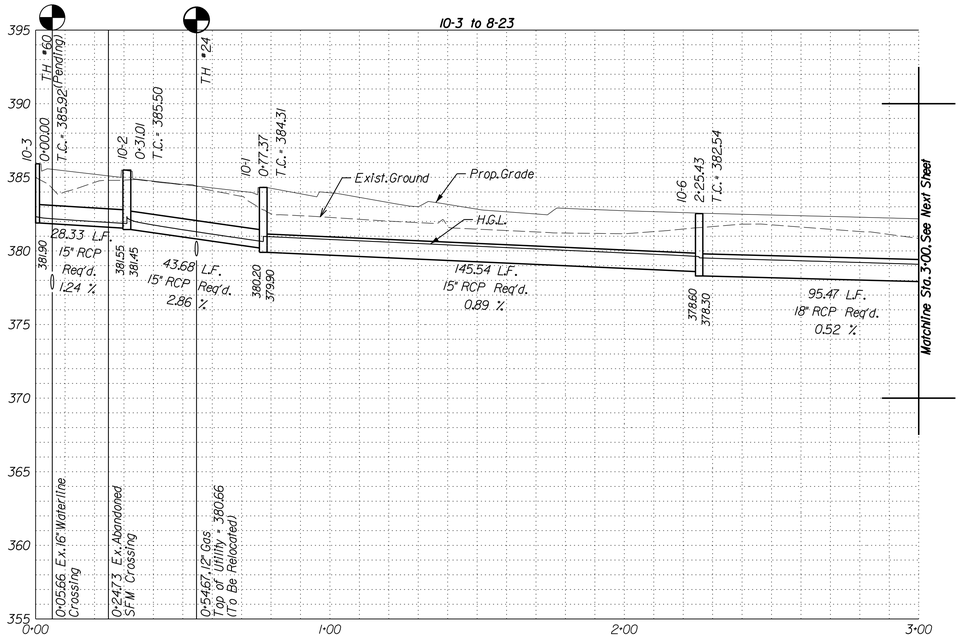
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-18 to Ex.39



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

10-3 to 8-23



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8180 Mallory Park Drive, Suite 211, Manassas, VA 20109 www.rinkerdesign.com
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PROJECT MANAGER: MARK A. GUNN, P.E.

SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.

STORM SEWER PROFILES

Loudoun County, Virginia

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
SUBMISSION DATE: 04/13/2018
Town of Leesburg

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:40:36 -04'00'

PLAN C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(3) of 20

100% PLANS

7/12/2018

PROJECT MANAGER Anne Geiger, (703) 771-2742 (Town of Leesburg)
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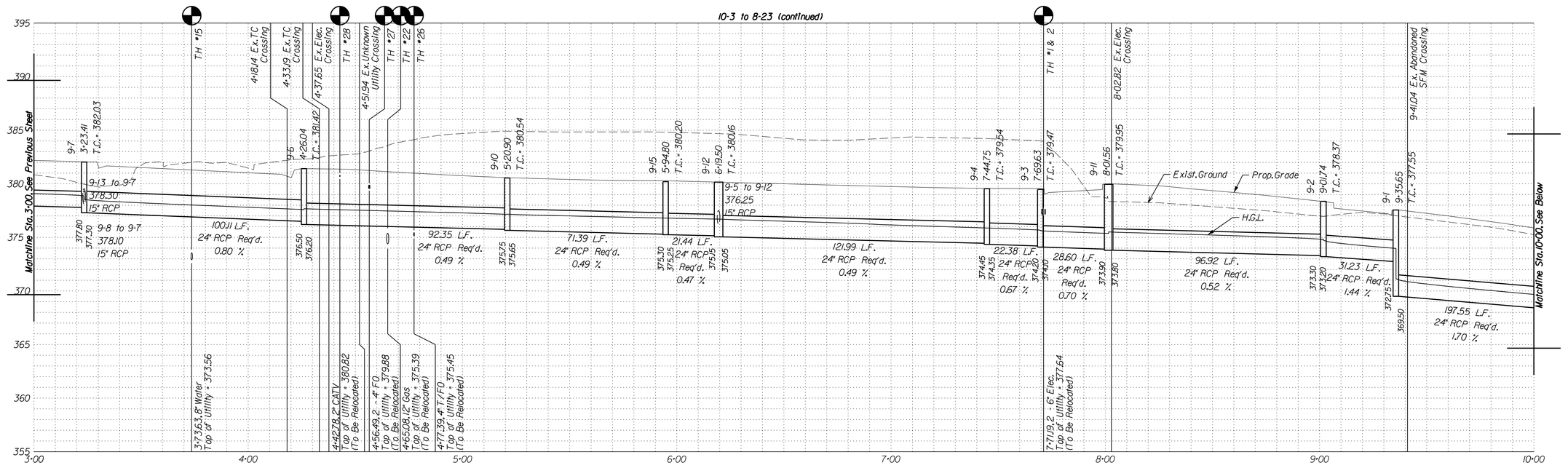
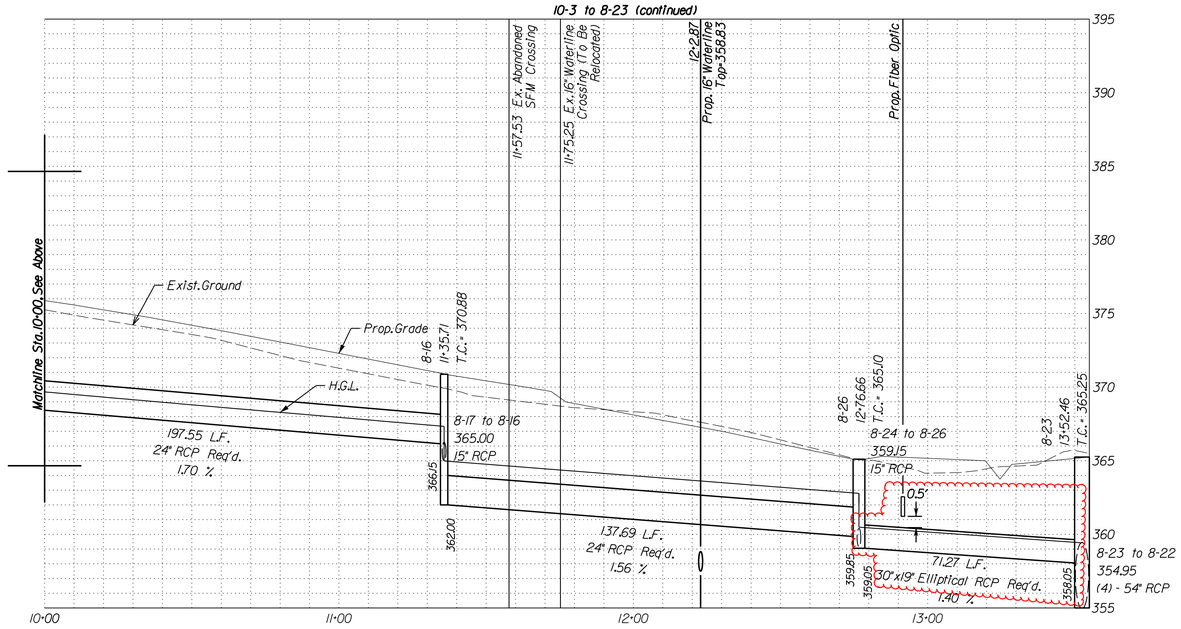
SUBSURFACE UTILITY BY Accumark, (800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

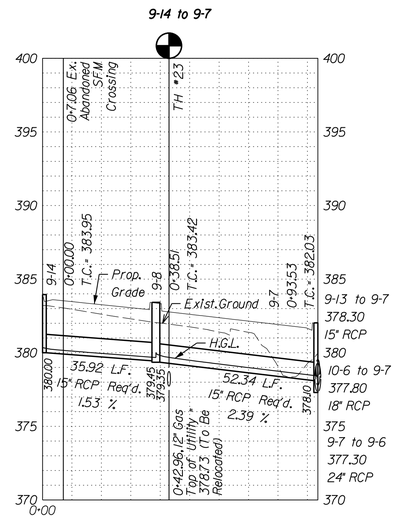
SCALE H: 25, V: 5



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

Notes:

1) Pipe denotes Reinforced Concrete Pipe.

2) Storm Sewer Pipes shown on the profile are represented by their inner diameter dimension, and do not include wall thicknesses.

3) Only existing Utilities, at the time of the survey, are shown on the Storm Sewer Pipe Profiles. These profiles do not reflect either planned re-location of Utilities or proposed Utilities. The Contractor is also directed to any Utility Plans that may exist as part of this plan assembly.

4) Not all Utilities are shown on the Storm Sewer Profiles, only those Utilities listed on the Utility Test Hole Data Sheet with the addition of Sanitary Sewer line crossings.

5) All Utility locations are approximate, and are based on information from the project's Test Hole Data Sheet. Utility information shown is specific to its corresponding Utility Test Hole location.

6) Utility Test Hole information shall be provided as it is obtained.

7) Utility clearance dimensions shown use Reinforced Concrete Pipe and corresponding pipe thicknesses (worst case scenario).

8) Pipe lengths are actual lengths from structure to structure. The drainage description lengths are rounded up to the nearest foot per VDM Chapter 3.3.4.

9) In addition to the visual inspection performed by the Town of Leesburg during the initial installation of storm sewer pipes and pipe culverts, a post installation visual/video camera inspection shall be conducted by the Contractor in accordance with the requirements of Specification 302.03(d) of the VDOT 2016 Road and Bridge Specifications.

Office Locations
Rinker Design Associates, P.C.
Civil Engineering · Surveying · Land Planning · Transportation · Environmental Services · Right-of-Way Services
Main Office: 10669 Braddock Road, Suite 100, Fairfax, VA 22032, Phone: (703) 352-0405, Fax: (703) 352-0406
Loudoun Office: 44865 Pinebrook Road, Suite 160, Ashburn, VA 20147, Phone: (703) 729-4440, Fax: (703) 729-4441
www.rdaengr.com

ENGINEER: Rinker Design Associates, P.C.
Engineering · Surveying · Land Planning · Transportation · Environmental Services
8180 Greensboro Drive, Suite 1000, Tysons, VA 22102 www.rdaengr.com
Telephone: (703) 368-7373 Fax: (703) 357-5443
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
STORM SEWER PROFILES
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:41:01 -04'00'

PLAN C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(4) of 20

100% PLANS

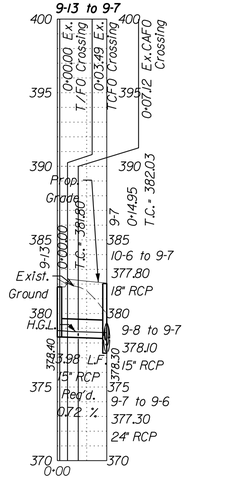
7/12/2018

REV. #1: 07/12/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

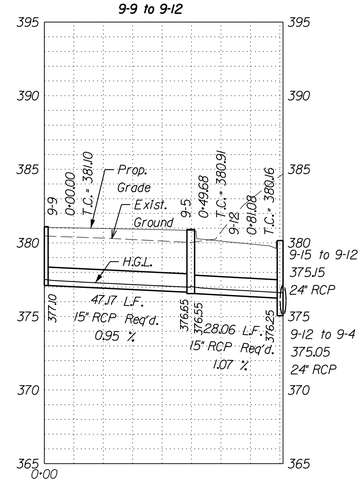
SCALE H: 25, V: 5 (0, 25', 50'; 0, 1", 2")

9-13 to 9-7



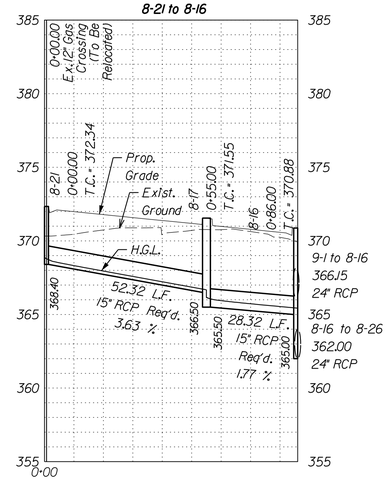
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

9-9 to 9-12



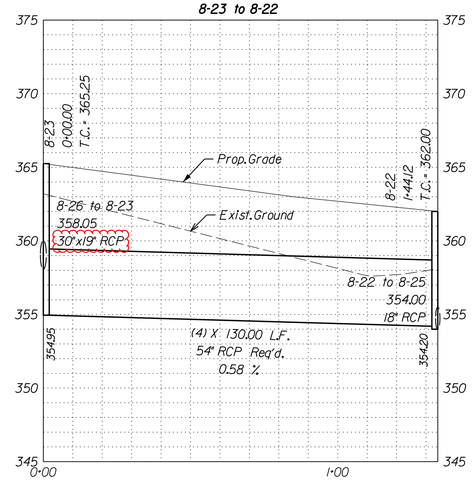
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-21 to 8-16



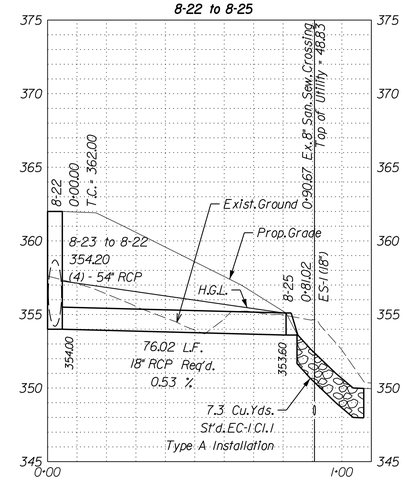
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-23 to 8-22



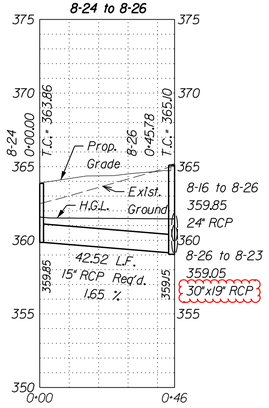
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-22 to 8-25



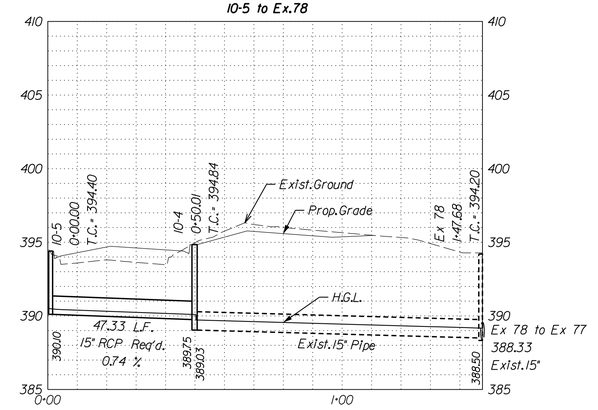
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

8-24 to 8-26



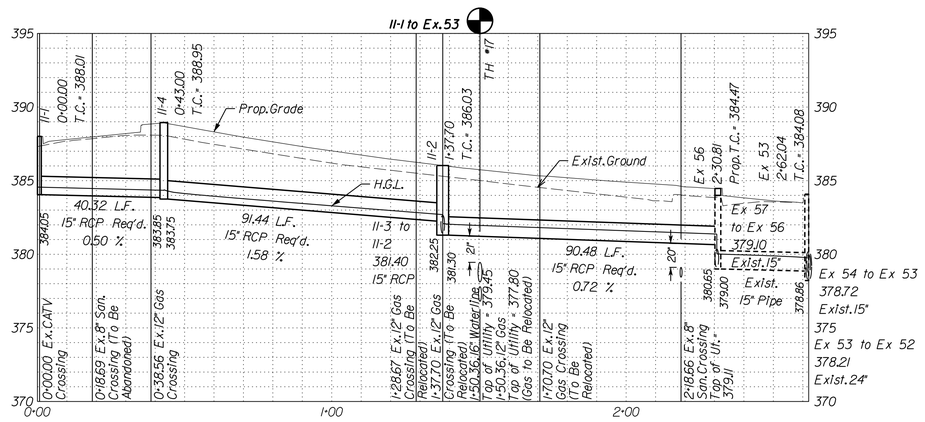
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

10-5 to Ex.78



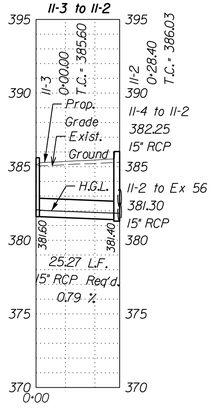
Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

11-1 to Ex.53



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

11-3 to 11-2



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

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Office Locations
Rinker Design Associates, P.C. — Civil Engineering · Surveying · Land Planning · Transportation · Environmental Services · Right-of-Way Services
Fax Directions Map
Main Office: 44865 Riedel Square, Suite 300, Ashburn, VA 20147 — Phone: (703) 726-2270 — Fax: (703) 726-2275
Satellite Office: 5203 Leesburg Pike, Suite 1100, Falls Church, VA 22041 — Phone: (703) 379-0413 — Fax: (703) 379-0416
www.rdaconsult.com

ENGINEER:
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5203 Leesburg Pike, Suite 1100, Falls Church, VA 22041 www.rdaconsult.com
Telephone: (703) 379-0413 Fax: (703) 379-0416
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
STORM SEWER PROFILES
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA — NIKHIL V. DESHPANDE Lic. No. 045430 — PROFESSIONAL ENGINEER
Nikhil V Deshpande
2018.07.17 17:41:30 -04'00'

PLAN C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(5) of 20

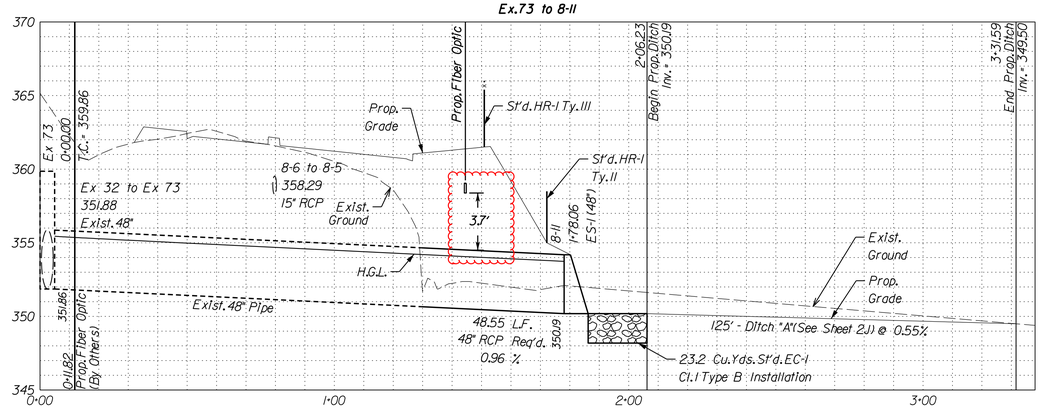
100% PLANS

7/12/2018

REV. #1: 07/12/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H= 25, V= 5
0 1" 2"
0 25' 50'



Note: The Town of Leesburg will own and maintain all storm sewer pipes shown on this profile.

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Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right-of-Way Services
Main Office: 44865 Riedel Square, Suite 403, Ashburn, VA 20147, Phone: (703) 726-2121, Fax: (703) 726-2125
Northern Virginia: 8300 Boone Boulevard, Suite 500, Vienna, VA 22182, Phone: (703) 893-2900, Fax: (703) 893-2901
Fredericksburg: 2 Dixon Street, Suite 201, Fredericksburg, VA 22401, Phone: (540) 371-6660, Fax: (540) 371-6661
ENGINEER: Rinker Design Associates, P.C.
Engineering • Surveying • Land Planning • Transportation • Environmental Services
8300 Boone Blvd., Suite 500, Vienna, VA 22182 www.rinkerdesign.com
Telephone: (703) 893-2900 Fax: (703) 893-2901
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
STORM SEWER PROFILES
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER
Nikhil V Deshpande
2018.07.17 17:42:01 -04'00'

PLAN C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(6) of 20

100% PLANS

7/12/2018

REV. #1: 07/12/2018

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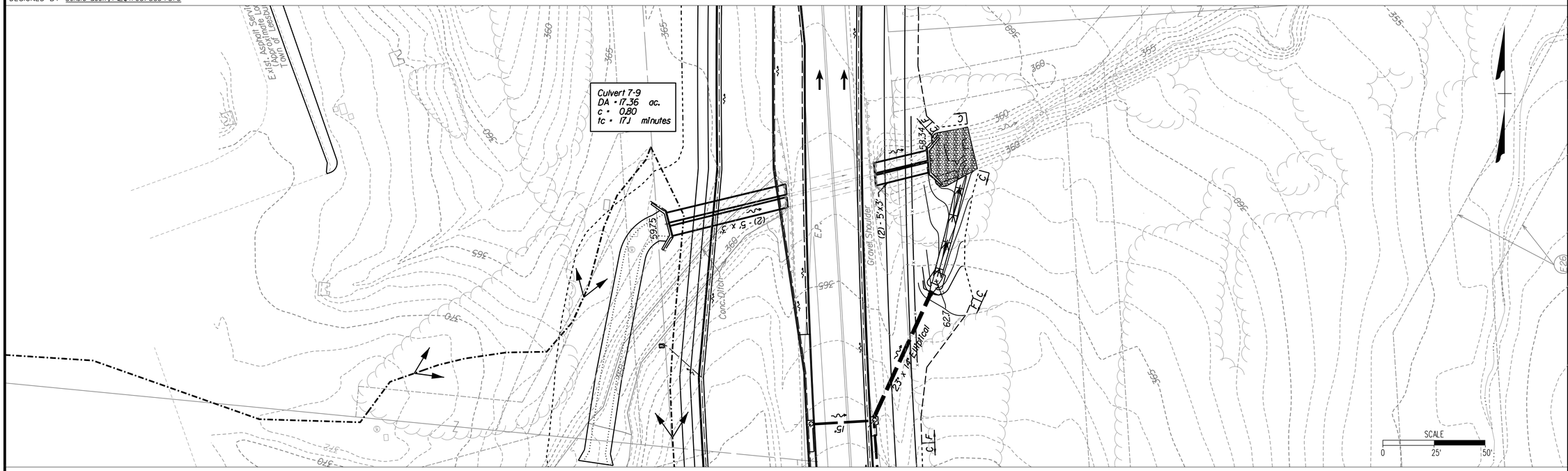
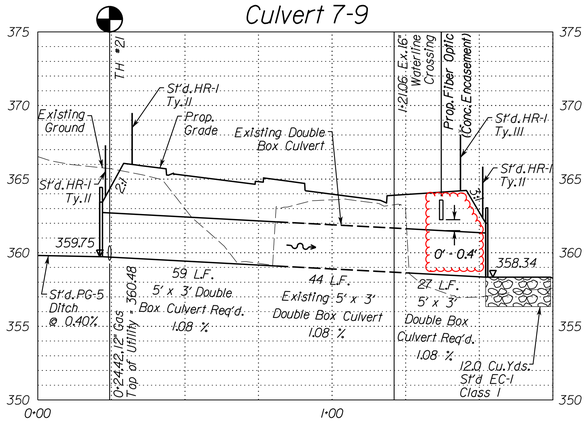
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark, (800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

Box Culvert Plan and Profile



Culvert 7-9



NOTE: For culvert computations, see Sheet 2J(1).

Note: The Town of Leesburg will own and maintain the box culvert shown on this profile.

SCALE H= 25, V= 5
0 25' 50'
0 1' 2'

100% PLANS

Office Locations
Fairfax: 10632 Little Patuxent Parkway, Suite 343, Columbia, MD 21044, Phone: (410) 992-6992, Fax: (410) 992-6332
Leesburg: 1920-B Association Drive, Reston, VA 20191, Phone: (703) 264-9690, Fax: (703) 264-9691
Rinker Design Associates, P.C. — Civil Engineering - Surveying - Land Planning - Transportation - Environmental and Right-of-Way Services
www.rdainc.com

ENGINEER:
Rinker Design Associates, P.C.
Engineering * Surveying * Land Planning * Transportation * Environmental Services
8305 Discovery Blvd., Suite 200, Manassas, Virginia 20109 www.rdainc.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
BOX CULVERT PLAN AND PROFILE
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER
Nikhil V Deshpande
2018.07.17 17:42:27 -04'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

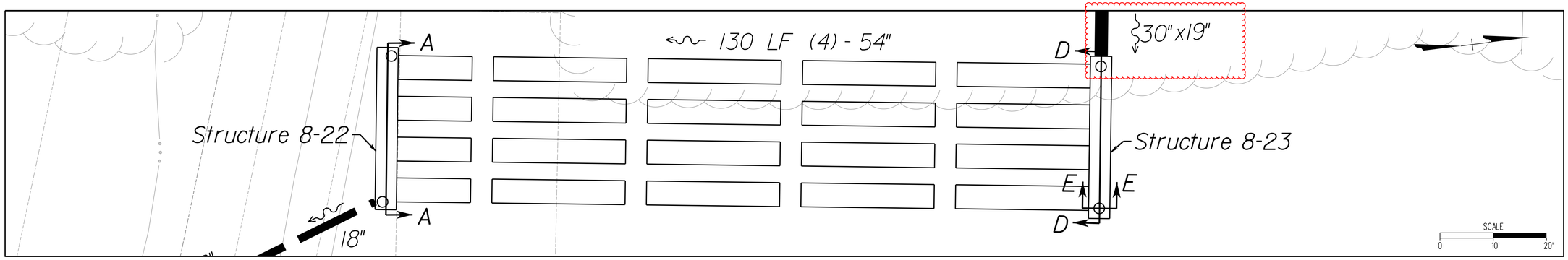
Sheet 2K(7) of 20

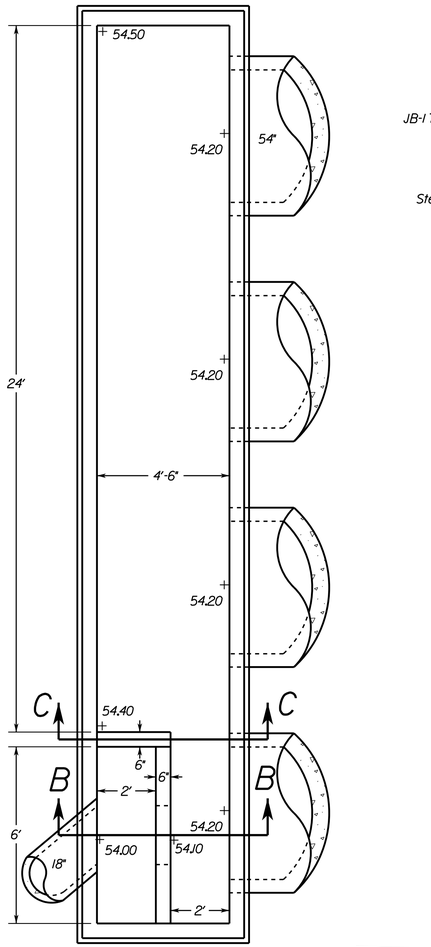
7/12/2018

REV. #1: 07/12/2018

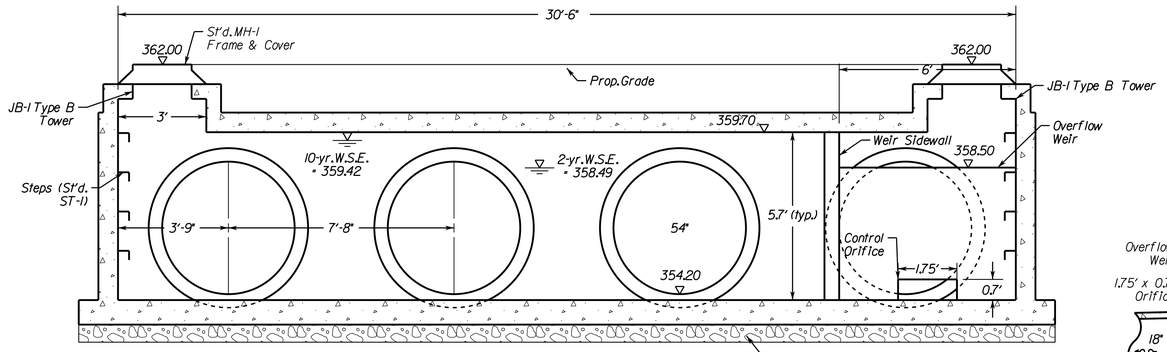
PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

Underground SWM Structure Details



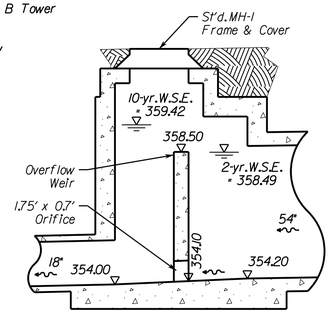


Str.8-22
Plan View (top slab removed)
Not to Scale

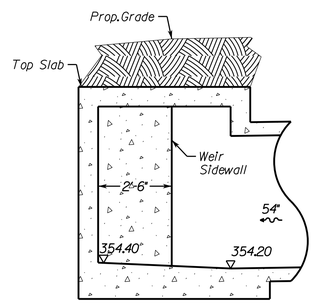


Str.8-22
Section A-A
Not to Scale

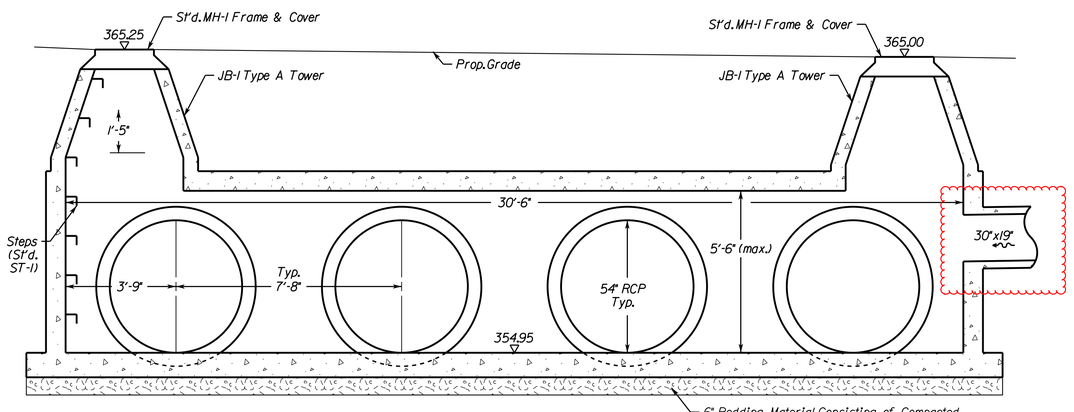
**NOTE: A minimum 6 inches of bedding materials consisting of compacted VDOT No.25 or 26 shall be maintained between the pipes,structures and subgrade as per the geotechnical report.
If groundwater is encountered above the proposed foundation subgrade,a minimum 6-inch layer of "57 stone should be placed above the groundwater prior to placing the regular bedding materials.**



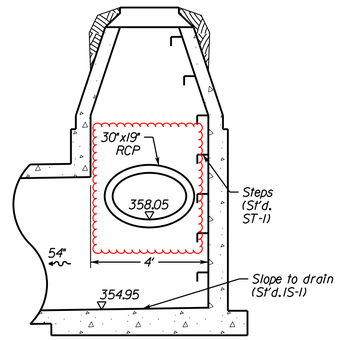
Str.8-22
Section B-B (through orifice)
Not to Scale



Str.8-22
Section C-C (through weir sidewall)
Not to Scale



Str.8-23
Section D-D
Not to Scale



Str.8-23
Section E-E
Not to Scale

All dimensions not shown on this sheet are in accordance with St'd.JB-1 of the Road and Bridge Standards.

For profile of Str.8-23 to Str.8-22,refer to Sheet 2K(5).

The Contractor shall provide 'As-Built' drawings of all stormwater management facilities.The 'As-Built' drawings shall show the actual finished ground contours,outlet structure dimensions and elevations,etc.as they exist at the completion of the project. These drawings shall be signed and sealed by the Licensed Professional Engineer or Land Surveyor registered in the State of Virginia. All costs shall be included under Construction Surveying.

100% PLANS

Office Locations
Fairfax: 10632 N. Scottsdale Road, Suite 104, Fairfax, VA 22032, Phone: (703) 591-2979, Fax: (703) 591-9285
Leesburg: 1 Harrison Street, SE, 3rd Floor, Leesburg, VA 20175, Phone: (703) 771-2742, Fax: (703) 771-2743
Rinker Design Associates, P.C. – Civil Engineering – Surveying – Land Planning – Transportation – Right-of-Way Services
www.rinkerdesign.com

ENGINEER:

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Engineering • Surveying • Land Planning • Transportation • Environmental Services
8305 Discovery Blvd., Suite 100, Manassas, VA 20109 • e-mail: mail@rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-5443
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
UNDERGROUND SWM STRUCTURE DETAILS
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018

COMMONWEALTH OF VIRGINIA
NIKHIL V. DESHPANDE
Lic. No. 045430
PROFESSIONAL ENGINEER

Nikhil V Deshpande
2018.07.17 17:43:06 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 2K(8) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
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DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

NOTE: See Sheet IH for Utility Owner Information.

Existing Easement Legend

E01 EX. CLEAR ZONE AND APPROACH ESMT. (D.B. 1067, PG. 141O)
E02 APPROX. LOCATION EX. 10' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 937, PG. 98)
E03 EX. PERMANENT TRANSPORTATION ESMT. (INSTR. # 200805110055306)
E05 APPROX. LOCATION EX. NOVEC ESMT. (D.B. 929, PG. 92)
E06 EX. 13' RIGHT-OF-WAY (D.B. 813, PG. 918)
E07 APPROX. LOCATION EX. C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 492, PG. 399)
E08 EX. 10' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 915, PG. 470)

Roadway Design Legend

2 → Denotes St'd. MS-1 Req'd.
3-1 P.O.T. • 98+31.86 Sycolin Road C.BL.
P.O.T. • 10+00.00 Claudia Drive C.BL.

Pavement Design Legend

Full Depth Pavement
Mill and Overlay/ Pavement Build-up
Demolition of Pavement and Paved Shoulder

NOTE: Standard guard and hand rails shall be installed at hazardous locations as designated during final field inspection by the Town of Leesburg.

001
P.I.N. 192-45-4034-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 539
1011 SYCOLIN RD SE
52.5 ACRES (PER TAX ASSESSMENT)
ZONING: MA

002
P.I.N. 191-16-9866-000
BOARD OF SUPERVISORS OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 867, PAGE 1808, DEED BOOK 868, PAGE 809,
DEED BOOK 1795, PAGE 1692 AND INSTRUMENT #200712180087268
PARCEL "1-A-1"
PER INSTRUMENT #200806060034512
41975 LOUDOUN CENTER PL
670.8927 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20

Begin Construction/ Begin Project
U000-253-312 PE-101
Station 98+75

Match Line Sta. 101+00 (C.BL.) - See Sheet 4

POT 97+00.00
POT 10+00.00
POT 12+50.00 Claudia Drive (54.50 Wide)

Sycolin Road (Rte. 625)

SCALE 0 25' 50'

100% PLANS

Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Environmental Services – Transportation – Right-of-Way Services

Office Locations
Main Office: 5purling Road, Suite 206, Leesburg, Virginia 20175, Phone: (703) 443-0676, Fax: (703) 443-0445
Northern Virginia Office: 8180 Greensboro Drive, Suite 785, McLean, Virginia 22102, Phone: (703) 556-0717, Fax: (703) 556-0445
Fredericksburg Office: 2 Dunbar Street, Suite 204, Spotsylvania, Virginia 22553, Phone: (540) 582-0708, Fax: (540) 582-0445

ENGINEER:
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8180 Greensboro Drive, Suite 785, McLean, Virginia 22102 www.rinkerdesign.com
Telephone: (703) 556-0717 Fax: (703) 556-0445
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PLAN SHEET SYCOLIN ROAD
STATION 97+00 TO 101+00
Loudoun County, Virginia

Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

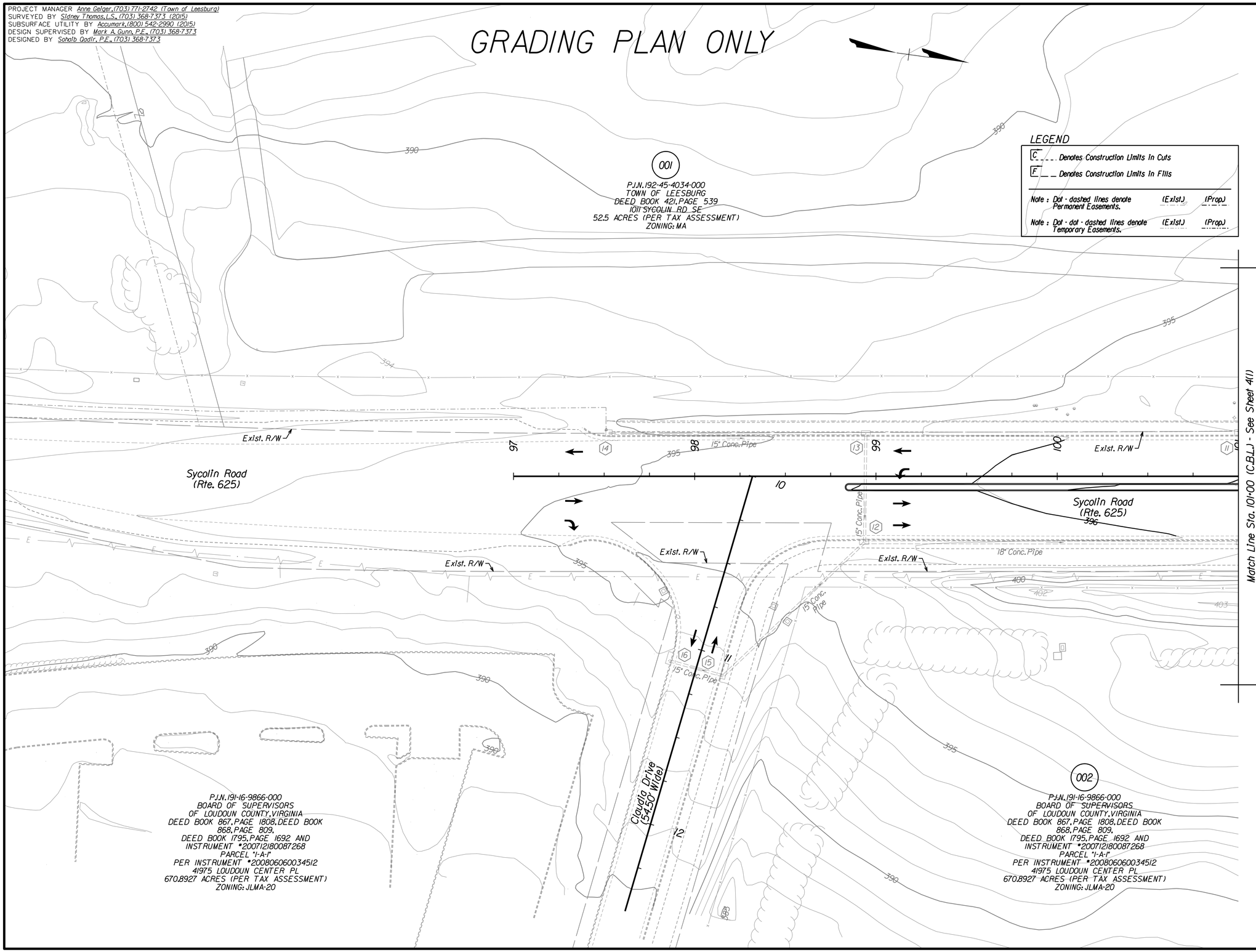
Mark A Gunn
2018.02.22 18:37:01 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 3 of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

GRADING PLAN ONLY



100% PLANS

Office Locations
Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Land Development – Transportation – Right-of-Way Services
Main Office: 44865 Ice House Plaza, Suite 180, Ashburn, VA 20147, Phone: (703) 726-1171, Fax: (703) 726-1172
Northern Virginia: 44865 Ice House Plaza, Suite 180, Ashburn, VA 20147, Phone: (703) 726-1171, Fax: (703) 726-1172
Fredericksburg: 2300 Dandridge Garrison Road, Suite 201, Fredericksburg, VA 22401, Phone: (540) 891-0131, Fax: (540) 891-0132
Winchester: 1001 Millwood Pike, Suite 101, Winchester, VA 22602, Phone: (540) 667-1199, Fax: (540) 667-1197

ENGINEER:
Rinker Design Associates, P.C.
Engineering • Surveying • Land Planning • Transportation • Environmental Services
3020 Gateway Drive, Suite 110, Pittsburgh, PA 15220 • Email: info@rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-0449
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
GRADING PLAN SYCOLIN ROAD
STATION 97+00 TO 101+00
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:37:17 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

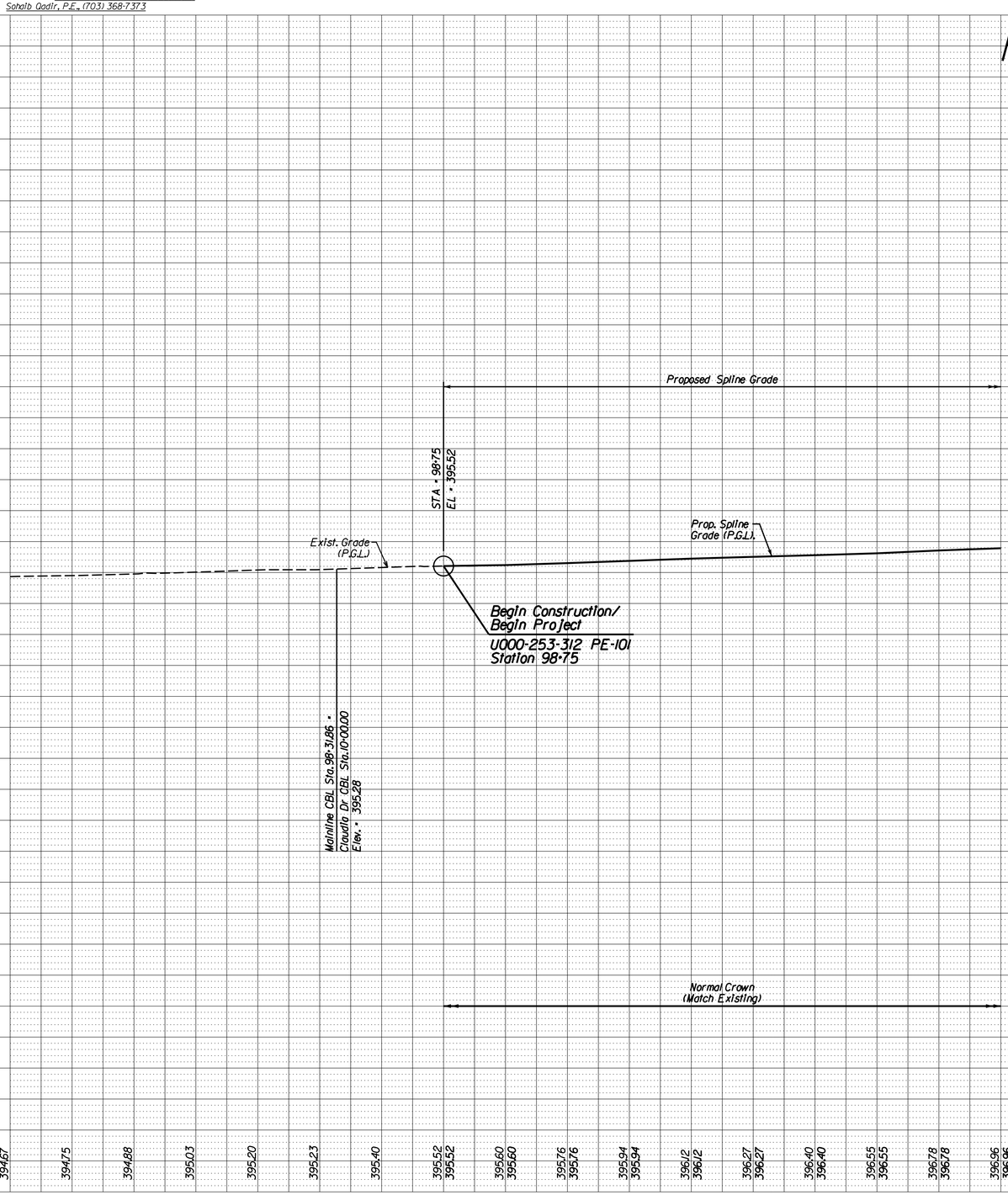
Sheet 3(1) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H= 25, V= 5
0 25' 50'
0 1 2

PROFILE SYCOLIN ROAD (RTE. 625)
STATION 97+00 TO 101+00

Note: See Cross-Sections for Top of Curb Elevations



Office Locations
Main Office: 20 Maryland Avenue, Suite 310, Sterling, VA 20164, Phone: (703) 444-7400, Fax: (703) 444-7419
Northern Virginia Office: 8180 Greensboro Drive, Suite 785, McLean, VA 22102, Phone: (703) 556-0411, Fax: (703) 556-0415
Fredericksburg Office: 2300 Dandridge Garrison Road, Suite 201, Fredericksburg, VA 22401, Phone: (540) 373-4951, Fax: (540) 373-4952
Rinker Design Associates, P.C. — Civil Engineering · Surveying · Land Planning · Transportation · Environmental · Right-of-Way Services
www.rinkerdesign.com

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Telephone: (703) 556-0411 Fax: (703) 556-0415
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROFILE SHEET SYCOLIN ROAD
STATION 97+00 TO 101+00
Town of Leesburg, Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:37:34 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 3A of 20

2/21/2018

100% PLANS

Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right-of-Way Services
www.rdaconnect.com

Office Locations
Northern Virginia Office
Rinker Design Associates, P.C.
108 North Cameron Street
Winchester, VA 22601
Phone: (540) 678-4170
Fax: (540) 678-4172

Corporate Office
Rinker Design Associates, P.C.
108 North Cameron Street
Winchester, VA 22601
Phone: (540) 678-4170
Fax: (540) 678-4172

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
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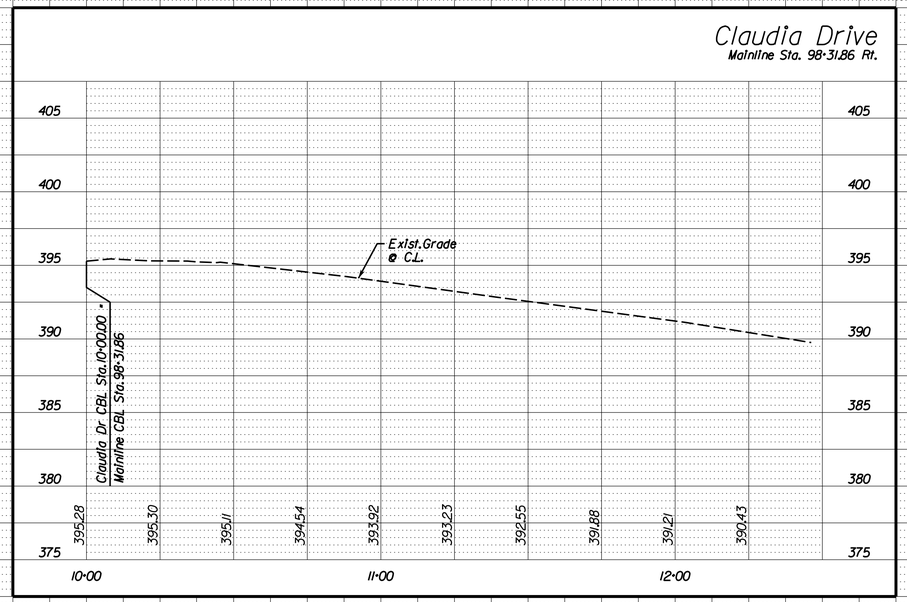
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H: 25, V: 5
0 25' 50'
0 1 2

ENTRANCE AND CONNECTION PROFILES SHEET
SYCOLIN ROAD (RTE. 625) STATION 97+00 TO 101+00



ENGINEER:
Rinker Design Associates, P.C.
Engineering "Surveying "Land Planning "Transportation "Environmental Services
205 Discovery Blvd., Suite 202 Cary, NC 27513 www.rdaconnect.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
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to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
ENTRANCE & CONNECTION PROFILES SHEET
SYCOLIN ROAD STATION 97+00 TO 101+00
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:37:53 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet
3B of 20

100% PLANS

2/21/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
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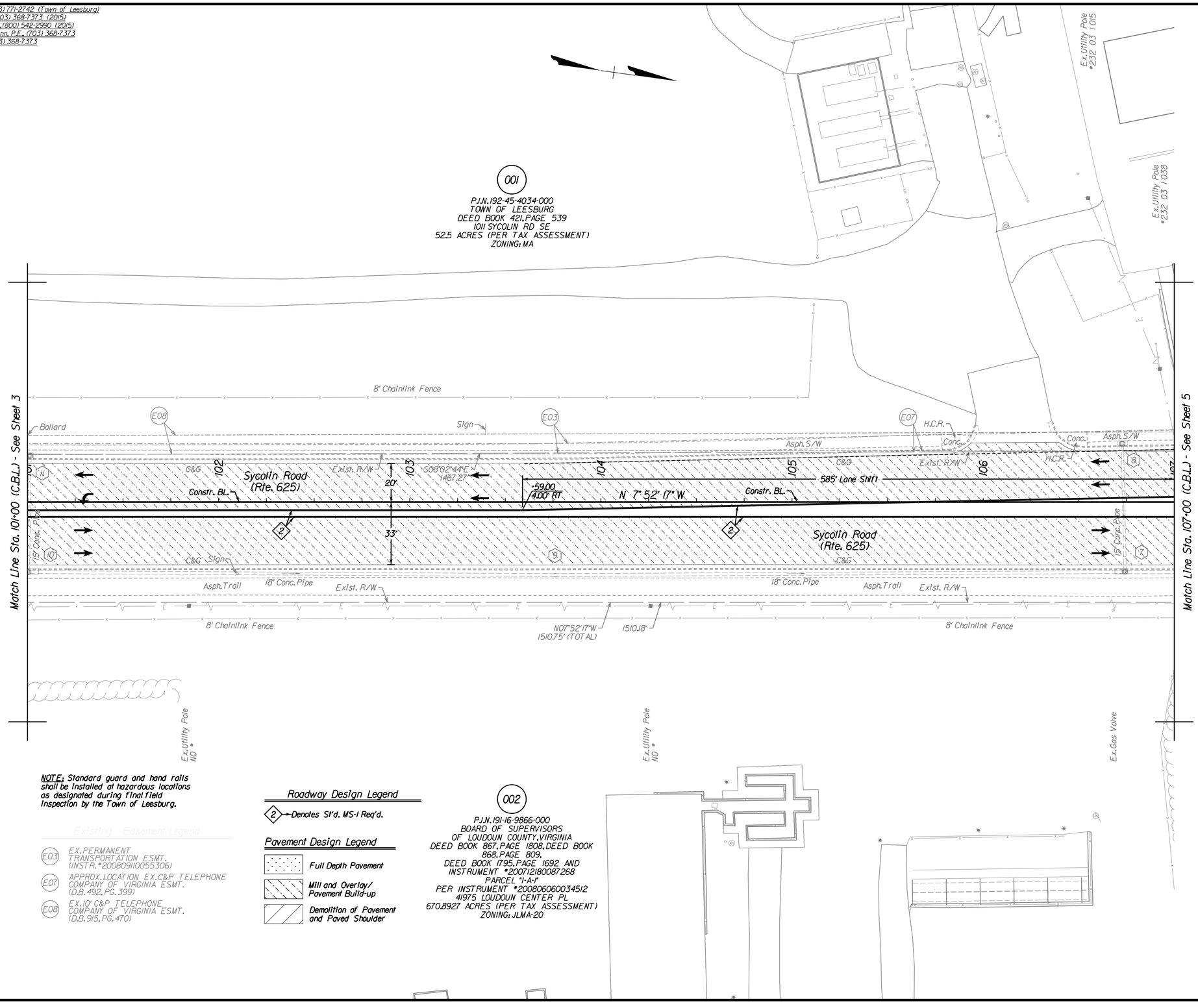

NOTE: Standard guard and hand rails shall be installed at hazardous locations as designated during final field inspection by the Town of Leesburg.

Existing Easement Legend

- (E03) EX.PERMANENT TRANSPORTATION ESMT. (INST.R.#200809110055306)
- (E07) APPROX.LOCATION EX.C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B.492,PG.399)
- (E08) EX.10' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B.915,PG.470)

Roadway Design Legend

- (2) Denotes St'd. MS-1 Req'd.

Pavement Design Legend

- Full Depth Pavement
- Mill and Overlay/ Pavement Build-up
- Demolition of Pavement and Paved Shoulder

SCALE 0 25' 50'

100% PLANS

Gda Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning – Environmental – Transportation – Right-of-Way Services
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Office Locations
Main Office: 44865 Ice Rink Plaza, Suite 183, Ashburn, VA 20147, Phone: (703) 729-2278, Fax: (703) 729-2279
Northern Virginia: 4229 Lafayette Center Drive, Suite 1500, Chantilly, VA 20151, Phone: (703) 263-0029, Fax: (703) 263-0189
Fredericksburg: 2121 Eskridge Road, Suite 204, Alexandria, VA 22031, Phone: (703) 849-0223, Fax: (703) 849-0226

ENGINEER:
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3020 Gateway Drive, Suite 200, Manassas, Virginia 20109 e-mail: info@rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
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gda www.gdaconsult.com

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PLAN SHEET SYCOLIN ROAD
STATION 101+00 TO 107+00
Loudoun County, Virginia

Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:38:07 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

GRADING PLAN ONLY

LEGEND

C _ _ _ _ Denotes Construction Limits In Cuts

F _ _ _ Denotes Construction Limits In Fills

Note : Dot - dashed lines denote Permanent Easements.	(Exist.)	(Prop.)
Note : Dot - dot - dashed lines denote Temporary Easements.	(Exist.)	(Prop.)

001
P.I.N. 192-45-4034-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 539
1011 SYCOLIN RD SE
52.5 ACRES (PER TAX ASSESSMENT)
ZONING: MA

002
P.I.N. 191-16-9866-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 867, PAGE 1808, DEED BOOK
868, PAGE 809,
DEED BOOK 1795, PAGE 1692 AND
INSTRUMENT #200712180087268
PARCEL "I-A-I"
PER INSTRUMENT #200806060034512
41975 LOUDOUN CENTER PL
670.8927 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20

Match Line Sta. 101+00 (C.B.L.) - See Sheet 3(1)

Match Line Sta. 107+00 (C.B.L.) - See Sheet 5(1)

Sycolin Road (Rte. 625)

Exist. R/W

HP=398.17

15" Conc. Pipe

18" Conc. Pipe

SCALE 0 25' 50'

100% PLANS

Office Locations

Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning
Transportation – Environmental – Right-of-Way Services

Air Rights Center
8251 Greensboro Drive, Suite 300
Tysons, VA 22102
Phone: (703) 556-0717
Fax: (703) 556-0720

Ashburn Village Boulevard
Suite 200
Ashburn, VA 20147
Phone: (703) 729-2775
Fax: (703) 729-2779

Air Rights Center
8251 Greensboro Drive, Suite 300
Tysons, VA 22102
Phone: (703) 556-0717
Fax: (703) 556-0720

Ashburn Village Boulevard
Suite 200
Ashburn, VA 20147
Phone: (703) 729-2775
Fax: (703) 729-2779

ENGINEER:
Rinker Design Associates, P.C.
Engineering • Surveying • Land Planning • Transportation • Environmental Services
8251 Greensboro Drive, Suite 300, Tysons, VA 22102 • e-mail: info@rinkerdesign.com
Telephone: (703) 556-0717 Fax: (703) 357-5445
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to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
GRADING PLAN SYCOLIN ROAD
STATION 101+00 TO 107+00
Loudoun County, Virginia

SUBMISSION DATE: 02/21/2018

Town of Leesburg

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:38:22 -05'00'

ASSOCIATED PLAN

C.I.P. NUMBER: TLCI-2016-0002

VDOT PROJ. NO. U000-253-312

TOWN NUMBER: TBD

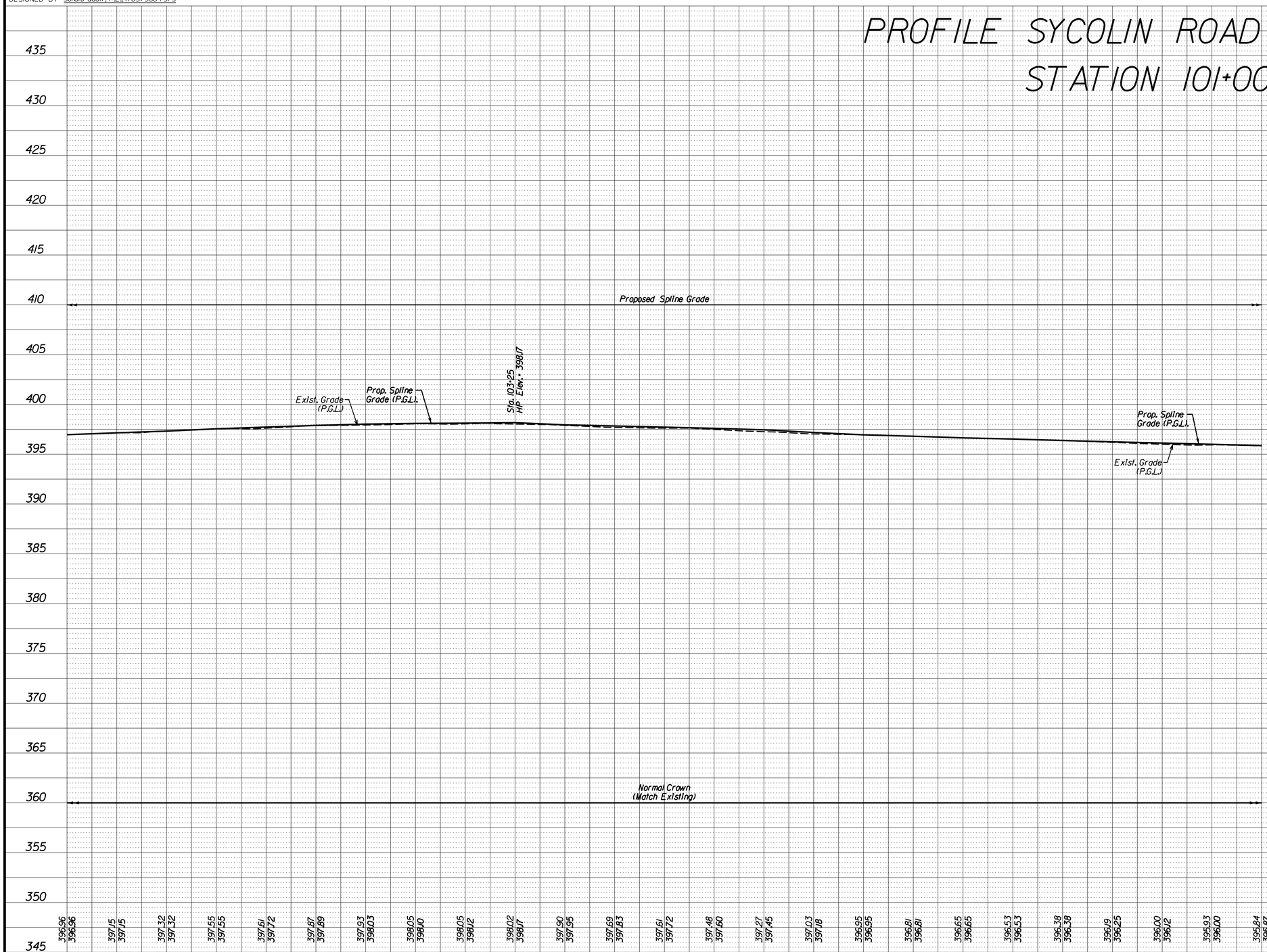
Sheet 4(1) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H: 25, V: 5
0 25' 50'

PROFILE SYCOLIN ROAD (RTE. 625)
STATION 101+00 TO 107+00

Note: See Cross-Sections for Top of Curb Elevations



ENGINEER:
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8505 Mosby Street, Suite 200, Manassas, Virginia 20110
Telephone: (703) 368-7373 Fax: (703) 257-5445
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www.rinkerdesign.com

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROFILE SHEET SYCOLIN ROAD
STATION 101+00 TO 107+00
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:38:37 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 4A of 20

100% PLANS

2/21/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
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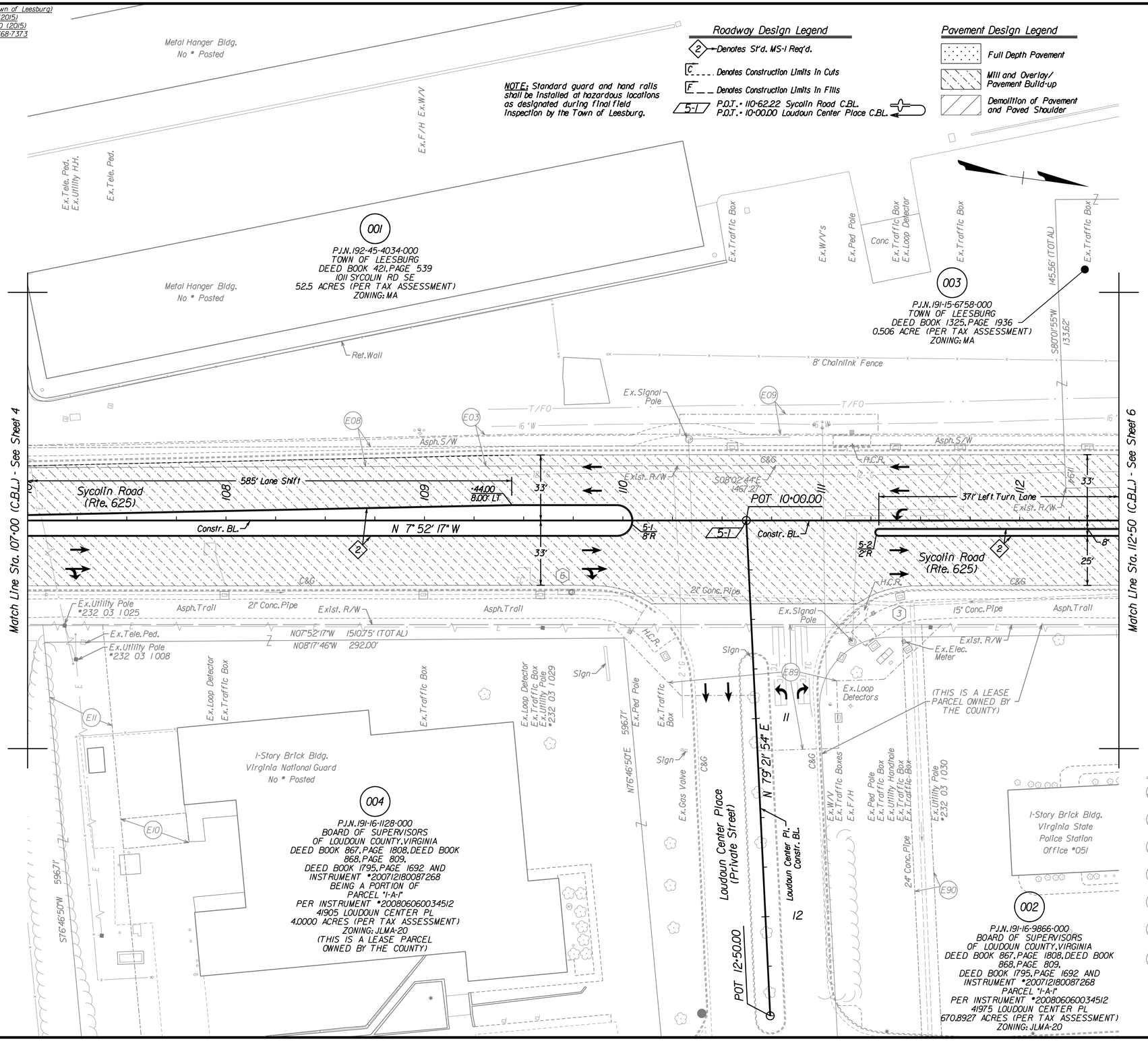

Office Locations
Gda Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental - Right-of-Way Services
Main Office: 5285 Eisenhower Boulevard, Suite 334, Alexandria, VA 22304, Phone: (703) 370-7979, Fax: (703) 370-7980
Leesburg Office: 19 North King Street, Suite 204, Leesburg, VA 20176, Phone: (703) 777-3616, Fax: (703) 777-3619
Fredericksburg Office: 2300 Dandridge Garrison Road, Suite 204, Fredericksburg, VA 22401, Phone: (540) 370-4951, Fax: (540) 370-4952
www.gdarinker.com

ENGINEER:
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Engineering * Surveying * Land Planning * Transportation * Environmental Services
5285 Eisenhower Blvd., Suite 334, Alexandria, VA 22304
Telephone: (703) 370-7373 Fax: (703) 370-7374 e-mail: mail@gdarinker.com
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PLAN SHEET SYCOLIN ROAD
STATION 107+00 TO 112+50
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018
Town of Leesburg

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:38:52 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 5 of 20

100% PLANS

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
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DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

GRADING PLAN ONLY

LEGEND

C _ _ _ _ Denotes Construction Limits In Cuts

F _ _ _ _ Denotes Construction Limits In Fills

Note : Dot - dashed lines denote Permanent Easements.	(Exist.)	(Prop.)
Note : Dot - dot - dashed lines denote Temporary Easements.	(Exist.)	(Prop.)

001
P.I.N. 192-45-4034-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 539
1011 SYCOLIN RD SE
52.5 ACRES (PER TAX ASSESSMENT)
ZONING: MA

003
P.I.N. 191-15-6758-000
TOWN OF LEESBURG
DEED BOOK 1325, PAGE 1936
0.506 ACRE (PER TAX ASSESSMENT)
ZONING: MA

004
P.I.N. 191-16-1128-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 867, PAGE 1808, DEED BOOK
868, PAGE 809,
DEED BOOK 1795, PAGE 1692 AND
INSTRUMENT #200712180087268
BEING A PORTION OF
PARCEL "1-A-1"
PER INSTRUMENT #200806060034512
41905 LOUDOUN CENTER PL
4.0000 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20
(THIS IS A LEASE PARCEL
OWNED BY THE COUNTY)

002
P.I.N. 191-16-9866-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 867, PAGE 1808, DEED BOOK
868, PAGE 809,
DEED BOOK 1795, PAGE 1692 AND
INSTRUMENT #200712180087268
PARCEL "1-A-1"
PER INSTRUMENT #200806060034512
41975 LOUDOUN CENTER PL
670.8927 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20

Sycolin Road (Rte. 625)
Loudoun Center Place (Private Street)
Exist. R/W
21" Conc. Pipe
15" Conc. Pipe
24" Conc. Pipe
Match Line Sta. 107+00 (C.B.L.) - See Sheet 4(1)
Match Line Sta. 112+50 (C.B.L.) - See Sheet 6(1)

SCALE
0 25' 50'

100% PLANS

Office Locations
Main Office: 11 Canal Center Plaza, Suite 200, Alexandria, VA 22314, Phone: (703) 549-7384, Fax: (703) 549-2604
Fairfax Office: 10632 Main Street, Suite 204, Fairfax, VA 22030, Phone: (703) 591-2979, Fax: (703) 591-9285
Leesburg Office: 1 Harrison Street, SE, Suite 100, Leesburg, VA 20175, Phone: (703) 737-3993, Fax: (703) 737-3632
Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
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ENGINEER:
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3020 Gateway Drive, Suite 110, Pelham, NC 27311 e-mail: info@rinkerdesign.com
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PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
GRADING PLAN SYCOLIN ROAD
STATION 107+00 TO 112+50
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:39:07 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 5(1) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
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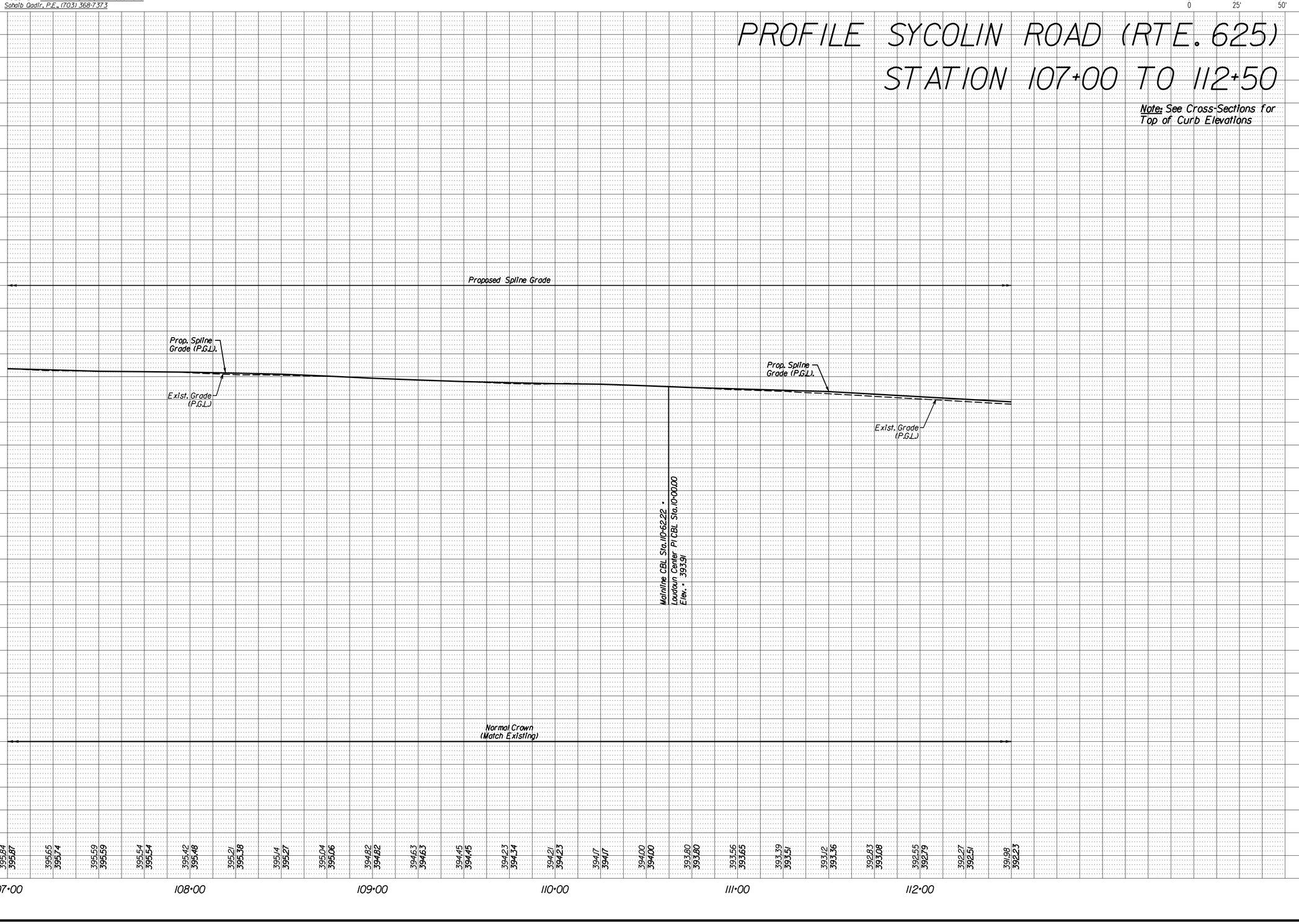
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H= 25, V= 5
0 25' 50'
0 1 2

PROFILE SYCOLIN ROAD (RTE. 625)
STATION 107+00 TO 112+50

Note: See Cross-Sections for Top of Curb Elevations



100% PLANS

Office Locations
Gainesville: 7601 Heritage Village Plaza, Suite 201, Gainesville, VA 20155, Phone: (703) 743-6570, Fax: (703) 743-6572
Leesburg: 20 East Market Street, Suite 300, Leesburg, VA 20176, Phone: (703) 443-2400, Fax: (703) 443-2404
Manassas: 9900 Main Street, Suite 400, Fairfax, VA 22031, Phone: (703) 273-2700, Fax: (703) 273-2705
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Transportation - Environmental
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8305 Discovery Blvd., Manassas Park, VA 20111 www.rinkerdesign.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
"We Welcome the Opportunity to Make Your Vision Reality"
PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROFILE SHEET SYCOLIN ROAD
STATION 107+00 TO 112+50
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:39:22 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

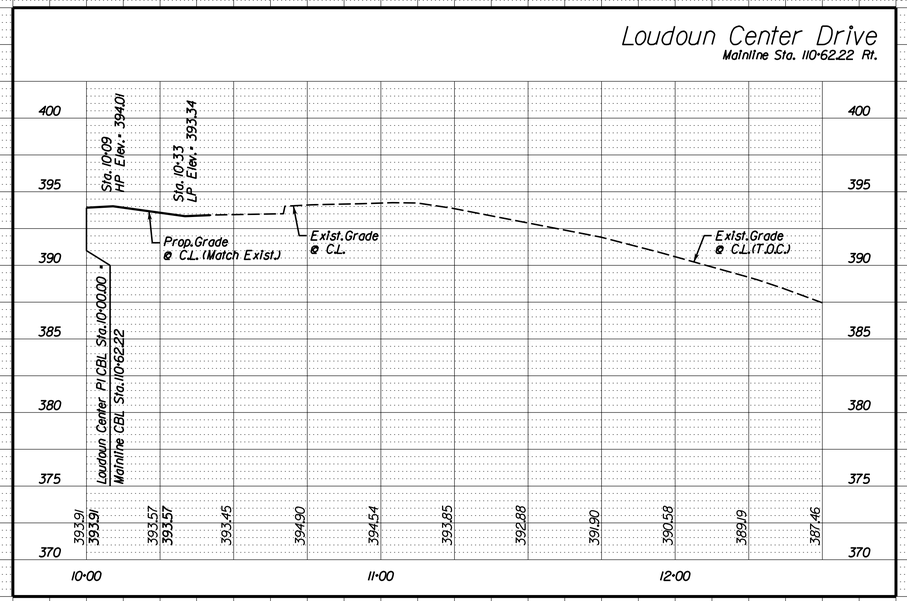
2/21/2018

Office Locations
Ashburn: 44865 Ela Plaza, Suite 210, Ashburn, VA 20147 Phone: (703) 726-1100 Fax: (703) 726-1101
Fredericksburg: 2300 Dandridge Garrison Road, Suite 201, Fredericksburg, VA 22401 Phone: (540) 373-1070 Fax: (540) 373-1071
Manassas: 9900 Main Street, Suite 400, Fairfax, VA 22031 Phone: (703) 273-2700 Fax: (703) 273-2705
Rinker Design Associates, P.C. Civil Engineering · Surveying · Transportation · Land Planning · Environmental · Right-of-Way Services
www.rdaconsult.com

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H: 25, V: 5 (0, 12.5, 25', 50')

ENTRANCE AND CONNECTION PROFILES SHEET
SYCOLIN ROAD (RTE. 625) STATION 107+00 TO 112+50



ENGINEER:
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8305 Discovery Blvd., Manassas, VA 20109 www.rdaconsult.com
Telephone: (703) 368-7373 Fax: (703) 257-5445
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PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
ENTRANCE & CONNECTION PROFILES SHEET
SYCOLIN ROAD STATION 107+00 TO 112+50
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:39:36 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 5B of 20

100% PLANS

2/21/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
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Office Locations

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Civil Engineering · Surveying · Land Planning
Transportation · Environmental · Right-of-Way Services

Ashburn Office: 44610 Pinebrook Road, Suite 130, Ashburn, VA 20147, Phone: (703) 726-2278, Fax: (703) 726-2279
Bowie Office: 4550 Forbes Boulevard, Suite 300, Lanham, MD 20706, Phone: (301) 459-3200, Fax: (301) 459-8614

001
P.I.N. 192-45-4034-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 539
1011 SYCOLIN RD SE
52.5 ACRES (PER TAX ASSESSMENT)
ZONING: MA

003
P.I.N. 191-15-6758-000
TOWN OF LEESBURG
DEED BOOK 1325, PAGE 1936
0.506 ACRE (PER TAX ASSESSMENT)
ZONING: MA

006
P.I.N. 234-20-5774-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 548
1001 SYCOLIN RD SE
61.1827 ACRES (PER TAX ASSESSMENT)
ZONING: MA

006
P.I.N. 234-20-5774-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 548
1001 SYCOLIN RD SE
61.1827 ACRES (PER TAX ASSESSMENT)
ZONING: MA

005
P.I.N. 191-15-5791-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 548
1005 SYCOLIN RD SE
2.3754 ACRES
ZONING: MA
(THIS IS A LEASE PARCEL OWNED BY THE TOWN)

002
P.I.N. 191-16-9866-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 867, PAGE 1808, DEED BOOK 868, PAGE 809,
DEED BOOK 1795, PAGE 1692 AND
INSTRUMENT #200712180087268
PARCEL "I-A-I"
PER INSTRUMENT #200806060034512
41975 LOUDOUN CENTER PL
670.8927 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20

007
P.I.N. 191-25-9906-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 1790, PAGE 1221
PARCEL B-2
PER DEED BOOK 880, PAGE 1964
1002 SYCOLIN RD SE
7.04 ACRES (PER TAX ASSESSMENT)
ZONING: I-1

Roadway Design Legend

1 → Denotes Std. CG-6 Req'd.
2 → Denotes Std. MS-1 Req'd.
2A → Denotes Std. MS-1A Req'd.
3 → Denotes Std. MS-2 Req'd.
4 → Denotes Prop. 5' Concrete Sidewalk
5 → Denotes Prop. 10' Shared Use Path
7A → Denotes Std. HR-1 Type III Req'd.
8 → Denotes Full Depth Saw Cut Req'd.
Denotes Prop. Street Light Mounting Height of 35'

Match Line Sta. 112+50 (C.B.L.) - See Sheet 5

Match Line Sta. 118+50 (C.B.L.) - See Sheet 7

Begin Project U000-253-312 RW-201 Station 113+60.00 ·72.83 33.00' RT

Begin Project U000-253-312 C-501 Station 113+73.02

Sycolin Road (Rte. 625)

Sycolin Road S.E. (Rte. 643)

371' Left Turn Lane

186' Left Turn Lane

175' Right Turn Lane

100' Taper

Tie to Exist. UD-4

Prop. Town of Leesburg Secondary Gateway Sign

Prop. Retaining Wall

Exist. Fence To Be Removed

Std. FE-CL w/ Barbed Wire Req'd.

Tie to Exist. Fence

Prop. R/W

Exist. R/W

Metal Hanger Bldg. #1007

2-Story Mezzanine Bldg. w/ Metal Hanger #1005

Metal Warehouse Bldg. #1002

TOWN OF LEESBURG

LOUDOUN COUNTY

TOWN/COUNTY LINE

(THIS IS A LEASE PARCEL OWNED BY THE COUNTY)

Pavement Design Legend

Full Depth Pavement
Mill and Overlay/ Pavement Build-up
Demolition of Pavement and Paved Shoulder

Existing Easement Legend

E03 EX. PERMANENT TRANSPORTATION ESMT. (INSTR. #200809110055306)
E12 EX. TRI-COUNTY ELECTRIC COOPERATIVE ESMT. (D.B. 439, PG. 510)
E13 APPROX. LOCATION EX. 10' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 492, PG. 399 AND D.B. 915, PG. 470)
E14 APPROX. LOCATION EX. 30' NOVEC ESMT. (D.B. 966, PG. 1193)
E15 APPROX. LOCATION EX. NOVEC ESMT. (D.B. 918, PG. 681)
E16 EX. 20' SANITARY SEWER ESMT. (D.B. 939, PG. 1216)
E17 EX. WELL LOT ESMT. (D.B. 939, PG. 158)

Proposed Easement Legend

A → Denotes Prop. Temporary Construction Easement
B → Denotes Prop. Permanent Transportation Easement

Drainage Legend

4 → Std. UD-4 Req'd.
2 → Std. UD-2 Req'd.

MOD./INTERPRETATION OF DCSM LEGEND
# Denotes DCSM Modification. See Sheet 1, Town of Leesburg Title Sheet.

NOTE: Standard guard and hand rails shall be installed at hazardous locations as designated during final field inspection by the Town of Leesburg.

C ____ Denotes Construction Limits in Cuts
F __ __ Denotes Construction Limits in Fills

SCALE 0 25' 50'

100% PLANS

ENGINEER:
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8305 Discovery Blvd. · Manassas Park, VA 20111 · www.rinkerdesign.com
Telephone: (703) 368-7373 · Fax: (703) 257-5443
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PLAN SHEET SYCOLIN ROAD
STATION 112+50 TO 118+50
Loudoun County, Virginia

SUBMISSION DATE: 02/21/2018

Town of Leesburg

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:39:51 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 6 of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

GRADING PLAN ONLY

001
P.I.N.192-45-4034-000
TOWN OF LEESBURG
DEED BOOK 421,PAGE 539
1011 SYCOLIN RD SE
52.5 ACRES (PER TAX ASSESSMENT)
ZONING: MA

006
P.I.N.234-20-5774-000
TOWN OF LEESBURG
DEED BOOK 421,PAGE 548
1001 SYCOLIN RD SE
61.1827 ACRES (PER TAX ASSESSMENT)
ZONING: MA

003
P.I.N.191-15-6758-000
TOWN OF LEESBURG
DEED BOOK 1325,PAGE 1936
0.506 ACRE (PER TAX ASSESSMENT)
ZONING: MA

006
P.I.N.234-20-5774-000
TOWN OF LEESBURG
DEED BOOK 421,PAGE 548
1001 SYCOLIN RD SE
61.1827 ACRES (PER TAX ASSESSMENT)
ZONING: MA

005
P.I.N.191-15-5791-000
TOWN OF LEESBURG
DEED BOOK 421,PAGE 548
1005 SYCOLIN RD SE
2.3754 ACRES
ZONING: MA
(THIS IS A LEASE PARCEL
OWNED BY THE TOWN)

18" Conc. Pipe
12" Conc. Pipe
15" Conc. Pipe
24" Conc. Pipe
15" Conc. Pipe

TOWN OF LEESBURG
LOUDOUN COUNTY
Sycolin Road S.E. (Rte. 643)
Sycolin Road (Rte. 625)
Exist. R/W
Prop. R/W

Match Line Sta. 112+50 (C.B.L.) - See Sheet 5(1)
Match Line Sta. 118+50 (C.B.L.) - See Sheet 7(1)

002
P.I.N.191-16-9866-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY,VIRGINIA
DEED BOOK 867,PAGE 1808,DEED BOOK
868,PAGE 809,
DEED BOOK 1795,PAGE 1692 AND
INSTRUMENT #200712180087268
PARCEL "1-A-1"
PER INSTRUMENT #200806060034512
41975 LOUDOUN CENTER PL
670.8927 ACRES (PER TAX ASSESSMENT)
ZONING: JLMA-20

LOUDOUN COUNTY
TOWN OF LEESBURG
TOWN/COUNTY LINE

007
P.I.N.191-25-9906-000
BOARD OF SUPERVISORS
OF LOUDOUN COUNTY,VIRGINIA
DEED BOOK 1790,PAGE 1221
PARCEL B-2
PER DEED BOOK 880,PAGE 1964
1002 SYCOLIN RD SE
7.04 ACRES (PER TAX ASSESSMENT)
ZONING: I-1

LEGEND

C _ _ _ Denotes Construction Limits In Cuts
F _ _ _ Denotes Construction Limits In Fills

Note : Dot - dashed lines denote Permanent Easements.	(Exist.)	(Prop.)
Note : Dot - dot - dashed lines denote Temporary Easements.	(Exist.)	(Prop.)

SCALE 0 25' 50'

100% PLANS

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Ashburn: 44610 Pinebrook Road, Suite 130, Ashburn, VA 20147, Phone: (703) 726-2278, Fax: (703) 726-2279
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Telephone: (703) 368-7373 Fax: (703) 257-5445
"We Welcome the Opportunity
to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
GRADING PLAN SYCOLIN ROAD
STATION 112+50 TO 118+50
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:40:05 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 6(1) of 20

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H= 25, V= 5 (0 1 2 / 0 25' 50')

PROFILE SYCOLIN ROAD (RTE. 625/643)
STATION 112+50 TO 118+50

Note: See Cross-Sections for Top of Curb Elevations

425 420 415 410 405 400 395 390 385 380 375 370 365 360 355 350 345 340 335

Proposed Spline Grade
Prop. Spline Grade (P.G.L.)
Exist. Grade (P.G.L.)
STA = 113+50.00
EL = 390.95
Begin Project U000-253-312 RW-201 Station 113+60.00
VPC Sta.= 113+96.03
VPC Elev.= 390.64
Begin Project U000-253-312 C-501 Station 113+73.02
STA = 114+46.03
EL = 390.30
SSD = 143'
K = 129
V = 55 MPH
L = 100.00
-0.68%
-1.46%
VPT Sta.= 114+96.03
VPT Elev.= 389.57
Prop. Grade (P.G.L.)
VPC Sta.= 117+77.83
VPC Elev.= 385.46
Exist. Grade (P.G.L.)
Prop. Grade (P.G.L.)
-1.46%
STA 113+73.02 TOWN OF LEESBURG SOUTHERN CORPORATE LIMITS
SYCOLIN RD (RTE. 625)
SYCOLIN RD (RTE. 643)
114+00.00
Normal Crown (Match Existing)
Normal Crown (-2%)
S.B.L.
76' LT Transition (-2% to 0%)
118+23.98
N.B.L.
Normal Crown (-2%)

391.98 392.23 | 391.71 391.89 | 391.42 391.55 | 391.18 391.25 | 390.94 390.95 | 390.69 390.78 | 390.44 390.61 | 390.22 390.41 | 389.97 390.16 | 389.68 389.86 | 389.37 389.51 | 388.99 389.15 | 388.60 388.78 | 388.22 388.42 | 387.84 388.05 | 387.46 387.69 | 387.15 387.32 | 386.81 386.96 | 386.47 386.59 | 386.14 386.23 | 385.82 385.86 | 385.41 385.50 | 384.90 385.11 | 384.43 384.64 | 383.73

113+00 114+00 115+00 116+00 117+00 118+00

100% PLANS

Office Locations
Main Office: 20810 Fernbrook Drive, Suite 200, Sterling, VA 20165, Phone: (703) 430-9391, Fax: (703) 430-9394
Northern Virginia: 2990 Fairview Park Drive, Suite 520, Falls Church, VA 22042, Phone: (703) 698-0476, Fax: (703) 698-0485
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FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROFILE SHEET SYCOLIN ROAD
STATION 112+50 TO 118+50
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA — MARK A. GUNN Lic. No. 038323 — PROFESSIONAL ENGINEER
Mark A Gunn
2018.02.22 18:40:21 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

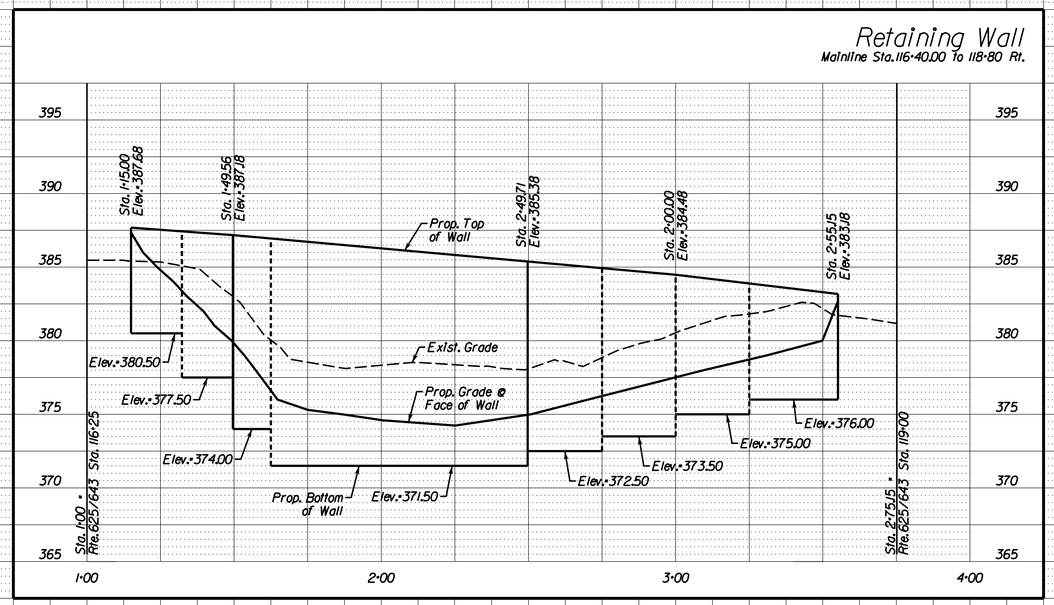
Sheet 6A of 20

2/21/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

SCALE H: 25, V: 5
0 25' 50'

RETAINING WALL PROFILE
SYCOLIN RD (RTE. 625/643) STA. 116+50 TO 118+80 RT



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Transportation - Environmental - Right-of-Way Services

Office Locations
Main Office: 20 Catoctin Circle, SE, Suite 302, Leesburg, VA 20175, Phone: (703) 777-6616, Fax: (703) 777-0759
Northern Virginia: 8180 Greensboro Drive, Suite 1020, McLean, VA 22102, Phone: (703) 556-0729, Fax: (703) 556-0729
Fredericksburg: 2300 Dandridge Garrison Road, Suite 201, Fredericksburg, VA 22401, Phone: (540) 371-5440, Fax: (540) 371-5443
Winchester: 1 North Braddock Street, Suite 201, Winchester, VA 22601, Phone: (540) 667-1117, Fax: (540) 667-1118

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8180 Greensboro Drive, Suite 1020, McLean, VA 22102 www.rinkerdesign.com
Telephone: (703) 556-0729 Fax: (703) 557-5443
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
RETAINING WALL PROFILE
SYCOLIN RD STA. 116+50 TO 118+80 RT
Town of Leesburg
Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:40:34 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 6B of 20

100% PLANS

2/21/2018

REV. #1: 07/12/2018

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 642-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

C1
Curve MLOI
PI • 125+74.25
DELTA • 21° 45' 22.05" (RT)
D • 1° 45' 56"
T • 623.60'
L • 1,232.18'
R • 3,245.00'
PC • 119+50.65
PT • 131+82.83
E • 2.0%
V • 40 MPH

C3
Curve ENT120IOCUR1
PI • 10+50.41
DELTA • 13° 02' 52.90" (RT)
D • 38° 11' 50"
T • 171.5'
L • 341.6'
R • 150.00'
PC • 10+33.26
PT • 10+67.42

C4
Curve ENT120IOCUR2
PI • 12+09.35
DELTA • 25° 31' 37.94" (LT)
D • 9° 40' 24"
T • 141.6'
L • 277.85'
R • 592.50'
PC • 11+95.19
PT • 12+23.04

Pavement Design Legend
- Full Depth Pavement
- Mill and Overlay/ Pavement Build-up
- Demolition of Pavement and Paved Shoulder

Drainage Legend
- 1 → To Be Removed
- 2 → To Be Cleaned Out
- 3 → Exist. Pipe To Remain
- 4 → Std. UD-4 Req'd.
- 5 → Std. UD-2 Req'd.

Existing Easement Legend
- E12 EX. TRI-COUNTY ELECTRIC COOPERATIVE ESMT. (D.B. 439, PG. 510)
- E13 APPROX. LOCATION EX. 10' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 492, PG. 399 AND D.B. 915, PG. 470)
- E15 APPROX. LOCATION EX. NOVEC ESMT. (D.B. 918, PG. 681)
- E16 EX. 20' SANITARY SEWER ESMT. (D.B. 939, PG. 1216)
- E17 EX. WELL LOT ESMT. (D.B. 939, PG. 158)
- E18 EX. INGRESS-EGRESS ESMT. (D.B. 1014, PG. 1452)
- E19 APPROX. LOCATION EX. 15' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 967, PG. 503)
- E20 EX. 15' VERIZON VIRGINIA INC. ESMT. (D.B. 2196, PG. 528)
- E21 APPROX. LOCATION EX. 15' SANITARY SEWER ESMT. (D.B. 833, PG. 1578)
- E22 EX. 20' SANITARY SEWER ESMT. (D.B. 921, PG. 746)
- E23 EX. 15' WATERLINE ESMT. (D.B. 921, PG. 746)
- E24 EX. ACCESS ESMT. (D.B. 921, PG. 743)
- E86 APPROX. LOCATION EX. 15' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 1039, PG. 1088)
- E87 APPROX. LOCATION EX. 15' C&P TELEPHONE COMPANY OF VIRGINIA ESMT. (D.B. 967, PG. 503 AND D.B. 1039, PG. 1088)

Proposed Easement Legend
- A Denotes Prop. Temporary Construction Easement
- B Denotes Prop. Permanent Transportation Easement
- C Denotes Prop. Permanent Storm Drainage Easement
- F Denotes Prop. Waterline Easement

MOD./INTERPRETATION OF DCSM LEGEND
(#) Denotes DCSM Modification. See Sheet 1, Town of Leesburg Title Sheet.

NOTE: Standard guard and hand rails shall be installed at hazardous locations as designated during final field inspection by the Town of Leesburg.

Roadway Design Legend
- 1 → Denotes Std. CG-6 Req'd.
- 1A → Denotes Std. Radial CG-6 Req'd.
- 1B → Denotes Town CG-6R Req'd. (TS-6)
- 2A → Denotes Std. MS-1A Req'd.
- 3 → Denotes Std. MS-2 Req'd.
- 4 → Denotes Prop. 5' Concrete Sidewalk
- 5 → Denotes Prop. 10' Shared Use Path
- 6B → Denotes Std. CG-12 Type B Req'd.
- 7 → Denotes Std. HR-1 Type II Req'd.
- 7A → Denotes Std. HR-1 Type III Req'd.
- 8 → Denotes Full Depth Saw Cut Req'd.
- Denotes Prop. Street Light Mounting Height of 35'
- C ____ Denotes Construction Limits In Cuts
- F __ __ Denotes Construction Limits In Fills

7-1 P.O.C. • 120+10.00 Sycolin Road C.BL.
P.O.T. • 10+00.00 Ent. 120+10 Lt. C.BL.
7-2 P.O.C. • 120+15.37 Sycolin Road C.BL.
P.O.T. • 10+00.00 Ent. 120+15 Rt. C.BL.
7-3 P.O.T. • 11+05.27 Ent. 120+10 Lt. C.BL.
P.O.T. • 10+00.00 Ent. 11+05.27 Lt. C.BL.

005
P.I.N. 191-15-5791-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 548
1005 SYCOLIN RD SE
2.3754 ACRES
ZONING: MA
(THIS IS A LEASE PARCEL OWNED BY THE TOWN)

006
P.I.N. 234-20-5774-000
TOWN OF LEESBURG
DEED BOOK 421, PAGE 548
1001 SYCOLIN RD SE
61.1827 ACRES (PER TAX ASSESSMENT)
ZONING: MA

008
P.I.N. 191-25-3486-000
TOWN OF LEESBURG
DEED BOOK 1608, PAGE 698
PARCEL F-2
PER DEED BOOK 972, PAGE 793
959 SYCOLIN RD SE
8.6424 ACRES
ZONING: MA

007
P.I.N. 191-25-9906-000
BOARD OF SUPERVISORS OF LOUDOUN COUNTY, VIRGINIA
DEED BOOK 1790, PAGE 1221
PARCEL B-2
PER DEED BOOK 880, PAGE 1964
1002 SYCOLIN RD SE
7.04 ACRES (PER TAX ASSESSMENT)
ZONING: I-1

009
P.I.N. 191-25-9851-000
LEESBURG TECH, LLC
INSTRUMENT #201612010081813
LOT 2
6.0000 ACRES
ZONING: I-1

009
P.I.N. 191-35-9810-000
LEESBURG TECH, LLC
INSTRUMENT #201612010081813
LOT 1B
11.4307 ACRES
ZONING: I-1

D-002 Decorative Facility Sign (Airport)
Sycolin Road S.E. (Rte. 643)
166' Right Turn Lane
185' Left Turn Lane
100' Taper
Gravel Shoulder
Constr. BL.
Exist. R/W
Prop. R/W
Exist. Asphalt Service Road (Approximate Location Town of Leesburg GIS)
Exist. 15' Asphalt Service Road to be Widened to 20' width. See TMP/SOC Phase 2A, SHeet 10(A)
Prop. 10' x 15' graded pad (for future Airport Sign)
Exist. Fence To Be Removed
Std. FE-CL w/ Barbed Wire Req'd.
Prop. Ret. Wall
Future Entrance (By Others)
Prop. Ditch "A" (See Sheet 2J)
Std. PG-5 Paved Ditch Req'd. (See Sheet 2J)
Exist. Sign to be Adjusted in Field
Wing Wall
Guardrail
Exist. 5'x3' Twin Conc. Box Culverts
Match Line Sta. 118+50 (C.BL.) - See Sheet 6
Match Line Sta. 124+50 (C.BL.) - See Sheet 8

SCALE 0 25' 50'

100% PLANS

Office Locations
Rinker Design Associates, P.C. — Civil Engineering • Surveying • Land Planning • Transportation • Right of Way Services
Main Office: 44865 Ventura Boulevard, Suite 200, Lancaster, CA 93534, Phone: (661) 940-4949, Fax: (661) 940-4948
Northern Virginia Office: 20110 Ashbrook Place, Suite 250, Ashburn, VA 20147, Phone: (703) 726-2278, Fax: (703) 726-2279

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Telephone: (703) 726-2278 Fax: (703) 726-2279 e-mail: mgunn@rinkerdesign.com
"We Welcome the Opportunity to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PLAN SHEET SYCOLIN ROAD
STATION 118+50 TO 124+50
Loudoun County, Virginia
SUBMISSION DATE: 04/13/2018
Town of Leesburg

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER
Mark A Gunn
2018.07.18 22:02:41 -04'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 7 of 20

Office Locations
Rinker Design Associates, P.C.
Civil Engineering – Surveying – Land Planning – Transportation – Environmental – Right of Way Services
WWW.RDAINC.COM

PROJECT MANAGER Anne Geiger,(703) 771-2742 (Town of Leesburg)
SURVEYED BY Sidney Thomas, L.S., (703) 368-7373 (2015)
SUBSURFACE UTILITY BY Accumark,(800) 542-2990 (2015)
DESIGN SUPERVISED BY Mark A. Gunn, P.E., (703) 368-7373
DESIGNED BY Sohaib Qadir, P.E., (703) 368-7373

GRADING PLAN ONLY

LEGEND

C _ _ _ Denotes Construction Limits in Cuts
F _ _ _ Denotes Construction Limits in Fills

	(Exist.)	(Prop.)
Note : Dot - dashed lines denote Permanent Easements.		
Note : Dot - dot - dashed lines denote Temporary Easements.		

100% PLANS

ENGINEER:
Rinker Design Associates, P.C.
Engineering * Surveying * Land Planning * Transportation * Environmental Services
3020 Gateway Drive Suite 110 Pittsburgh, PA 15220 www.rdainc.com
Telephone: (703) 368-7373 Fax: (703) 257-0449
"We Welcome the Opportunity
to Make Your Vision Reality"

PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
GRADING PLAN SYCOLIN ROAD
STATION 118+50 TO 124+50
Loudoun County, Virginia
Town of Leesburg
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:41:19 -05'00'

ASSOCIATED PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet
7(1) of 20

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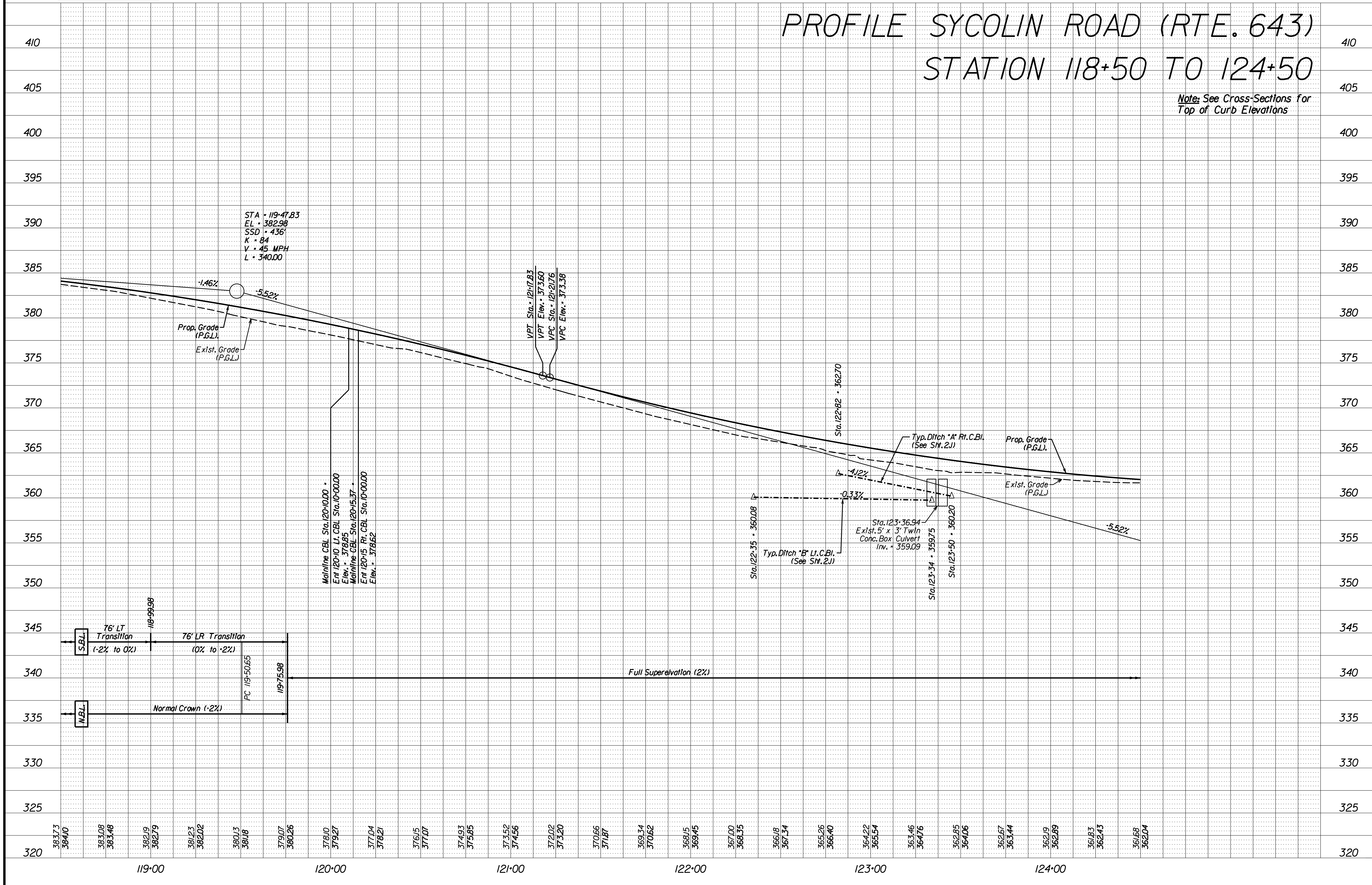
SCALE H= 25, V= 5

PROFILE SYCOLIN ROAD (RTE. 643)
STATION 118+50 TO 124+50

Note: See Cross-Sections for Top of Curb Elevations



Rinker Design Associates, P.C.
Civil Engineering - Surveying - Land Planning
Transportation - Environmental
Right of Way Services
Office Locations
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4501 Dominion Boulevard Suite 100 Glen Allen, VA 23060 Phone: (703) 612-0665 Fax: (703) 612-0668
927 Maple Grove Drive Suite 105 Fredericksburg, VA 22407 Phone: (540) 548-4470 Fax: (540) 548-4471
www.RDAcivil.com

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9385 Discovery Blvd. Suite 200, Manassas Virginia 20109 on the web @ www.rdacivil.com
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PROJECT MANAGER: MARK A. GUNN, P.E.

PROJECT NAME: SYCOLIN ROAD WIDENING PHASE IV
FROM CLAUDIA DRIVE TO TOLBERT LANE S.E.
PROFILE SHEET SYCOLIN ROAD
STATION 118+50 TO 124+50
Town of Leesburg Loudoun County, Virginia
SUBMISSION DATE: 02/21/2018

COMMONWEALTH OF VIRGINIA
MARK A. GUNN
Lic. No. 038323
PROFESSIONAL ENGINEER

Mark A Gunn
2018.02.22 18:41:34 -05'00'

PLAN
C.I.P. NUMBER: TLCI-2016-0002
VDOT PROJ. NO. U000-253-312
TOWN NUMBER: TBD

Sheet 7A of 20

100% PLANS

2/21/2018