PINNACLE ENGINEERING GROUP
Plan | Design | Deliver
www.pinnacle-engr.com

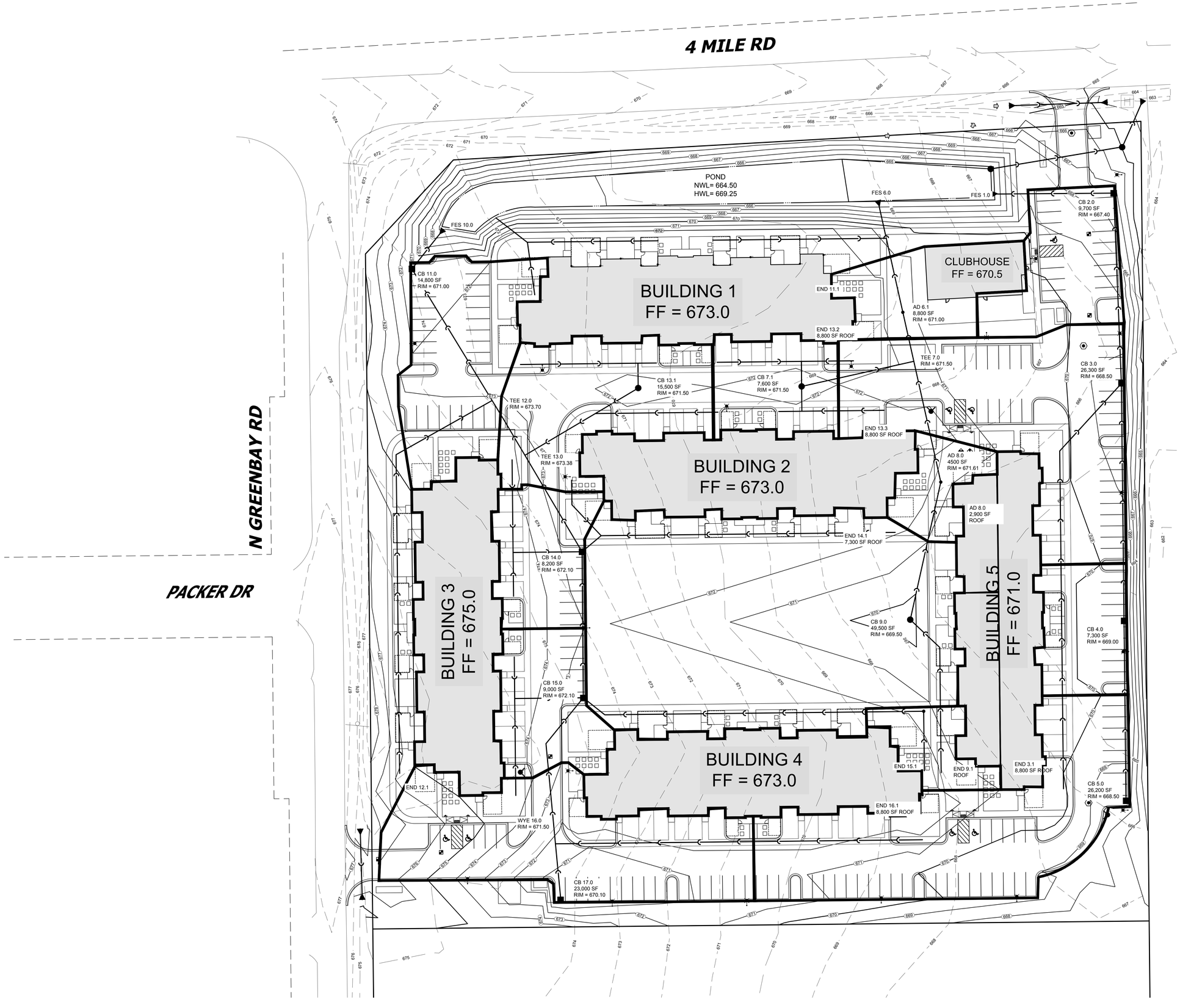
STORM SEWER COMPUTATIONS
FOR
F STREET CALEDONIA

CALEDONIA, WI

SHEET 1 OF 1
DESIGN BY: AMG
PROJECT NUMBER: 6046.00
DATE: 12/22/2025

DESIGN DATA

STRUCTURE DATA			DRAINAGE AREA AND FLOW DATA (Flow is determined by SPS 382.36)					PIPE DATA				PIPE CAPACITY INFORMATION (Pipe capacity is determined by Manning's Equation $Q = 1.486/n\ AR^{2/3}\ S^{1/2}$)					ELEVATIONS		
Pipe Run	Upstream Structure	Downstream Structure	Roof Area (sf)	Pvmt Area (sf)	Grass Area (sf)	Individual Flow Q (cfs)	Cumulative Flow (cfs)	Length (ft)	Diameter (in)	Slope (%)	Manning Coefficient	Required Drop (ft)	Actual Drop (ft)	Percent Full (%)	Actual Velocity (fps)	Max. Capacity (cfs)	Rim/Toc Up	Invert Up	Invert Down
	CB 5.0	CB 4.0	0	22600	3600	1.63	1.63	144.33	12	0.20	0.012	0.26	0.29	83%	2.50	1.86	668.50	665.75	665.46
	CB 4.0	CB 3.0	0	6400	900	0.46	2.08	190.15	15	0.15	0.012	0.17	0.29	70%	2.44	2.92	669.00	665.33	665.05
	CB 3.0	CB 2.0	0	21,900	4,400	1.60	4.43	152.64	18	0.15	0.012	0.23	0.23	88%	2.84	4.74	668.50	664.92	664.70
	CB 2.0	FES 1.0	0	7200	2500	0.55	4.98	97.76	18	0.20	0.012	0.19	0.20	86%	3.28	5.47	667.30	664.70	664.50
BLDG 5	END 3.1	CB 3.0	8800	0	0	0.75	0.75	338.48	8	0.50	0.012	1.12	1.69	73%	2.96	1.00	670.40	667.04	665.34
	CB 9.0	AD 8.0	0	3000	46,500	1.20	1.59	112.92	15	0.40	0.012	0.06	0.45	39%	3.31	4.76	669.50	666.28	665.82
	AD 8.0	TEE 7.0	2900	1000	3500	0.39	1.98	99.12	15	0.40	0.012	0.08	0.40	46%	3.51	4.76	670.80	665.82	665.43
	TEE 7.0	AD 6.1	0	0	0	0.00	2.47	40.26	15	0.40	0.012	0.05	0.16	54%	3.71	4.76	671.50	665.43	665.27
	AD 6.1	FES 6.0	5200	1500	4100	0.64	3.11	91.65	15	0.40	0.012	0.18	0.37	65%	3.91	4.76	671.00	665.27	664.90
BLDG 5	END 9.1	CB 9.0	4500	0	0	0.39	0.39	184.75	6	0.50	0.012	0.74	0.92	79%	2.48	0.46	670.90	667.57	666.65
	CB 7.1	TEE 7.0	0	7000	600	0.49	0.49	92.10	8	2.00	0.012	0.13	1.84	31%	4.49	1.99	671.50	667.56	665.72
	CB 17.0	WYE 16.0	0	21000	2000	1.48	1.48	45.18	15	0.15	0.012	0.02	0.07	61%	2.35	2.92	670.16	667.89	667.82
	WYE 16.0	CB 15.0	0	0	0	0.00	2.24	127.99	15	0.15	0.012	0.13	0.19	82%	2.51	2.92	671.50	667.82	667.63
	CB 15.0	CB 14.0	0	7500	1500	0.55	3.65	117.01	18	0.15	0.012	0.12	0.18	79%	2.82	4.74	672.00	667.63	667.46
	CB 14.0	TEE 13.0	0	7200	1000	0.52	4.79	89.77	24	0.15	0.012	0.03	0.13	53%	3.07	10.21	672.00	667.46	667.32
	TEE 13.0	TEE 12.0	0	0	0	0.00	7.22	32.73	24	0.15	0.012	0.03	0.05	71%	3.35	10.21	673.38	667.32	667.27
	TEE 12.0	CB 11.0	0	0	0	0.00	8.60	141.90	24	0.15	0.012	0.17	0.21	82%	3.43	10.21	673.72	667.27	667.06
	CB 11.0	FES 10.0	0	10,000	4800	0.79	9.39	40.40	24	0.15	0.012	0.06	0.06	90%	3.44	10.21	671.00	667.06	667.00
BLDG 4	END 16.1	WYE 16.0	8800	0	0	0.75	0.75	298.36	8	0.50	0.012	0.99	1.49	73%	2.96	1.00	672.20	669.61	668.11
BLDG 4	END 15.1	CB 15.0	7300	3200	1000	0.87	0.87	324.50	8	0.50	0.012	1.42	1.62	82%	3.01	1.00	672.80	669.26	667.63
BLDG 2	END 14.1	CB 14.0	7300	0	0	0.63	0.63	255.84	8	0.50	0.012	0.58	1.28	63%	2.85	1.00	672.50	668.74	667.46
BLDG 1	END 13.2	CB 13.1	8800	0	0	0.75	0.75	188.65	8	0.50	0.012	0.63	0.94	73%	2.96	1.00	672.70	669.90	668.96
	CB 13.1	TEE 13.0	0	12500	3000	0.92	2.43	105.60	10	1.00	0.012	1.11	1.06	90%	4.95	2.55	671.50	668.96	667.90
BLDG 2	END 13.3	CB 13.1	8800	0	0	0.75	0.75	237.85	8	0.50	0.012	0.79	1.19	73%	2.96	1.00	672.50	670.15	668.96
BLDG 3	END 12.1	TEE 12.0	16100	0	0	1.38	1.38	370.60	8	1.00	0.012	4.12	3.71	93%	4.24	1.41	675.30	671.65	667.94
BLDG 1	END 11.1	POND	7300	0	0	0.63	0.63	379.42	8	0.50	0.012	0.87	1.90	63%	2.85	1.00	672.80	668.90	667.00



Z:\PROJECTS\2024\6046.00-WI\CAD\EXHIBITS\STORM SEWER DRAINAGE AREA EXHIBIT.DWG 12/22/2025 5:11 PM

F STREET CALEDONIA - STORM SEWER DRAINAGE AREA EXHIBIT

12/17/2025

PINNACLE ENGINEERING GROUP

20725 WATERTOWN ROAD | SUITE 100 | BROOKFIELD, WI 53186 | WWW.PINNACLE-ENGR.COM

PLAN | DESIGN | DELIVER

PEG JOB# 6046.00