

APPENDIX 1

Depth-Duration-Frequency Table for Greensboro, NC

Precipitation Frequency Estimates (inches)

Rainfall Duration	Annual Exceedance Probability (1 in __ years)						
	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
5 min	0.38	0.45	0.53	0.57	0.63	0.66	0.69
10 min	0.61	0.72	0.85	0.91	1.00	1.06	1.1
15 min	0.76	0.91	1.07	1.16	1.27	1.34	1.39
30 min	1.04	1.26	1.52	1.68	1.88	2.01	2.13
60 min	1.3	1.58	1.95	2.18	2.51	2.73	2.93
2 hr	1.53	1.86	2.32	2.62	3.06	3.36	3.66
3 hr	1.64	1.99	2.48	2.81	3.28	3.62	3.95
6 hr	1.99	2.41	3.00	3.42	4.03	4.49	4.95
12 hr	2.36	2.86	3.57	4.1	4.9	5.52	6.16
24 hr	2.79	3.38	4.21	4.82	5.73	6.43	7.15

Intensity-Duration-Frequency Table for Greensboro, NC

Precipitation Intensity Estimates (inches/hour)

Rainfall Duration	Annual Exceedance Probability (1 in __ years)						
	1-yr	2-yr	5-yr	10-yr	25-yr	50-yr	100-yr
5 min	4.57	5.44	6.34	6.87	7.55	7.96	8.31
10 min	3.65	4.35	5.08	5.49	6.02	6.33	6.6
15 min	3.05	3.65	4.28	4.63	5.09	5.35	5.56
30 min	2.09	2.52	3.04	3.35	3.77	4.03	4.26
60 min	1.3	1.58	1.95	2.18	2.51	2.73	2.93
2 hr	0.77	0.93	1.16	1.31	1.53	1.68	1.83
3 hr	0.55	0.66	0.83	0.94	1.09	1.21	1.31
6 hr	0.33	0.4	0.5	0.57	0.67	0.75	0.83
12 hr	0.2	0.24	0.30	0.34	0.41	0.46	0.51
24 hr	0.12	0.14	0.18	0.20	0.24	0.27	0.3

Source: NOAA Atlas 14, Vol. 2, Version 3 (2004) for Greensboro Pump Station 36.089 N 79.769 W

Note: Precipitation values for the 1, 2, and 5 year recurrence intervals were obtained from partial duration series and those for the 10, 25, 50, and 100 year recurrence interval were obtained from annual maximum series

Precipitation Distribution Table for Greensboro, NC

Storm Time (Hours)	SCS Type II Distribution Factor	1-Year 24-Hour Rainfall Distribution		2-Year 24-Hour Rainfall Distribution		10-Year 24-Hour Rainfall Distribution		100-Year 24-Hour Rainfall Distribution	
		Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)
0.0	0.000	0.000	0	0.000	0	0.000	0	0.000	0
0.5	0.0053	0.015	0.015	0.018	0.018	0.026	0.026	0.038	0.038
1.0	0.0108	0.030	0.015	0.037	0.019	0.052	0.027	0.077	0.039
1.5	0.0164	0.046	0.016	0.055	0.019	0.079	0.027	0.117	0.040
2.0	0.0223	0.062	0.016	0.075	0.020	0.107	0.028	0.159	0.042
2.5	0.0284	0.079	0.017	0.096	0.021	0.137	0.029	0.203	0.044
3.0	0.0347	0.097	0.018	0.117	0.021	0.167	0.030	0.248	0.045
3.5	0.0414	0.116	0.019	0.140	0.023	0.200	0.032	0.296	0.048
4.0	0.0483	0.135	0.019	0.163	0.023	0.233	0.033	0.345	0.049
4.5	0.0555	0.155	0.020	0.188	0.024	0.268	0.035	0.397	0.051
5.0	0.0632	0.176	0.021	0.214	0.026	0.305	0.037	0.452	0.055
5.5	0.0712	0.199	0.022	0.241	0.027	0.343	0.039	0.509	0.057
6.0	0.0797	0.222	0.024	0.269	0.029	0.384	0.041	0.570	0.061
6.5	0.0887	0.247	0.025	0.300	0.030	0.428	0.043	0.634	0.064
7.0	0.0984	0.275	0.027	0.333	0.033	0.474	0.047	0.704	0.069
7.5	0.1089	0.304	0.029	0.368	0.035	0.525	0.051	0.779	0.075
8.0	0.1203	0.336	0.032	0.407	0.039	0.580	0.055	0.860	0.082
8.5	0.1328	0.371	0.035	0.449	0.042	0.640	0.060	0.950	0.089
9.0	0.1467	0.409	0.039	0.496	0.047	0.707	0.067	1.049	0.099
9.5	0.1625	0.453	0.044	0.549	0.053	0.783	0.076	1.162	0.113
10.0	0.1808	0.504	0.051	0.611	0.062	0.871	0.088	1.293	0.131
10.5	0.2042	0.570	0.065	0.690	0.079	0.984	0.113	1.460	0.167
11.0	0.2351	0.656	0.086	0.795	0.104	1.133	0.149	1.681	0.221

Storm Time (Hours)	SCS Type II Distribution Factor	1-Year 24-Hour Rainfall Distribution		2-Year 24-Hour Rainfall Distribution		10-Year 24-Hour Rainfall Distribution		100-Year 24-Hour Rainfall Distribution	
		Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)	Cumulative Rainfall Amount (inches)	Incremental Rainfall Amount (inches)
11.5	0.2833	0.790	0.134	0.958	0.163	1.366	0.232	2.026	0.345
12.0	0.6632	1.850	1.060	2.242	1.284	3.197	1.831	4.742	2.716
12.5	0.7351	2.051	0.201	2.485	0.243	3.543	0.347	5.256	0.514
13.0	0.7724	2.155	0.104	2.611	0.126	3.723	0.180	5.523	0.267
13.5	0.7989	2.229	0.074	2.700	0.090	3.851	0.128	5.712	0.189
14.0	0.8179	2.282	0.053	2.765	0.064	3.942	0.092	5.848	0.136
14.5	0.838	2.338	0.056	2.832	0.068	4.039	0.097	5.992	0.144
15.0	0.8538	2.382	0.044	2.886	0.053	4.115	0.076	6.105	0.113
15.5	0.8676	2.421	0.039	2.932	0.047	4.182	0.067	6.203	0.099
16.0	0.8801	2.455	0.035	2.975	0.042	4.242	0.060	6.293	0.089
16.5	0.8914	2.487	0.032	3.013	0.038	4.297	0.054	6.374	0.081
17.0	0.9019	2.516	0.029	3.048	0.035	4.347	0.051	6.449	0.075
17.5	0.9115	2.543	0.027	3.081	0.032	4.393	0.046	6.517	0.069
18.0	0.9206	2.568	0.025	3.112	0.031	4.437	0.044	6.582	0.065
18.5	0.9291	2.592	0.024	3.140	0.029	4.478	0.041	6.643	0.061
19.0	0.9371	2.615	0.022	3.167	0.027	4.517	0.039	6.700	0.057
19.5	0.9446	2.635	0.021	3.193	0.025	4.553	0.036	6.754	0.054
20.0	0.9519	2.656	0.020	3.217	0.025	4.588	0.035	6.806	0.052
20.5	0.9588	2.675	0.019	3.241	0.023	4.621	0.033	6.855	0.049
21.0	0.9653	2.693	0.018	3.263	0.022	4.653	0.031	6.902	0.046
21.5	0.9719	2.712	0.018	3.285	0.022	4.685	0.032	6.949	0.047
22.0	0.9777	2.728	0.016	3.305	0.020	4.713	0.028	6.991	0.041
22.5	0.9836	2.744	0.016	3.325	0.020	4.741	0.028	7.033	0.042
23.0	0.9892	2.760	0.016	3.343	0.019	4.768	0.027	7.073	0.040
23.5	0.9947	2.775	0.015	3.362	0.019	4.794	0.027	7.112	0.039
24.0	1	2.790	0.015	3.380	0.018	4.820	0.026	7.150	0.038