

STORM CALCULATIONS

INLET CALCULATIONS

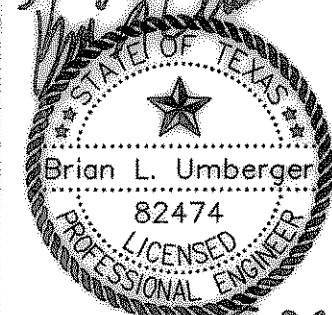
INLET No.	Design Storm Frequency (yrs.)	AREA RUNOFF					Carry-Over From Upstream Inlet (c.f.s.)	Total Gutter Flow (c.f.s.)	Crown Type	SELECTED INLET				
		Time of Conc. (min.)	Intensity (in./hr.)	Runoff Coeff. "C"	Drainage Basin	Area (ac.)				"Q" (c.f.s.)	Length "L" (Feet)	Type	Inlet Capacity (c.f.s.)	Max Depth of Flow (ft.)
D1-B	100	10	9.8	0.5	X	1.42	6.96	n/a	6.96	n/a	2x2	"Y" inlet	8.0	0.50
D2-A	100	10	9.8	0.5	O	2.55	12.50	n/a	12.50	n/a	3x3	"Y" inlet	12.5	0.56
D2-B	100	10	9.8	0.5	I, E1	3.89	19.06	n/a	19.06	n/a	3x3	"Y" inlet	17.2	0.63
D3-A	100	10	9.8	0.5	T	2.64	12.94	n/a	12.94	n/a	3x3	"Y" inlet	13.0	0.57
D4-A	100	10	9.8	0.5	S	1.93	9.46	n/a	9.46	n/a	3x3	"Y" inlet	11.9	0.50
D4-B	100	10	9.8	0.5	W	3.84	18.82	n/a	18.82	n/a	3x3	"Y" inlet	18.9	0.69
D5-A	100	10	9.8	0.5	N	1.55	7.60	n/a	7.60	n/a	2x2	"Y" inlet	8.0	0.50
D5-B	100	10	9.8	0.5	H, D	2.40	11.76	n/a	11.76	n/a	3x3	"Y" inlet	11.9	0.50
D6-A	100	10	9.8	0.5	R	2.25	11.03	n/a	11.03	n/a	3x3	"Y" inlet	11.9	0.50
D7-A	100	10	9.8	0.5	M	1.98	9.70	n/a	9.70	n/a	3x3	"Y" inlet	11.9	0.50
D7-B	100	10	9.8	0.5	G	2.31	11.32	n/a	11.32	n/a	3x3	"Y" inlet	11.9	0.50
D8-A	100	10	9.8	0.5	Q	2.03	9.95	n/a	9.95	n/a	3x3	"Y" inlet	11.9	0.50
D9-A	100	10	9.8	0.5	L	1.56	7.64	n/a	7.64	n/a	2x2	"Y" inlet	8.0	0.50
D10-A	100	10	9.8	0.5	F	2.17	10.63	n/a	10.63	n/a	3x3	"Y" inlet	11.9	0.50
D10-B	100	10	9.8	0.5	B, C	6.52	31.95	n/a	31.95	n/a	4x4	"Y" inlet	32.0	0.80

UPSTREAM STATION	DNSTREAM STATION	DISTANCE	AREA NO.	AREA "A" (ACRES)	RUNOFF COEF. "C"	INGREM. "CA"	ACCU. "CA"	TIME AT UPSTREAM STATION (MIN)	STORM FREQUENCY (YEARS)	INTENSITY "I" (IN/HR)	RUNOFF "Q" (CFR)	SLOPE HYDRAULIC GRADIENT "S" (FT/FT)	STORM SEWER SIZE (IN)	(BOX ONLY) PIPE AREA (FT ²)	(BOX ONLY) PIPE CONVEYANCE "K" (f=0.013)	VELOCITY "V" (FPS)	VELOCITY HEAD "V ² /2G" (FT)	"L" X "S"	K ₁	PIPE SIZE CHANGE LOSSES	INLET & BEND LOSSES	FLOW TIME (MIN)	TIME AT DNSTREAM STATION (MIN)	
LINE D10																								
288.94	147.54	151.40	B, C	6.52	0.5000	3.26	3.26	10.00	100	9.80	31.9	0.0038	33	0.00	0	5.38	0.45	0.55		0.70	-0.07	0.22	0.47	10.47
147.54	144.54	3.00	SIZE CHANGE		0.5000	0.00	3.26	10.47	100	9.73	31.7	0.0023	36	0.00	0	4.49	0.31	0.01		0.00	0.24	0.00	0.01	10.48
144.54	100.00	44.54	F	2.17	0.5000	1.09	4.35	10.48	100	9.73	42.3	0.0040	36	0.00	0	5.88	0.58	0.18		0.00	-0.28	0.00	0.12	10.60
LINE D9																								
356.89	339.20	17.69	L	1.56	0.5000	0.78	0.78	10.00	100	9.80	7.6	0.0023	21	0.00	0	3.18	0.16	0.04		0.70	-0.07	0.01	0.09	10.09
339.20	336.20	3.00	SIZE CHANGE		0.5000	0.00	0.78	10.09	100	9.79	7.6	0.0001	36	0.00	0	1.06	0.02	0.00		0.00	0.76	0.00	0.05	10.14
336.20	285.00	70.60	LINE D10	8.69	0.5000	4.35	5.13	10.48	100	9.73	49.9	0.0056	36	0.00	0	7.06	0.77	0.39		0.00	0.00	0.00	0.17	10.65
285.00	135.57	130.03	MANHOLE		0.5000	0.00	5.13	10.65	100	9.71	49.8	0.0085	36	0.00	0	7.04	0.77	0.72		0.00	-0.38	0.00	0.31	10.95
LINE D8																								
231.97	100.00	131.97	Q	2.03	0.5000	1.02	1.02	10.00	100	9.80	9.9	0.0039	21	0.00	0	4.14	0.27	0.52		0.70	#REF!	#REF!	0.53	10.53
LINE D7																								
280.74	232.85	48.09	G	2.31	0.5000	1.16	1.16	10.00	100	9.80	11.3	0.0051	21	0.00	0	4.71	0.34	0.24		0.70	-0.07	0.14	0.17	10.17
232.85	229.85	3.00	SIZE CHANGE		0.5000	0.00	1.16	10.17	100	9.78	11.3	0.0025	24	0.00	0	3.59	0.20	0.01		0.00	0.49	0.00	0.01	10.18
229.85	100.00	129.85	M	1.98	0.5000	0.99	2.15	10.18	100	9.77	21.0	0.0085	24	0.00	0	6.87	0.89	1.11		0.00	0.49	0.00	0.32	10.51
LINE D6																								
255.40	100.00	155.40	R	2.25	0.5000	1.13	1.13	10.00	100	9.80	11.0	0.0048	21	0.00	0	4.58	0.33	0.75		0.70	#REF!	#REF!	0.57	10.57
LINE D5																								
287.97	236.23	51.74	H, D	2.40	0.5000	1.20	1.20	10.00	100	9.80	11.8	0.0055	21	0.00	0	4.89	0.37	0.28		0.70	-0.08	0.15	0.18	10.18
236.23	233.23	3.00	SIZE CHANGE		0.5000	0.00	1.20	10.18	100	9.78	11.7	0.0027	24	0.00	0	3.73	0.22	0.01		0.00	0.37	0.00	0.01	10.19
233.23	100.00	133.23	N	1.55	0.5000	0.78	1.98	10.19	100	9.77	19.3	0.0072	24	0.00	0	6.14	0.59	0.97		0.00	0.37	0.00	0.36	10.55
LINE D4																								
305.13	256.96	48.47	W	3.84	0.5000	1.92	1.92	10.00	100	9.80	18.8	0.0037	27	0.00	0	4.73	0.35	0.18		0.70	-0.12	0.08	0.17	10.17
256.96	253.96	3.00	SIZE CHANGE		0.5000	0.00	1.92	10.17	100	9.78	18.8	0.0009	36	0.00	0	2.86	0.11	0.00		0.00	0.14	0.00	0.02	10.19
253.96	100.00	153.96	S	1.93	0.5000	0.97	2.89	10.19	100	9.77	29.2	0.0018	36	0.00	0	3.99	0.25	0.27		0.00	0.14	0.00	0.64	10.83
LINE D3																								
1770.50	1742.38	28.12	LINE D9	10.25	0.5000	5.13	5.13	10.65	100	9.71	49.8	0.0024	42	0.00	0	5.17	0.42	0.07		0.70	-0.09	0.17	0.09	10.74
1742.38	1739.38	3.00	SIZE CHANGE		0.5000	0.00	5.13	10.74	100	9.70	49.7	0.0012	48	0.00	0	3.95	0.24	0.00		0.00	0.14	0.00	0.01	10.75
1739.38	1254.67	484.71	LINE D8	2.03	0.5000	1.02	6.14	10.75	100	9.69	99.5	0.0017	48	0.00	0	4.74	0.35	0.83		0.00	0.14	0.00	1.71	12.46
1254.67	746.85	507.82	MANHOLE	6.54	0.5000	3.27	9.41	12.46	100	9.46	89.0	0.0023	4x4	15.85	1640	5.69	0.50	1.19		0.00	0.14	0.00	1.49	13.94
746.85	743.85	3.00	SIZE CHANGE		0.5000	0.00	9.41	13.94	100	9.25	87.0	0.0013	5X4	19.50	2460	4.46	0.31	0.00		0.00	0.14	0.00	0.01	13.96
743.85	695.73	48.12	LINE D5	3.95	0.5000	1.98	11.39	13.96	100	9.25	105.3	0.0018	5X4	19.50	2460	5.40	0.45	0.09		0.00	0.14	0.00	0.15	14.10
695.73	144.79	550.94	LINE D4	5.77	0.5000	2.89	14.27	14.10	100	9.23	131.6	0.0029	5X4	19.50	2460	6.75	0.71	1.58		0.00	0.14	0.00	1.38	15.46
144.79	141.79	3.00	SIZE CHANGE		0.5000	0.00	14.27	15.46	100	9.03	128.8	0.0017	6X4	23.32	3100	5.52	0.47	0.01		0.00	0.14	0.00	0.01	15.47
141.79	135.00	6.79	T	2.64	0.5000	1.32	15.59	15.47	100	9.02	140.7	0.0021	6X4	23.32	3100	6.03	0.57	0.01		0.00	0.14	0.00	0.02	15.49
135.00	100.00	35.00	LINE D2	6.44	0.5000	3.22	16.81	15.49	100	9.02	169.7	0.0030	6X4	23.32	3100	7.28	0.82	0.10		0.00	0.14	0.00	0.08	15.57
LINE D2																								
458.17	409.61	48.56	I, E1	3.89	0.5000	1.95	1.95	10.00	100	9.80	19.1	0.0071	24	0	0	6.07	0.57	0.34		0.70	-0.23	0.08	0.13	10.13
409.61	406.61	3.00	SIZE CHANGE		0.5000	0.00	1.95	10.13	100	9.78	19.0	0.0008	36	0	0	2.69	0.11	0.00		0.00	0.20	0.00	0.02	10.15
406.61	100.00	306.61	O	2.55	0.5000	1.28	3.22	10.15	100	9.78	31.5	0.0022	36	0	0	4.45	0.31	0.68		0.00	0.20	0.00	1.15	11.30
LINE D1																								
665.67	655.73	12.94	X	1.42	0.5000	0.71	0.71	10.00	100	9.80	7.9	0.0019	21	0.00	0	2.89	0.13	0.02		0.70	0.76	0.02	0.07	10.07
655.73	57.02	598.71	MANHOLE	37.62	0.5000	18.81	19.62	15.49	100	9.02	176.1	0.0032	6X4	23.32	3100	7.55	0.89	1.80		0.70	0.76	0.02	1.32	16.81

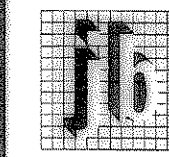
Benchmark #1- R.R. SPIKE SET IN PP 89± E OF N.E. COR. OF PROPERTY
ELEV: 558.16

Benchmark #2- R.R. SPIKE SET IN PP 2± WEST OF N.W. COR. OF PROPERTY
ELEV: 549.83

NO.	REVISIONS DURING CONSTRUCTION	BY	DATE	NO.	REVISIONS DURING PLAN REVIEW	BY	DATE



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INLET & STORM CALCULATIONS

STONEY HOLLOW ADDITION

City of Rockwall, Rockwall County, Texas

PROJECT NO.

HOE013

SHEET NO.

5

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