

INLET AND STREET FLOW CALCULATIONS

STREET STATION	STORMDRAIN LATERAL	DESIGN STORM FREQUENCY (yr)	TIME OF CONC (min)	RAINFALL INTENSITY (in/hr)	DRAINAGE AREA (Ac)	C FACTOR	DRAINAGE AREA CxA	GUTTER FLOW (cfs)	GUTTER SLOPE (%)	STREET SECTION	CROSS SLOPE	DEPTH OF FLOW (ft)	PONDED WIDTH (ft)	INLET LENGTH (ft)	FLOW COLLECTED (cfs)	FLOW BYPASSED (cfs)	REMARKS
L20+00		100	10	9.8	0.06	0.9	0.05	0.5	4.75	TRIANGULAR	2.08%	0.08	4.1				
R20+00		100	10	9.8	0.21	0.9	0.19	1.9	4.75	TRIANGULAR	2.08%	0.13	6.5			0.5	
L17+50		100	10	9.8	0.19	0.9	0.17	2.2	4.65	TRIANGULAR	2.08%	0.14	7.0			1.9	
R17+50		100	10	9.8	0.19	0.9	0.17	3.5	4.65	TRIANGULAR	2.08%	0.17	8.3			2.2	
L15+00		100	10	9.8	0.21	0.9	0.19	4.1	0.55	TRIANGULAR	2.08%	0.27	13.0			3.5	
R15+00		100	10	9.8	0.19	0.9	0.17	5.2	0.55	TRIANGULAR	2.08%	0.30	14.3			4.1	
L12+50		100	10	9.8	0.50	0.9	0.45	8.5	5.50	TRIANGULAR	2.08%	0.23	11.2			5.2	
R12+50		100	10	9.8	0.28	0.9	0.25	7.7	5.50	TRIANGULAR	2.08%	0.22	10.7			8.5	
L10+00		100	10	9.8	0.37	0.9	0.33	11.7	6.51	TRIANGULAR	2.08%	0.25	12.2			7.7	
R10+00		100	10	9.8	0.29	0.9	0.26	10.2	6.51	TRIANGULAR	2.08%	0.24	11.6			11.7	
L7+50		100	10	9.8	0.43	0.9	0.39	15.5	6.51	TRIANGULAR	2.08%	0.28	13.6			10.2	
R7+50		100	10	9.8	0.23	0.9	0.21	12.3	6.51	TRIANGULAR	2.08%	0.26	12.4			15.5	
L5+00		100	10	9.8	0.37	0.9	0.33	18.8	2.95	TRIANGULAR	2.08%	0.35	16.9			12.3	
R5+00		100	10	9.8	0.20	0.9	0.18	14.0	2.95	TRIANGULAR	2.08%	0.31	15.1			18.8	
3+58	A-1	100	10	9.8	0.28	0.9	0.26	35.3	-	TRIANGULAR	2.08%	0.49	-	15	17.6	0.0	
3+58	A-2	100	10	9.8	0.28	0.9	0.26	35.3	-	TRIANGULAR	2.08%	0.49	-	15	17.6	0.0	

STORMDRAIN CALCULATIONS

FROM	TO	LENGTH (ft)	CxA	INLET TIME (min)	TOTAL INTERCEPTED CxA	TIME AT UPSTREAM OF REACH (min)	DESIGN STORM FREQUENCY (yrs)	RAINFALL INTENSITY (in/hr)	INTERCEPTED FLOW (cfs)	STORMDRAIN DIAMETER (in)	VELOCITY (ft/s)	SLOPE OF FRICTION GRADIENT (ft/ft)	STRUCTURE LOSS COEFFICIENT	STRUCTURE LOSS AT UPSTREAM OF REACH	FLOW TIME IN DRAIN (min)	TIME AT DOWNSTREAM OF REACH (min)	H.G. AT UPSTREAM OF REACH (ft)	REMARKS
INLET C1	1+10.26	36.71	1.8	10	1.8	10.0	100	9.8	17.6	24	5.6	0.0061	1.25	0.61	0.0	10.0	475.37	
INLET C2	0+20.47	7.20	1.8	10	1.8	10.0	100	9.8	17.6	24	5.6	0.0061	1.25	0.60	0.0	10.0	475.59	
0+20.47	0+16.47	4.00	-	-	1.8	10.0	100	9.8	17.6	24	5.6	0.0061	0.50	0.24	0.0	10.0	474.93	
0+16.47	0+04	12.47	-	-	1.8	10.0	100	9.8	17.6	24	5.6	0.0061	0.00	0.00	0.0	10.0	474.65	
0+04	0+00	4.00	-	-	1.8	10.0	100	9.8	17.6	24	5.6	0.0061	0.00	0.00	0.0	10.0	470.98	
1+10.26	0+70	40.26	-	-	3.6	10.0	100	9.8	35.3	24	11.2	0.0243	0.75	1.58	0.0	10.0	470.95	
0+70	0+50	20.00	-	-	3.6	10.0	100	9.8	35.3	24	11.2	0.0243	0.00	0.00	0.0	10.0	463.74	

RECORD DRAWING
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CITY OF
ROCKWALL
SUMMER LEE DRIVE
EXTENSION

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