

PROPOSED STORM SEWER CALCULATIONS

Storm Sewer Lateral Number	Runoff Collection Point			Area No.	Incremental Drainage Area				Time of Concentration (MIN.)				Design Storm Freq. (Yrs)	Intensity (I) (in./hr.)	Runoff (Q) (c.f.s.)	Actual Q from Inlet (c.f.s.)	Slope of Hydraulic Gradient (Ft./Ft.)	No. of Pipes/Boxes	Selected Storm Sewer Pipe Size	Box Width (Ft.)	Box Depth (Ft.)	Cor. Clip (In.)	Velocity Between Points (ft.p.s.)	Upstream Minor Losses			Flow Time (Min.)	Time at Downstream Station (Min.)	Remarks
	Upstream Station	Downstream Station	Distance Between Collection Points		Drainage Area (Ac.)	Runoff Coeff. "C"	Incremental "CA"	Accumulated "CA"	Inlet Time (MIN.)	Along Sewer Line (MIN.)	Used in Design (MIN.)	Upstream Point of Turbulence												Head Loss Coeff. "K"	Velocity Head Loss (Feet)	Distance (Min.)			
Lateral A-1	25.40	0.00	25.40	A1	0.74	0.50	0.37	0.37	10.00	0.00	10.00	100	9.80	3.93		0.0016	1	18.0				2.05			0.21	10.21	Into St Sew A-1, Time 10.21 Min		
Lateral A-2	15.20	0.00	15.20	A2	1.30	0.50	0.65	0.65	10.00	0.00	10.00	100	9.80	6.37		0.0049	1	18.0				3.60			0.07	10.07	Into St Sew A-1		
Lateral A-2b	20.49	0.00	20.49	A2	1.30	0.50	0.65	0.65	10.00	0.00	10.00	100	9.80	6.37		0.0049	1	18.0				3.60			0.09	10.09	Into St Sew A-1		
Lateral A-3	15.20	0.00	15.20	A3	0.28	0.90	0.25	0.25	10.00	0.00	10.00	100	9.80	2.47		0.0007	1	18.0				1.40			0.16	10.16	Into St Sew A-1		
Lateral A-4	40.53	12.70	27.83	A4	2.30	0.55	1.27	1.27	10.00	0.00	10.00	100	9.80	12.49		0.0041	1	24.0				3.97			0.12	10.12			
	12.70	0.00	12.70	Lat. A-5	0.36	0.90	0.32	1.60	10.00	0.12	10.12	100	9.80	15.66		0.0048	1	24.0				4.99	60 Degree Wye	0.60	0.24	0.04	10.16	Into St Sew A-1 / Jct Box A	
Lateral A-5	35.70	0.00	35.70	A5	0.36	0.90	0.32	0.32	10.00	0.00	10.00	100	9.80	3.18		0.0012	1	18.0				1.80			0.33	10.33	Into Lat. A-4		
Lateral A-5b	87.02	0.00	87.02	A5	0.36	0.90	0.32	0.32	10.00	0.00	10.00	100	9.80	3.18		0.0012	1	18.0				1.60			0.61	10.61	Into Lat. A-4		
Lateral A-6	15.00	0.00	15.00	A6	0.23	0.90	0.21	0.21	10.00	0.00	10.00	100	9.80	2.03		0.0005	1	18.0				1.15			0.22	10.22	Into St Sew A-1		
Lateral A-7	15.00	0.00	15.00	A7+Carryover from Inlet A3	0.32	0.90	0.29	0.29	10.00	0.00	10.00	100	9.80	2.82	3.04	0.0011	1	18.0				1.72			0.15	10.15	Into St Sew A-1+ Inlet A3-0.22 cfs C.O.		
Lateral A-8	15.00	0.00	15.00	A8+Carryover from Inlet A6	0.21	0.90	0.19	0.19	10.00	0.00	10.00	100	9.80	1.65	1.66	0.0004	1	18.0				1.05			0.24	10.24	Into St Sew A-1+ Inlet A6-0.01 cfs C.O.		
Lateral A-8	15.00	0.00	15.00	A9+Carryover from Inlet A7	0.26	0.90	0.23	0.23	10.00	0.00	10.00	100	9.80	2.29	2.83	0.0010	1	18.0				1.60			0.16	10.16	Into St Sew A-1+ Inlet A7-0.54 cfs C.O.		
Storm Sewer A	687.72	479.63	208.09	Lateral A1	0.74	0.50	0.37	0.37	10.21	0.00	10.21	100	9.78	3.62		0.0016	1	18.0				2.05	60 Degree Wye	0.60	0.07	1.69	11.90		
	479.63	464.60	15.03	Lateral A2	1.30	0.50	0.65	1.02	10.21	1.89	11.90	100	9.50	9.69		0.0018	1	24.0				3.08	60 Degree Wye	0.60	0.11	0.08	11.98		
	464.60	430.13	34.47	Lateral A2-B	0.00	0.90	0.00	1.02	11.90	0.08	11.98	100	9.48	9.50		0.0018	1	24.0				3.02	60 Degree Wye	0.60	0.05	0.19	12.17	Connection to Pipe at Weigh Scale	
	430.13	387.34	42.79	Lateral A3	0.26	0.90	0.25	1.27	11.98	0.19	12.17	100	9.48	12.06		0.0028	1	24.0				3.84	60 Degree Wye	0.60	0.14	0.19	12.36		
	387.34	343.12	44.22	Lateral A4 & Lateral A5	2.66	0.80	1.60	2.87	12.17	0.19	12.36	100	9.45	27.10		0.0010	1		3.0	3.0	4.0	3.09	Junction Box A	0.60	0.01	0.24	12.60	Junction Box A	
	343.12	232.74	110.36	Lateral A6	0.23	0.90	0.21	3.08	12.36	0.19	12.55	100	9.40	28.91		0.0012	1		3.0	3.0	4.0	3.29	60 Degree Wye	0.60	0.08	0.56	13.11		
	232.74	72.13	160.61	Lateral A7	0.32	0.90	0.29	3.36	12.55	0.56	13.11	100	9.35	31.44		0.0014	1		3.0	3.0	4.0	3.58	60 Degree Wye	0.60	0.10	0.75	13.86		
	72.13	66.13	4.00	Lateral A9	0.26	0.90	0.23	3.60	13.11	0.56	13.67	100	9.26	33.31		0.0015	1		3.0	3.0	4.0	3.79	60 Degree Wye	0.60	0.10	0.02	13.89		
	66.13	35.80	32.33	Lateral A8	0.21	0.90	0.19	3.79	13.67	0.75	14.42	100	9.26	35.06		0.0017	1		3.0	3.0	4.0	3.99	60 Degree Wye	0.60	0.11	0.13	14.55		
	35.80	0.00	35.80					3.79	14.42	0.02	14.43	100	9.26	35.06		0.0017	1		3.0	3.0	4.0	3.99	60 Degree Bend	0.60	0.15	0.15	14.58	Basin A Outfall	
Lateral B-1	66.36	33.29	33.07	B1	0.32	0.90	0.29	0.29	10.00	0.00	10.00	100	9.80	2.82		0.0010	1	18.0				1.80			0.35	10.35			
	33.29	0.00	33.29	Lat. B-2	0.57	0.90	0.51	0.80	10.00	0.35	10.35	100	9.76	7.62		0.0055	1	18.0				4.42	60 Degree Wye	0.60	0.28	0.13	10.47	Into St Sew B-1, Time 10.44 Min	
Lateral B1b	71.51	0.00	71.51	B1	0.32	0.90	0.29	0.29	10.00	0.00	10.00	100	9.80	2.82		0.0010	1	18.0				1.60			0.75	10.75			
Lateral B-2	32.90	0.00	32.90	B2	0.57	0.90	0.51	0.51	10.00	0.00	10.00	100	9.80	5.03		0.0030	1	18.0				2.84			0.19	10.19	Into Lat. B-1		
Lateral B2b	45.00	0.00	45.00	B2	0.57	0.90	0.51	0.51	10.00	0.00	10.00	100	9.80	5.03		0.0030	1	18.0				2.94			0.26	10.26	Into Lat. B-1		
Lateral B-3	15.00	0.00	15.00	B3	0.65	0.50	0.33	0.33	10.00	0.00	10.00	100	9.80	3.19		0.0012	1	18.0				1.80			0.14	10.14	Into St Sew B-1		
Lateral B-4	15.60	0.00	15.60	B4	1.04	0.50	0.52	0.52	10.00	0.00	10.00	100	9.80	5.10		0.0031	1	18.0				2.88			0.09	10.09	Into St Sew B-1		
Lateral B-5	15.00	0.00	15.00	B5+Carryover from Inlet B4	1.09	0.50	0.55	0.55	10.00	0.00	10.00	100	9.80	5.34	5.43	0.0036	1	18.0				3.07			0.08	10.08	Into St Sew B-1 / Inlet B4-0.09 cfs C.O.		
Lateral B-6	50.60	17.50	33.10	B6	2.23	0.50	1.12	1.12	10.00	0.00	10.00	100	9.80	10.93		0.0144	1	18.0				6.18			0.09	10.09			
	17.50	0.00	17.50	Lat. B-7	0.72	0.90	0.65	1.76	10.00	0.09	10.09	100	9.80	17.28		0.0058	1	24.0				5.50	60 Degree Wye	0.60	0.11	0.05	10.14	Into St Sew B-1	
Lateral B-6b	40.60	0.00	40.60	B6	2.23	0.50	1.12	1.12	10.00	0.00	10.00	100	9.80	10.93		0.0144	1	18.0				6.18			0.11	10.11			
Lateral B-7	32.90	0.00	32.90	B7	0.72	0.90	0.65	0.65	10.00	0.00	10.00	100	9.80	6.35		0.0049	1	18.0				3.59			0.15	10.15	Into Lat. B-6		
Lateral B-7b	40.00	0.00	40.00	B7	0.72	0.90	0.65	0.65	10.00	0.00	10.00	100	9.80	6.35		0.0049	1	18.0				3.59			0.19	10.19	Into Lat. B-6		
Lateral B-8	21.92	0.00	21.92	B8+Carryover from Inlets B6&B7	0.13	0.90	0.12	0.12	10.00	0.00	10.00	100	9.80	1.15	2.65	0.0009	1	18.0				1.51			0.24	10.24	Into St Sew B-1 / Inlet B6&B7-1.51 cfs C.O.		
Lateral B-9	24.50	0.00	24.50	B9	1.06	0.50	0.53	0.53	10.00	0.00	10.00	100	9.80	5.19		0.0033	1	18.0				2.94			0.14	10.14	Into St Sew B-1		
Lateral B-10	17.79	0.00	17.79	B10 & Lateral B-11	0.39	0.90	0.35	0.35	10.00	0.00	10.00	100	9.80	3.44		0.0014	1	18.0				1.95			0.15	10.15	Outfall Basin B		
Lateral B-11	13.24	0.00	13.24	B11b	0.11	0.50	0.06	0.06	10.00	0.00	10.00	100	9.80	0.54		0.0004	1	18.0				0.31			0.72	10.72	Outfall Basin B		
Storm Sewer B	522.45	401.37	121.08	Lateral B-1 & Lateral B-2	0.89	0.90	0.80	0.80	10.44	0.00	10.44	100	9.78	7.83		0.0074	1	18.0				4.43	60 Degree Wye	0.60	0.31	0.48	10.80		
	401.37	331.46	69.91	Lateral B-3	0.65	0.50	0.33	1.15	10.44	0.46	10.90	100	9.64	10.85		0.0047	1	21.0				4.51	60 Degree Wye	0.60	0.13	0.26	11.15		
	331.46	226.56	104.90	Lateral B-4	1.04	0.50	0.52	1.65	10.90	0.26	11.15	100	9.60	15.80		0.0049	1	24.0				5.03	60 Degree Wye	0.60	0.20	0.95	11.50		
	226.56	176.36	50.20	Lateral B-5	1.09	0.50	0.55	2.19	11.15	0.35	11.50	100	9.50	20.81		0.0028	1	30.0				4.24	60 Degree Wye	0.60	0.04	0.20	11.70		
	176.36	73.17	103.19	Lateral B-6 & Lateral B-7	2.95	0.60	1.77	3.96	11.50	0.20	11.70	100	9.50	37.63		0.0032	1</												