

NOTE: UNLESS OTHERWISE NOTED, OVERLAND FLOW INTO STREET INLETS WAS COMPUTED AS UNDEVELOPED FLOW (C=0.3) IN THE TEMPORARY CONDITION. HOWEVER, STORM DRAIN CAPACITY WAS CALCULATED USING FULLY DEVELOPED FLOW.

INLET CALCULATIONS

INLET No.	CAPTURES D.A. 's	DISCHARGES TO LATERALS	DESIGN STORM FREQUENCY (years)	TIME OF CONC. (min.)	RAINFALL INTENSITY (in./hr.)	DRAINAGE AREA (acres)	FROM DRAINAGE AREA (acres)	CARRY-OVER (cfs)	TOTAL GUTTER FLOW (cfs)	GUTTER SLOPE (ft/ft)	STREET SECTION	OR CROWN (ft/ft)	DEPTH OF FLOW (ft)	POUNDED WIDTH (ft)	INLET LENGTH (ft)	FLOW COLLECTED (cfs)	BYPASS (cfs)	REMARKS	
A15	A-15, A-14	A-15	100	10	9.8	1.37	0.57	5.5	0.0	5.5	TRIANGULAR	.0208	.28	13.6	5	3.5	2		
A13	A-13, A-13a	A-13	100	10	9.8	1.15	0.81	7.9	0.0	7.9	TRIANGULAR	.0208	.28	13.3	10	6.6	1.3		
A12	A-12	A-12	100	10	9.8	0.57	0.40	3.9	0.0	3.9	TRIANGULAR	.0208	.21	10.2	5	2.9	0		
WYE A-II	A-11a	A-11	100	10	9.8	1.60	1.11	10.8	0	10.8	TRIANGULAR	.0208	.35	16.4	8	10.8	0	TEMP. WYE	
A9	A-9, A-II	A-9	100	10	9.8	2.24	0.94	9.1	4.3	13.4	TRIANGULAR	.0208	.38	16.4	10	8.6	4.8		
A10	A-10	A-10	100	10	9.8	0.99	0.69	6.7	0	6.7	TRIANGULAR	.0208	.3	14.2	10	6.4	.3		
A8	A-8	A-8	100	10	9.8	0.69	0.48	4.7	0	4.7	PARABOLIC	6 in	.26	6.6	10	4.7	0		
WYE 21	A-21	A-21	100	10	9.8	2.80	1.96	19.2	0	19.2	TRIANGULAR	.0208	.44	19.2	9	19.2	0	TEMP 3X3 WYE INLET OPEN 3 SIDES	
A7	A-7	A-7	100	10	9.8	0.68	0.48	4.7	0	4.7	PARABOLIC	6 in	.26	6.6	10	4.7	0		
WYE A6	A-6	A-6	100	10	9.8	1.84	1.30	12.5	0	12.5	TRIANGULAR	.0208	.37	12.5	9	12.5	0		
WYE A16	A-16	A-16	100	10	9.8	6.41	1.93	19.9	0	19.9	TRIANGULAR	.0208	.44	19.9	12	19.9	0	TEMP 3X3 WYE INLET OPEN 3 SIDES	
A4	A-4	A-4	100	10	9.8	0.77	0.51	4.8	0	4.8	TRIANGULAR	.0208	.3	10	10	12.3	0	TEMP 4X4 WYE INLET OPEN 3 SIDES	
A18	A-18, A-17	A-18	100	10	9.8	2.38	1.70	16.5	0	16.5	PARABOLIC	6 in	.4	12.2	10	9.2	7.3	FULLY DEVELOPED	
A2	A-2, A-19, A-20	A-2	100	10	9.8	2.63	1.84	17.8	7.3	25.1	PARABOLIC	6 in	.5	20	25.1	0	0	FULLY DEVELOPED	
A1	A-1	A-1	100	10	9.8	1.11	0.78	7.6	0	7.6	PARABOLIC	6 in	.37	10	7.6	0	0		
A-3	A-3	A-3	100	10	9.8	2.13	1.50	14.6	0	14.6	TRIANGULAR	.0208	.42	8	14.6	0	0	WYE INLET TO POND, FULLY DEVELOPED	
B16	B-16, B-18	B-16	100	10	9.8	1.31	0.92	8.9	0	8.9	PARABOLIC	6 in	.4	11.2	10	7.9	1	FULLY DEVELOPED CONDITIONS	
B15	B-15, B-17	B-15	100	10	9.8	1.87	1.31	12.9	1	13.9	PARABOLIC	6 in	.47	15.1	10	9.9	3.9	FULLY DEVELOPED CONDITIONS	
B14	B-14	B-14	100	10	9.8	0.58	0.41	4	0	4	PARABOLIC	6 in	.3	7.5	5	3.4	.6	FULLY DEVELOPED CONDITIONS	
B13	B-13, B-13a	B-13	100	10	9.8	2.45	1.71	16.6	3.9	20.5	PARABOLIC	6 in	.5	15	14.4	6.1	0	FULLY DEVELOPED CONDITIONS	
B7	B-7, B-4	B-7	100	10	9.8	0.36	0.84	8.2	.6	8.8	PARABOLIC	6 in	.33	8.5	5	4	4.8	0	D.A. B-4 TEMPORARY OVERLAND
WYE B3	B-3	B-3	100	10	9.8	5.41	1.60	15.9	0	15.9	TRIANGULAR	.0208	.41	15	15.9	0	0	TEMP. WYE INLET	
B9	B-9, B-12	B-9	100	10	9.8	2.83	0.96	9.3	6.1	15.4	2.97	6 in	.4	11.3	15	12.5	2.9		
B10	B-10, B-11	B-10	100	10	9.8	1.90	0.68	6.5	0	6.5	PARABOLIC	6 in	.36	9.6	10	6.6	0		
B6	B-6	B-6	100	10	9.8	0.31	0.22	2.1	4.8	6.9	1.8	PARABOLIC	6 in	.33	8.5	5	3.9	3	
B8	B-8, B-20	B-8	100	10	9.8	1.93	1.35	13.2	2.9	16.1	2.9	PARABOLIC	6 in	.5	20	16.1	0		
B2	B-2, B-1	B-2	100	10	9.8	15.05	10.50	103.2	0	103.2	TRIANGULAR	.0208	.81	16	103.2	0	0	WYE INLET TO POND B	
B5	B-5, B-19	B-5	100	10	9.8	0.88	0.62	6	3	9	PARABOLIC	6 in	.43	20	9	0	0		

STORM DRAIN SYSTEM 'A' HYDRAULIC COMPUTATIONS

REACH		INFLOW (INLETS & HEADWALLS)										DESIGN		RAINFALL		TOTAL		STORM		SLOPE OF		STRUCTURE		FLOW		TIME		H.G. AT		REMARKS
FROM	TO	LENGTH (ft)	SOURCE	'CA'	INLET TIME (min)	TOTAL 'CA'	UPSTREAM OF REACH (min)	FREQUENCY (yr)	'I'	'Q'	VELOCITY (ft/sec)	FRICITION GRADIENT (ft/ft)	LOSS COEFF. 'K1'	UPSTREAM OF REACH (ft)	IN DRAIN (min)	DOWNSTREAM OF REACH (min)	UPSTREAM OF REACH (ft)	STORM DRAIN SIZE	VELOCITY (ft/sec)	FRICITION GRADIENT (ft/ft)	LOSS COEFF. 'K1'	UPSTREAM OF REACH (ft)	IN DRAIN (min)	DOWNSTREAM OF REACH (min)	UPSTREAM OF REACH (ft)					
INLET A-15	STA 15+72.88	36.69	A-15, A-14	0.67	10	0.67	10.00	100	9.8	6.6	18	3.7	0.0039	1.25	0.27	0.2	10.20	18	3.7	0.0039	0.50	0.11	0.2	10.40	593.42					
STA 15+72.88	STA 14+69.22	103.66				0.67	10.20	100	9.77	6.5	18	3.7	0.0038	0.50	0.11	0.2	10.40	18	3.7	0.0038	0.50	0.11	0.2	10.40	593.01					
INLET A-13	STA 13+39	42.15	A-13	0.67	10	0.67	10.00	100	9.8	6.6	18	3.7	0.0039	1.25	0.27	0.1	10.10	18	3.7	0.0039	0.50	0.11	0.1	10.10	593.22					
INLET A-12	STA 12+39	39.75	A-12	0.4	10	0.4	10.00	100	9.8	3.9	18	2.2	0.0044	1.25	0.09	0.1	10.10	18	2.2	0.0044	0.50	0.09	0.1	10.10	593.04					
STA 12+39	STA 11+69.22	56.39				1.07	10.10	100	9.79	10.5	24	3.3	0.0022	0.50	0.06	0.1	10.20	24	3.3	0.0022	0.50	0.06	0.1	10.20	591.96					
STA 11+69.22	STA 10+69.31	89.77				1.74	10.40	100	9.74	18.9	30	3.4	0.0017	0.50	0.07	0.1	10.50	30	3.4	0.0017	0.50	0.07	0.1	10.50	591.34					
WYE A-II	STA 10+69.31	86.6	1/2 A-II	1.1	10	2.84	10.50	100	9.8	10.8	30	3.4	0.0016	0.50	0.11	0.2	10.20	30	3.4	0.0016	0.50	0.11	0.2	10.20	591.34					
STA 10+69.31	STA 10+93.12	272.19				2.84	10.50	100	9.73	27.6	30	3.5	0.0045	0.50	0.40	0.4	10.90	30	3.5	0.0045	0.50	0.40	0.4	10.90	589.91					
INLET A-9	STA 10+93.12	36.95	A-9, 1/2 A-II	2	10	2	10.00	100	9.8	19.6	24	6.2	0.0075	1.25	0.76	0	10.00	24	6.2	0.0075	1.25	0.76	0	10.00	589.32					
STA 10+93.12	STA 10+74.89	18.23				4.84	10.90	100	9.67	46.8	30	9.5	0.0150	1.50	0.67	0	10.90	30	9.5	0.0150	1.50	0.67	0	10.90	586.24					
INLET A-10	STA 10+74.89	36.91	A-10	0.65	10	0.65	10.00	100	9.8	6.4	18	3.6	0.0037	1.25	0.25	0	10.00	18	3.6	0.0037	1.25	0.25	0	10.00	588.06					
STA 10+74.89	STA 8+24.93	249.96				5.49	10.90	100	9.67	53.1	36	7.5	0.0063	0.50	0.17	0.3	11.20	36	7.5	0.0063	0.50	0.17	0.3	11.20	585.33					
STUBI	STA 8+24.93	52	1/2 A-16	2.24	10	2.24	10.00	100	9.8	22	30	4.5	0.0029	1.25	0.39	0.1	10.10	30	4.5	0.0029	1.25	0.39	0.1	10.10	583.99					
STA 8+24.93	STA 6+50	174.93				7.73	11.20	100	9.82	74.4	42	7.7	0.0055	0.50	0.48	0.4	11.60	42	7.7	0.0055	0.50	0.48	0.4	11.60	583.02					
WYE A-16	STA 6+50	52	1/2 A-16	2.24	10	2.24	10.00	100	9.8	22	30	4.5	0.0029	1.25	0.39	0.2	10.20	30	4.5	0.0029	1.25	0.39	0.2	10.20	582.11					
STA 6+50	STA 6+21.27	28.73				9.97	11.60	100	9.86	95.3	48	7.6	0.0044	0.50	0.44	0.1	11.70	48	7.6	0.0044	0.50	0.44	0.1	11.70	581.57					
INLET A-5	STA 6+21.27	36.95	A-5	1.26	10	1.26	10.00	100	9.8	12.3	30	2.5	0.0009	1.25	0.12	0	10	30	2.5	0.0009	1.25	0.12	0	10	581.3					
STA 6+21.27	STA 6+13.27	8				11.23	11.7	100	9.84	107.1	48	8.5	0.0056	0.5	0.67	0	11.7	48	8.5	0.0056	0.5	0.67	0	11.7	581.01					
INLET A-4	STA 6+13.27	36.95	A-4	0.44	10	0.44	10.00	100	9.8	4.3	18	2.4	0.0017	1.25	0.11	0.3	10.3	18	2.4	0.0017	1.25	0.11	0.3	10.3	580.47					
STA 6+13.27	STA 5+57.47	55.8				11.67	11.7	100	9.84	111.3	48	8.3	0.006	0.5	0.67	0.1	11.8	48	8.3	0.006	0.5	0.67	0.1	11.8	580.29					
WYE A-6	INLET A-7	22	A-6	1.29	10	1.29	10.00	100	9.8	12.6	24	4	0.0031	1.25	0.31	0.1	10.1	24	4	0.0031	1.25	0.31	0.1	10.1	582.84					
INLET A-7	STA 39.58	39.34	A-7	0.48	10	1.77	10.1	100	9.79	17.3	24	5.5	0.0058	1.25	0.59	0.1	10.2	24	5.5	0.0058	1.25	0.59	0.1	10.2	582.46					
WYE A-21	INLET A-8	22	A-21	1.96	10	1.96	10.00	100	9.8	19.2	24	6.1	0.0072	1.25	0.72	0.1	10.1	24	6.1	0.0072	1.25	0.72	0.1	10.1	584.14					
INLET A-8	STA 39.58	43.16	A-8	0.48	10	2.44	10.1	100	9.79	23.9	24	7.6	0.0112	1.25	1.12	0.1	10.2	24	7.6	0.0112	1.25	1.12	0.1	10.2	583.25					