

DRAINAGE NOTE:

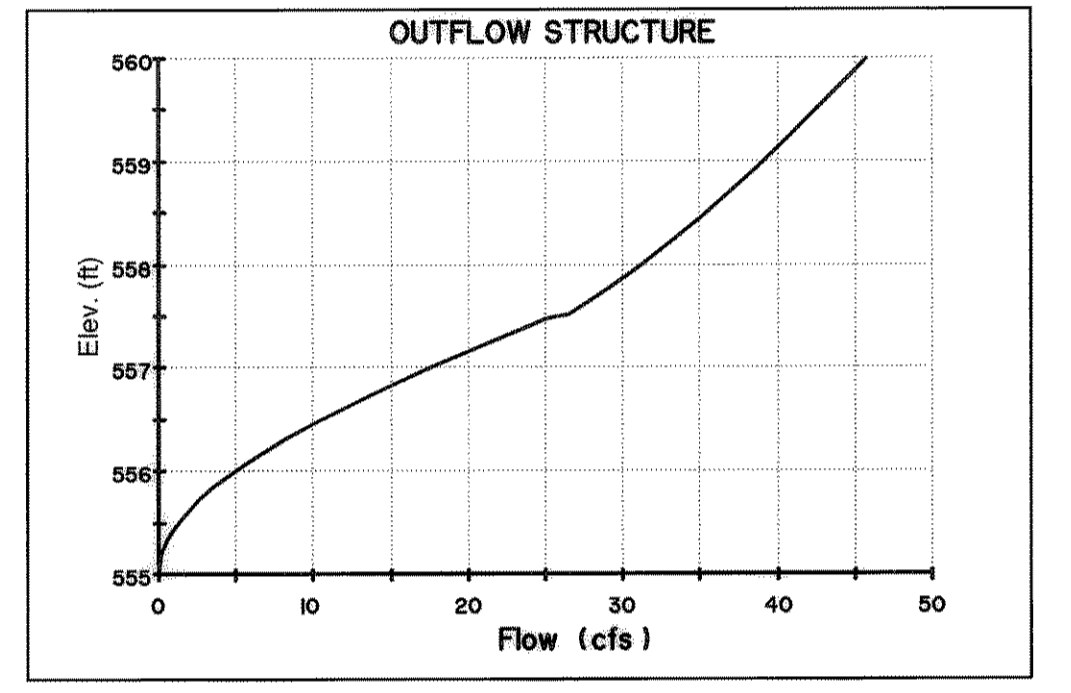
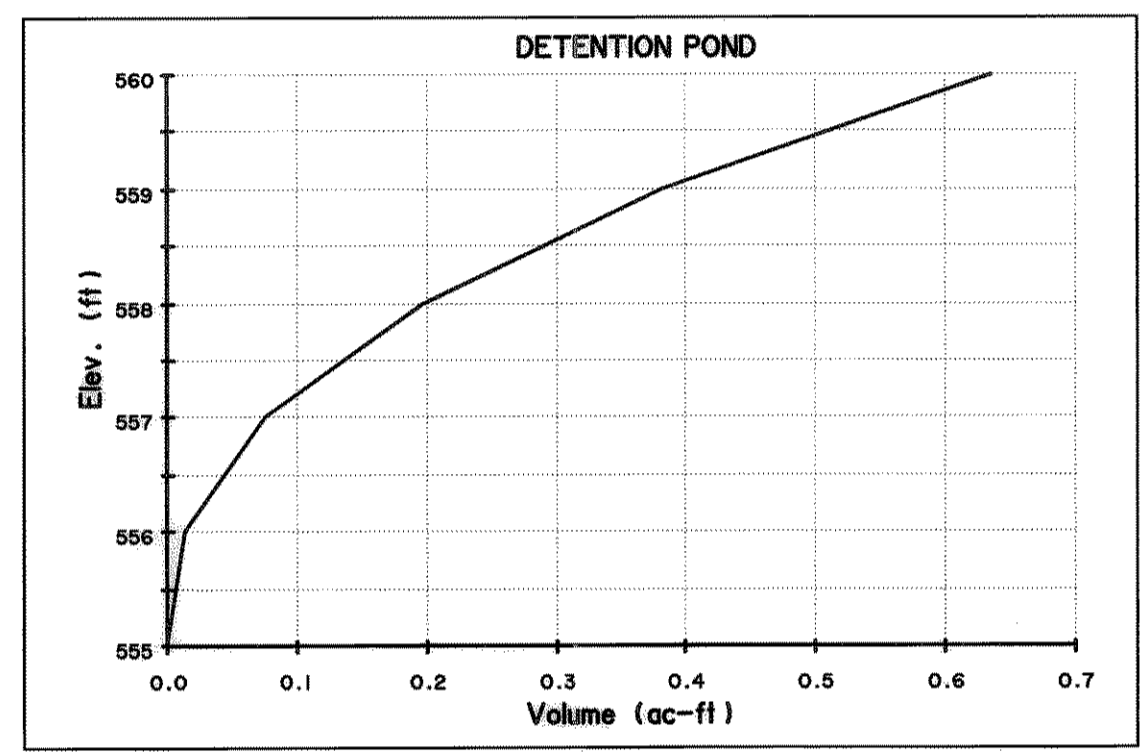
- REFERENCE DRAINAGE AREA MAP FOR ROCKWALL TECHNOLOGY PARK PREPARED BY WIER & ASSOCIATES DATED JANUARY 1999, AND DRAINAGE AREA MAP FOR COL-MET PREPARED BY PACHECO-KOCH, 2003.
- CONTRIBUTING AREA TO DETENTION POND IS COMPRISED OF 1.82 ACRES OF UNDETAINED FLOW FROM THE COL-MET SITE AND 4.89 ACRES EAST OF COL-MET, NORTH OF OBSERVATION TRAIL AND WEST OF THE EXISTING DETENTION POND NORTH OF OBSERVATION TRAIL. ADDITIONALLY, 3.27 ACRES OF DETAILED FLOW FROM THE COL-MET SITE IS BEING ROUTED THROUGH THE PROPOSED DETENTION POND.

	AREA	C _(develop)
COL-MET DETAILED	3.27 Ac	0.50
COL-MET UNDETAILED	1.82 Ac	0.70
EAST AREA UNDETAILED	4.89 Ac	0.70
9.98 Ac	0.634	

CONTRIBUTING POND AREA = 9.98 acres
 C_(existing) = 0.50
 C_(developed) = 0.634

Storm	Existing Conditions			Future Fully Developed Conditions			Q _(release) (cfs)*
	T _c (Min)	I (in/hr)	Q _(allow) (cfs)*	T _c (Min)	I (in/hr)	Q _(dev) (cfs)*	
5 yr	10	6.20	31.2	10	6.20	39.6	29.3
10 yr	10	7.30	36.1	10	7.30	46.6	32.9
25 yr	10	8.30	41.8	10	8.30	53.0	35.9
50 yr	10	9.10	45.8	10	9.10	58.1	38.1
100 yr	10	9.80	49.3	10	9.80	62.5	40.6

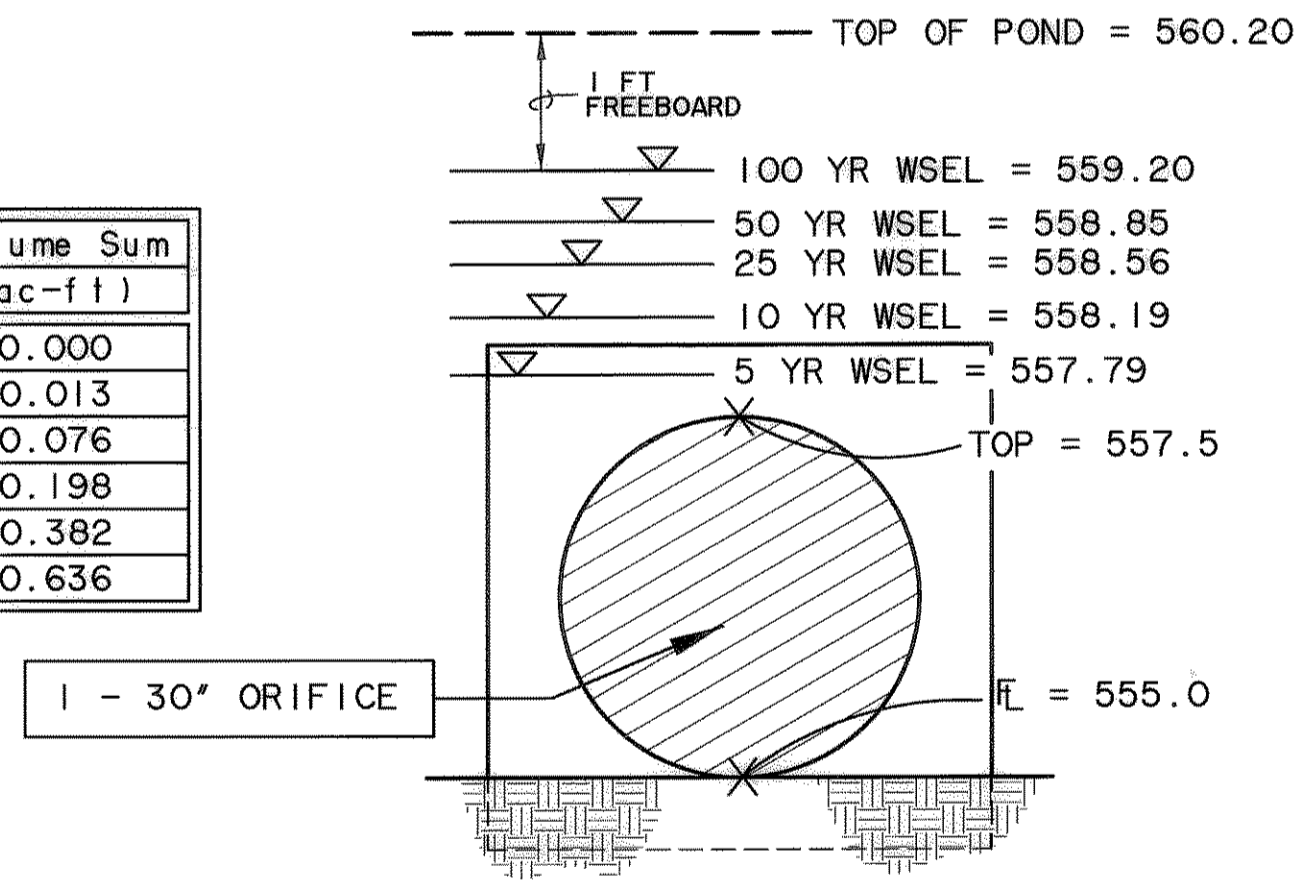
* INCLUDES 1.00833 UNIT CONVERSION FACTOR



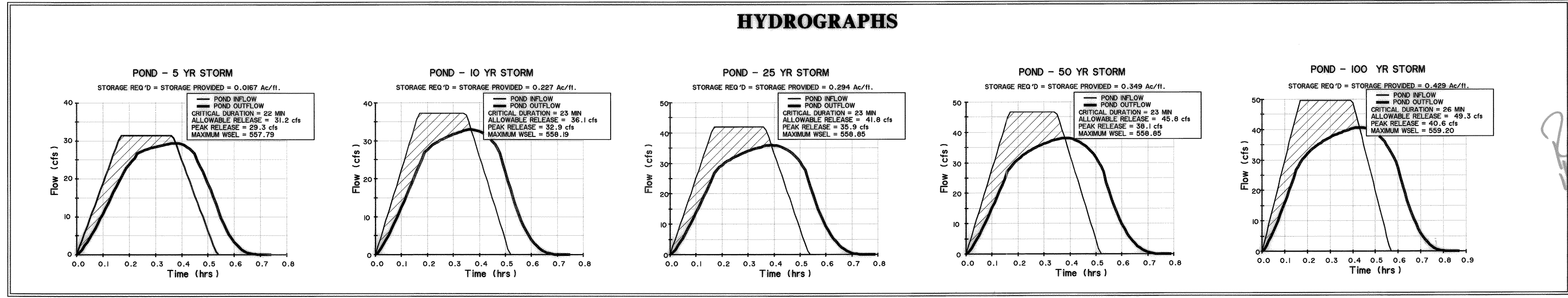
DETENTION POND VOLUME CALCULATIONS

Elevation (ft)	Area (Ac)	A+A _s +√(A _s A _s) (Ac)	Volume (ac-ft)	Volume Sum (ac-ft)
555.0	0.0004	0.0000	0.000	0.000
556.0	0.0363	0.0403	0.013	0.013
557.0	0.0930	0.1874	0.062	0.076
558.0	0.1530	0.3653	0.122	0.198
559.0	0.2170	0.5522	0.184	0.382
560.0	0.2930	0.7622	0.254	0.636

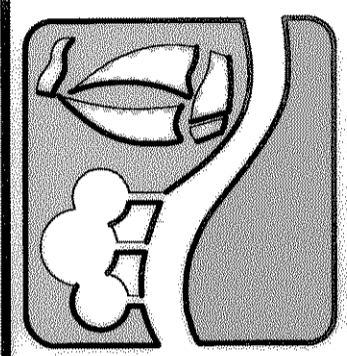
$$\text{Volume} = \frac{A+A_s+\sqrt{A_sA_s}}{3} (\Delta \text{Elevation})$$



HYDROGRAPHS



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ROCKWALL TECHNOLOGY PARK

DETENTION POND



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