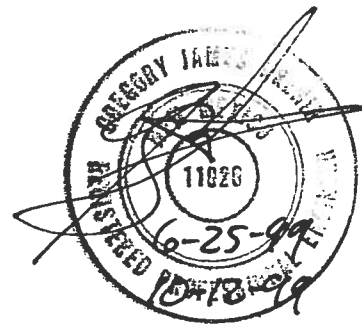
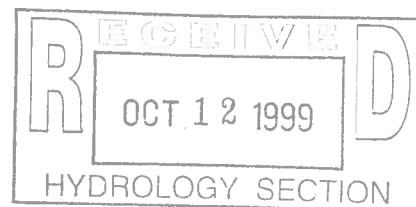


DRAINAGE CALCULATIONS
FOR
COTTONWOOD PROFESSIONAL CENTER





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PROJECT COTTONWOOD POND CENTER
SUBJECT DRAINAGE CALCS
BY GJK DATE 6-24-99
CHECKED _____ DATE _____
SHEET 2 OF _____

REVISED 10-12-99

FROM AHYMO OUTPUT SHEETS 4-15

$$Q_{OFF} = 0.15 \text{ CFS}$$

$$Q_{PEP} = 2.26 \text{ CFS}$$

$$Q_C = 0.53 \text{ CFS}$$

$$Q_D = 7.97 \text{ CFS}$$

FROM THE BOHANNAN REPORT

10 CFS FROM BASIN C DRAINS INTO THE DOUBLE D INLET
AND 5.6 CFS DRAINS INTO THE BASIN D POND.

- WE WILL BE ALLOWED TO DISCHARGE FROM BASIN D
TO BASIN C AN ADDITIONAL

$$Q = 10.0 - 0.53 = 9.47 \text{ CFS}$$

- WE WILL DRAIN THE ROOF OF PHASE I TO BASIN C.

$$A_{PI} = 0.2112 \text{ AC } 100\% \text{ D}$$

- THIS WILL REDUCE BASIN D

$$\begin{aligned} A_{RD} &= 1.9142 - 0.2112 \\ &= 1.7030 \text{ AC} \\ &17.87\% \text{ B } 82.13\% \text{ D} \end{aligned}$$

FROM AHYMO OUTPUT SHEETS 16-21

$$Q_{PI} = 0.97 \text{ CFS}$$

$$Q_{RD} = 7.01 \text{ CFS}$$

- SIZE POND FOR $6\frac{1}{2}$ " ORIFICE ON 8" PVC

ELEV	OUTFLOW	VOLUME	POND TO HAVE
4.0	0.0	0.0	1' OF FREEBOARD
5.0	0.95	0.062	
6.0	1.46	0.134	
7.0	1.83	0.214	

FROM AHYMO OUTPUT SHEETS 22-24

PEAK DISCHARGE = 1.51 CFS $\approx$ 1.5 CFS OK
MAX WATER SURFACE = 6.15