

RECEIVED JUN - 8 2005

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JOB 212-95

SHEET NO. 1 OF 1

CALCULATED BY JHS DATE 6-6-05

CHECKED BY DATE

SCALE

DRAINAGE CALCULATIONS

CULVERT "A"

DRAINAGE AREA

0.20 AC IMPERVIOUS

1.52 AC GRASS

6.82 AC WOODS8.54 AC TOTAL

$$\text{WEIGHTED "C"} = \frac{0.20 \text{ AC } (0.9) + 1.52 \text{ AC } (0.35) + 6.82 \text{ AC } (0.25)}{8.54 \text{ AC}}$$

$$\text{"C"} = 0.28$$

TIME OF CONCENTRATION - FROM NOMOGRAPH

$$d = 1000 \text{ ft}$$

$$C = 0.28$$

$$S = 7\%$$

$$T_c = 26 \text{ minutes}$$

RATIONAL METHOD - 25 YEAR STORM

$$Q = CIA$$

$$Q_{25} = 0.28 (3.6 \text{ in/hr}) 8.54 \text{ AC}$$

$$Q_{25} = 8.6 \text{ CFS}$$

15" RCP

SLOPE - 3.3%

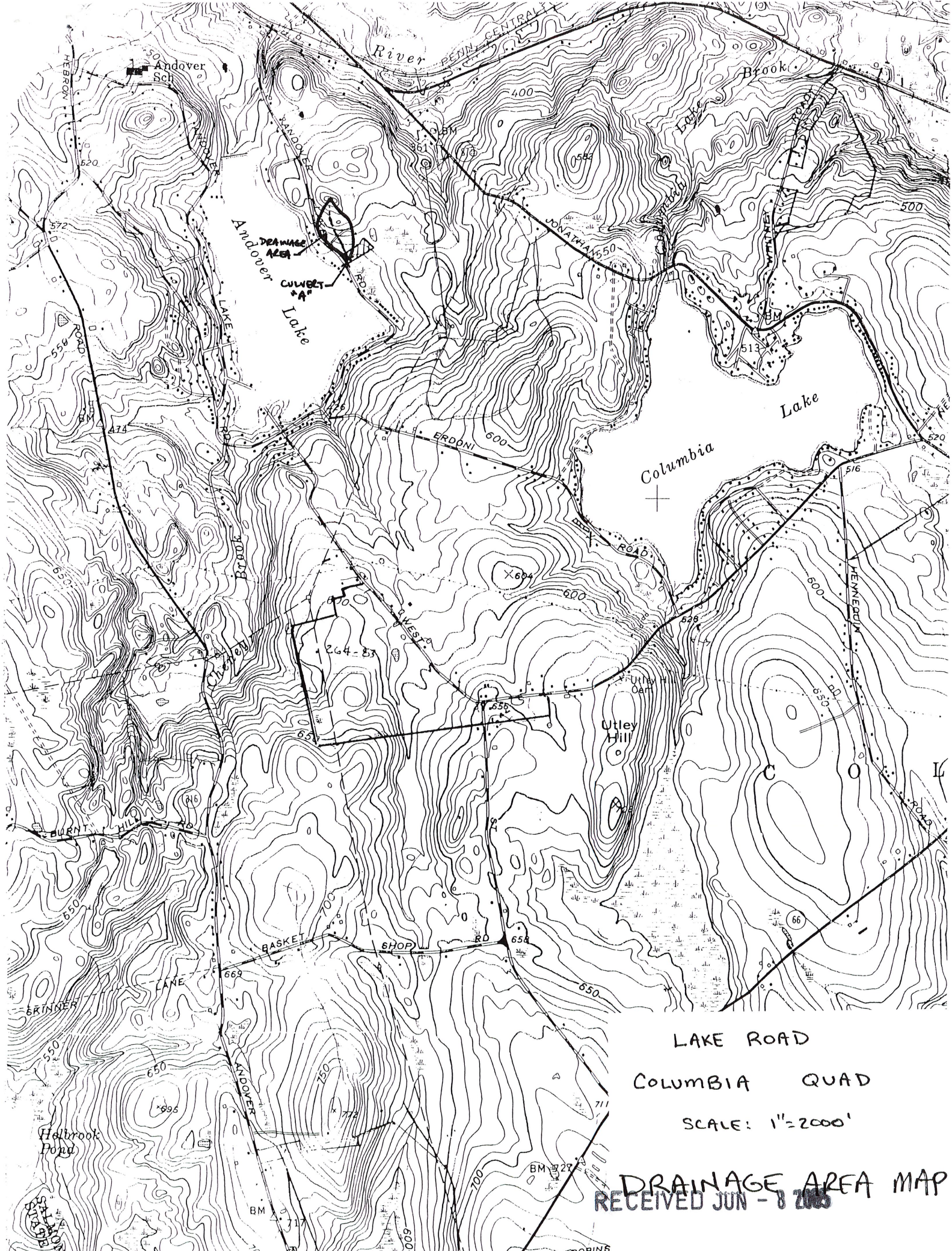
MAX. CAPACITY = 11 CFS ✓ OK

VELOCITY =

CHECK HEADWATER

$$\frac{H_w}{D} = 2.0$$

$$H_w = 2.0 \times 1.25 = 2.5 \text{ ft} \checkmark$$



LAKE ROAD

COLUMBIA QUAD

SCALE: 1"=2000'

DRAINAGE AREA MAP
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