



## REX NORTON ARCHITECTS

### DRAINAGE STUDY

The Office Building on Virginia St., N.E., for Dean Construction Co. is situated on a site of land comprising .37 acres, or 16,200 S.F. The land consists of poor grass and sandy soil with natural drainage from west to east with an average slope of less than 1%. After development, rainfall in excess of undeveloped runoff shall be accommodated in a ponding area in the parking lot as shown on the Site Plan. It is the intent of this study to show that the ponding area shall accommodate all rainfall in excess of the natural runoff.

### DESIGN METHOD

Site Area: 16,200 SF = .37 Acres

$$I = 2.6" = .21'$$

$$C_u = .4$$

$$C_d = \frac{15,304 \times .9 + 895 \times .4}{16,200} = .87$$

$$C_r = C_d - C_u = .87 - .4 = .47$$

$$V_r = C_r I A = .47 \times .21 \times 16,200 = 1,598.9 \text{ Cu.Ft.}$$

The ponding area, as shown retains a total of 1,852.5 Cu.Ft.