

ORDINANCE NO. 358

PASSED
5-0

VILLAGE OF BELLEVUE, ILLINOIS

AN ORDINANCE ESTABLISHING STORM WATER RETENTION REQUIREMENTS
FOR THE IMPROVEMENT OF LANDS FOR COMMERCIAL USE
INCLUDING THE PAVEMENT, SURFACING OR RECONSTRUCTION
OF PARKING LOTS OR OTHER SUCH BUSINESS LOTS

WHEREAS, the Board of Trustees deems it to be in the best interest of the public to establish storm water retention requirements for the improvement of lands for commercial use in the Village of Bellevue, including the pavement, surfacing or reconstruction of parking lots or other such business lots.

NOW, THEREFORE BE IT ORDAINED by the President and Board of Trustees of the Village of Bellevue:

SECTION 1. It shall be the responsibility of the owner, his agents and his contractors to assure that any new development of previously undeveloped land and any improvement of land for commercial use shall meet all storm water retention requirements as set forth in the Section 3 below. "Commercial use" as used herein shall include any development other than single-family residential.

SECTION 2. In particular, but not by way of limitation, it shall be the responsibility of the owner, his agents and his contractors to assure that any paving, surfacing or reconstruction of a parking lot, business lot, off-street loading space or off-street parking facility shall meet all storm water retention requirement as set forth in Section 3 below.

SECTION 3. Storm water retention requirements shall be established by the Village Engineer based on the Rational Method for estimating peak runoff rate for a specified design storm. The allowable runoff rate before development, Q_a , and the peak runoff rate after development, Q_p , shall be determined. The requirement storage volume shall be the difference in runoff rates ($Q_p - Q_a$) times the duration of the design storm. The owner, his agent, or his contractor shall propose a storm water retention facility which provides the required storage volume and which restricts the rate of storm water discharge from the retention facility such that the maximum discharge rate shall not exceed the allowable runoff rate, Q_a .

SECTION 4. It shall be the responsibility of the owner to obtain from the Village Engineer prior to construction of a new development or improvement of land for commercial use written approval certifying that the storm water retention facility meets the requirements of Section 3 hereof. No building permit shall issue for construction of any improvement of land for commercial

use until such certification has been obtained from the Village Engineer.

SECTION 5. Any individual, firm, association or corporation violating any of the provisions of this Ordinance shall, upon conviction, be fined not less than One Hundred Dollars (\$100.00) nor more than Five Hundred Dollars (\$500.00). Each day that a violation is allowed to exist shall constitute a separate offense.

This Ordinance shall be in full force and effect upon its passage.

PASSED AND APPROVED by the President and Board of Trustees of the Village of Bellevue, Illinois, this 9th day of Sept, 1991.

_____ AYES
_____ NAYS
_____ ABSENT

VILLAGE OF BELLEVUE, ILLINOIS

Larry N. Howard, President

(CORPORATE SEAL)

ATTEST:

Carol S. Howard, Village Clerk

METHOD OF COMPUTING

STORM WATER RETENTION AND ALLOWABLE DISCHARGE RATE

Rational Method:

$$Q = C.I.A.$$

Q = Resultant runoff rate in cubic feet per second (c.f.s)

C = Coefficient of runoff: grass = .30
rooftops and paved areas = .95
R-1 residential = .35

I = Intensity of rainfall = 4"/hr. for 15-min. duration for design storm

A = Area in acres

1. Determine area of entire site (in acres), A
2. Determine area of paved ground and rooftops (in acres), A1
3. Determine area of grass (in acres), A2
4. Determine allowable runoff rate, Q_a , as follows:

$$Q_a = 0.35 \times 4 \times A \text{ (c.f.s.)}$$

5. To find if retention is needed, compute the following:

A. $Q_1 = .95 \times 4 \times A1$

B. $Q_2 = .30 \times 4 \times A2$

C. $Q_p = Q_1 + Q_2$ (Runoff Rate after Development) c.f.s.

If Q_p is greater than Q_a , retention is required.

6. Determine required retention volume, V, as follows:

$$V = (Q_p - Q_a) \times 15 \text{ minutes} \times 60 \text{ seconds/minute (cubic feet)}$$