

ORDINANCE NO. C-99-77

AN ORDINANCE TO AMEND SECTION 1101.05 OF THE GROVE CITY CODE OR ORDINANCES PERTAINING TO STORM WATER DRAINAGE

WHEREAS, after long effort, the Stormwater Technical Advisory Committee of the Mid-Ohio Regional Planning Commission has prepared the Stormwater Design Manual; and

WHEREAS, the concepts and procedures of the manual represent a composite of the latest thinking of engineers from Ohio Department of Natural Resources, the County, various cities and towns, and private consultants; of developers and of attorneys;

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF GROVE CITY, STATE OF OHIO, THAT

SECTION 1. Section 1101.05 (g) of the Grove City Code of Ordinances is hereby repealed in its entirety and the following Section 1101.05 (g) is hereby enacted.

(g) Storm drainage systems for land being developed or improved shall be designed so that the peak rate of stormwater runoff after development does not exceed the peak rate of runoff before development for all storms, from the critical storm up to a 100 year frequency-24 hour storm, and does not exceed the peak rate of runoff for a one-year frequency storm before development of the land for all storms--from a one-year frequency-24 hour storm through the critical storm.

(1) The critical storm shall be determined by:

Determining the total volume of runoff from a 1-year frequency-24 hour storm occurring over the area before and after development.

Determining the percent of increase in volume due to development and using this percentage and picking the critical storm from the following table:

If the percentage of increase in volume of runoff is		The critical storm for discharge limitation will be:
equal to or greater than	and less than	
-	10	1 year
10	20	2 years
20	50	5 years
50	100	10 years
100	250	25 years
250	500	50 years
500	-	100 years

(2) Storage volume does not have to be provided for off-site upstream runoff. Flow from such areas will be routed through the development's drainage system at a rate determined in the same manner as the on-site system. Off-site land uses and the associated drainage systems prevailing at the time of development shall be considered as the pre-development condition for the purpose of calculating the flows to be routed through the development.

(3) The development's interior drainage system shall be designed so that it can carry the runoff from a 2 year frequency-24 hour storm with the conduit flowings full with surcharge to the gutter line and the:

Depth of flow in natural channels being no more than bank full stage, backwater effects considered.

Depth of flow in artificial channels being no more than 0.8 bank full stage and the velocity being less than 7 feet per second,

amended by Ord C-5-78

unless special channel lining and erosion protection is provided.

Flow in roadside ditches being within the right-of-way and the velocity of the design being less than 6 feet per second with grass swales or 10 feet per second with paved ditches.

Depth of flow in streets with curb and gutter being less than the curb height and the velocity of flow in the gutter at design depth being less than 10 feet per second.

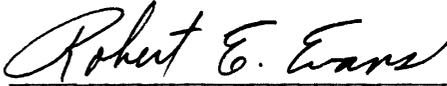
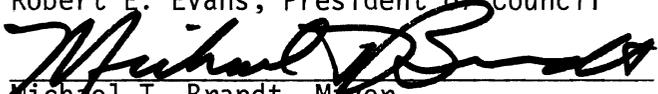
Street pavement being dry for one 12 foot lane on local streets and two 12 foot lanes on thoroughfares.

- (4) The development's interior drainage system shall be designed so that it can carry the runoff from a 100 year frequency-24 hour storm with the conduits carrying not more than one-half their design capacity; the water running not more than 18" deep at the gutter line on local streets, 6" deep at the crown on thoroughfares and 6" deep in parking stall areas of packing lots; the overland and channel flows being within easements and at least five feet horizontally and 1 foot vertically away from any ground level entrance to a residential, office, commercial or industrial building; and without endangering property or public safety through erosion or high velocities.
- (5) The rainfall intensity-duration-frequency curve for the Soil Conservation Service of the U.S. Department of Agriculture, Type II storm shall be used.
- (6) Except as modified in this code of ordinances, the Mid-Ohio Regional Planning Commission's Stormwater Design Manual shall be used as the guide for designing storm drainage systems; however, storm drainage system designs that meet the intent and requirements of Section 1101.05 (g) of the Grove City Code of Ordinances can be used.

SECTION 2. Section 1101.05 (h), (i), (j), (k), shall be renumbered as Sections 1101.05 (j), (k), (l), and (m), respectively of the Grove City Code of Ordinances and the following inserted as new Sections 1101.05 (h) and (i):

- (h) Sanitary sewers shall be designed to maintain a minimum velocity of two feet per second. The minimum pipe diameter shall be 8 inches. The sewer pipe shall be designed to carry peak flows resulting from average daily flows as indicated on the Ohio Environmental Protection Agency's "Sewage Flow Guides" for specific development improvements. Peak flows shall be obtained by using a diminishing conversion factor of from 3.4 for small flows to 1.8 for flows around fifty cubic feet per second as shown on the Grove City Sanitary Sewer Conversion Chart.
- (i) The design for sewer conduit (pipe) shall conform to the requirements of the Grove City Standard Drawings, using pipe strong enough, in conjunction with the specified beddings, to withstand the trench loading and line loadings imposed now or in the known future.

SECTION 3. This ordinance shall take effect at the earliest opportunity allowed by law.

Submitted:	12/5/77	 Robert E. Evans, President of Council
Passed:	12/19/77	 Michael T. Brandt, Mayor
Effective:	1/18/78	Attest:  June A. Cook, Clerk of Council

I Certify that this ordinance is correct as to form.

Ronald E. Plymale, Director of Law