



County Engineer

A Division of the Board of County Commissioners
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COUNTY ENGINEER

August 12, 2005

To Whom It May Concern:

The Board of County Commissioners of Tulsa County adopted resolution No. 89665 dealing with storm water run-off, see attached copy.

There have been some questions concerning the Tulsa County criteria. I am providing the following clarifications about this policy.

1. Policy requires that storm water run-off from land development within any drainage area will not adversely affect upstream or downstream properties.
2. Discharge velocity for drainage system after development cannot exceed discharge velocity prior to development.
3. Detention will be required when impervious area would exceed 20% of the gross area.
4. Peak release rate of storm water run-off from development shall not exceed the peak storm water run-off rate from the area in its natural undeveloped state.

Based upon the above information, it is Tulsa Counties Policies that land development will not have an adverse impact on upstream or downstream properties. It is up to the development to determine what means they choose to insure no adverse impact. It is also Tulsa Counties Policies that any development that exceeds 20% impervious area of the gross area would require detention as one of the mediation procedures.

Sincerely,

Ray Jordan

RJ: am
Attachments

TULSA COUNTY

STORM SEWER AND STORM WATER RUN-OFF AND DETENTION CRITERIA

Approved May 12, 1976

No. 89665

The criteria outlined below is that approved by the Board of County Commissioners of Tulsa County, Oklahoma, as applicable to storm water run-off.

It is the purpose of these criteria to establish public policy for the control of storm water run-off and detention.

It is the Board's intent to implement the best and most equitable methods of storm water run-off control so that land development within any drainage area will not adversely affect upstream or downstream properties within the drainage basin. The formulae for determining the hydrological parameters will be those as established by the Board of County Commissioners.

1. All storm water run-off shall be subject to review and approval by the appropriate public authority with regard to analysis, design and construction of drainageway facilities and the appropriate public authority shall have the right to maintain or to cause to be maintained the drainageway system for its intended purposes. Drainageway facilities, both public and private shall consist of all elements necessary to convey storm water run-off from its initial contact with the earth to its disposition in either the Arkansas River or Bird Creek. The drainage system, both public and private, shall consist of closed conduit improved channels constructed in conformity with adopted County Standards; unimproved drainageways left in their natural condition; the areas covered by restricted drainageway easements for the purpose of providing overland flow; and all appurtenances to the above including inlets, manholes, junction boxes, headwalls, dissipators, culverts, etc. All portions of the drainage system that exist on dedicated rights-of-way, which have been accepted by the County, shall be maintained by the County.
2. All public storm water drainageway systems shall be on dedicated easements of rights-of-way; privately owned systems may consist of roof drains, building drains, and parking lot drainageways.
3. The easement width required for a closed storm sewer shall be that necessary for proper maintenance with a minimum width being the width of the structure plus five (5) feet on either side.

4. The easement width for an improved channel shall be that width necessary for the construction of the facility combined with the width which is necessary for proper access and maintenance. The minimum width shall be as shown on adopted County Standards.
5. The easement for an unimproved drainageway left in a natural state shall be equal to the FD width or that width required to pass a 100-year frequency rainstorm under full urbanization whichever is greater together with adequate vehicular ingress or egress to said easement for maintenance purposes. A permanently visible monument shall be set on each property line at its intersection with the easement or FD line to identify the limits of the drainageway. Said monuments to conform to adopted County Standards.
6. Storm water drainageway systems shall consist of trunk and collector systems. Trunk systems are defined as any part of the system having a capacity of 400 c.f.s. or greater. All storm water drainageway systems with a capacity of less than 400 c.f.s. shall be defined as a collector system.
7. The trunk storm water drainageway system shall be designed to pass the run-off from a 100-year frequency rainstorm under existent urbanization conditions. The entire flow shall be confined within the said storm water drainageway system.
8. Fencing shall be required where necessary for safety.
9. The discharge velocity of a storm water drainageway system constructed for the development of a tract of land will not be greater than the velocity that existed in the drainageway at that point under natural conditions, nor will the velocity of the discharging water exceed the erodible limit if the soil in place at the point of discharge; whichever velocity if the least shall govern.

If the discharge from the storm water drainageway system is being made into a concrete lined channel, then the velocity of the discharging water shall not exceed the normal velocity of the channel.
10. Detention facilities will be required for all land developments herein the impervious area will amount to more than 20% of the gross area.
11. The requirements for the storage and controlled release of storm water run-off shall be as follows:

The peak release rate of storm water run-off from the development shall not exceed the peak storm water run-off rate from the area in its natural, undeveloped state for all rainstorm intensities up to and including the 100-year frequency for all durations of rainfall.

The required volume for storm water detention shall be calculated on the basis of the run-off from a 100-year frequency rainstorm. The detention volume required shall be that necessary to handle the run-off from a 100-year frequency rainstorm to fully urbanized conditions, for any and all durations, less that volume discharged during the same duration at the release rate as specified above.

12. The ownership and maintenance responsibility for detention facilities shall remain with the private sector if the facility is an integral usable part of the development. In all other cases, the detention facility will be dedicated to the public and the public will be responsible for the maintenance thereof. In the event the detention facility, as a result of drainageway improvements, becomes unnecessary, the facility by action of the Board of County Commissioners shall revert to the person, firm or corporation making such dedication or his heirs, successor or assignees.
13. The Board of County Commissioners, may grant in a particular instance such variance or modification of the foregoing criteria as will not cause detriments to the public good or impair the spirit, purposes, and intent of the criteria.