

## CHAPTER VII

### MINIMUM REQUIREMENTS FOR SUBDIVISIONS STREETS FOR ACCEPTANCE AS CITY MAINTENANCE AND STORM SEWER AND STORM WATER RUNOFF AND STORM SEWER AND STORM WATER RUNOFF AND DETENTION CRITERIA

#### Procedures

1. Engineering plans showing all grades and drainage must be submitted to the city before construction.
2. Road is built according to approved methods and under the supervision of the consulting engineer.
3. Road is accepted subject to a one-year maintenance bond in the amount of half the construction costs.
4. At the end of the one-year period, the road is inspected again, if meets inspection, accepted for maintenance.
5. Traffic control signs and mailboxes to be placed according to applicable statutes and regulations.
6. Roads are to be constructed in compliance with the minimum requirements for the city as outlined in this chapter.
7. Storm sewer and storm water runoff and detention criteria for the city are set forth in chapter Annex B.

#### Road Specifications

1. All new subdivisions in the city must be surveyed, and drainage of streets or roadways approved by a Certified Consulting Engineer. Report from Engineer shall show size and type of drainage at all approaches. Ditch size, width, and depth must be shown, also area map must be attached to show where water will drain to.
2. Subgrade or road base must be a material accepted to state highway standards. This can be no less than 6" after compaction to meet state road specifications. This base material can have no less than 3" of 1-1/2" rock and 3" crusher run. These 2 layers after compaction shall constitute the road base or bed. Additional asphalt or concrete cover shall be in addition to the base.
3. Cover material shall be no less than specifications:  
Asphalt                      3" minimum  
Concrete                      6" minimum
4. Developer shall pay in advance for and the city will install all street signs and stop signs.

5. All mailboxes shall be installed in compliance with Federal Regulations and are not to obstruct maintenance of roads or ditches. The stand for mailbox to be installed on owners property and installed on swivel so box can be removed from stand or swivel out of way for maintenance of road or street.
6. At the end of the one-year period from date of completion, Developers shall repair any defects that might have occurred in streets. This is to be done before the city inspection for acceptance into the city road system.

### **STORM SEWER AND STORM WATER RUNOFF AND DETENTION CRITERIA**

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

It is the city's intent to implement the best most equitable methods of storm water runoff 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 city council.

1. All storm water runoff 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 runoff from its initial contact with the earth to its disposition.

2. All public storm water drainageway systems shall be on dedicated easements or 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 City 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 city 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 runoff 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 drainage way 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 of 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 where 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 runoff shall be as follows:

The peak release rate of storm water runoff from the development shall not exceed the peak storm water runoff 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 runoff from a 100-year frequency rainstorm. The detention volume required shall be that necessary to handle the runoff 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 City Council shall revert to the person, firm or corporation making such dedication or his heirs, successor or assignees.
13. The City Council 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.