

CITY OF WICHITA
BACKYARD DRAINAGE POLICY
REVISED EFFECTIVE April 2, 2019

Purpose: The purpose of this policy document is to outline responsibilities of residential lot grading design and construction by appropriate parties. Requirements of the City of Wichita Engineering and Stormwater; and MABCD are included. Advice to Homeowners as to how to maintain established lot grades is also included.

Definitions:

Master Drainage Plan is an engineered plan submitted at the time of platting which sets forth the method utilized on the property to meet the drainage requirements of the Stormwater Manual, including water quality, channel bank protection and detention. This plan is approved by Stormwater Management and retained indefinitely.

Subdivision 4-Corner Grading Plan is an engineered grading plan showing the grading details required in the Backyard Drainage Policy and Subdivision Regulations Section 7-208(F) Drainage and 7-205(B) Easements. This plan is prepared after plat submittal and subsequently filed with Stormwater Management and MABCD and retained indefinitely.

Individual Lot Grading Plan is a drawing prepared at the time of the issuance of the building permit on an individual lot within a subdivision which shows more detail as to how the yard will be graded and in accordance with the Subdivision 4-Corner Grading Plan. This plan is filed with MABCD and retained indefinitely.

Subdivision 4-Corner Grading Plan Certificate is a form issued by the City Engineer's Office to MABCD that certifies the lot and easement grading of the subdivision has been accomplished in accordance with the Subdivision 4-Corner Grading Plan and retained indefinitely.

Individual Lot Grading Plan Certificate is a form submitted to MABCD by the Builder noting that lot corners and lot grading as surveyed, are within acceptable tolerances of the Individual Lot Grading Plan and meet a minimum overall longitudinal easement grade of 1.0%.

Developer Requirements:

1. A Master Drainage Plan will be prepared by the developer's engineer as a part of the final plat process. This Plan must be submitted for review purposes at least two weeks before the final plat is to be considered by the Subdivision Committee.
2. A Subdivision 4-Corner Grading Plan will be prepared by the developer's engineer in conjunction with the plans for other infrastructure improvements, such as streets, storm drains, etc. and submitted to Stormwater.

3. The Subdivision 4-Corner Grading Plan will show, at a minimum, the following:
 - A. Street and lot layout.
 - B. Underground storm drain locations, and overflow locations for storm drains exceeding their design capacity.
 - C. Locations of open ditches and lakes.
 - D. Flow line elevations of storm drains at all inlets, manholes, and outfalls.
 - E. Proposed flow line elevations of all open ditches are based at a minimum of 100 feet intervals and 100-year base flood elevations.
 - F. The following information shall reflect on lakes:
 1. Lake bottom elevation.
 2. Normal pool elevation.
 3. Two year and 100-year base flood elevations.
 4. Two year and 100-year base inflows and outflows.
 - G. Design top of curb elevation at all points where drainage will be required to flow over the curb, or gutter line elevations at curb penetration box locations.
 - H. The flow line elevations of all open ditches or swales located within drainage easements at all lot corners and at 50 feet maximum intervals in between. Minimum slope for grassed ditches or swales shall be 1.00%. For lesser slopes, paved concrete swales or underground pipe with inlets shall be required.
 - I. For all lots, the following elevations:
 1. Lowest viewout window (if no window wells).
 2. Walkout threshold elevation (if walkout is at grade).
 3. Lowest water entry level if different than 1 or 2 above (for window wells or walkout pit).
 4. Basement floor elevation, if not a walkout.

Note: There shall be a minimum of 2 percent slope from the lowest water entry point to a point into the structure on the lot with positive drainage 10 feet away from the house. Also, the lowest water entry point on the structure foundation must be at least one foot above any identified 100 year base flood levels.

4. The Subdivision 4-Corner Grading Plan will provide detailed information for individual builders so that they will have all necessary information as to the type of structures that can be built on certain lots. The developer shall supply the Subdivision 4-Corner Grading Plan to the builder(s).
5. Subdivision plats shall clearly label all drainage facilities as easements, rights-of-way, or reserves when said facilities are used as a part of the Subdivision 4-Corner Grading Plan. Easements are required for underground pipe overflow facilities.
 - A. The statement "A master drainage plan has been developed for this plat. All drainage easements, rights-of-way, and reserves shall remain at established grades (unless modified with the approval of the City Engineer) and shall be unobstructed to allow for the conveyance of stormwater in accordance with the Stormwater Manual. The maintenance of all drainageways and drainage facilities in backyard drainage

easements and reserves shall be the responsibility of the property owner, and shall be enforced by the Homeowner's Association and be provided for in the Homeowner's Association covenants." shall be included on the face of the plat and within a restrictive covenant filed with the plat.

- B. The restrictive covenant shall also state "The property owner shall provide a copy of the Individual Lot Grading Plan and the Individual Lot Grading Plan Certificate pertaining to such owner's lot to any person installing a lawn, landscaping, fencing, or other improvements or structures and require them to maintain the grade levels shown on the Individual Lot Grading Plan Certificate."
6. Upon construction in accordance with the Subdivision 4-Corner Grading Plan through a petitioned or private project, a Subdivision 4-Corner Grading Plan Certificate will be submitted to MABCD by the City Engineer's Office or inspecting firm, in order for the builder(s) to obtain a building permit.

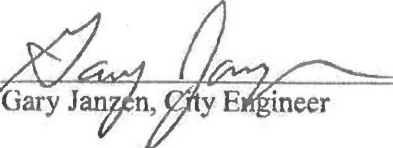
Builder Requirements:

1. Builders will be required to develop an Individual Lot Grading Plan consistent with the Subdivision 4-Corner Grading Plan and to construct basement and foundation walls to comply with said Plan. The objective is to ensure that final grades can be set so that they will work in substantial compliance with the Subdivision 4-Corner Grading Plan for the lot and area. Minor variances may be allowed providing there is no negative impact on the Subdivision 4-Corner Grading Plan and a minimum slope for grassed ditches or swales of 1.00% is met. Builders are urged to review deviations with the developer's engineer before proceeding.
 - A. The individual lot grading plans shall include the top of foundation elevations as well as window well and view/walk out elevations and shall be submitted to MABCD before the underground plumbing inspection can be scheduled.
 - B. If a certification of minimum pad (low opening) elevation is needed relative to floodplains, it must be received before the framing inspection.
 - C. A standard basement will be allowed on a lot designated for a viewout or walkout basement provided the lowest water entry point is maintained and the basement does not conflict with the approved Subdivision 4-Corner Grading Plan.
2. All structures will be constructed in strict accordance with the approved individual lot grading plans.
3. Builders will be required to get foundation elevation verification after basement walls are poured and before plumbing groundwork inspection to verify that wall elevations are built in accordance with the Individual Lot Grading Plan. This verification shall be provided by a licensed professional engineer or land surveyor and must be submitted to MABCD in order to obtain the plumbing groundwork inspection.

4. Builders are required to have a licensed professional engineer or land surveyor verify that the backyard drainage elevations are consistent with both the approved Subdivision 4-Corner Grading Plan and the Individual Lot Grading Plan. Certifications will be provided to MABCD. The Builder will be required to submit the Individual Lot Grading Plan Certificate with the Individual Lot Grading Plan to MABCD for posting electronically in order to obtain a building permit and Certificate of Occupancy. The Builder will provide copies of these documents to the homeowner at closing.

Homeowner Requirements:

1. A homeowner may not install any improvements within a drainage easement that might obstruct the free flow of stormwater.
2. In the event a homeowner experiences standing/nuisance water in a drainage easement, a private underground pipe system will be allowed through a Use of Easement Permit obtained from the Public Works & Utilities Department.
3. The property owner shall provide a copy of the Individual Lot Grading Plan and the Individual Lot Grading Plan Certificate pertaining to said owner's lot to any person installing a lawn, landscaping, fencing, or other improvements or structures and require them to maintain the grade levels shown on the Individual Lot Grading Plan Certificate.



Gary Janzen, City Engineer

04/02/19
Date



Chris Labrum, Director of MABCD

04/02/19
Date