

Jerry Hancock / Malletts Creek Coordinating Committee DRAFT – Revisions to require new construction of single and two-family residences and remodeling which increase impervious surface to include best management practices (BMPs) for stormwater retention/infiltration on-site.

Please direct questions or comments to:

**Jerry Hancock, CFM
Stormwater and Floodplain Programs Coordinator
City of Ann Arbor - Public Services - Systems Planning Unit
100 N. Fifth Ave, Ann Arbor, MI 48107
Ph# 734-794-6430 ex. 43709
Fax# 734-994-1744
Email – Jhancock@a2gov.org**

City of Ann Arbor - Chapter 63 - STORM WATER MANAGEMENT AND SOIL EROSION AND SEDIMENTATION CONTROL

5:652. Definitions.

In addition to the definitions below, the definitions from the following documents shall apply to this Chapter: (1) Part 91 of 1994 PA 451 (Michigan Compiled Laws) as amended; (2) Ann Arbor City Code Chapter 57 (Subdivision and Land Use Control); (3) Rules of the Washtenaw County ~~Drain~~ Water Resources Commissioner; (4) Ann Arbor City Code Chapter 60 (Wetland Preservation); (5) Ann Arbor City Code Chapter 103 (Historical Preservation). In the case of a conflict among the definitions in the documents listed above, the document listed first shall prevail over any conflicting definition of a document listed later.

(21) Rules of the ~~WCDC~~ WCWRC. The Rules of the Washtenaw County ~~Drain~~ Water Resources Commissioner, Procedures and Design Criteria for Stormwater Management Systems, dated May 15, 2000.

5: 643. Single or Two-Family Residential Stormwater Management

For sites zoned or used as single or two-family residential that propose to add 200 square feet or more of impervious surface, on-site storm water management systems shall be required and shall meet the following requirements:

- (1) Retention / infiltration of the first flush storm events for the net increase in impervious surface, in compliance with the Rules of the WCWRC.
- (2) Redirection of all downspouts to vegetated areas or to a stormwater management measure, as is required by the “Drainage Nuisances and Complaints” Section of Chapter 100 of City Code.

Exception: On-site stormwater control will not have to be provided for initial construction of new homes in a site planned development that complies with the stormwater management requirements of this ordinance, during the period of time that the site plan is effective (i.e. not expired).

5:653~~4~~. Compliance with chapter required for site plan, final preliminary plat, or PUD site plan approval.

No site plan, final preliminary plat, or PUD site plan shall be approved under Chapter 57 of this Code unless the site plan, final preliminary plat, or PUD site plan includes soil erosion, sediment control, and storm water management systems in compliance with the requirements of this chapter, related Land Development Regulations, and the Rules of the ~~WCDC~~ WCWRC.

5:6545. Storm water management systems.

Compliance with the storm water management system criteria of this Chapter is required for any form of construction or removal or disturbance of any natural features that requires approval under Chapter 57 of this Code for any site plan, final preliminary plat, or PUD site plan, but is not required for issuance of grading permits that do not require site plan, final preliminary plat, or PUD site plan approval. Administrative amendments to approved site plans or administrative amendments to approved PUD site plans, as described in Chapter 57, that do not increase the total impervious area of the site and are not within the jurisdiction of the Washtenaw County Drain Water Resources Commissioner shall be exempt from the storm water management system requirements of this Chapter.

(1) For sites within the jurisdiction of the Washtenaw County Drain Water Resources Commissioner; or sites with storm water management systems under multiple ownership or for multiple parcels, including but not limited to site condominiums; or residential developments containing greater than four units within two or more detached structures; or sites with storm water management systems serving more than one parcel; the storm water management system shall be reviewed and receive preliminary plan approval from the Washtenaw County Drain Water Resources Commissioner's Office prior to site plan, final preliminary plat, or PUD site plan approval by the city. For sites that require review by the Washtenaw County Drain Water Resources Commissioner's Office, a permit or letter of final plan approval from the Washtenaw County Drain Water Resources Commissioner's Office shall be obtained prior to issuance of a grading permit by the city code official. Any exceptions to the Rules of the ~~WCDC~~ WCWRC listed in this Chapter are not applicable to reviews performed by the Washtenaw County Drain Water Resources Commissioner's Office.

(2) For sites other than described in sub-section (1) that contain or are proposed to contain more than 5,000 square feet of impervious surface, on-site storm water management systems shall be required for any site which is the subject of a site plan, final preliminary plat, or PUD site plan. The storm water management system shall be reviewed and receive approval from the public services area administrator and meet the design criteria stated in the Rules of the ~~WCDC~~ WCWRC, with the following exceptions:

(a) For sites that contain existing impervious surfaces, adding or removing and replacing impervious surfaces solely for the purpose of compliance with the Americans with Disabilities Act, or compliance with the State of Michigan Barrier Free Design Rules (Public Act 1 of 1966, as amended) shall be exempt from the storm water management system requirements of this Chapter.

(b) Sites proposed to contain:

(i) Impervious surfaces greater than 5,000 square feet and less than 10,000 square feet require detention only of the first flush storm events.

(ii) Impervious surfaces equal to or greater than 10,000 square feet and less than 15,000 square feet require detention only of the first flush and bankfull storm events.

(iii) Impervious surfaces equal to or greater than 15,000 square feet require detention of the first flush, bankfull, and 100-year storm event. Detention facilities designed for the 100-year storm event shall include a sediment forebay.

(c) Public sidewalks are not required to be included in the storm water management calculations.

(d) If the site is located in an historic district designated by the City of Ann Arbor, then the roof area of the historic building(s) is not required to be included in the storm water management

calculations. This exemption does not apply to noncontributing structures within the historic district.

(3) Within the Downtown Development Authority District (DDA), or sites outside the DDA which contain existing impervious surfaces, alternative methods of storm water detention may be allowed by the approving body if each of the following conditions are met:

(a) Control of the first flush storm event has been provided.

(b) A determination is provided by an architect or professional engineer that storm water management systems have been provided on-site to the maximum extent feasible and that it is not feasible to provide any additional detention volume due to site constraints such as, but not limited to, existing buildings, loss of existing parking below that required by Chapter 59, or protection of natural features.

(c) The alternative method of storm water detention is consistent with the intent of this Chapter and the goals of the Rules of the ~~WCDC~~ WCWRC, as determined by the code official.

(d) The alternative method of storm water detention is specifically approved on a site plan, final preliminary plat, or PUD site plan in a separate motion by the approving body. Where staff is the approving body, the alternative method of storm water detention shall be approved by the planning commission.

(e) The alternative method of storm water detention provides an equal or greater amount of resources, in the form of money or land or both, to the city that are at least as beneficial as the required volume of storm water detention that is not being provided on-site. The resources required shall be computed for residential sites at \$2.00 per square foot and commercial sites at \$2.50 per square foot of impervious surface not served by a detention facility meeting the design criteria of this section.

(f) The alternative method of storm water detention is provided through one or both of the following methods:

(i) It donates money to the city for the express purpose of improving storm water management systems within the same watershed such as, but not limited to, regional detention, regional water quality improvements facilities, or increasing floodplain storage capacity. The money may not be used for maintenance of existing public facilities.

(ii) It donates land to the city for the express purpose of improving storm water management systems within the same watershed. The donation of land is subject to acceptance by city council. The donated land shall be suitable to be effectively used for improvements of the storm water system within the same watershed and pass phase I and II environmental assessments prior to acceptance by city council. The value of the land shall be determined by an appraisal prepared by an independent appraiser acceptable to the city. The appraisal will be submitted to the city assessor or an independent review appraiser for review and approval.

(4) On a site that requires the installation of a storm water management system the detention facility shall be installed and stabilized prior to the issuance of Building permits. The public services area administrator may deem it necessary to modify the timing of installation of the detention facility when conditions, such as a detention facility that is integral to the structure of a new building, prevent installation prior to Building permits. As-built verification from an architect or professional engineer shall be submitted to the code official for approval prior to issuance of any Certificate of Occupancy. The as-built verification shall include: elevations and volumes, outlet sizes and elevations, stabilization

information, and signature and seal of an architect or professional engineer. A sample form may be provided by the code official upon request.

(5) Existing wetlands shall not be modified for the purposes of storm water management systems unless it is determined that the existing wetland is not regulated by Chapter 60 of the City code. Where modifications to wetland areas are allowed, the existing storage shall be maintained and shall not count toward meeting the requirements of this section.

(6) When residential lots or units are proposed to be created, the runoff coefficients shall take into account the future impervious surfaces of these building sites within the storm water management calculations.

(7) Storm water management facilities shall be designed so that any discharge of storm water from the facility, which does not empty directly into a drain, shall be converted to sheet flow over the ground through the use of an energy dissipater, in a manner which will preclude erosion, or other approved method as determined by the public services area administrator.

(8) Prior to the issuance of a grading permit, the developer of the storm water management system shall provide the city with an agreement, satisfactory to the city attorney, that if maintenance is not performed to the reasonable satisfaction of the code official the city may, after posting reasonable notice on the site, perform the maintenance activities and charge all costs to the benefited properties. If the costs remain unpaid for sixty (60) days, the city may assess those costs to the benefited properties as a single lot assessment under City Code section 1:292.

5:65960. Review standards for the issuance of grading permits.

(1) All grading plans and specifications, including extensions of previously approved plans, shall include provisions for soil erosion and sedimentation control, and storm water management. The soil erosion and sedimentation controls and storm water management systems shall be designed to the criteria in this chapter to the satisfaction of the Code Official. The following applicable resources may also be utilized by the Code Official as the standards and specifications for this chapter: the most recent versions of the [Low Impact Development Manual for Michigan](#), Michigan Department of Environmental Quality-- Guidebook of Best Management Practices for Michigan Watersheds, the City of Ann Arbor Public Services Department Standard Specifications Manual, the Standards and Specifications of the Natural Resources and Conservation Service, Standard Specifications for Construction of the Michigan Department of Transportation; and the Rules of the ~~WCDC~~ [WCWRC](#), and the Oakland County Soil Erosion [and Sedimentation](#) Control Manual dated January 1, 1990.

(2) Grading permits shall be issued provided that the Code Official determines that all of the following standards are met:

- (a) The proposed grading will not cause hazard to public safety and/or welfare; and,
- (b) The work, as proposed by the applicant, will not damage adjacent public or private property, or alter any existing drainage in such a manner as to damage adjacent or off-site property, or result in deposition of debris or sediment off-site, or result in deposition into any wetland, watercourse, storm water management system, or public right-of-way; and,
- (c) The area for which grading is proposed is not subject to erosion, settlement, slope instability or any other hazard which cannot be protected against during the permitted grading activities; and,
- (d) The land area for which the clearing and/or grading is proposed does not lie within a designated 100-year floodplain or unmapped flood prone area of any lake, pond, or watercourse unless the proposed clearing and/or grading is consistent with the current Floodplain Management Resolution of the City of Ann Arbor or subsequently adopted Floodplain Management Ordinance and is determined to have no detrimental influence on the public welfare or upon the overall function of the watershed; and,
- (e) Disturbance to any natural feature is consistent with an approved site plan, final preliminary plat, or PUD site plan required by Chapter 57; and,
- (f) A soil erosion and sedimentation control plan is provided which meets the provisions of this chapter.

