

## **ARTICLE VI. STORMWATER MANAGEMENT**

### **DIVISION 1. GENERALLY**

#### **Sec. 24-201. Purposes.**

The purposes of this article shall be:

- (a) To protect public health, safety and welfare by requiring stormwater management whenever new, expanded or modified developments are proposed.
- (b) To assure that stormwater runoff from development is controlled so that the water quality in watercourses, groundwater recharged by stormwater and habitat situated in areas impacted by stormwater, including, without limitation, watercourses and wetlands, are protected, and that siltation and pollution are minimized.
- (c) To provide for cost-effective and functionally-effective stormwater management, and to reduce the need for future remedial projects.
- (d) To prevent soil erosion and sedimentation.
- (e) To ensure that, if wetlands are to be used for stormwater detention, the natural functions and quality of wetlands throughout the township are protected to the maximum extent particularly with regard to the effects of stormwater elevation increases on existing woodlands. *(Also, see the West Bloomfield Township Wetlands Ordinance [chapter 12]. )*
- (f) To recognize private responsibility to incorporate stormwater management systems into the early stages of site planning and design.
- (g) To ensure that all stormwater conveyance and detention facilities will be properly designed and maintained.
- (h) To promote the avoidance of degradation of water resources by reducing and/or avoiding impacts on the hydrology of stormwater runoff.
- (i) To establish regulations to prevent harmful effects of changes in the quantity and quality of surface water discharge into wetlands and water bodies that are in the Township of West Bloomfield, in whole or part.
- (j) Recognizing that significant adverse surface and/or groundwater impacts may result from development, it is the intent of this article to require development design and control mechanisms to ensure that stormwater runoff does not result in a short-term and/or long-term threat to the public health, safety and welfare in the Township of West Bloomfield, and in downstream areas.
- (k) To achieve compliance with state and federal law and regulations relating to water quality.

#### **Sec. 24-202. Construction of language.**

The following rules of construction apply to the text of this article:

- (a) Particulars provided by way of illustration or enumeration shall not control general language.
- (b) Ambiguities, if any, shall be construed liberally in favor of protecting natural land and water resources.
- (c) Words used in the present tense shall include the future, and words used in the singular number shall include the plural, and the plural the singular, unless the context clearly indicates the contrary.

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- (d) Terms not specifically defined in this article shall have the meaning customarily assigned to them.
- (e) Considering that stormwater management in many cases requires sophisticated engineering design and improvements, some of the terms of this article are complex in nature. Effort has been made to simplify terms to the extent the subject matter permits. In addition, assistance and examples will be provided by or on behalf of the township as needed for the interpretation and understanding of this article.

**Sec. 24-203. Abrogation and conflict of authority.**

Nothing in this article shall be interpreted to conflict with present or future state statutes in the same subject matter. Conflicting provisions of this article shall be abrogated to the extent of the conflict. The provisions of this article shall be construed, if possible, to be consistent with and in addition to relevant state regulations and statutes.

In their interpretation and application, the provisions of this article shall be held to be minimum requirements and shall be liberally construed in favor of achieving the objectives of this article, and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

This article is not intended to repeal, abrogate or impair any existing ordinances, easements, covenants, or deed restrictions. However, where this article imposes greater restrictions, the provisions of this article shall prevail. If there is another ordinance that is inconsistent, the terms of the article that promotes the protection of natural resources to the greatest extent shall apply, including water quality, wetlands, woodlands, watercourses, environmental feature setbacks and other natural areas and habitat.

**Sec. 24-204. Definition of terms.**

The following terms, phrases, words and derivatives shall have the meaning defined below:

*Accelerated soil erosion.* The increased movement of soils that occurs as a result of the impact of development upon the flow of stormwater.

*BMP or Best Management Practice.* BMPs are any structural, vegetative or managerial practice used to treat, prevent or reduce water pollution. Such practices include temporary seeding on exposed soils, detention and retention basins for stormwater control, and scheduling the implementation of all BMPs to ensure their effectiveness.

*Conveyance facility.* A storm drain, as defined in this article.

*Detention basin.* A structure or facility, natural or artificial, which stores stormwater on a temporary basis and releases it at a controlled rate. A detention basin may drain completely after a storm event, or it may be a pond with a fixed minimum water elevation between runoff events.

*Development.* Any change in land, buildings, structures and/or vegetative cover that tends to alter stormwater impact. This term shall not include customary lawn maintenance or gardening, but shall include redevelopment. "Redevelopment" shall be deemed to be included within the definition of "development" for purposes of this article if the amount of square footage of proposed building or structure improvement and/or the

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creation of new impervious surface area is (are) significant in terms of stormwater management, as determined in the discretion of the township engineer in consultation with the township environmental director; provided, however, application of this article to redevelopment shall not have the result of entirely prohibiting reasonable use of property, and any dispute on this issue shall be resolved by the township board upon petition by an aggrieved property owner as an appeal, as provided in sections 24-223--24-226 of this article.

*Discharge.* Any addition or introduction of any pollutant, stormwater, or any other substance into the stormwater system or into groundwater.

*Disturbed area.* An area of land subjected to development.

*Drainage system.* All natural and human made facilities, measures, areas, and structures which serve to convey, catch, hold, filter, store, and/or receive stormwater, either on a temporary or permanent basis.

*Earth change.* A human-made change in the natural cover or topography of land, including but not limited to cut and fill activities, which may result in or contribute to soil erosion or sedimentation of watercourses or wetlands.

*Engineered site grading.* A sealed drawing or plan and accompanying text prepared by a registered engineer or landscape architect which shows alterations of topography, alterations of watercourses, flow directions of stormwater runoff, and proposed stormwater management and measures, having as its purpose to ensure that the objectives of this article are met.

*Flood.* A temporary rise in the level of any waterbody, watercourse or wetland which inundates areas not ordinarily covered by water.

*Floodplain.* For a given flood event, that area of land adjoining a continuous watercourse that has been covered temporarily by water.

*French drain.* A below-ground drain consisting of a trench filled with gravel to permit movement of water through the gravel and into the ground. Perforated pipe may be used to enhance the efficiency of the system.

*Infiltration.* The percolation of water into the ground, expressed in inches per hour.

*Infiltration facility.* A structure or designated area which allows runoff to seep gradually into the ground, e.g., French drains, seepage pits, infiltration trenches, dry well, or perforated pipe.

*Maintenance agreement.* A binding agreement that sets forth the terms, measures and conditions for the maintenance of stormwater systems and facilities.

*Nonerosive velocity.* Stormwater flow that does not cause accelerated soil erosion.

*Offsite facility.* All or part of a drainage system that is located partially or completely off the development site which it serves.

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*Peak rate of discharge.* The maximum rate of stormwater flow at a particular location following a storm event, as measured at a given point and time in cubic feet per second (CFS).

*Person.* Any individual, firm, partnership, association, corporation, company, or organization of any kind including school districts and government agencies conducting operations within the township.

*Planning commission.* West Bloomfield Township Planning Commission.

*Private storm system.* A drainage system serving a platted subdivision or other development which has been designed and constructed and conveyed to be operated and maintained by a homeowners association or the Township of West Bloomfield.

*Public storm system.* A drainage system serving a platted subdivision or other development which has been designed and constructed and accepted to be operated and maintained by a governmental entity having authority and jurisdiction.

*Receiving body of water.* Any watercourse or wetland into which stormwaters are directed, either naturally or artificially.

*Retention basin.* A holding area for stormwater, either natural or man made, which does not have an outlet to adjoining watercourses or wetlands. Water is removed from retention basins through infiltration and/or evaporation processes, and retention basins may or may not have a permanent pool of water.

*Runoff.* That part of precipitation which flows over the land.

*Sediment.* Mineral or organic particulate matter that has been removed from its site of origin by the processes of soil erosion, is in suspension in water, or is being transported.

*Soil erosion.* The wearing away of land by the action of wind, water, gravity or a combination thereof.

*Soil erosion control measures.* A structure, facility, barrier, berm, process, vegetative cover, basin, and/or other installations designed to control accelerated soil erosion. Temporary measures are installed to control soil erosion during construction or until soils in the contributing drainage area are stabilized. Permanent measures remain after the project is completed.

*Storage facility.* A basin, structure, or area, either natural or human made, which is capable of holding stormwater for the purpose of controlling or eliminating discharge from the site.

*Storm drain.* A conduit, pipe, swale, natural channel or manmade structure which serves to transport stormwater runoff. Storm drains may be either enclosed or open.

*Stormwater discharge.* The volume of water passing a given point at a given time expressed in cubic feet per second. Also referred to as rate of flow.

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*Stormwater management.* Drawings and written information prepared by a registered engineer, registered landscape architect or registered surveyor which describe the way in which accelerated soil erosion and/or stormwater flows are proposed to be controlled, both during and after construction, having as its purpose to ensure that the objectives of this article are met.

*Stormwater management measure and facility.* Any facility, structure, channel, area, process or measure which serves to control stormwater runoff in accordance with the purposes and standards of this article.

*Stormwater management system.* Entire stormwater conveyance and storage facilities and all appurtenances thereto.

*Swale.* Defined contour of land with gradual slopes that transports and directs the flow of stormwater.

*Township.* Township of West Bloomfield.

*Township board.* West Bloomfield Township Board.

*Watercourse.* Any natural or manmade waterway or other body of water having reasonably well defined banks. Rivers, streams, creeks and brooks and channels, whether continually or intermittently flowing, as well as lakes and ponds are watercourses for purposes of stormwater management.

*Watershed.* An area in which there is a common receiving body of water into which stormwater ultimately flows, otherwise known as a drainage area.

*Wetlands.* Land characterized by the presence of water at a frequency and duration sufficient to support, and that under normal circumstances does support, wetland vegetation or aquatic life and is commonly referred to as a bog, swamp or marsh, as defined by state law.

**Sec. 24-205. Applicability.**

Except for those activities expressly exempted by section 24-206, every new development (as defined in this article), or redevelopment in the Township of West Bloomfield shall have either a stormwater management plan or an engineered site grading plan, depending on the type of activity, as listed below. No development or preparation for development on a site shall occur unless and until an application has been submitted and approved for a stormwater management plan or engineering site grading plan.

- (a) *Requirement for a stormwater management plan.* A stormwater management plan shall be submitted and reviewed in accordance with requirements of sections 24-207--24-215. Approval of final development plans, site plans, and final preliminary subdivision and condominium plans shall not be granted prior to approval of the stormwater management plan. The following types of developments and earth changes require a stormwater management plan:

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- (1) Land development proposals subject to site plan review requirements in the Township of West Bloomfield Zoning article.
  - (2) Subdivision plat proposals.
  - (3) Site condominium developments pursuant to the Condominium Act, P.A. 59 of 1978 as amended; MCLA 559.101 et seq.
  - (4) Any development on property divided by land division in connection with which one or more public or private roads are created or extended, and/or in connection with which more than three (3) parcels of less than one (1) acre are created. A private road shall include: an existing drive which, following the land division, serves more than one (1) home; and a new private road approved by the township meeting ordinance design standards.
  - (5) Any proposal to mine, excavate, or clear and grade or other-wise develop one (1) acre or more of land for purposes other than routine single-family residential landscaping and gardening, or any proposal within five hundred (500) feet of the top of the bank of an inland lake or stream.
  - (6) Development projects of federal, state and local agencies and school districts.
  - (7) Maintenance of a stormwater basin constructed prior to the effective date of the regulations of which this subsection is a part.
- (b) *Requirement for an engineered site grading plan.* An engineered site grading plan shall be submitted and reviewed in accordance with requirements of sections 24-216--24-217. The engineered site grading plan shall be approved by the township engineer prior to the issuance of any building permit. The following types of new construction of single-family housing units require an engineered site grading plan:
- (1) Development on acreage parcels (lot splits) for which a stormwater management plan is not required.
  - (2) Development on platted subdivision lots.
  - (3) Development on site condominium units.

**Sec. 24-206. Exempt activities.**

- (a) Notwithstanding the requirements of section 24-205, neither a stormwater management plan nor an engineered site grading plan shall be required for activities commonly associated with farming, horticulture and silviculture including plowing, irrigation, irrigation ditching, seeding, cultivating, minor drainage, harvesting for the production of food, fiber, and forest products, provided, however, such activities must be bona fide commercial enterprises, being undertaken without the expectation of being converted to some other use within the foreseeable future.
- (b) Routine single-family residential landscaping and/or gardening which conforms with the stormwater management plan or site grading plan approved by the township, and which does not otherwise materially alter stormwater flow from the property in terms of rate and/or volume.
- (c) Development on one single-family lot, parcel or condominium unit where the township engineer and township environmental director determine that, due to the size of the site, or due to other circumstances, the quantity, quality and/or rate of stormwater leaving the site will not be meaningfully altered.

**DIVISION 2. PLAN REQUIREMENTS AND FACILITY**

**Sec. 24-207. Preapplication conference.**

A preapplication conference shall be held with the township planning director, engineering director and environmental management director prior to the submittal of a stormwater management plan. The purpose of the preapplication conference is to provide information about plan submittal requirements, and township and county regulations.

**Sec. 24-208. Contents of stormwater management plan.**

(a) *Plan presentation.*

- (1) Through plans, illustrations, reports, and calculations, the stormwater management plan shall display the required information specified in part one of the appendix.
- (2) The stormwater management plan must be sufficiently detailed to specify the type, location, and size of stormwater management facilities, using preliminary calculations. Detailed construction drawings are not required at the stormwater management plan review stage.
- (3) If it is proposed to develop a parcel in two (2) or more phases, the stormwater management plan shall be prepared and submitted for the total project.

(b) *Plan preparation.* The stormwater management plan shall be prepared by a registered civil engineer, and shall meet the requirements specified in part one of the appendix. Other persons and professionals may assist in the preparation of the plan.

(c) *Scale for mapping.* The stormwater management plan shall be drawn to a scale as specified in part one of the appendix.

(d) *Required information.*

(1) *Identification and description.* The following information is required for all stormwater management plans:

- a. Information specified in part one of appendix.
- b. Zoning classification of petitioner's parcel and all abutting parcels.

(2) *Existing conditions.* The information describing existing site conditions for all stormwater management plans as specified in part one of the appendix.

(3) *Proposed conditions.* A description of the site after the proposed development as specified in part one of the appendix.

**Sec. 24-209. Plan submission.**

(a) Four (4) copies of the stormwater management plan required under section 24-205 shall be submitted to the planning department.

(b) For developments subject to site plan review, the proprietor shall submit a stormwater management plan to the planning department at the time that the preliminary site plan is submitted.

(c) For developments subject to subdivision plan review, the proprietor shall submit a stormwater management plan to the planning department at the time that the tentative preliminary plan is submitted.

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- (d) For other earth changes or activities subject to stormwater management plan requirements, the plan shall be submitted to the planning department before construction drawings are submitted.
- (e) Compliance with the requirements of this article does not eliminate the need for the proprietor to obtain required permits and approvals from county and state agencies. Such permits and approvals include, but are not limited to, soil erosion permits from the Township of West Bloomfield engineering department, drainage approvals from the Oakland County Drain Commissioner, road drainage approvals from the Oakland County Road Commission, wetlands permits from the township and Michigan Department of Environmental Quality, and dam construction permits from the Michigan Department of Natural Resources.
- (f) Compliance with the requirements of this article does not eliminate the need for the proprietor to comply with other applicable township ordinances and regulations.
- (g) Upon submission of a stormwater management plan, as provided above, such plan shall be forwarded to the engineering and environmental departments for review and recommendation to the planning commission; provided, however, if the site plan, subdivision plat or other earth change plan is revised, then, the stormwater management plan shall be rereviewed and a new recommendation made by the engineering and environmental departments to ensure continued compliance with all other applicable ordinances administered by such departments.

**Sec. 24-210. Revision of plan.**

If it becomes necessary to alter a development or earth change proposal after the stormwater management plan has been approved, a revised stormwater management plan must be submitted, reviewed and approved in accordance with the procedure set forth above. All requirements and standards for stormwater management plans (section 24-215) shall apply.

**Sec. 24-211. Review procedures.**

(a) *Planning commission review.*

- (1) The planning commission shall, following recommendation by the township engineer, review appropriate stormwater management plans to assure compliance with the approval standards listed in section 24-213 of this article.
- (2) Engineered site grading plans do not require planning commission review.
- (3) When the stormwater management plan appears on the planning commission's agenda for the first time, it shall be distributed to township staff as applicable.
- (4) If the planning commission determines that all of the required information has not been received, the proprietor may request that the matter be tabled to allow for the submittal of the required information.
- (5) The planning commission shall either approve, approve with conditions, or deny approval of the stormwater management plan.

(b) *Wetland board review.* Wetland board review shall be as specified in this article, including the appendices. In addition, for purposes of carrying out the intent of section 12-31 of chapter 12 of the West Bloomfield Township Code of Ordinances, for the development, re-development and maintenance of all stormwater basins or other storage facilities that directly or indirectly outlet into a wetland, watercourse



or flood plain, a use permit under chapter 12 shall be required if either or both of the following standards apply:

- (1) There will be any physical disturbance of, or if there will be an outlet into, a wetland, water course, floodplain or environmental feature setback area having an allowable discharge greater than five (5) cubic feet per second; and/or
- (2) The township environmental management planner and the township environmental consultant, working in consultation with the township engineer, determine in the reasonable exercise of their discretion that such outlet of stormwater could potentially have an adverse impact upon such wetland, environmental feature setback area, watercourse and/or floodplain.

**Sec. 24-212. Review fees.**

The township board shall establish application fees and escrow requirements by resolution. Fees and escrow account payments shall be sufficient to cover administrative and technical review costs anticipated to be incurred by the township including the costs of on-site inspections.

**Sec. 24-213. Standards for stormwater management plan approval.**

All developments requiring a stormwater management plan shall be designed, constructed, and maintained to prevent flooding, protect water quality and achieve the purposes of this article, as stated above. The particular facilities and measures required on-site shall take into consideration the natural features, wetlands, and watercourses on the site; the potential for on-site and off-site adverse stormwater impacts, water pollution, and erosion; and the size of the site.

*(a) General standards for on-site and off-site stormwater management.*

- (1) Stormwater management conveyance, storage and infiltration measures and facilities shall be designed to prevent flood hazards and water pollution related to stormwater runoff, to prevent accelerated soil erosion from the proposed development, and shall conform with the requirements as specified in part two of the appendix.
- (2) Natural topography and site drainage shall be preserved and site grading shall be minimized to the maximum extent reasonably achievable considering the nature of the development.
- (3) Unless otherwise approved, stormwater runoff shall be conveyed, e.g., to a stormwater storage facility, through swales and vegetated buffer strips, rather than through enclosed pipes, so as to decrease runoff velocity, allow for natural infiltration, allow suspended sediment particles to settle, and to remove pollutants.
- (4) Runoff rates from detention basins shall conform with the requirements specified in part two of the appendix for the first flush, bankful, and 100-year storm.
- (5) Watercourses shall not be deepened, widened, dredged, cleared of vegetation, straightened, stabilized or otherwise altered without applicable permits or approvals from the township, relevant county agencies and the applicable State of Michigan Department(s).

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- (6) Drainage systems shall be designed to protect public health and safety, and the environmental integrity of the township, and to facilitate efficient and effective maintenance.
  - (7) The stormwater management plan shall demonstrate a zero percent increase over the discharge or runoff permitted by applicable law and ordinances in relation to the predevelopment and post development stormwater runoff.
  - (8) Stormwater storage facilities shall be designed in accordance with the specifications set forth in the appendix, part two.
- (b) *Soil erosion control.*
- (1) Cutting, filling and grading shall conform with the requirements specified in part two of the appendix.
  - (2) All development and other earth changes shall be designed, constructed and completed in such a manner that the exposed area of any disturbed land is limited to the shortest practical period of time. Proposed erosion control measures shall be submitted to the Township of West Bloomfield engineering department and environmental department for determination that such measures comply with the Township of West Bloomfield Grading and Soil Erosion Control Ordinance [section 8-305 et seq.].
  - (3) Approved soil erosion control measures shall be properly installed and maintained between the disturbed area and any down gradient watercourses (including rivers, streams, creeks, lakes, ponds and other watercourses), wetlands, environmental feature setback areas, roadways and property lines.
  - (4) Sediment resulting from accelerated soil erosion shall be removed from runoff water before it leaves the site of the development.
  - (5) Temporary and permanent soil measures designed and constructed for the conveyance of water around, through or away from the development or earth change area shall be designed to limit the water flow to a non-erosive velocity.
  - (6) Temporary soil measures shall be removed after permanent soil measures have been implemented and stabilized. All developments and earth change areas shall be stabilized with permanent soil measures.
  - (7) If inland lakes, ponds, rivers, creeks, streams or other watercourses and wetlands are located on or near the site, measures which trap sediment shall be provided. Straw bale berms may be used as temporary stormwater diversion structures but will not be considered sufficient by themselves for trapping sediment on-site. Temporary sediment basins, sediment traps, silt fencing, filter fabric, and rock filters in lieu of straw bale berms shall be used as required as part of a permit. Other measures may be required if reasonably determined to be necessary to protect a watercourse or wetland.
  - (8) When it is not possible to permanently stabilize a disturbed area after an earth change has been completed or where significant earth change activity ceases, temporary soil erosion control measures shall be implemented within the time provided by state law.
  - (9) Permanent soil measures for all slopes, channels, ditches, or any disturbed land area shall be completed within five (5) calendar days after final grading or the final earth change has been completed. All temporary soil measures shall be maintained until permanent soil measures are implemented and stabilized.
  - (10) The township engineer and/or environmental director shall have the authority to issue or authorize the issuance of stop-work orders for failure to comply with the requirements of this section, provided a proprietor shall be entitled to an

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expeditious hearing before the township supervisor, or his or her designee, to determine whether the stop-work order shall continue. If a stop work order is issued under this paragraph and also under one or more other article provisions of the township, the continued effect of the stop work order issued under such other article provisions shall abide the determinations made as contemplated under such other article provisions.

- (c) *Stormwater storage and infiltration facilities.* Stormwater storage and/or infiltration facilities required pursuant to this article shall comply with the requirements specified in part two of the appendix.

**Sec. 24-214. Off-site stormwater management.**

(a) *Requirements.*

- (1) In lieu of on-site stormwater detention, the use of off-site stormwater conveyance, infiltration, and/or detention areas may be proposed. Off-site stormwater management facilities shall be designed to comply with the requirements specified in part two of the appendix and all other standards provided by this article that are applicable to on-site facilities.
- (2) Off-site stormwater management areas may be shared with other landowners, provided that the terms of the proposal are approved by the township board and township attorney. If applicable, approval shall also be required by the wetlands board. Approval hereunder shall not be granted for off-site stormwater management unless the applicant demonstrates to the township board, following recommendation by the township engineer, environmental director and applicable board or commission, that the use of off-site stormwater management areas shall protect water quality and natural resources to an equal or greater extent than would be achieved by the use of on-site stormwater management areas.
- (3) Adequate provision and agreements providing for maintenance and inspection of stormwater management facilities shall be made, and the documents recorded instrument, including an access easement, approved by the township.
- (4) Accelerated soil erosion shall be managed off-site as well as on-site.

- (b) *Performance guarantees, inspections, maintenance, and enforcement.* All provisions for performance guarantees shall apply to off-site stormwater conveyance and detention.

**Sec. 24-215. Submittal, review and approval procedures requirements.**

- (a) Four (4) copies of construction drawings and engineering specifications shall be submitted to the engineering department and environmental department following stormwater management plan approval but prior to the issuance of any construction or building permits.
- (b) Construction drawings and engineering specifications shall be subject to review and approval by the township engineer and environmental director, and a copy shall be transmitted to the Oakland County drain commissioner and to the wetlands board if applicable.
- (c) A construction permit shall not be issued unless the detailed engineering drawings and specifications meet the standards of this article, applicable township

ordinances, engineering standards and practices, and any applicable requirements of other government agencies.

### **DIVISION 3. ENGINEERED SITE GRADING PLANS**

#### **Sec. 24-216. Contents of engineered site grading plans.**

- (a) Four (4) copies of engineered site grading plans for single-family homes and private road developments shall be submitted by the proprietor to the engineering department and environmental department; provided, however, if and to the extent the same information has been previously submitted as required under a separate ordinance requirement, then, the applicant shall provide copies of the previous submission, together with new information required hereunder which has not been previously submitted.
- (b) The engineered site grading plan shall include the following site information, subject to the exception specified in subparagraph (a), above:
  - (1) The legal property description and a north indicator.
  - (2) Existing grades on a fifty-foot grid to a minimum of fifty (50) feet beyond the site property line and sufficient intermediate grades to determine such things as ditches, swales, adjacent pavement, buildings and other pertinent features.
  - (3) Location of any watercourses, wetlands, woodlands, environmental feature setback areas (as specified in the Zoning Ordinance), lakes and ponds on the site.
  - (4) Existing easements.
  - (5) Existing utilities, manholes and culverts.
  - (6) Road rights-of-way, existing and proposed.
  - (7) Proposed topography of the site.
  - (8) Location and description of any existing and proposed stormwater management and soil erosion control measures.
  - (9) Flow direction(s) of stormwater runoff onto and from the site before and after development, including the direction of overland flow.
  - (10) Proposed elevations shall be underlined or boxed in to differentiate from existing elevations. It is expected that all elevations shall be in hundredths of a foot.
  - (11) A location map.
  - (12) The information required in part one, section II.B. of the appendix.

#### **Sec. 24-217. Review procedures and standards.**

- (a) Engineered site grading plans shall be subject to review and approval by the township engineer and environmental director to assure compliance with this article and the township grading and soil erosion and sedimentation control article.
- (b) Engineered site grading plans shall be reviewed and approved by the township engineer and environmental director prior to the issuance of a building permit.

### **DIVISION 4. PERFORMANCE GUARANTEES, EASEMENTS AND MAINTENANCE**

#### **Sec. 24-218. Applicability of requirements.**

Requirements of this article concerning performance guarantees, easements, and maintenance agreements shall apply to proprietors required to submit a stormwater management plan to the township for review and approval.

**Sec. 24-219. Performance guarantees.**

The proprietor shall post an acceptable form of an irrevocable letter of credit, cash escrow or certified check for purposes of providing performance security. The performance guarantee shall be an amount determined by the township engineer after recommendation by the environmental director, equal to one and one-half (1 1/2) times the amount required to complete stormwater management and facilities as specified in the stormwater management plan or engineered site grading plan, as applicable, together with reasonable administrative expenses. Required performance guarantees shall be provided to the township after stormwater management plan or engineered site grading plan approval but prior to the initiation of any earth change.

After determination by the township engineer and environmental director for site plans, or by the Oakland County drain commissioner for site condominiums and subdivisions, that all facilities are completed in compliance with the approved plan, the posted performance guarantee remaining shall be released.

**Sec. 24-220. Stormwater management easements.**

(a) *Necessity of easements.* Stormwater management easements shall be provided in a form required by the applicable approving body of the township and the township attorney, and recorded as directed as part of the approval of the applicable township body to assure:

- (1) Access for inspections;
- (2) Access to stormwater management facilities for maintenance purposes; and
- (3) Preservation of primary and secondary drainageways which are needed to serve stormwater management needs of other properties.

(b) *Easements for off-site stormwater management.* The proprietor shall obtain easements assuring access to all areas used for off-site stormwater management, including wetlands.

(c) *Recording of easements.* Easements shall be recorded with the Oakland County register of deeds according to Oakland County requirements.

(d) *Recording prior to building permit issuance.* The proprietor must provide the township clerk with evidence of the recording of the easement prior to final subdivision plat or condominium approval or other applicable final construction approval.

**Sec. 24-221. Maintenance agreement.**

(a) *Purpose of maintenance agreement.* The purpose of the maintenance agreement is to provide the means and assurance that maintenance of stormwater management and facilities shall be undertaken.

(b) *Maintenance agreement required.*

- (1) A maintenance agreement shall be submitted to the township engineer and environmental director for all development, and shall be subject to approval in

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accordance with stormwater management plan or engineered site grading plan requirements, as applicable.

- (2) Maintenance agreements shall be approved by the township board prior to final subdivision plat or condominium approval, as applicable, and prior to construction approval in other cases.

(c) *Maintenance agreement provisions.*

- (1) The maintenance agreement shall include a plan for routine, emergency and long-term maintenance of all stormwater facilities with a detailed annual estimated budget for the initial three (3) years, and a clear statement that only future maintenance activities in accordance with the maintenance agreement plan shall be permitted without the necessity of securing new permits. Written notice of the intent to proceed with maintenance shall be provided by the party responsible for maintenance to the township engineer and environmental director at least fourteen (14) days in advance of commencing work.
- (2) The maintenance agreement shall be binding on all subsequent owners of land served by the stormwater management and facilities, and shall be recorded in the office of the Oakland County register of deeds prior to the effectiveness of the approval of the Township of West Bloomfield township board or planning commission.
- (3) If it has been found by the township board, following notice and an opportunity to be heard by the property owner, that there has been a material failure or refusal to undertake maintenance as required under this article and/or as required in approved the maintenance agreement as required hereunder, the township shall then be authorized, but not required, to hire an entity with qualifications and experience in the subject matter to undertake the monitoring and maintenance as so required, in which event the property owner shall be obligated to advance or reimburse payment (as determined by the township) for all costs and expenses associated with such monitoring and maintenance, together with a reasonable administrative fee. The maintenance agreement required under this article shall contain a provision spelling out this requirement, and, if the applicant objects in any respect to such provision or the underlying rights and obligations, such objection shall be resolved prior to the commencement of construction of the proposed development on the property.

**Sec. 24-222. Procedure for review and approval of maintenance of pre-existing facilities.**

The procedure for reviewing and approving the restorative maintenance of storage and/or sedimentation basin facilities in existence on the effective date of this article (November 4, 2004) shall be in accordance with this section 24-222.

(a) *Qualification and process for administrative review and approval.*

- (1) Administrative review and approval for proposed restorative maintenance of pre-existing storage and/or sedimentation basin facilities shall be authorized where all of the following criteria are met:
  - a. There are detailed plans and specifications for the facility approved by and on file with the township.

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- b. The proposed restorative maintenance involves the removal of materials for the reestablishment of contours in the approved plans and specifications on file with the township and/or the repair or replacement of pipes, inlets and/or outlet structures, and shall not involve an alteration of the facility from the previously approved plans and specifications except to allow an improvement of pipe size or inlet/outlet structure intended to enhance performance of the facility.
  - c. Any and all materials to be removed as part of such maintenance shall be removed from the site.
  - d. The township engineer has no reason to believe that the proposed restorative maintenance will result in a facility that will not function as intended, i.e., no reason to believe that alterations of the facility (other than as authorized in subparagraph b., above) shall be required in order to achieve a facility that will function in the intended manner.
  - e. No part of the proposed restoration and/or maintenance is requested to be performed in a natural wetland (i.e., this criterion shall not apply to a wetland created as a result of the establishment of a constructed facility).
- (2) An application for such maintenance shall be filed with the township engineer and township environmental director, and shall include a certified survey prepared by a land surveyor or civil engineer registered with the state of Michigan showing and describing all of the following:
- a. The existing conditions of the facility;
  - b. A restoration plan, including the scope and specifications of work to be performed, demonstrating the requirements of this section 24-222 and also demonstrating that there shall be a minimum disturbance of the area.
  - c. A restoration and revegetation plan.
  - d. A proposed bond securing the completion of the restoration and revegetation plan.
- (3) The maintenance shall be performed using best management practices.
- (4) The application shall be accompanied by the fee in the amount established by resolution of the township board.
- (5) An application meeting the requirements of this subsection (a) may be reviewed and approved by the township engineer and township environmental director.
- (b) *Authorization for emergency work.* The township engineer, in conjunction with the township environmental director, shall be authorized to permit emergency maintenance of a storage and/or sedimentation basin structure to the minimum extent found to be required in order to prevent imminent harm or damage to persons or property due to the malfunctioning of such facility. Such work shall be performed only in the manner and to the extent approved by the township engineer and environmental director.
- (1) Within thirty (30) days of the completion of such emergency work, the township engineer shall submit a report to the township board, with copy to the wetland

board, describing the circumstances giving rise to the work authorization and the work undertaken.

- (2) Within sixty (60) days following such emergency work, the property owner shall caused to be filed with the township any application for permanent work required, if any, to avoid an additional emergency situation, with such application to be submitted, reviewed and approved in the manner otherwise required under this article and/or in the applicable maintenance agreement.

- (c) *All other review and approval.* All maintenance not subject to review and approval under this section 24-222, above, shall be undertaken as otherwise required under this article.

## **DIVISION 5. VARIANCES AND APPEALS**

### **Sec. 24-223. Township board authority.**

The township board shall have the authority to grant variances from the strict terms of this article, and to hear and decide appeals of decisions made by township administrative officials and bodies under this article, all in accordance with the terms specified below.

### **Sec. 24-224. Written application requirements.**

A written application by an applicant or other aggrieved party shall be submitted to the township clerk, with one (1) copy each to the engineering, planning and environmental departments. For variance applications, the written application must demonstrate that:

- (1) Special conditions and circumstances exist which are peculiar to the land or project involved, and which are not generally applicable to other plans or projects.
- (2) The special conditions and circumstances do not result or have not resulted from the actions of the applicant or the applicant's predecessor.
- (3) Literal interpretation of the provisions of this article would deprive the applicant of reasonable use of the property as a whole.
- (4) A plan demonstrating an alternate means to achieve the objectives of this article.

For appeals, the application shall be submitted within fourteen (14) calendar days of the decision being appealed, and shall specify all grounds on the basis of which the appeal is being sought.

### **Sec. 24-225. Hearing required.**

Variances from the terms of this article shall not be granted unless and until a hearing shall be held by township board determines that the applicant has demonstrated all of the requirements of section 24-224. Appeals shall be determined based upon the records and files of the township, and, an appeal shall be granted, following a hearing, only if the applicant has demonstrated that the administrative decision being appealed represented an abuse of discretion, or was otherwise unlawful; provided, however, if the township board determines that the files and records of the township are not adequate for determining the appeal, the township board shall then specify the limited procedure to be utilized to supplement the record for appeal purposes.



**Sec. 24-226. Conditions for approval.**

The township board may prescribe appropriate conditions and safeguards consistent with the purposes and standards of this article in connection with the grant of a variance or appeal.

**DIVISION 6. ENFORCEMENT; EFFECT; AND APPLICABILITY**

**Sec. 24-227. Enforcement.**

- (a) Any person found to be in violation of any of the provisions of this article shall be responsible for a municipal civil infraction.
- (b) Penalties for municipal civil infraction. The following civil fines shall apply in the event of a determination of responsibility for a municipal civil infraction under this article.
  - (1) First offense. A civil fine for a first offense violation shall be in an amount of one thousand dollars (\$1,000.00), plus costs and other sanctions, for each offense.
  - (2) Repeat offense. A civil fine shall be in an amount of two thousand dollars (\$2,000.00), plus costs and other sanctions, for a second or subsequent determination that a person is responsible for violation of this article within any three (3) year period.
- (c) In addition to ordering the person determined to be responsible for a municipal civil infraction to pay a civil fine, costs, damages, and expenses, the judge or magistrate shall be authorized to issue any judgment, writ or order necessary to enforce, or enjoin violation of, this article, and require restoration or other appropriate action under the circumstances.
- (d) Continuing offense. Each act of violation, and on each day upon which any such violation shall occur, shall constitute a separate offense.
- (e) Remedies not exclusive. In addition to any remedies provided for by township article, any equitable or other remedies available may be sought.
- (f) The judge or magistrate shall also be authorized to impose costs, damages and expenses as provided by law.

**Sec. 24-228. Effect of approval in remedies.**

The approval or disapproval of any stormwater management plan shall not have any effect on any remedy of any person at law or in equity.

**Sec. 24-229. Applicability to pending projects.**

There are a number of developments in the township at various stages of approval and/or at various stages of phased construction/completion. For purposes of this provision, the phrase "site plan" shall be deemed to include subdivision plat plans and condominium plans. During the period of time that such developments are in progress, there is a need for guidance for property owners and developers with regard to the application of this article. Therefore, the stormwater management regulations contained in the article shall be interpreted as follows with respect to developments at various

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stages of approval and/or at various stages of phased construction and completion on the effective date of this article [November 4, 2004]:

- (1) In the event a development has received final site plan approval prior to the effective date of the article, then the newly adopted article standards and regulations shall not apply (except to amendments and future maintenance) unless site plan approval expires prior to the commencement of construction.
- (2) In the case of a phased development in which one (1) or more phases have been constructed prior to the effective date of the article, then the article shall apply to those phases for which stormwater facilities have not been constructed and approved, provided, the developer may petition the township board for relief on the ground that such interpretation would create an unreasonable hardship, and the board shall determine, in its discretion, whether, and the extent to which, relief shall be granted on such basis.