Champaign County, Illinois

CHAMPAIGN COUNTY

STORMWATER MANAGEMENT POLICY

AS AMENDED THROUGH **February 20, 2003**

Champaign County Stormwater Management Policy

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Section 1 Authority

1.1 Champaign County Zoning Ordinance

Section 2(d) of the Zoning Ordinance adopted pursuant to the provision of Illinois Counties Code Ch. 34 Paragraph 5-12001 provides that among the purposes of the ordinance regulations and standards is the "...lessening and avoiding of hazards to persons and damage to property resulting from the accumulation or runoff of storm or flood waters; ..."

1.2 Champaign County Subdivision Regulations

Section 9.1.2(s) of the Subdivision Regulations adopted pursuant to the provisions of Illinois Counties Code Ch. 34 Paragraphs 3-5029 and 5-1041, provides that among other concerns the final plat of subdivision must show

> "The effect of storm water run-off on other potentially developable land and the County's streams and open drainage channels..."

and Section 9.1.2(u)(6) restating the provision of Ch. 109 Paragraph 2, Illinois Revised Statutes, requires that plats must contain

> "...a signed statement by an Illinois Professional Engineer, and the owner of the land or his duly authorized attorney, stating to the effect that to the best of their knowledge and belief the drainage of surface waters will not be changed by the construction of such subdivision or any part thereof, or, that if such surface water drainage will be changed, reasonable provision has been made for collection and diversion of such surface water into public areas, or drains which the subdivider has a right to use, and that such surface waters shall be planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to the adjoining properties because of the construction of the subdivision."

Section 2 Purpose

The purpose of this Stormwater Management Policy is to guide developers' attempts to control the transportation or movement of stormwater and reduce damage to property and protect the public health, safety, and general welfare on an interim basis while the County Board develops a permanent comprehensive stormwater management and drainage ordinance.

Section 3 Intent and Requirements

3.1 The intent of this Stormwater Management Policy is to require temporary storage of stormwater runoff; to control the rate of release of stormwater runoff; provide for adequate

3 Intent and Requirements - Continued

drainage of development sites and surrounding areas; and protect existing agricultural drainage systems.

3.2 General Requirements

A. This policy sets minimum requirements that must be met before any construction shall be authorized or before any occupancy shall be granted or before any financial or performance guarantee shall be released.

B. These minimum requirements apply to any type of plat or construction that is included within the scope of application unless specifically exempted by Section 4.3.

3.3 Authorization to Construct

A. Authorization to construct shall include the following acts:

1. Approval of engineering drawings required for any plat of subdivision; or

2. Approval of a Zoning Use Permit for construction authorized by right or related to any approved Special Use.

B. Authorization to construct shall not be granted until all of the following have occurred:

1. the relevant reviewing authority has duly approved the Stormwater Drainage Plan as described in Section 12.1; and

2. the applicant or other necessary party files with the Champaign County Recorder of Deeds any required easement or other legal instrument that is needed to implement or maintain the Stormwater Drainage Plan, except for a final plat of subdivision, owner's certificate, or private subdivision covenants, and except as provided for in Section 9.

3.4 Requirements for Final Approvals

A. Final approvals include the following acts:

1. approval of a final plat of subdivision after the construction of all required physical improvements required by the Subdivision Regulations; or

2. full and complete release of any performance guarantee related to any final plat of subdivision; or

3. full approval and unconditional issuance of a Zoning Compliance Certificate.

3.4 Requirements for Final Approvals - Continued

B. When a Stormwater Drainage Plan is required by this policy, no final approval shall be granted until after all of the following has occurred:

1. completion of the construction of all required site improvements necessary to implement the Stormwater Drainage Plan;

2. implementation of the erosion control plan including any required construction; and

3. acceptance by the Zoning Administrator of the certifications required by Section 12.2.

C. When no Stormwater Drainage Plan is required by this policy for any subdivision or construction requiring approval of a Special Use, such subdivision or construction shall nonetheless comply with the requirements of Sections 7 and 9 and no final approval shall occur until after all of the following has occurred:

1. as-built drawings or other documentation has been accepted by the reviewing authority as evidence that the requirements of Section 7 have been met; and

2. the applicant or other necessary party files with the Champaign County Recorder of Deeds any required easement or other legal instrument that is needed to implement the requirements of Section 9, except for a final plat of subdivision, owner's certificate, or private subdivision covenants.

Section 4 Scope of Application

4.1 Reviewing Authorities

For the purposes of this policy, the reviewing authorities are as follows:

A. For all subdivisions, the Environment and Land Use Committee of the Champaign County Board is the reviewing authority.

B. For all Special Use approvals, the Champaign County Zoning Board of Appeals is the reviewing authority.

C. For Zoning Use Permits, the Champaign County Zoning Administrator is the reviewing authority.

4.2 Applicability

A. This policy is intended to apply to the following:

4.2 Applicability - Continued

1. all subdivisions which require the approval of the Champaign County Board pursuant to the provisions of the *Illinois Plat Act*, 765 ILCS205/0.01 *et seq.* and the Champaign County Subdivision Regulations;

2. all construction requiring Special Use approval granted by the Champaign County Zoning Board of Appeals where the Zoning Board of Appeals is the final authority; and

3. all construction requiring a Zoning Use Permit.

B. Notwithstanding the provisions of 4.2(A) above, the requirements of Sections 7 and 9 shall apply for all subdivisions and for all developments regardless of the amount of area involved or the percent of impervious surface area.

4.3 Exemptions

A. Except as provided in Paragraph 3.4(C), all subdivisions or construction that meet any of the following conditions as applied under the rules in Paragraph 4.3(B) are exempt from the provisions of this policy:

1. construction on lots in subdivisions platted subject to municipal subdivision regulations containing standards for the detention and controlled release of stormwater, for provision of adequate site drainage, and for the protection of existing drainage facilities or on lots subject to the application of such standards by means of an annexation agreement.

2. construction of additions to existing structures when the total increase in impervious area is less than 10,000 square feet relative to the impervious area that existed on February 20, 2003;

3. any construction located on a lot that is no more than one acre in area and that existed on December 17, 1991;

4. individual single family and two-family detached dwellings and related accessory structures on a single lot;

5. subdivisions or construction on lots when the cumulative total of all impervious areas from all developed lots created from a lot or lots in common ownership on January 1, 1998, including any specific impervious area addition to the adjacent public streets that is required to accommodate the subdivision or construction, is less than the following:

4.3 Exemptions - Continued

Lot Area*	Maximum Exempt Impervious Area*
No more than 0.25 acre	Up to 100 percent of the lot may be impervious area.
More than 0.25 acre but less than 2.0 acres	The limit on percent impervious area declines from 100 percent to 50 percent of the total lot or lots area. See the graph of Stormwater Management Policy Exempt Impervious Area (see Appendix A) or use the mathematical expressions on the graph to determine the limit for impervious area on a specific lot size.
More than 2.0 acres but not more than 6.25 acres	No more than 1 acre of the lot or lots shall be impervious surface area.
More than 6.25 acres	No more than 16 percent of the total area of the lot or lots shall be impervious area, provided that no exemption shall apply to any part of a lot when that part contains more than one acre of impervious surface area within a rectangular area of 90,000 square feet with a minimum dimension of 150 feet.

*Note: "Lot area" refers to a single lot and to the cumulative total area of lot or lots that are created out of a larger tract. See Paragraph 4.3(B) for other rules of application for all exemptions.

B. The following rules govern the application of the exemptions stated in Paragraph 4.3(A) but shall not effect how the impervious area is calculated or determined for engineering design purposes.

1. Measurement of the total area and impervious area of a lot or subdivision is based on the entire area described in the legal description of the tract for which the approval is requested, together with that of other contiguous lots, when required pursuant to Subparagraph 4.3(B)(4) except for the area of adjacent public street right-of-ways as required by Item 4.3(B)(2)(c).

2. Measurement of the total area and impervious area shall exclude the following:

   a. Portions of the lot or lots that are devoted to cropland and that will remain devoted to cropland; and

   b. Portions of public street right-of-ways that are adjacent to any such areas of cropland.

   c. Portions of public street right-of-ways that do not contain any specific impervious area addition to the adjacent public streets that is required to accommodate the subdivision or construction. When specific additions of public street impervious area are required to accommodate a specific subdivision or construction, the specific addition of public street impervious area shall not be excluded.

4.3 Exemptions - Continued

3. Areas that are comprised of a permanent vegetative cover that is generally at least equivalent to "Poor condition (grass cover less than 50 percent)" using the TR-55 Design Method shall be considered non-impervious.

4. Impervious area limits and exemptions shall be applied separately for different portions of the lot or subdivision in the following instances:

   a. for each portion of the lot or subdivision that drains to a common point on the boundary of the total site (drainage sub-basin).

   b. for each portion of the lot or subdivision that drains to a drainageway that serves upstream areas that are under different ownership and that divides that portion of the lot or subdivision from the remainder of the lot or subdivision.

5. Pursuant to Subparagraph 4.3(A)(5), lots shall be considered as being developed when the lot or lots are:

   a. occupied by other than farm structures; or

   b. covered in whole or in part by any impervious area except for driveways or parking areas used for agricultural purposes and existing public streets; or

   c. included in a plat or legal description and marketed for sale.

C. All subdivisions and developments requiring a Stormwater Drainage Plan shall meet the requirements of Sections 6 through 12 of this policy.

Section 5 Drainage System Components

5.1 Minor

The minor drainage component of the drainage system shall consist of storm sewers, street gutters, small open channels, and swales designed to store and convey the runoff from the 5-year, 24-hour precipitation event utilizing the Illinois State Water Survey *Bulletin 70.*

5.2 Major

The major drainage components shall be designed to store and convey stormwater flows beyond the capacity of the minor drainage component. Information depicting stormwater flow paths (including cross-sectional data), velocities, rates, and elevations and maps of flooding shall be included in the submittal. See Section 12 below.

Section 6 Design Requirements

6.1 General Design

A. Design Methods

1. Calculation of Drainage Capacity

The Rational Method may be used to size the minor components for any development.

2. Calculation of Required Storage

The volume of required stormwater storage shall be calculated on the basis of the maximum value achieved from the runoff of a design event less the volume of water released through the outlet structure.

a. Development Watershed Area Less Than or Equal to 10 Acres

The Modified Rational Method shall be acceptable for development watersheds equal to or less than 10 acres in area. In determining the volume of storage required when using the Modified Rational Method, the release rate of the outlet structure shall be assumed to be constant and equal to the release rate through the outlet structure when one half of the storage volume is filled. In determining the maximum allowable release rate for the 50-year event, a runoff coefficient © value of 0.25 shall be used for assumed land cover conditions. Roughness coefficients most closely matching those of the TR-55 Method shall be used to determine time of concentration.

b. Development Watershed Area Less Than or Equal to 2000 Acres

The method utilized for calculation of required volume of storage shall be the Soil Conversation Service TR-55 Methodology for development watersheds less than or equal to 2000 acres in area. In determining the maximum allowable release rate for the 50-year event, a curve number shall be used corresponding to the actual soil types found on the development site provided, however, that the land cover "Row crops, SR + CR" in "good" hydrologic condition are assumed. A roughness coefficient of 0.17 and a ponding adjustment factor of 0.72 shall also be assumed in calculating the maximum allowable release rate.

c. Development Watershed Area Greater Than 2000 Acres

Developments and drainage designs for development watersheds larger than 2000 acres shall use the Soil Conservation Service TR-20

6.1 General Design - Continued

Methodology. Other routing techniques may be used in determining required storage volume upon the approval of the reviewing authority.

d. When applying Soil Conservation Service methods, a SCS Type II rainfall distribution shall be assumed.

B. Design Event

1. Precipitation values for all return period storms shall be determined utilizing the Illinois State Water Survey *Bulletin 70.*

2. A 50-year return period storm with a 24-hour duration shall be used.

3. When using the Modified Rational Method, the critical storm duration (that requiring the largest detention volume) for any design event shall be identified and used in determining storage volume.

C. Release Rates

1. Release Rate for Design Event

Outlet structure maximum release rate for the 50-year precipitation event shall be equal to the rate of discharge from the development area assuming row crop agricultural land cover and a 5-year return frequency precipitation event. See Paragraph 6.1(A) above for the required assumptions for the row crop agricultural conditions.

2. Effective Discharge for Frequent Storm Events

The outlet structure maximum discharge for each of the 1-year, 2-year and 5-year precipitation events shall be no greater than the rate of discharge from the development area, assuming row crop agricultural land cover with the required assumptions described in Paragraph 6.1(A).

3. For all methods of calculating a maximum allowable release rate, the effect of any depressional storage that actually exists on a given site shall be included in determination of the time of concentration.

D. Each storm water storage facility shall be provided with a means of overflow. This overflow structure shall be constructed to function without special maintenance attention and can become a part of the excess storm water passageway for the entire development.

E. The entire storm water storage facility shall be designed and constructed to fully

6.1 General Design - Continued

protect the public health, safety, and welfare. The minimum building site elevation adjacent to wet or dry basins shall be set at a minimum of 1 foot above the maximum created head. The maximum created head will include the energy head at the emergency overflow structure.

F. Stormwater storage facilities shall not receive run-off from tributary areas outside the development site unless the reviewing authority determines that run-off from such areas can be accommodated in the storage area in a manner that will protect immediate downstream properties.

G. Where portions of the owner's land are tributary to the same drain for an outlet, but which are within two or more tributary areas to that drain, the owner may construct, upon site specific approval by the reviewing authority, compensatory storm water detention facilities within one tributary area which offset the lack of construction of storm water detention facilities in another tributary area. Such compensatory storage shall be designed and constructed such that the net affect of these facilities shall be to limit the rate at which stormwater runoff is released into the drain to that rate which would have occurred had stormwater detention facilities been constructed for all the tributary areas.

6.2 Dry Bottom Stormwater Storage Areas

A. Dry bottom stormwater storage facilities should be designed where possible to serve a secondary purpose for recreation, open space, or similar types of uses which will not be adversely affected by occasional intermittent flooding and will not interfere with stormwater management.

B. Minimum grades for turf areas within the basin shall be 2 percent (50 units horizontal to one unit vertical) except that the minimum grade shall be 1 percent (100 units horizontal to one unit vertical) if tile underdrains are adequately installed underneath the turf areas. Storage facility side slopes shall not exceed 3:1 (three units horizontal to one unit vertical), shall provide for the reasonably safe approach of persons and reasonably safe maintenance practices. Side slopes steeper than 3:1 may be allowed upon a determination by the reviewing authority that adequate precautions are taken to avoid unreasonable hazard. Storage basin excavations shall follow the natural land contours as closely as practicable. The geometry of dry bottom storm water storage basins shall be approved by the reviewing authority.

C. Temporary seeding or other soil stabilization measures shall be established in the storm water storage basin and excess storm water passageway immediately following the construction or reconstruction of these facilities. During the construction of the overall development, it is recognized that a limited amount of sediment buildup may occur in the storm water storage facility due to erosion. In no case, shall the volume of the storage basin be reduced to less than 90 percent of the required volume during

6.2 Dry Bottom Stormwater Storage Areas - Continued

the construction phase of the development. Basins may be over-excavated to provide additional storage volume for anticipated sedimentation during construction activities.

D. Permanent erosion control measures such as hydroseeding, conventional seeding, nurse crops, fertilizing, or sod installation and associated stabilization techniques such as mulching shall be utilized to control soil movement and erosion within the storage area and excess storm water passageway. These measures shall conform to the guidelines established in the *Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois*. The installation of these permanent measures shall take place only after the majority of construction and other silt and sediment producing activities have been completed. Prior to the establishment of permanent erosion control measures, the required capacity of the storm water storage area and the excess storm water passageway shall, if necessary, be restored by excavation of sedimented materials to provide 100 percent of the required storage volume. Upon completion of construction activities, the storage volume shall be certified in writing by an Illinois Registered Professional Engineer prior to the issuance of any Compliance Certificate required by Subsection 9.1.3 of the Champaign County Zoning Ordinance for any development served by such basin. The specific erosion control measures to be employed shall be included in an erosion control plan to be approved by the reviewing authority.

E. The outlet control structure shall be provided with an interceptor for trash and debris, and it shall be designed and constructed to minimize soil erosion and not to require manual adjustments for its proper operation. The control structure shall be designed to operate properly with minimal maintenance or attention. The control structure shall be provided with safety screens for any pipe or opening, other than a weir, to prevent children or large animals from crawling into structures. The control structure shall be constructed to allow access to it at all times, including times of flood flow.

F. Paved low flow conduits shall be provided in storm water storage basins. These conduits shall be so constructed that they will not unnecessarily interfere with any secondary use of the storage area and will reduce the frequency of time that the storage area will be covered with water and facilitate dewatering of the soils in the storm water storage area to avoid saturated soil conditions. Low flow conduits shall facilitate complete interior drainage of the storm water storage area. Tile underdrain systems may be combined with the low flow conduits or channel systems.

G. Pipe outlets of less than 10 inches in diameter shall not be allowed unless specifically approved by the reviewing authority. Multiple outlet pipes from a storm water storage area shall be avoided if they are designed to be less than 12 inches in diameter.

H. Warning signs shall be placed at appropriate locations to warn of deep water, possible

6.2 Dry Bottom Stormwater Storage Areas - Continued

flood conditions during storm periods, and of other dangers that exist to pedestrian and vehicular traffic.

6.3 Wet Bottom Stormwater Storage Areas

Wet bottom stormwater storage facilities shall be designed in compliance with all the applicable regulations which govern the construction of dry bottom storm water storage facilities. The following additional regulations shall apply to wet bottom stormwater storage facilities:

A. The water surface area of the permanent pool shall not exceed one-fifth of the area of the tributary watershed, or as approved by the reviewing authority.

B. Minimum normal water depth (excluding safety ledges and side slopes) shall be eight feet provided, however, that if fish are to be maintained in the pond, at least one-quarter of the pond area shall be a minimum of ten feet deep.

C. Measures shall be included in the design to minimize pond stagnation and to help ensure adequate aerobic pond conditions.

D. All wet bottom stormwater storage areas shall comply with the requirements for some combination of vertical barrier or safety ledge for all pools as required by Subsection 4.3.6 of the Champaign County Zoning Ordinance.

6.4 Alternative Stormwater Storage Areas

The use of stormwater storage facilities as described in Sections 6.2 and 6.3 are the preferred means of stormwater storage. The following alternative means of stormwater storage may be used on development sites under 2 acres in area or where practical necessity makes the use of stormwater storage facilities infeasible. The use of such alternative stormwater storage areas is only permitted upon the approval of the reviewing authority. Storage of stormwater runoff in public streets will not be allowed.

A. Paved Storm Water Storage

Design and construction of the pavement base must insure that there is minimal pavement damage due to flooding. Control structures in paved areas must be readily accessible for maintenance and cleaning. Flow control devices will be required unless otherwise approved by the reviewing authority.

B. Street Pavement Surface Ponding

Street pavement surface ponding shall not exceed 9 inches in depth in the gutter line nor over the roadway crown if no gutter is present under all rainfall conditions up to

6.4 Alternative Stormwater Storage Areas - Continued

and including the 50-year storm event. Open waterways such as surface overflow swales shall be designed into the grading plan to receive all excess stormwater runoff. Depressing sidewalks across such overflow swales to meet this requirement shall be acceptable. Street ponding shall be allowed only for the conveyance of stormwater runoff and will be subject to approval by the public body accepting dedication of the street.

C. Rooftop Storm Water Storage

Rooftop storage of excess storm water shall be designed and constructed to provide permanent control inlets and parapet walls to contain excess storm water. Adequate structural roof design must be provided to ensure that roof deflection does not occur which could cause the roofing material to fail and result in leakage. Overflow areas must be provided to ensure that the weight of storm water will never exceed the structural capacity of the roof. Any rooftop storage of excess stormwater shall be approved only upon submission of building plans signed and sealed by a licensed structural engineer or architect attesting to the structural adequacy of the design.

D. Automobile Parking Lot Storage Areas

Automobile parking lots may be designed to provide temporary detention storage on a portion of their surfaces. Automobile parking facilities used to store excess storm water may be constructed having a maximum depth of stored storm water of 0.6 feet; and these areas shall be located in the most remote, least used areas of the parking facility. Design and construction of automobile parking in storm water areas must insure that there is minimal damage to the parking facility due to flooding, including minimal damage to the subbase. Warning signs shall be mounted at appropriate locations to warn of possible flood conditions during storm periods.

E. Underground Storm Water Storage

Underground storm water storage facilities must be designed for easy access in order to remove accumulated sediment and debris. These facilities must be provided with a positive gravity outlet unless otherwise approved by the reviewing authority.

Section 7 Protecting Existing Drainage

7.1 Natural Drainage

A. Existing perennial streams shall not be modified to accommodate onsite flows of stormwater. Streambanks may be modified, however, incident to the installation of excess stormwater runoff outfalls, necessary to ensure safety or bank stabilization, and/or for the improvement of aquatic habitats.

7.1 Natural Drainage - Continued

B. Other natural drainage features such as depressional storage areas and swales shall be incorporated into the drainage system.

7.2 Agricultural Drainage Improvements

A. The outlet for existing agricultural drainage tile will be located and the capacity of the outlet shall be maintained for the watershed upstream of the development area.

B. Existing easements for any agricultural drainage tile located underneath areas that will be developed shall be preserved. If no easement exists an easement shall be granted for access and maintenance as provided in Section 9 below. Such easements shall be of sufficient width and located to provide for continued functioning and necessary maintenance of drainage facilities. No buildings or permanent structures including paved areas but excluding streets, sidewalks, or driveways, which cross the easement by the shortest possible route may be located within the easement without the consent and approval of any public body to which the easement is granted.

C. All agricultural drainage tile located underneath areas that will be developed shall be replaced with non-perforated conduit to prevent root blockage provided however that drainage district tile may remain with the approval of the drainage district.

D. Agricultural drainage tile which, due to development, will be located underneath roadways, drives, or parking areas as allowed by Paragraph C above shall be replaced with ductile iron, or reinforced concrete pipe or equivalent material approved by the reviewing authority as needed to prevent the collapse of the agricultural drainage conduit.

E. Agricultural drainage tile may be relocated within development areas upon approval of the reviewing authority. Such relocation shall maintain sufficient slope and capacity to prevent sedimentation and to prevent an increase in scouring or structural damage to the conduit. Such relocation shall only be with the consent and approval of the drainage district which is responsible for maintaining the tile. If the tile is not under the authority of a drainage district the reviewing authority shall consider the interests of those landowners who are served by the tile.

F. No storm sewer inlet, outlet, or detention basin outlet shall be connected to farm drainage tile unless flow is restricted to an amount equal to or less than the discharge capacity of the tile. Such connection shall only be made with the consent and approval of the drainage district responsible for maintaining the tile. If the tile is not under the authority of a drainage district the reviewing authority shall consider the interests of those landowners who are served by the tile.

G. No fill shall be placed nor grade altered in such a manner that it will cause surface water upstream of the development to pond or direct surface flows in such a way as to

7.2 Agricultural Drainage Improvements - Continued

create a nuisance.

H. All surface runoff water shall exit the development at nonerosive velocities. All subsurface flows shall exit the development at such a velocity so as to prevent an increase in scouring or structural damage to off-site tile drains.

I. Sizing of culvert crossings shall consider entrance and exit losses as well as tailwater conditions on the culvert.

Section 8 Joint Construction

Storm water storage areas may be planned and constructed jointly by two or more landowners so long as compliance with this policy is maintained.

Section 9 Easements

Easements to the County, township, drainage district or other public authority to provide for maintenance of public drainage facilities which serve the site and which are or are to be dedicated to, owned by, or under the control of such public authority shall be granted to further this policy when the need for such facility is in whole or in part specifically and uniquely attributable to the proposed development. All known agricultural drainage tile located underneath areas to be developed shall be granted an easement if no written easement exists prior to development. Such easement shall be approved in writing by the public body to which they are granted and recorded in the Champaign County Recorders Office before the reviewing authority issues any final approval except in the case of subdivisions where such easements are shown on the plat.

Section 10 Rule of Construction

These policy guidelines shall be construed liberally in the interests of the public so as to protect the public health, safety, and welfare.

Section 11 Waivers

Any or all of these policies may be waived or varied by the reviewing authority in accord with the applicable provisions of Article 18 of the Champaign County Subdivision Regulations or Section 9.1.9 of the Champaign County Zoning Ordinance.

Section 12 Submittals

12.1 Stormwater Drainage Plan

Two copies of a Stormwater Drainage Plan prepared by an Illinois Professional Engineer must be submitted with any zoning petition or subdivision application where required by this policy. Such plan must at a minimum contain the following:

A. Full description of before and after development topography, existing drainage (including locations of agricultural drainage tile serving the area to be developed as well as serving off-site areas but which crosses the area to be developed as well as the efforts to identify and locate underground tile), grading, and environmental characteristics of the property.

B. The potential impacts of the development on water resources both upstream and downstream.

C. Erosion control plan.

D. An explanation of the minor and major drainage systems' performance under storm events up to and including the 100-year precipitation event and of the provisions for handling drainage from any tributary off-site areas.

E. Stormwater Detention or Retention System Designs

Calculations shall be submitted with all assumptions, coefficients, and other parameters identified and their sources noted. The subdivision name or other project identification, engineer's firm, the engineer's name, and date shall all be indicated. For detention systems for developments of more than 10 acres in area, a plot or tabulation of storage volumes with corresponding water surface elevations (stage storage table) and of the basin outflow rates for those water surface (stage discharge) elevations shall be furnished for the 1-year, 2-year, 5-year and 50-year precipitation events. These tabulations shall be listed for water surface elevation intervals not exceeding 1.0 foot.

12.2 Certifications

The following certifications shall be submitted prior to the issuance of any Certificate of Compliance, final plat approval, or release of performance guarantee for development on the site as provided in the applicable provisions of the Champaign County Zoning Ordinance or Champaign County Subdivision Regulations:

A. Certification of storage volume as provided in Paragraph 6.2(D).

B. As-built drawings of the drainage system including the storage facility in sufficient detail to determine that the constructed facility is substantially the same as that

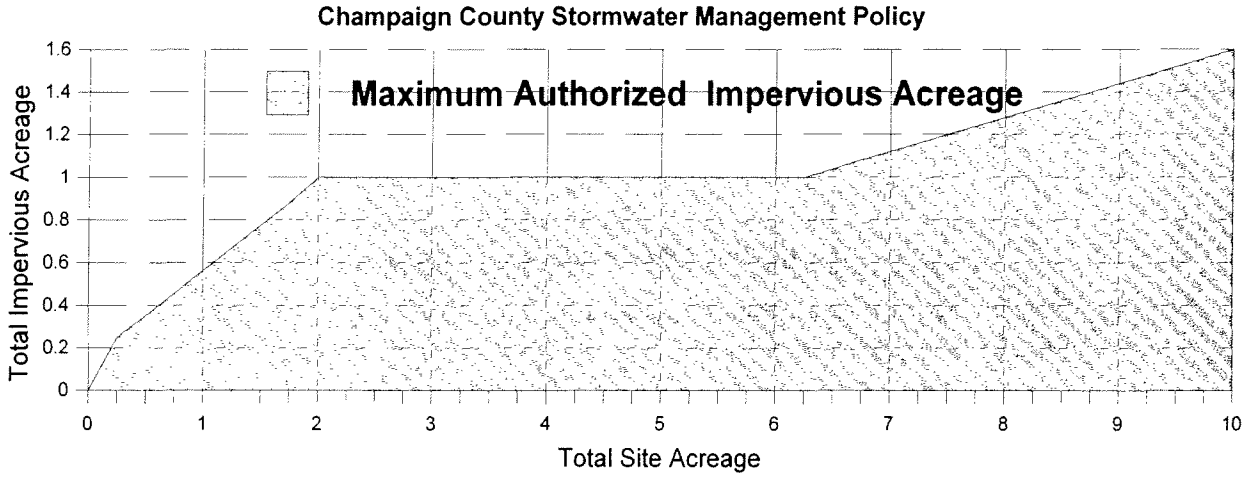
12.2 Certifications - Continued

presented in the approved Stormwater Drainage Plan with certification to that effect by an Illinois Professional Engineer.

APPENDIX A
EXEMPT IMPERVIOUS AREA

The following graph illustrates the impervious area exemption established in Subparagraph 4.3(A)(5). The mathematical expressions for the different portions of the graph are also included. Exemption status can either be read directly from Subparagraph 4.3(A)(5) or the graph or determined mathematically using the mathematical expressions.

GRAPH OF EXEMPT IMPERVIOUS AREA



MATHEMATICAL EXPRESSIONS FOR EXEMPT IMPERVIOUS AREA

Key: IA is "total impervious area"
SA is "total site area"

Site Area	Project is Exempt if:
less than or equal to 0.25 acres	IA is less than or equal to SA
greater than 0.25 acres or equal to 2.0 acres	IA is less than or equal to 0.14 or more acres (0.423 x SA)
greater than 2.0 acres or equal to 6.25 acres	IA is less than or equal to 1.0 acre
greater than 6.25 acres	IA is less than or equal to 0.16 x SA

Note: See Section 4.3 regarding the exemption when part of a lot contains more than one acre of impervious surface area within a rectangular area of 90,000 square feet with a minimum dimension of 150 feet.

APPENDIX B

ADOPTING RESOLUTION AND AMENDMENTS

Adopting Resolution: Resolution No. 3160 adopted December 17, 1991 established the 'Champaign County Interim Stormwater Management Policy'

1. Ordinance No. 679 , Parts D - H, Case 331-AT-02, adopted February 20, 2003
   - Remove 'interim' throughout the Stormwater Management Policy document.
   - Section 3.1, Intent and Requirements
     Replace.
   - Section 3.2, General Requirements
     Add this new section.
   - Section 3.3, Authorization to Construct
     Add this new section.
   - Section 3.4, Requirements for Final Approvals
     Add this new section.
   - Section 4.1, Reviewing Authorities
     Amend.
   - Section 4.2, Applicability
     Amend.
   - Section 4.3, Exemptions
     Merge Paragraph 4.3(A) and amended Subparagraph 4.3(B)(1) and renumber Paragraph 4.3(B) to Paragraph 4.3(A) and amend subparagraphs.
     Add new Paragraph 4.3(B).
   - Section 6.3, Wet Bottom Stormwater Storage Areas
     Amend Paragraph 6.3(D).