

STATE OF ILLINOIS)
)
COUNTY OF LEE)

TO THE LEE COUNTY BOARD

IN THE MATTER OF THE PETITION)
)
OF)
)
Lee County Zoning Office)
112 E. 2nd Street)
Dixon, Illinois 61021)
)

PETITION NO. 25-PC-77

PETITION: Text Amendment

The Petitioner, David M. Anderson, P.E., as Lee County Engineer, states as follows:

1. The Petitioner desires to amend Title 11: SUBDIVISION, FLOOD CONTROL AND STORM WATER MANAGEMENT, Chapter 4: STORM WATER MANAGEMENT, of the Lee County Code of Ordinances, as reflected in Exhibit A, which is attached hereto and made a part hereof.

LEE COUNTY ENGINEER, Petitioner

January 10, 2025
Date

BY 
David M. Anderson, P.E.

**LEE COUNTY REGIONAL PLANNING COMMISSION
PUBLIC HEARING TO BE HELD:**

Date: Monday, February 3, 2025, at 6:30 p.m.

**Old Lee County Courthouse
112 East Second Street, Dixon, Illinois 61021
3rd floor, Boardroom**

EXHIBIT A

CHAPTER 4 STORM WATER MANAGEMENT

SECTION:

- 11-4-1: Applicability
- 11-4-2: Drainage Permit Required
- 11-4-3: Application Requirements
- 11-4-4: Submittals
- 11-4-5: Design Criteria/Guidelines
- 11-4-6: Detention Basins
- 11-4-7: Wetland Considerations
- 11-4-8: Street, Parking Lot And Culvert Drainage
- 11-4-9: Erosion And Sedimentation Control
- 11-4-10: Performance Standards
- 11-4-11: Runoff Volumes And Rates
- 11-4-12: Water Quality And Multiple Uses
- 11-4-13: Early Completion Of Detention Facilities
- 11-4-14: Fees In Lieu Of Detention
- 11-4-15: Maintenance Of Storm Water Management Facilities
- 11-4-16: Inspections
- 11-4-17: Final Approval

11-4-1: APPLICABILITY:

This chapter shall apply to any new residential development having three or more dwelling units, any development in a Special Flood Hazard Area; any new commercial, industrial, institutional or utility developments with a proposed impervious area greater than 11,000 square feet; and for any increases of impervious parking area or conversions of gravel parking to impervious surface at existing commercial, industrial, institutional or utility developments. When existing development is being added to, a drainage plan for the new development will not include the existing development as part of the calculations. This chapter shall not apply to a single-family residence, a solar farm where the runoff rates are being reduced from the existing condition, exempted agricultural practices and facilities, or

for developments with impervious areas less than or equal to 11,000 square feet. This chapter only applies to development, as herein defined, in the unincorporated area of the county. When development is proposed within one and one-half (1 1/2) miles of an incorporated municipality, and that municipality has adopted a storm water management ordinance or regulation, the more restrictive shall be applied. Upon adoption of this chapter, drainage conditions in residential, commercial, industrial zones, and AG-1 special use areas, as defined in title 10 of this code, shall be considered established as existing drainage conditions. Changes to these existing drainage conditions, through development, which has an adverse effect on adjoining or neighboring properties, shall be considered a violation of this title. The zoning enforcement officer shall have the authority to investigate upon complaint of any party, or on his own initiative, any changes to drainage conditions or development where no drainage permit has previously been issued. The provisions of this chapter shall be deemed the minimum requirements regarding storm water drainage and shall not be deemed a limitation or repeal of any other powers provided by state law. (Ord. 06-05-002, 6-21-2005)

11-4-2: DRAINAGE PERMIT REQUIRED:

No person, firm, corporation or governmental body, not exempted by state law, shall commence any development without first obtaining a drainage permit from the county engineer. The county engineer shall not issue a permit if the proposed development does not meet the requirements of this chapter. Facilities in existence as of the date of the adoption of this title shall not be required to be upgraded to comply with the requirements of this chapter. Owners or subdividers who are increasing the impervious area of the property, but are exempt from having to obtain a drainage permit shall request the exemption, in writing, and shall include a sketch prepared by a registered professional engineer showing the existing impervious area and the proposed impervious area.

11-4-3: APPLICATION REQUIREMENTS:

Every application for a drainage permit shall be accompanied by a drainage plan as required herein and such other information as may be required by the county engineer for the proper enforcement of this chapter. Each applicant shall submit the following information, to ensure that the provisions of this chapter are met. The submittal shall include sufficient information to evaluate the environmental characteristics of the property, the potential adverse impacts of the development on water resources, both on site and downstream, and the effectiveness of the proposed drainage plan in managing storm water runoff. The applicant shall certify on the drawings that all clearing, grading, drainage and construction shall be accomplished in strict conformance with the drainage plan. (Ord. 06-05-002, 6-21-2005)

11-4-4: SUBMITTALS:

The drainage plan shall identify means for controlling the storm water release rate from the development and providing storage potential for the excess storm water runoff (where required). All computations, plans and specifications related to the implementation of this chapter must be prepared and sealed by a professional engineer, registered in Illinois. The storm water management plan shall contain, but not be limited to, the following information, unless specifically waived by the county engineer:

A. A topographic map of the project site and the surrounding areas, of suitable scale and contour interval, which shall define the location of streams, the extent of floodplain and calculated high water elevations, the shoreline of lakes, ponds, swamps and detention basins including their inflow and outflow structures, if any.

B. The location and flow line elevation of all existing sanitary, storm or combined sewers.

C. Detailed determination of runoff anticipated for the entire project site following development, indicating design volumes and rates of proposed runoff for each portion of the tributary watershed to the storm water drainage system, the calculations used to determine said runoff volumes and rates, and restatement of the criteria which have been used by the project engineer throughout his/her calculations.

D. A layout of the proposed storm water management system including the location and size of all drainage structures, storm sewers, channels and channel sections, detention basins and analyses regarding the effect said improvements shall have upon the receiving channel and its high water surface elevation.

E. The slope, type and size of all existing and proposed storm sewers and other waterways.

F. For all storm water management facilities, a plot or tabulation of storage volumes, for the design capacity, with corresponding water surface elevations and the facility outflow rates for those water surface elevations.

G. An erosion and sedimentation control plan showing:

1. All erosion and sedimentation control measures necessary to meet the objectives of this title and the national pollutant discharge elimination system (NPDES) throughout all phases of construction and permanently after completion of development of the site.

2. Provisions for maintenance of temporary and permanent control facilities, including easements.

3. Identification of the person(s) or entity which shall have legal and financial responsibility for maintenance of permanent, erosion control structures and measures after development is completed, and such identification and/or any subsequent changes thereto should be provided to the county engineer. Provisions shall be made to revise this information, upon any change in related ownership and/or cited responsibility.

H. A reference elevation bench mark and flood protection elevation shall be established in the near vicinity to the storm water management facility and shall be referenced on the plan. (Ord. 06-05-002, 6-21-2005)

11-4-5: DESIGN CRITERIA/GUIDELINES:

A. Release Rates: The drainage system for a property shall be designed to control the peak rate of discharge from the property for the two-year, 24-hour and 100-year, 24-hour events to levels which will not cause an increase in flooding or channel instability downstream when considered in aggregate with other developed properties and downstream drainage capacities. The post-development peak discharge shall not exceed the pre-development peak discharge.

In the event the natural downstream channel or sewer system is inadequate to accommodate the release rate provided above, then the allowable release rate shall be reduced to that rate permitted by the capacity of the downstream channel or storm sewer system.

B. Detention: The increased storm water runoff resulting from the proposed development may be accommodated by the provision of appropriate storm water management facilities including wet or dry bottom reservoirs, parking lots, natural depressions in the landscape or similar. The following shall govern the design of storm water management facilities:

1. Storage Volume: The volume of storage potential provided in storm water management facilities shall be sufficient to control the excess storm water runoff, as determined to be the difference between the storm water quantity from the site in its developed state for a 100-year event frequency rainfall as published by the Illinois state water survey in bulletin 70, or subsequent updates, less the allowable storm water release rate as set forth in subsection A of this section.

2. Release Rate: At no time during the design storm shall the storm water runoff release rate exceed the allowable release rate set forth in subsection A of this section. Backwater on the outlet structure from the downstream drainage system shall be evaluated when designing the outlet.

3. Release Velocity: Detention facilities shall release storm water into any unprotected channel at a nonerosive velocity of three feet (3') per second or less. Protected channels receiving detention discharge shall incorporate features to reduce velocity to the above prescribed nonerosive levels at the point where such discharge enters the unprotected channel. If release is into a subsurface conduit, the energy gradient in the receiving facility shall not be increased beyond the slope of the conduit.

4. Spillway: Emergency spillways shall be provided to permit safe passage of runoff generated from a storm in excess of a 100-year event frequency.

5. Freeboard: Detention facilities shall have adequate capacity to contain the storage volume of tributary storm water runoff with at least one foot (1') of freeboard above the water surface of flow in the emergency spillway in a 100-year event.

C. Methods Of Determining Storm Water Runoff Rate And Volume: Drainage and storage facilities may be designated using the "rational" method of calculating runoff, discharge rate and total volume (see storm water runoff coefficients on file in the county planning office and incorporated herein by reference) for parcels twenty (20) acres or less. The natural resource conservation service (NRCS) method (TR20 or TR55) may be used for any parcel but is required for parcels over twenty (20) acres.

D. Development Design: Streets, blocks, lots, parks and other public grounds shall be located and laid out in such a manner as to minimize the velocity of overland flow and to allow maximum opportunity for infiltration of storm water into the ground, and to preserve and utilize existing and planned streams, channels and storm water management facilities, and to include whenever possible, streams and floodplains within parks and other public grounds. Whenever practicable, areas of the property must be provided an overland flow path that will pass the 100-year flow at a stage at least one foot (1') below the lowest foundation grade in the vicinity of the flow path. Overland flow paths designed to handle flows in excess of the minor drainage system capacity shall be provided drainage easements. Street ponding and flow depths shall not exceed curb height by more than one inch (1").

E. Methods For Generating Runoff Hydrographs: Runoff hydrographs shall be developed incorporating the following assumptions of rainfall amounts and antecedent moisture. Acceptable runoff hydrograph calculation methods would include, but not necessarily be limited to, HEC-1, SCS TR20, SCS TR55 Tabular Method, etc.

F. Rainfall: Unless a continuous simulation approach to drainage system hydrology is used, all design rainfall events shall be based on the Illinois state water survey's bulletin 70. The SCS Type II distribution may be used as an alternate to the Huff distributions and shall be used for the hydrograph design methods.

G. Antecedent Moisture: Computation of runoff hydrographs, which do not rely on a continuous accounting of antecedent moisture conditions shall assume a antecedent moisture condition II.

H. Infiltration Practices: To effectively reduce runoff volumes, infiltration practices including basins, trenches, and porous pavement should be located on soils in hydrologic soil groups "A" or B as designated by the U.S. soil conservation service. Infiltration basins and trenches designed to recharge ground water shall not be located within seventy five feet (75') of a water supply well or a building foundation. A sediment settling basin shall be provided to remove coarse sediment from storm water flows before they reach infiltration basins or trenches. Storm water shall not be allowed to stand more than forty eight (48) hours over eighty percent (80%) of a dry basin's bottom area for the maximum design event to be exfiltrated. The bottom of infiltration facilities shall be a minimum of four feet (4') above seasonally high ground water and bedrock.

I. Vegetated Filter Strips And Swales: To effectively filter storm water pollutants and promote infiltration of runoff, sites should be designed to maximize the use of vegetated filter strips and swales. Wherever practicable, runoff from impervious surfaces should be

directed onto filter strips and swales before being routed to a storm sewer or detention basin.

J. Safety Considerations: The drainage system component, especially all detention basins, shall be designed to protect the safety of any children or adults coming in contact with the system during runoff events.

K. Velocity: Velocities throughout the drainage system shall be controlled to safe and nonerosive levels taking into consideration rate and depth of flow.

L. Maintenance Considerations: The storm water drainage system shall be designed to minimize and facilitate maintenance. Turfed side slopes shall be designed to allow lawn mowing equipment to easily negotiate them. Wet basins shall be provided with alternate outflows that can be used to completely drain the pool for sediment removal. (Pumping may be considered if drainage by gravity is not feasible.) Presedimentation basins shall be included, where feasible, for localizing sediment deposition and removal. Access and access easements for heavy equipment shall be provided. (Ord. 06-05-002, 6-21-2005)

11-4-6: DETENTION BASINS:

A. Wet Detention Basin Design: Wet detention basins shall be designed to remove storm water pollutants, to be safe, to be aesthetically pleasing, and as much as feasible to be available for recreational use.

B. Wet Basin Depths: Wet basins shall be at least five feet (5') deep, excluding near shore banks and safety ledges. If fish habitat is to be provided they shall be at least ten feet (10') deep over twenty five percent (25%) of the bottom area to prevent winter freeze out.

C. Wet Basin Shoreline Slopes: The side slopes of wet basins above the normal pool elevation shall not be steeper than four to one (4:1) (horizontal to vertical).

D. Permanent Pool Volume: The permanent pool volume in a wet basin at normal depth shall be equal to or greater than the runoff volume from its watershed for the 2-year event.

E. Inlet And Outlet Orientation: To the extent feasible, the distance between detention inlets and outlets shall be maximized. If possible, they should be at opposite ends of the basin. There should be no low flow bypass between the inlet and outlet and paved low flow channels shall not be used.

F. Wet And Dry Detention Basin Design: In addition to the other requirements of this title, wet and dry basins shall be designed to remove storm water pollutants, to be safe, to be aesthetically pleasing and as much as feasible, to be available for multiple uses.

G. Wet And Dry Basin Drainage: Wet/wetland and dry basins shall be designed so eighty percent (80%) of their bottom area which is intended to be dry shall have standing water no longer than seventy two (72) hours for any runoff event less than the 100-year event. Underdrains directed to the outlet may be used to accomplish this requirement. Grading plans shall clearly distinguish the wet/wetland portion of the basin bottom from the dry

portion. Ground slopes in the dry portions of detention basins shall be 1.5 percent or steeper slope. If a concrete swale is installed at the bottom of the pond the slope may be a minimum of 0.5 percent.

H. Velocity Dissipation: Velocity dissipation measures shall be incorporated into dry basin designs to minimize erosion at inlet and outlets and to minimize the resuspension of pollutants.

I. Stilling/Sedimentation Basins: A temporary stilling/sedimentation basin should be constructed at each major inlet to a wetland or dry basin. The volume of the basins should be at least five hundred feet (500') per acre of impervious surface in the drainage area. Side slopes of the basins shall be no steeper than three (3) horizontal to one vertical, and basin depths should be at least three feet (3') to minimize resuspension of accumulated sediment. A detention facility may be utilized as a temporary stilling/sedimentation basin for its drainage area. The required detention volume must be maintained at all times.

J. Minimum Detention Outlet Size: Where a single pipe outlet or orifice plate is to be used to control discharge, it shall have a minimum diameter of six inches (3"). If this minimum orifice size permits release rates greater than those specified in this section, and regional detention is not a practical alternative, alternative outlet designs shall be utilized which incorporate self-cleaning flow restrictors.

K. Detention In Floodplains: The placement of detention basins in floodplains is strongly discouraged because of questions about their reliable operation during flood events. However, the storm water detention requirements of this title may be fulfilled by providing detention storage within flood fringe areas on the project site, providing the following provisions are met:

1. Detention In Flood Fringe Areas: The placement of a detention basin in a flood fringe area shall require compensatory storage for 1.5 times the volume below the base flood elevation occupied by the detention basin including any berms. The release from the detention storage provided shall still be controlled consistent with the requirements of this section. The applicant shall demonstrate its operation for all stream flow and floodplain backwater conditions. Excavations for compensatory storage along watercourses shall be opposite or adjacent to the area occupied by detention. All floodplain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All compensatory storage excavations shall be constructed to drain freely and openly to the watercourse.

2. Detention On Floodways: Detention basins shall be placed in the floodway only in accordance with subsection K3 of this section.

3. On-Stream Detention: On-stream detention basins are discouraged but allowable if they provide regional public benefits and if they meet the other provisions of this title with respect to water quality and control of the 5-year and 100-year, 24-hour events from the property. If on-stream detention is used for watersheds larger than one square mile, it is recommended that the applicant use dynamic modeling to demonstrate that the design will

not increase stage for any properties upstream or downstream of the property. Also, impoundment of the stream as part of on-stream detention:

- a. Shall not prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as spawning;
- b. Shall not cause or contribute to the degradation of water quality or stream aquatic habitat;
- c. Shall include a design calling for gradual bank slopes, appropriate bank stabilization measures, and a presedimentation basin;
- d. Shall not involve any stream channelization or the filling of wetlands;
- e. Shall require the implementation of an effective nonpoint source management program throughout the upstream watershed which shall include at a minimum: runoff reduction BMPs consistent with subsection 11-4-5C of this chapter; 2-year detention/sedimentation basins for all development consistent with subsection I of this section; and a program to control nonpoint sources at the source for prior development constructed without appropriate BMPs;
- f. Shall not occur downstream of a wastewater discharge; and
- g. Shall comply with 92 Illinois administrative code parts 702 and 708 and the requirements of chapter 3 of this title.

L. Side Slopes: The side slopes of all detention basins at 100-year capacity shall be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance. Side slopes of detention basins and open channels shall not be steeper than four to one (4:1) (horizontal to vertical). See subsection C of this section for wet bottom facility side slopes.

M. Safety Ledge: All wet detention basins shall have a level safety ledge at least four feet (4') in width and two and one-half (2 1/2) to three feet (3') below the normal water depth.

N. Overflow Structures: All storm water detention basins shall be provided with an overflow structure capable of safely passing excess flows at a stage at least one foot (1') below the lowest foundation grade in the vicinity of the detention basin. The design flow rate of the overflow structure shall be equivalent to the 100-year inflow rate. (Ord. 06-05-002, 6-21-2005)

11-4-7: WETLAND CONSIDERATIONS:

A. Protection Of Wetlands And Other Depressional Storage Areas: Wetlands and other depressional storage areas shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land development. In addition to the other requirements of this title, the following requirements shall be met for all

development where drainage flows into wetlands and other depressional storage areas (as appropriate):

1. Detention In Wetlands And Depressional Storage Areas: Existing wetlands shall not be modified for the purpose of storm water detention unless it is demonstrated that the existing wetland is low in quality and the proposed modifications will maintain or improve its habitat and ability to perform beneficial functions. Existing storage and release rate characteristics of wetlands and other depressional storage areas shall be maintained and the volume of detention storage provided to meet the requirements of this section shall be in addition to this existing storage.

2. Sediment Control: The existing wetland shall be protected during construction by appropriate soil erosion and sediment control measures, and shall not be filled.

3. Alteration Of Drainage Patterns: Site drainage patterns shall not be altered to substantially decrease or increase the existing area tributary to the wetland.

4. Detention/Sedimentation: All runoff from development shall be routed through a preliminary detention/sedimentation basin designed to capture the 2-year, 24-hour event and hold it for at least twenty four (24) hours, before being discharged to the wetland. This basin shall be constructed prior to when property grading begins. In addition the drainage hierarchy defined in subsection 11-4-6I of this chapter should be followed to minimize runoff volumes and rates being discharged to the wetland.

5. Vegetated Buffer Strip: A buffer strip of at least twenty five feet (25') in width, vegetated with native plant species, shall be maintained or restored around the periphery of the wetland. No development, with the exception of recreational trails or greenways, shall take place within the buffer strip. (Ord. 06-05-002, 6-21-2005)

11-4-8: STREET, PARKING LOT AND CULVERT DRAINAGE:

A. Streets: If streets are to be used as part of the minor or major drainage system, ponding depths shall not exceed curb heights by more than one inch (1") and shall not remain flooded for more than four (4) hours for any event less than or equal to the 100-year event.

B. Parking Lots: The maximum storm water ponding depth in any parking area shall not exceed six inches (6") for more than four (4) hours. All parking lots four thousand (4,000) square feet or larger shall be internally drained with catch basins connected to a central drainage system or municipal storm sewer.

C. Culvert, Road And Driveway Crossings: Size of culvert crossings shall consider entrance and exit losses as well as tailwater conditions on the culvert. (Ord. 06-05-002, 6-21-2005)

11-4-9: EROSION AND SEDIMENTATION CONTROL:

Measures taken to control erosion and sedimentation should be adequate to assure that sediment is not transported from the site. The following principles shall apply to all commercial, industrial and subdivision developments covered by this title:

A. Development should be related to the topography and soils of the site so as to create the least potential for erosion. Areas of steep slopes, where high cuts and fills may be required, should be avoided whenever possible, and natural contours should be followed as closely as possible.

B. Natural vegetation should be retained and protected whenever possible. Areas immediately adjacent to natural watercourses should be left undisturbed whenever possible.

C. The smallest practical area of land should be exposed for the shortest practical time during development.

D. Sediment Basins, debris basins, desilting basins or silt traps, filters or other appropriate measures should be installed and maintained to remove sediment from runoff waters from land undergoing development.

E. In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance should be considered.

F. Provision should be made to accommodate the increased runoff caused by changed soil and surface conditions during and after development. Drainageways should be designed so that their final gradients and the resultant velocities of discharges shall not create additional erosion.

G. Permanent vegetation and structures should be installed as soon as practical during development. (Ord. 06-05-002, 6-21-2005)

11-4-10: PERFORMANCE STANDARDS:

A. Storm Water Channel Location: Generally acceptable locations of storm water channels in the design of a subdivision may include, but are not limited to, the following:

1. Adjacent to roadways.
2. In a depressed median of double roadway, street or parkway provided the median is wide enough to permit slopes of one foot (1') drop in six feet (6') horizontal or flatter.
3. Centered on lot lines or entirely within rear yards of a single row of lots or parcels.
4. In each of the foregoing cases, a drainage easement with sufficient width to facilitate maintenance and design flow shall be provided and shown on the plat.

B. Storm Sewer Outfall: The storm sewer outfall (when present) shall be designed to provide adequate protection against downstream erosion and scoring.

C. Lot Lines: Whenever the plans call for the passage and/or storage of storm water runoff along lot lines, the grading of all such lots shall be prescribed and established for the passage and/or storage of waters, and no structure or vegetation which would obstruct the flow of storm water shall be allowed, nor shall any change be made to the prescribed grades and contours of the specified storm water channels. Drainage easements shall be placed upon the final plat as required in subsection 11-2-4B of this title.

D. Manholes: All utility sewer manholes constructed in an area designed for the storage or passage of storm water, shall be provided with either a watertight manhole and manhole cover or a watertight manhole with a rim elevation of a minimum of one foot (1') above the high water elevation of the design storm.

E. Obstruction Of Drainage: The keeping or disposal of grass clippings, trash, debris, obstructions (including, but not limited to, fences, landscaping, etc.) or unwanted materials into the storm sewers or within or along storm water channels, and easements is prohibited and the easements and/or covenant on any final plat shall so provide.

F. Maintenance: Provisions acceptable to the county for perpetual maintenance of detention facilities, outlet works and appurtenances shall be made as provided in section 11-4-15 of this chapter. (Ord. 06-05-002, 6-21-2005)

11-4-11: RUNOFF VOLUMES AND RATES:

In the selection of a drainage plan for a development, the applicant shall evaluate and implement, where practicable, site design features that minimize the increase in runoff volumes and rates from the site. The applicant's drainage plan submittal shall include evaluations of site design features that are consistent with the following hierarchy:

A. Minimize impervious surfaces on the property, consistent with the needs of the project and current development regulations;

B. Attenuate flows by use of open vegetated swales and natural depressions and preserve existing natural stream channels;

C. Infiltrate runoff on site;

D. Provide storm water retention structures;

E. Construct storm sewers. (Ord. 06-05-002, 6-21-2005)

11-4-12: WATER QUALITY AND MULTIPLE USES:

The drainage system should be designed to minimize adverse impacts downstream and on the property itself. Detention basins shall incorporate design features to capture storm water runoff pollutants. In particular, designers should give preference to wet bottom and wetlands designs and all flow from the development shall be routed through a basin (i.e., low flows shall not be bypassed). Retention and infiltration of storm water shall be

promoted throughout the property's drainage system to reduce the volume of storm water runoff and to reduce the quantity of runoff pollutants. The storm water drainage system should incorporate multiple uses considered compatible with storm water management where practicable. (Ord. 06-05-002, 6-21-2005)

11-4-13: EARLY COMPLETION OF DETENTION FACILITIES:

Where detention, retention or depression storage areas are to be used as part of the storm water drainage system for a property, they shall be constructed as the first element of the initial earthwork program. The applicant, before project completion, shall remove any eroded sediment captured in these facilities in order to maintain the design volume of the facilities. The bottom and inside slopes of detention ponds shall be seeded with a seed mixture which is tolerant to wetland conditions. The proposed type and rate of application of the seeding shall be included with the application. Vegetation shall be established to a minimum height of four inches (4"). (Ord. 06-05-002, 6-21-2005)

11-4-14: FEES IN LIEU OF DETENTION:

All single-family residential developments under five (5) acres in size and all other development under one acre in size shall pay a fee of twelve thousand dollars (\$12,000.00) for each acre-foot in detention which would be required under this title rather than installing detention facilities on property when physical limitations exist that preclude the owner from constructing such facilities. The county shall also have the option for the development of larger properties of requiring a fee of twelve thousand dollars (\$12,000.00) for each acre-foot of detention needed in lieu of the applicant building a basin on site provided the property will discharge storm water to the county's, city's or village's storm sewer system. In instances where regional benefits and economies of scale can be achieved, it will be permissible for adjacent properties to utilize a common regional detention basin. Applicants shall have the option of paying a fee to the county of twelve thousand dollars (\$12,000.00) for each acre-foot of detention required, with the approval of the county engineer, so that the county can construct regional facilities, or the applicant and adjoining property owners can jointly construct the facilities themselves. (Ord. 06-05-002, 6-21-2005)

11-4-15: MAINTENANCE OF STORM WATER MANAGEMENT FACILITIES:

Maintenance of storm water management facilities located on private property shall be the responsibility of the owners or developers of the development. Prior to a zoning certificate or building permit being issued by the zoning administrator the applicant, owner and/or developer shall execute a storm water management facilities maintenance agreement, in form satisfactory to the county engineer. Said agreement shall:

A. Guarantee that the applicant and all further owners of the properties involved shall defray the costs to maintain all portions of the storm water management facility which lies on said property or properties. For developments containing more than one property, the maintenance agreement shall provide for some form of property owners' association which shall take care of future maintenance needs; and

B. Include a schedule of regular inspections/and or maintenance, as required, for each aspect of the storm water management facility; and

C. Specifically authorize representatives of the county to enter onto the property for the purpose of periodic routine inspections of the drainage system at least once a year and to hold harmless any county inspectors from any damage to the drainage system or the property caused during said routine inspections; and

D. Stipulate that when the county engineer determines that storm water management facilities require maintenance and notifies the property owner, developer and/or property owners' association in writing, either that:

1. The property owner, property owners' association or developer shall begin to take remedial maintenance action within thirty (30) days of the date of the written notification; or

2. The county shall initiate judicial action, to require the necessary remedial maintenance action at the property owner's/property owners' association, or developer's expense; and

E. Be recorded at owner's/developer's expense along with, or as a part of, any final subdivision plat or development plan. (Ord. 06-05-002, 6-21-2005)

11-4-16: INSPECTIONS:

A. Inspections During Construction: General site grading shall not commence until the county engineer has certified in writing to the applicant that any necessary detention facilities are in place and operational. A professional engineer, hired by the developer, shall be responsible for determining if the drainage system is in conformance with this ordinance and if the development is proceeding in accordance with the approved drainage system. Periodic inspection of the development site shall be made by the developer's engineer to ensure that the drainage system is properly implemented.

The County Engineer or his duly authorized representative will also conduct periodic inspection of the work in progress to ascertain that the drainage system is being constructed as designed. If any violations of the provisions of this title are noted during such inspections the county engineer shall notify the applicant in writing of the items needing remediation. The applicant shall have ten (10) days to undertake corrective action unless given a specific extension of time in writing by the county engineer. Failure to remediate the violations within said time period shall constitute a

violation of this title and may be considered a default in any surety agreement maintained with the county regarding the subdivision or development.

B. Final Inspections: Upon notification by the applicant that the drainage system has been completed, the county engineer or his duly appointed representative shall conduct a final inspection. If the drainage system is found to be defective so as to require correction, the county engineer or his duly appointed representative shall notify the applicant of the remedial action required. The defects shall be corrected within ten (10) days of the receipt of notice from the county engineer, unless the county engineer extends such time period in writing to another specific date. Failure to take such remedial action within the time period specified shall constitute a violation of this title. Upon finding that the drainage system meets the provisions and requirements of this title the county engineer shall issue a certificate of drainage system completion to the applicant. (Ord. 06-05-002, 6-21-2005)

11-4-17: FINAL APPROVAL:

Upon completion of the storm water management project, the owner's/developer's engineer and the county engineer shall affix their signatures to a set of the storm water management plans that have been annotated to indicate any approved changes made to the plans during construction. This set of plans will constitute the final storm water management plans for the project, will be referred to for future determinations regarding maintenance needs and retained among the permanent records of the county engineer as required by section 11-1C-3 of this title. (Ord. 06-05-002, 6-21-2005)