

**CITY OF EAST MOLINE
STORM WATER CONTROL ORDINANCE**

Effective _____, 2007

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SECTION ONE GENERAL PROVISIONS

Section One, Article I. – Authority, Purpose, Abbreviations & Definitions

A. Authority

These regulations provide for the regulation of matters relative to the management of storm water within the City of East Moline and its extraterritorial jurisdiction. Its provisions include, but are not limited to, regulating drainage installations and improvements, requiring the preservation and enhancement of certain natural environmental features, requiring the installation of drainage improvements in developments, regulating uses, maintenance, and activities in floodplains and flood hazard areas, requiring permits, payment of fees and assurances of completion, and providing for inspections and control of work. The requirements, standards and specifications herein provided are in addition to any other applicable legal requirements.

B. Purposes

1. To maintain and improve the quality of water impacted by the storm drainage system within the City of East Moline.
2. To promote and protect the public health, safety and general welfare of the citizens from the hazards of flooding.
3. To preserve property values by protecting new and existing buildings and improvements to buildings from damage due to storm water flow.
4. To assure that new developments and redevelopments do not increase flood or drainage hazards to others, or create unstable conditions susceptible to erosion.
5. To preserve the natural characteristics of stream corridors in order to moderate flood and storm water impacts, and to protect water quality.
6. To prevent the discharge of contaminated storm water runoff and illicit discharges from industrial, commercial, residential, and construction sites into the storm drainage system within the City of East Moline.
7. To promote public awareness of the hazards involved in the improper discharge of trash, yard waste, lawn chemicals, pet waste, wastewater, oil, petroleum products, cleaning products, paint products, hazardous waste, sediment and other pollutants into the storm drainage system.
8. To encourage recycling of used motor oil and safe disposal of other hazardous consumer products.
9. To facilitate compliance with state and federal standards and permits by owners of construction sites within the City of East Moline.
10. To enable the City of East Moline to comply with all federal and state laws and regulations applicable to the National Pollutant Discharge Elimination System (NPDES) permitting requirements for storm water discharges.

C. Abbreviations

The following abbreviations when used in this Article shall have the designated meanings:

BMP	–	Best Management Practices
CFR	–	Code of Federal Regulations
FEMA	–	Federal Emergency Management Agency
HHW	–	Household Hazardous Waste
IDPH	–	Illinois Department of Public Health

IL EPA	–	Illinois Environmental Protection Agency
MS4	–	Municipal Separate Storm Sewer System
NPDES	–	National Pollutant Discharge Elimination System
NRCS	–	Natural Resources Conservation Service
RISWCD	–	Rock Island Soil and Water Conservation District
SWPPP	–	Storm water Pollution Prevention Plan
USDA	–	U.S. Department of Agriculture
US EPA	–	U.S. Environmental Protection Agency

D. Definitions

Unless a provision explicitly states otherwise, the following terms and phrases as used in this Ordinance, shall have the meanings hereinafter designated.

1. **Adverse Impacts** are any negative impact on plant, soil, air or water resources affecting their beneficial uses including recreation, aesthetics, aquatic habitat, quality, and quantity.
2. **Applicant** is any person, firm, or governmental agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a new development or re-development from the City of East Moline.
3. **Base Flood Elevation** is the elevation at all locations delineating the level of flooding resulting from the 100-year frequency flood event, which has a one percent (1%) probability of being equaled or exceeded in any given year. The base flood elevation at any location is defined in the City of East Moline zoning or floodplain ordinance.
4. **Best Management Practices (BMPs)** here refers to management practices and methods to control pollutants in storm water. BMPs are of two types: “source controls” (nonstructural) and “treatment controls” (structural.) Source controls are practices that prevent pollution by reducing potential pollutants at their source, before they come into contact with storm water. Treatment controls remove pollutants from storm water. The selection, application and maintenance of BMPs must be sufficient to prevent or reduce the likelihood of pollutants entering the storm drainage system. Specific BMPs may be imposed by the City of East Moline and are discussed further in Section 3.
5. **Building Official** is the officer or other designated authority charged with the administration and enforcement of the International Building Code for the City of East Moline.
6. **Building Permit** is a permit issued by the City of East Moline, for the construction, erection or alteration of a structure or building and the related ground and surface preparation prior to and after completion of construction, erection or alteration of a structure or building.
7. **Bypass Flows** is storm water runoff from upstream properties tributary to a property's drainage system but not under its control.
8. **Certify or Certification** means formally attesting that the specific inspections and tests were performed, and that such inspections and tests comply with the applicable requirements of this Ordinance.
9. **Channel** is any defined river, stream, creek, brook, natural or artificial depression, ponded area, on-stream lake or impoundment, abandoned mine, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or manmade drainageway, which has a definite bed and bank or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.
10. **Channel Modification** is the Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, riprapping (or other armoring), filling, widening, deepening, straightening, relocating, lining, and significant removal of bottom or woody rooted vegetation. Channel modification does not include the man-made clearing of debris or removal of trash.

11. **Clearing** is any activity, which removes the natural vegetative ground cover.
12. **Commercial** means pertaining to any business, trade, industry, or other activity engaged in for profit.
13. **Compensatory Storage** is an artificially excavated, hydraulically equivalent volume of storage within the floodplain used to balance the loss of natural flood storage capacity when fill or structures are placed within the floodplain.
14. **Conduit** is any channel, pipe, sewer or culvert used for the conveyance or movement of water, whether open or closed.
15. **Contaminated** means containing harmful quantities of pollutants.
16. **Contractor** means any person or firm performing or managing construction work at a construction site, including any construction manager, general contractor or subcontractor. Also includes, but is not limited to, earthwork, paving, building, plumbing, mechanical, electrical or landscaping contractors, and material suppliers delivering materials to the site.
17. **Construction Site** means any location where clearing, grading, filling, etc. activity occurs.
18. **County** is the County of Rock Island, Illinois.
19. **Dam** as defined by the Illinois Department of Natural Resources Office of Water Resources.
20. **Detention Basin** is a facility constructed or modified to provide for the temporary storage of storm water runoff and the controlled release by gravity of this runoff at a prescribed rate during and after a flood or storm.
21. **Detention Time** is the amount of time storm water is held within a detention basin.
22. **Development** is any manmade change to real estate or property, including:
 - a. The division or subdivision of any duly recorded parcel of property.
 - b. Construction, reconstruction or placement of a building or any addition to a building valued at more than one thousand dollars (\$1,000).
 - c. Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days per year.
 - d. Construction of roads, bridges, or similar projects.
 - e. Redevelopment of a site.
 - f. Filling, dredging, grading, clearing, excavating, paving drilling, mining or other non-agricultural alterations of a ground surface.
 - g. Storage of materials or deposit of solid or liquid waste.
 - h. Any other activity that might alter the magnitude, frequency, direction, or velocity of storm water flows from a property.
23. **Director of Engineering** means the Director of Engineering for the City of East Moline or his/her designee.
24. **Discharge** means any addition or release of any pollutant, storm water or any other substance whatsoever into storm drainage system.
25. **Discharger** means any person who causes, allows, permits, or is otherwise responsible for, a discharge, including, without limitation, any owner of a construction site or industrial facility.
26. **Domestic Sewage** means sewage originating primarily from kitchen, bathroom and laundry sources, including waste from food preparation, dishwashing, garbage grinding, toilets, baths, showers and sinks.

27. **Drainage Plan** is a plan, including engineering drawings and supporting calculations, which describes the existing storm water drainage system and environmental features, including grading, as well as proposed alterations or changes to the drainage system and environment of a property.
28. **Dry Basin** is a detention basin designed to drain after temporary storage of storm water flows and to normally be dry over much of its bottom area.
29. **Earthwork** means the disturbance of soils on a site associated with clearing, grading, or excavation activities.
30. **Erosion** is the general process whereby soil or earth is moved by rainfall, flowing water, wind or wave action.
31. **Excavation** is any act by which organic matter, earth, sand, gravel, rock or any other similar material, is cut into, dug, quarried, uncovered, removed, displaced, re-located or bulldozed and shall include the conditions resulting from such actions.
32. **Excess Storm Water Runoff** is the volume and rate of flow of storm water discharged from a new development or redevelopment which is or will be in excess of that volume and rate which existed before development or re-development.
33. **Existing Grade** is the vertical location of the existing ground surface prior to excavation or filling.
34. **Facility** means any building, structure, installation, process, or activity from which there is or may be a discharge of a pollutant.
35. **Fertilizer** means a substance or compound that contains an essential plant nutrient element in a form available to plants and is used primarily for its essential plant nutrient element content in promoting or stimulating growth of a plant or improving the quality of a crop, or a mixture of two or more fertilizers.
36. **Fill** is any act by which earth, sand, gravel, rock, or any other material, is deposited, placed, replaced, pushed, dumped, pulled, transported or moved by man to a new location and shall include the conditions resulting therefrom.
37. **Final Grade** is the vertical location of the ground surface after grading work is completed in accordance with the plans.
38. **Fire Protection Water** means any water, and any substances or materials contained therein, used by any person to control or extinguish a fire, or to inspect or test fire equipment.
39. **Garbage** means putrescible animal and vegetable waste materials from the handling, preparation, cooking, or consumption of food, including waste materials from markets, storage facilities, and the handling and sale of produce and other food products.
40. **Grading** is the excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.
41. **Groundwater** means any water residing below the surface of the ground or percolating into or out of the ground.
42. **Harmful Quantity** means the amount of any substance that the Director of Engineering determines will cause an adverse impact to storm drainage system or will contribute towards the failure of the City of East Moline to meet the water quality based requirements of the NPDES permit for discharges from the MS4.
43. **Hazardous Substance** means any substance listed in Table 302.4 of 40 CFR Part 302.
44. **Hazardous Waste** means any substance identified or listed as a hazardous waste by the EPA pursuant to 40 CFR Part 261.

45. **Household Hazardous Waste (HHW)** means any material generated in a household (including single and multiple residences) that would be classified as hazardous pursuant to the Illinois EPA.
46. **Hydrograph** is a graph showing for a given location on a stream or conduit, the flow rate with respect to time.
47. **Hydrograph Method** This method estimates runoff volume and runoff hydrographs for the point of interest by generating hydrographs for individual subareas, combining them, and routing them through stream lengths and reservoir structures. Factors such as rainfall amount and distribution, runoff curve number, time of concentration, and travel time are included.
48. **Illegal Discharge** See illicit discharge below.
49. **Illicit Discharge** means any discharge to the storm drainage system that is prohibited under this Ordinance.
50. **Illicit Connection** means any drain or conveyance, whether on the surface or subsurface, which allows an illicit discharge to enter the storm drainage system.
51. **Impervious Surface** is that area of property that is covered by materials other than soil and vegetation and that has no intended capacity to absorb storm water, such as parking lots, roadways, driveways, sidewalks, patios, tennis courts, roofs and other structures.
52. **Industrial Waste** (or commercial waste) means any wastes produced as a by-product of any industrial, institutional or commercial process or operation, other than domestic sewage.
53. **Infiltration** is the passage or movement of water into the soil surfaces.
54. **Jurisdiction** means the City of East Moline.
55. **Loessal Soil** is a sediment, commonly non-stratified and unconsolidated, composed predominately of silt sized particles with accessory clay and sand.
56. **Lot** is an individual platted parcel in an approved subdivision.
57. **Major Drainage System** is that portion of a drainage system needed to store and convey flows beyond the capacity of the minor drainage system.
58. **Mechanical Fluid** means any fluid used in the operation and maintenance of machinery, vehicles and any other equipment, including lubricants, antifreeze, petroleum products, oil and fuel.
59. **Minor Drainage System** is that portion of a drainage system designed for the convenience of the public. It consists of street gutters, storm sewers, small open channels, and swales and, where manmade, is to be designed to handle the 10-year runoff event.
60. **Mitigation** is when the prescribed controls are not sufficient and additional measures are required to offset the development, including those measures necessary to minimize the negative effects which storm water drainage and development activities might have on the public health, safety and welfare. Examples of mitigation include, but are not limited to compensatory storage, soil erosion and sedimentation control, and channel restoration.
61. **Mobile Commercial Cosmetic Cleaning** (or mobile washing) means power washing, steam cleaning, and any other method of mobile cosmetic cleaning, of vehicles and/or exterior surfaces, engaged in for commercial purposes or related to a commercial activity.

62. **Municipal Separate Storm Sewer System (MS4)** means the system of conveyances, including roads, streets, curbs, gutters, ditches, inlets, drains, catch basins, pipes, tunnels, culverts, channels, detention basins and ponds owned and operated by the City of East Moline and designed or used for collecting or conveying storm water, and not used for collecting or conveying sanitary sewage.
63. **Natural** are conditions resulting from physical, chemical, and biological processes without intervention by man.
64. **Natural Drainage** are channels formed in the existing surface topography of the earth prior to changes made by unnatural causes.
65. **NPDES** means the National Pollutant Discharge Elimination System.
66. **NPDES Permit** means a permit issued by EPA that authorizes the discharge of pollutants to Waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.
67. **Notice of Violation** means a written notice detailing any violations of this Ordinance and any action expected of the violators.
68. **Oil** means any kind of oil in any form, including, but not limited to: petroleum, fuel oil, crude oil, synthetic oil, motor oil, cooking oil, grease, sludge, oil refuse, and oil mixed with waste.
69. **One Hundred-Year Event** is a rainfall, runoff, or flood event having a one percent (1%) probability of being equaled or exceeded in any given year. A 24-hour storm duration is assumed unless otherwise noted.
70. **One Year Event** is a rainfall, runoff, or flood event having a one hundred percent (100%) probability of being equaled or exceeded in any given year. A 24-hour storm duration is assumed unless otherwise noted.
71. **Owner** means the person who owns a facility, part of a facility, or land including the contract seller and contract purchaser.
72. **Parcel** is a contiguous lot or tract of land under one ownership. A lot or tract of land is land intended as a unit for the purpose of development or transfer of ownership.
73. **Peak Flow** is the maximum rate of flow of water at a given point in a channel or conduit.
74. **Permittee** is any person to whom a building permit or a grading and drainage permit is issued.
75. **Person** means any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity; or their legal representatives, agents, or assigns, including all federal, state, and local governmental entities.
76. **Pesticide** means a substance or mixture of substances intended to prevent, destroy, repel, or migrate any pest.
77. **Pet Waste (or Animal Waste)** means excrement and other waste from domestic animals.
78. **Petroleum Product** means a product that is obtained from distilling and processing crude oil and that is capable of being used as a fuel or lubricant in a motor vehicle or aircraft, including motor oil, motor gasoline, gasohol, other alcohol blended fuels, aviation gasoline, kerosene, distillate fuel oil, and #1 and #2 diesel.
79. **Pollutant** means any substance attributable to water pollution, including but not limited to rubbish, garbage, solid waste, litter, debris, yard waste, pesticides, herbicides, fertilizers, pet waste, animal waste, domestic sewage, industrial waste, sanitary sewage, wastewater, septic tank waste, mechanical fluid, oil, motor oil, used oil, grease, petroleum products, antifreeze, surfactants, solvents, detergents, cleaning agents, paint, heavy metals, toxins, household hazardous waste, small quantity generator waste, hazardous substances, hazardous waste, soil and sediment.

80. **Pollution** means the alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any water that renders the water harmful, detrimental, or injurious to humans, animal life, plant life, property, or public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.
81. **Positive Drainage** is provision for overland paths for all areas of a property including depressional areas that may also be drained by storm sewer.
82. **Potable Water** means water that has been treated to drinking water standards and is safe for human consumption.
83. **Private Drainage System** means all privately or publicly owned ground, surfaces, structures or systems, excluding the MS4, that contribute to or convey storm water, including but not limited to, roofs, gutters, downspouts, lawns, driveways, pavement, roads, streets, curbs, gutters, ditches, inlets, drains, catch basins, pipes, tunnels, culverts, channels, detention basins, ponds, draws, swales, streams and any ground surface.
84. **Public Improvement Plans** means engineering drawings subject to approval by the Director of Engineering for the construction of public improvements.
85. **Qualified Person** means a person who possesses the required certification, license, or appropriate competence, skills, and ability as demonstrated by sufficient education, training, and/or experience to perform a specific activity in a timely and complete manner consistent with the regulatory requirements & generally accepted industry standards for such activity.
86. **Release** means to dump, spill, leak, pump, pour, emit, empty, inject, leach, dispose or otherwise introduce into the storm drainage system.
87. **Rubbish** means non-putrescible solid waste, excluding ashes, that consist of: (A) combustible waste materials, including paper, rags, cartons, wood, excelsior, furniture, rubber, plastics, yard trimmings, leaves, and similar materials; and (B) noncombustible waste materials, including glass, crockery, tin cans, aluminum cans, metal furniture, and similar materials that do not burn at ordinary incinerator temperatures (1600 to 1800 degrees Fahrenheit).
88. **Sanitary Sewage** means the domestic sewage and/or industrial waste that is discharged into the City of East Moline jurisdiction sanitary sewer system and passes through the sanitary sewer system to City of East Moline sewage treatment plant for treatment.
89. **Sanitary Sewer** means the system of pipes, conduits, and other conveyances which carry industrial waste and domestic sewage from residential dwellings, commercial buildings, industrial and manufacturing facilities, and institutions, whether treated or untreated, to the City of East Moline sewage treatment plant (and to which storm water, surface water, and groundwater are not intentionally admitted).
90. **Sediment** means soil (or mud) that has been disturbed or eroded and transported naturally by water, wind, gravity, or equipment tracking (tires, vehicles).
91. **Sedimentation** is the process that deposits soils, debris, and other materials either on other ground surfaces or in bodies of water or storm water drainage systems.
92. **Septic Tank Waste** means any domestic sewage from holding tanks such as vessels, chemical toilets, campers, trailers, septic tanks and aerated tanks.
93. **Shall** mean mandatory; **may** means discretionary.
94. **Site** means the land or water area where any facility or activity is physically located or conducted, including adjacent land used in connection with the facility or activity.

95. **Slope Disturbance Line** is the line which delineates relatively level building areas from areas where slopes exceed 7 percent (7%) and where special precautions must be taken.
96. **Small Quantity Generator Waste** means any hazardous waste generated by a small quantity generator as defined by IL EPA.
97. **Solid Waste** means any garbage, rubbish, refuse and other discarded material, including solid, liquid, semi-solid, or contained gaseous material, resulting from industrial, municipal, commercial, construction, mining or agricultural operations, and residential, community and institutional activities.
98. **State** means the State of Illinois.
99. **Storm Drainage System** means all surfaces, structures and systems that contribute to or convey storm water, including private drainage systems, the MS4, surface water, groundwater, Waters of the State and Waters of the United States.
100. **Storm Sewer** is a closed conduit for conveying collected storm water.
101. **Storm Water** means runoff resulting from precipitation.
102. **Storm Water Pollution Prevention Plan (SWPPP)** means a document that describes the Best Management Practices to be implemented at a site, to prevent or reduce the discharge of pollutants.
103. **Stream** is any river, creek, brook, branch, flowage, ravine, or natural or man-made drainageway which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently.
104. **Stripping** is any activity which removes the vegetative surface cover including tree removal, by spraying or clearing, and storage or removal of top soil.
105. **Subdivision Development** includes activities associated with the platting of any parcel of land into two or more lots and includes all construction activity taking place thereon.
106. **Surface Water** means water bodies and any water temporarily residing on the surface of the ground, including oceans, lakes, reservoirs, rivers, ponds, streams, puddles, channelized flow and runoff.
107. **Ten-Year Event** is a runoff, rainfall, or flood event having a ten percent (10%) probability of being equaled or exceeded in any given year. A 24-hour storm duration is assumed unless otherwise noted.
108. **Time of Concentration** is the elapsed time for storm water to flow from the most hydraulically remote point in a drainage basin to a particular point of interest in that watershed.
109. **Tributary Watershed** is all of the land surface area that contributes runoff to a given point.
110. **Two-Year Event** is a runoff, rainfall, or flood event having two percent (2%) probability of being equaled or exceeded in any given year. A 24-hour storm duration is assumed unless otherwise noted.
111. **Uncontaminated** means not containing harmful quantities of pollutants.
112. **Used Oil (or Used Motor Oil)** means any oil that as a result of use, storage, or handling, has become unsuitable for its original purpose because of impurities or the loss of original properties.
113. **Utility Agency** means private utility companies, the City of East Moline or contractors working for private utility companies or the City of East Moline, engaged in the construction or maintenance of utility

distribution lines and services, including water, sanitary sewer, storm sewer, electric, gas, telephone, television and communication services.

114. **Vacant** is land on which there are no structures or only structures which are secondary to the use or maintenance of the land itself.
115. **Wastewater** means any water or other liquid, other than uncontaminated storm water, discharged from a facility.
116. **Water of the State (or water)** means any groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, marshes, inlets, canals, inside the territorial limits of the State, and all other bodies of surface water, natural or artificial, navigable or non-navigable, and including the beds and banks of all water courses and bodies of surface water, that are wholly or partially inside or bordering the State or inside the jurisdiction of the State.
117. **Water Quality Standard** means the designation of a body or segment of surface water in the State for desirable uses and the narrative and numerical criteria deemed by State or Federal regulatory standards to be necessary to protect those uses.
118. **Waters of the United States** means all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and the flow of the tide; all interstate waters, including interstate wetlands; all other waters the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce; all impoundments of waters otherwise defined as waters of the United States under this definition; all tributaries of waters identified in this definition; all wetlands adjacent to waters identified in this definition; and any waters within the federal definition of "Waters of the United States" at 40 CFR Section 122.2; but not including any waste treatment systems, treatment ponds, or lagoons designed to meet the requirements of the Federal Clean Water Act.
119. **Watershed** is all land area drained by, or contributing water to, the same channel, lake, marsh, storm water facility, groundwater or depressional area.
120. **Wet Basin** is a detention basin designed to maintain a permanent pool of water after the temporary storage of storm water runoff.
121. **Wetlands** are defined by regulation as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." Wetlands generally include swamps, marshes, bogs, and similar areas.
For general, but not inclusive locations of designated wetlands refer to mapping prepared jointly by the U.S. Department of Interior, Fish and Wildlife Service and the Illinois Department of Natural Resources, Office of Resource Conservation; National Wetlands Inventory Mapping, 1987. More specific wetland information is published in the Rock River Wetlands Special Area Management Plan, by the Bi-State Regional Commission in cooperation with the Natural Resources Conservation Service (NRCS), the US Fish and Wildlife Service and the US Army Corps of Engineers. The applicant may be required to provide a field investigation by a qualified wetland delineator.
122. **Yard Waste** means leaves, grass clippings, tree limbs, brush, soil, rocks or debris that result from landscaping, gardening, yard maintenance or land clearing operations.

Section One, Article II – Prohibited Actions

A. Prohibited Actions

- (1) No person shall release or cause to be released into the storm drainage system any discharge that is not composed entirely of uncontaminated stormwater, except as allowed in listed exemptions of this article. Common prohibited stormwater contaminants include trash, yard waste, stones, earth, concrete, wood, lawn chemicals, pet waste, wastewater, oil, petroleum products, cleaning products, paint products, hazardous waste, and sediment.
- (2) Notwithstanding the listed exemptions of this section, any discharge shall be prohibited by this article if the discharge in question has been determined by the Director of Engineering to be a source of pollutants to the storm drainage system.
- (3) The construction, use, maintenance, or continued existence of illicit connections to the storm drainage system, are prohibited. This prohibition expressly includes, without limitation, illicit connections made in the past, regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. It is the intention of the City Council that this section shall apply retroactively.
- (4) No person shall connect a line conveying sanitary sewage, domestic sewage or industrial waste, to the storm drainage system, or allow such a connection to or be made to continue.
- (5) Surface water shall be allowed to travel its natural or pre-regulations course unless changes are allowed by means of a drainage permit or drainage plans approved by the Director of Engineering. It shall be unlawful for any person to force surface water off that person's property and onto a neighboring property or to prevent surface water which would have entered that person's property from doing so without approval granted by a drainage permit.
- (6) No buildings or permanent structures, including impervious surfaces, may be placed wholly or in part within an easement that has been granted for access to drainage facilities of any type, including agricultural drainage conduit, without the written approval of the Director of Engineering; provided, however, streets, sidewalks and driveways may be allowed to cross easements by the shortest possible route, provided that the purpose of the easement is maintained and all other requirements are met.
- (7) It shall be unlawful for any person to cause or maintain any obstruction within a watercourse or drainage facility of any type, except as may be specifically authorized by this article.
- (8) No person shall interfere with BMPs implemented pursuant to this article.
- (9) Sump pump and footing drain outlets. No owner or occupant of property abutting a public right of way, or any other person acting as agent for either, shall discharge water originating from sumps, sump pits, sump pumps, footing drains, or any other reservoir serving as a drain or receptacle for water onto a street, alley, or other public right of way so as to cause a hazardous accumulation of water or ice upon said right of way. It should be noted that many areas in and around the city of East Moline have a high groundwater table which may necessitate routine pumping from a sump pit or other similar dewatering facility. To ensure sump pump discharge does not create a hazardous condition in public right of way, it is recommended that owners and/or developers direct such discharges toward the rear of structures away from the right of way, assuming that said discharge can be adequately and safely conveyed by either surface flow or by connection to a private collector drain pipe that is provided specifically for this purpose and maintained by a homeowners association.

B. Exeptions

The following discharges are exempt from the regulations in this article:

- (1) Water line and fire hydrant flushing;
- (2) Landscape irrigation;
- (3) Rising ground waters;
- (4) Uncontaminated ground water infiltration;
- (5) Uncontaminated pumped ground water;
- (6) Discharges from potable water sources;
- (7) Foundation drains;
- (8) Air conditioning condensate;
- (9) Irrigation water (except for waste water irrigation);
- (10) Springs;
- (11) Water from crawl space pumps;
- (12) Sump and footing drains (with adherence to paragraph 9 in this article);
- (13) Storm sewer cleaning;
- (14) Water from private, non-commercial car washing on properties zoned residential;
- (15) Routine external building wash-down which does not use detergents;
- (16) Flows from riparian habitats and wetlands;
- (17) De-chlorinated pH neutral swimming pool discharges;
- (18) Residual street wash water;
- (19) Discharges or flows from fire fighting activities;
- (20) De-chlorinated water reservoir discharges; and
- (21) Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and which do not use detergents.

Section One, Article III. – Requirements For Certain Dischargers

A. Private Drainage System Maintenance

The owner of any private drainage system shall maintain the system to prevent or reduce the discharge of pollutants. This maintenance shall include, but is not limited to, sediment removal, bank erosion repairs, maintenance of vegetative cover, and removal of debris from pipes and structures.

B. Minimization of Irrigation Runoff

Irrigation systems shall be managed to reduce the discharge of water from a site.

C. Cleaning of Paved Surfaces Required

The owner of any paved parking lot, street or drive shall clean the pavement as required to prevent the buildup and discharge of pollutants. The visible buildup of mechanical fluid, waste materials, sediment or debris is a violation of this Ordinance. Paved surfaces shall be cleaned by dry sweeping, wet vacuum sweeping, collection and treatment of wash water or other methods in compliance with this Ordinance. This section does not apply to pollutants discharged from construction activities, which are otherwise specified.

D. Mobile Commercial Cosmetic Cleaning Operations

Mobile commercial cosmetic cleaning operations shall not discharge to the storm drainage system in violation of this Ordinance.

E. Maintenance of Equipment

Any leak or spill related to equipment maintenance in an outdoor, uncovered area shall be contained to prevent the potential release of pollutants. Vehicles, machinery and equipment must be maintained to reduce leaking fluids.

F. Materials Storage

In addition to other requirements of this Ordinance, materials shall be stored to prevent the potential release of pollutants. The uncovered, outdoor storage of unsealed containers of hazardous substances is prohibited.

G. Pet Waste

Pet waste shall be disposed of as solid waste or sanitary sewage in a timely manner, to prevent discharge to the storm drainage system.

H. Pesticides, Herbicides and Fertilizers

Pesticides, herbicides and fertilizers shall be applied in accordance with manufacturer recommendations and applicable laws. Excessive application shall be avoided.

I. Prohibition on Use of Pesticides and Fungicides Banned from Manufacture

Use of any pesticide, herbicide or fungicide, the manufacture of which has been either voluntarily discontinued or prohibited by the U.S. Environmental Protection Agency, or any Federal, State or Local jurisdiction.

J. Open Drainage Channel Maintenance

Every person owning or occupying property through which an open drainage channel passes shall keep and maintain that part of the drainage channel within the property free of trash, debris, excessive vegetation, and other obstacles that would pollute, contaminate, or retard the flow of water through the drainage channel. In addition, the owner or occupant shall maintain existing privately owned structures adjacent to a drainage channel, so that such structures will not become a hazard to the use, function, or physical integrity of the drainage channel.

K. Release Reporting and Cleanup

Any person responsible for a known or suspected release of materials which are resulting in or may result in illegal discharges to the storm drainage system shall take all necessary steps to ensure the discovery, containment, abatement and cleanup of such release. In the event of such a release of a hazardous material, said person shall comply with all state, federal, and local laws requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the release. In the event of such a release of non-hazardous materials, said person shall notify the Director of Engineering no later than the close of the next business day.

L. Authorization to Adopt and Impose Best Management Practices

The City of East Moline may adopt and impose requirements identifying Best Management Practices (BMPs) for any activity, operation, or facility, which may cause a discharge of pollutants to the storm drainage system. Where specific BMPs are required, every person undertaking such activity or operation, or owning or operating such facility shall implement and maintain these BMPs at their own expense.

Section One, Article IV. – Inspections and Plan Modifications

A. Inspections

The City of East Moline shall make inspections as required and shall notify the Grading and Drainage Permit holder in the event that the work fails to comply with the requirements of this Ordinance. The notification of any deficiencies in the work or violations of this Ordinance shall be posted at the site and mailed to the owner of the site by ordinary mail.

The owner of the site shall notify the Director of Engineering:

1. Two (2) working days prior to the start of any land disturbing activities,
2. Upon completion of installation of sediment and runoff control measures (including perimeter controls and diversions), and

3. After final stabilization and landscaping and prior to removal of temporary sediment controls.

B. Special Precautions

If at any stage of the grading of any development site the City of East Moline determines by inspection that the nature of the site is such that further work authorized by an existing permit is likely to imperil any property, public way, stream, lake, wetland, or drainage structure, the City of East Moline shall require, as a condition of allowing the work to be done, that such reasonable special precautions to be taken as is considered advisable to avoid the likelihood of such peril. "Special precautions" may include, but shall not be limited to, a more level exposed slope, construction of additional drainage facilities, berms, terracing, compaction, cribbing, installation of plant materials for erosion control, and recommendations of a Certified Professional in Erosion and Sediment Control or a Professional Engineer, which may be made requirements for further work.

Where it appears that storm damage may result because the grading on any development site is not complete, work shall be stopped and the Grading and Drainage Permit holder required to install temporary structures or take such other measures as may be required to protect adjoining property or the public safety. On large developments or where unusual site conditions prevail, the Director of Engineering shall specify the time of starting grading and time of completion or may require that the operations be conducted in specific stages so as to ensure completion of protective measures or devices prior to the advent of seasonal rains.

C. Amendment of Plans

Major amendments to storm water drainage and detention or grading and drainage plans shall be submitted to the Director of Engineering and shall be processed and approved or disapproved in the same manner as the original plans. Field modification of a minor nature may be authorized and documented by the Director of Engineering.

Section One, Article V. – Responsibility

A. Applicant

The applicant for a Grading and Drainage Permit shall not be relieved of responsibility for damage to persons or property otherwise imposed by law.

B. Jurisdiction

The City of East Moline or its officers or agents, will not be made liable for such damage, by (1) the issuance of a Grading and Drainage Permit under this Ordinance, (2) compliance with the provisions of that Grading and Drainage Permit or conditions attached to it by the Director of Engineering (3) failure of the City of East Moline to observe or recognize hazardous or unsightly conditions, (4) failure of the City of East Moline officials to recommend denial or to deny a Grading and Drainage Permit, or (5) exemptions from Grading and Drainage Permit requirements of this Ordinance.

Section One, Article VI. – Maintenance of Drainage Facilities

The City of East Moline will maintain those drainage facilities that are on public land and have been dedicated and accepted for maintenance or stipulated by agreement for maintenance by the City of East Moline. All other drainage facilities, when located on other than public property, shall be the responsibility of the owner of the property on which they exist or the owner of the drainage facility, regardless of whether or not dedicated easements exist over said facilities.

The responsible party shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and appropriate quality assurance procedures. Abandonment and alteration, either structural or operational, of all facilities and systems shall occur only following application and issuance of a permit.

Section One, Article VII. – Enforcement

A. Right of Entry and Sampling

1. Whenever the appropriate official has cause to believe that there exists, or potentially exists, in or upon any premises any condition which constitutes a violation of this Ordinance, the appropriate official shall have the right to enter the premises at any reasonable time to determine if the discharger is complying with all requirements of this article. In the event that the owner or occupant refuses entry after a request to enter has been made, the City Attorney is hereby empowered to seek assistance from a court of competent jurisdiction in obtaining such entry.
2. The appropriate official shall have the right to set up on the property of any discharger to the storm drainage system such devices that are necessary to conduct sampling of discharges.

B. Notice of Violation

Whenever an authorized enforcement person determines that a person has violated or failed to meet a requirement of this Ordinance, the enforcement person will order compliance by written Notice of Violation to the responsible person. Posting the written notice on the property will constitute written notice. Whenever possible, a copy of the Notice of Violation will be mailed by ordinary mail or email when an address has been provided through appropriate permitting procedures.

The Notice of Violation shall include:

1. The name of the responsible person or property owner.
2. The date and location of the violation.
3. A description of the violation.
4. Actions that must be taken by the responsible person to remedy the violation.
5. The deadline within which the required actions must be completed.
6. Enforcement actions that may be taken by the City Attorney.
7. Notice date.
8. Any person receiving a Notice of Violation may file a written appeal the Notice to the Director of Engineering within fifteen (15) days of the Notice date. The Director of Engineering will affirm, modify or rescind the Notice in writing, within 15 days of the date of the appeal. If the recipient of a Notice of Violation is dissatisfied with the outcome of the appeal to the Director of Engineering, the appeal process outlined in Section One, Article 9, of this Ordinance will be followed.

C. Enforcement Action without Prior Notice

Any person who violates or fails to meet a requirement of this Ordinance will be subject, without prior notice, to one or more of the enforcement actions identified in this Ordinance when attempts to contact the person have failed and the enforcement actions are necessary to stop an actual or threatened discharge which presents or may present imminent danger to the environment or to the health or welfare of persons or to the storm drainage system.

D. Enforcement Actions

Any person who fails to comply with or appeal a Notice of Violation, or fails to comply with an appeal decision of the Director of Engineering, will be subject to one or more of the following enforcement actions:

1. Stop Work Order. The Director of Engineering may issue a stop work order to the owner and contractors on a construction site, by posting the order at the construction site and distributing the order to all City of East Moline departments whose decisions may affect any activity at the site. Unless express written exception is made, the stop work order shall prohibit any further construction activity at the site and shall bar any further inspection or approval necessary to commence or continue construction or to assume occupancy at the site. A Notice of Violation shall accompany the stop work order, and shall define the compliance requirements.
2. Abatement of an Illicit Connection. The Director of Engineering may terminate an illicit connection. Any expense related to such abatement shall be fully reimbursed by the property owner.

3. Abatement of a Violation on Private Property. When a property owner is not available, not able or not willing to correct a violation, the Director of Engineering may enter private property to take any and all measures necessary to abate the violation. It shall be unlawful for any person, owner, agent or person in possession of any premises to refuse to allow Director of Engineering to enter upon the premises for these purposes. Any expense related to such abatement shall be fully reimbursed by the property owner.
4. Recovery of Costs. Within thirty (30) days after abatement by the Director of Engineering, the Director of Engineering shall notify the property owner of the costs of abatement, including administrative costs, and the deadline for payment. The property owner may appeal the recovery costs as outlined in Section One, Article 9 of this Ordinance.
5. Termination of Utility Services. After lawful notice to the customer and property owner concerning the proposed disconnection, the Director of Engineering shall have the authority to order the disconnection of City of East Moline water, sanitary sewer and/or sanitation services, upon a finding by the Director of Engineering that the disconnection of utility services will remove a violation of this Ordinance that poses a public health hazard or environmental hazard.
6. Criminal Prosecution. Any person who violates or continues to violate a prohibition or requirement of this Ordinance shall be liable to criminal prosecution to the fullest extent of the law, and shall be subject to criminal penalties.

E. Criminal Penalties

Any person violating this Ordinance shall, upon an adjudication of guilt or a plea of no contest, be fined a minimum of \$250.00 to a maximum of \$1,500.00. Each separate day on which a violation is committed or continues shall constitute a separate offense.

F. Other Legal Action

Notwithstanding any other remedies or procedures available to the City of East Moline, if any person violates this Ordinance, the City Attorney may commence an action for appropriate legal and equitable relief including damages and court costs. The City Attorney may seek a preliminary or permanent injunction or both which restrains or compels the activities on the part of the discharger.

G. Abrogation and Greater Restrictions

This Ordinance is not intended to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. Where this Ordinance and other ordinance, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

H. Separability

The provisions and sections of this Ordinance shall be deemed separable and the invalidity of any portion of this Ordinance shall not affect the validity of the remainder.

Section One, Article VIII. – Implementation

This Ordinance is effective upon passage with the following exceptions:

A. Subdivision Improvements

The requirements for obtaining a Grading and Drainage Permit are waived for a period of three (3) years after passage of this Ordinance if the preliminary plat of a subdivision was approved by the City Council prior to the passage of this Ordinance. All other requirements of the ordinance shall remain in effect.

B. Non-Subdivision Improvements Requiring a Building Permit

The requirements for obtaining a Grading and Drainage Permit for non-subdivision related improvements requiring a building permit are waived for the duration of the building permit if the building permit was issued prior to the passage of this Ordinance. All other requirements of the ordinance shall remain in effect.

C. Improvements that Previously Did Not Require a Permit

The requirements for obtaining a Grading and Drainage Permit for construction that did not require a permit prior to passage of this Ordinance are waived for a period of one (1) year if the construction commenced prior to the passage of this Ordinance. All other requirements of the ordinance shall remain in effect.

Section One, Article IX. – Variances and Appeals

The Stormwater Board of Appeals (SBA), after a public hearing, may: 1) Determine and vary the requirements and regulations of this Ordinance in harmony with their general purpose and intent, where the SBA make written findings of fact in accordance with the standards herein after prescribed and further, find that there are practical difficulties or particular hardships in the way of carrying out the strict letter of requirements and regulations of this Ordinance and 2) uphold, modify or overrule the decision of the Director of Engineering.

A written application for a variance from the requirements of this Ordinance or an appeal of a decision by the Director of Engineering shall be filed within thirty (30) days of the time that the applicant became aware of the need for the variance or the decision. The application shall fully state the grounds of the request and the facts relied upon by the applicant. Each application shall be filed with the Director of Engineering. And said application shall be accompanied by a fee in the amount of one hundred fifty (\$150) dollars toward the costs of processing the application. Should the application be withdrawn prior to publication of legal notice thereon, such fee will be returned upon the written request of the applicant.

The Director of Engineering will review and transmit recommendations to the Stormwater Board of Appeals, which shall review such recommendations prior to granting or denying the variance.

A. Variances

The SBA shall not vary the requirements and regulations of this Ordinance unless evidence is presented that proves that all of the following three situations exist:

1. The land in question is of such shape or size or is affected by such physical conditions or is subject to such title limitations or record, that it is impossible or impractical for the applicant to comply with all of the requirements of this Ordinance, and
2. The variance is necessary for the preservation and enjoyment of a substantial property right of the applicant, and
3. The granting of the variance will not be detrimental to the public welfare, environment or injurious to other property in the vicinity of the subjects property.

The SBA shall hold a public hearing on each application for variance within sixty (60) days after the application for a variance is received by the Director of Engineering. Within sixty (60) days after the public hearing, the SBA shall approve the variance with the conditions it deems necessary, disapprove the variance or take other such action as appropriate.

B. Appeals

The SBA shall consider each application for modification to the decision of the Director of Engineering at a public meeting within sixty (60) days after the appeal application is received by the Director of Engineering. Within sixty (60) days after the public meeting, the appropriate entity shall uphold, modify or overrule the decision of the Director of Engineering.

C. Judicial Review

All final administrative decisions of the Stormwater Board of Appeals shall be subject to judicial review, pursuant to the provisions of the "Administrative Review Act," approved May 8, 1945, and all amendments and modifications thereof, and the rules adopted pursuant thereto.

D. Stormwater Board of Appeals (SBA)

1.0 - Creation, Membership and Procedure: A SBA consisting of Six (6) members shall be appointed by the Mayor and approved by City Council. Members shall be appointed for a term of two (2) years except that the City Council may remove any member of the Board for cause prior to the expiration of his/her term.

1.1 - The Board shall elect its own chairman and vice chairman and have the power to adopt rules and regulations for its own government, not inconsistent with law or with the provisions of this or any other Ordinance of the City of East Moline. Meetings shall be held at the call of the chairman and at such other times as the board may determine. The chairman, or in his absence, the vice chairman, may administer oaths and compel attendance of the witnesses.

1.2 - Meetings of the Board shall be open to the public, minutes shall be kept of proceedings, showing the action of the Board and the vote of each member upon each question, or if absent, or failing to vote, indicating that fact and records shall be made of the Board's examinations and other official actions, all of which shall be filed immediately in the Office of the City Clerk.

1.3 - Three (3) members of the Board shall constitute a quorum. The Board shall act by resolution, and the concurring vote of three (3) members shall be necessary to reverse any order, requirement, decision or determination of the Director of Engineering, or to decide in favor of an applicant any matter upon which it is required to pass under this Ordinance, or to effect any variation in the requirements of this Ordinance.

1.4 - The Board may call on the City's departments for assistance in the performance of its duties, and it shall be the duty of such departments to render such assistance to the Board as may reasonably be required.

2.0 - Judicial Review: All final administrative decisions of the BOSA shall be subject to judicial review, pursuant to the provisions of the "Administrative Review Act," approved May 8, 1945, and all amendments and modifications thereof, and the rules adopted pursuant thereto.

**SECTION TWO
CONSTRUCTION SITE REGULATIONS**

Section Two, Article I. – General Requirements for All Construction Sites

A. Responsible Entity

The owner of a site of construction activity shall be responsible for compliance with the requirements of this Ordinance.

B. Waste Disposal

Waste Disposal. Solid waste, industrial waste, yard waste and any other pollutants or waste on any construction site shall be controlled through the use of BMPs. Waste or recycling containers shall be provided and maintained by the owner or contractor on construction sites where there is the potential for release of waste. Uncontained waste that may blow, wash or otherwise be released from the site is prohibited.

C. Ready-Mixed Concrete

Ready-mixed concrete, or any materials resulting from the cleaning of vehicles or equipment containing or used in transporting or applying ready-mixed concrete, shall be contained on construction sites for proper disposal. Release of these materials is prohibited.

D. Erosion and Sediment Control

BMPs shall be implemented to prevent the release of sediment from construction sites. Disturbed areas shall be minimized, disturbed soil shall be managed and construction site entrances shall be managed to prevent sediment tracking. Excessive sediment tracked onto public streets shall be removed immediately.

E. Continued Compliance

Upon completion of permitted construction activity on any site, the property owner and subsequent property owners will be responsible for continued compliance with the requirements of this Ordinance, in the course of maintenance, reconstruction or any other construction activity on the site.

Section Two, Article II. – Grading and Drainage Permit Requirements

A. GRADING AND DRAINAGE PERMITS

1. Class 1 Grading and Drainage Permit

Any construction that meets one of the following thresholds shall require a Class 1 Grading and Drainage Permit:

- a. Any construction that will include the addition of an impervious surface area (i.e., streets, roof, patio or parking area or any combination thereof) greater than or equal to 1,000 square feet and less than one acre (43,560 square feet)
- b. Any land disturbing activity (i.e., clearing, grading, stripping, excavation, fill, or any combination thereof) that will affect an area greater than or equal to 10,000 square feet and less than one acre (43,560 square feet)
- c. Any land disturbing activity that will exceed 100 cubic yards, but does not otherwise require a Class 2 Grading and Drainage Permit.
- d. Any land disturbing activity on the sloping side of the slope disturbance line, but does not otherwise require a Class 2 Grading and Drainage Permit.
- e. Construction of one or more single-family dwellings that is/are constructed as part of a subdivision development with an approved Storm Water Pollution Prevention Plan. Those that are part of development for which there is a Class 2 Grading and Drainage Permit will not be required to calculate pre-project and post-project discharge rates.

The drainage system for a parcel containing the proposed construction site shall be designed to restrict the peak rate of discharge from the total parcel to pre-project levels (based on a 1 year storm). The Director of Engineering will estimate the peak discharge rates. If the estimated post-development peak discharge rate must be reduced, the Director of Engineering will recommend appropriate storm water control options. If a mutually acceptable option cannot be developed, the appeal process outlined in Section Seven of this Ordinance will be followed.

The issuance of a Grading and Drainage Permit shall constitute an authorization to do only that work which is described on the approved sketch. A Class 1 Grading and Drainage Permit shall be valid for one year after the date of issuance.

2. Class 1 Grading and Drainage Permit and Application Forms

Class 1 Grading and Drainage Permits and Application forms shall include the following:

- a. Name(s), address(es) and telephone numbers of the owner and developer of the site, the contractor(s) and of any consulting firm retained by the applicant identifying the principal contractor.
- b. Certification that all construction covered by the Grading and Drainage Permit will be undertaken in compliance with Section Two, Article I (General Requirements for All Construction Sites) of this Ordinance.
- c. A site plan acceptable to the Director of Engineering that shows (a) existing and proposed topography, (b) proposed grading and drainage, and (c) indicates the amount of impervious area being created.
- d. An application fee as set forth in Section Five of this Ordinance.

3. Class 2 Grading and Drainage Permit

Any construction that meets one of the following thresholds shall require a Class 2 Grading and Drainage Permit:

- a. Any construction that will include the addition of an impervious surface area (i.e., streets, roof, patio or parking area or any combination thereof) greater than one acre (43,560 square feet).
- b. Any land disturbing activity (i.e., clearing, grading, stripping, excavation, fill, or any combination thereof) that will affect an area greater than one acre (43,560 square feet).

4. Class 2 Grading and Drainage Permit and Application Forms

Class 2 Grading and Drainage Permits and Application forms shall include the following:

- a. Name(s), address(es) and telephone numbers of the owner and developer of the site, the contractor(s) and of any consulting firm retained by the applicant identifying the principal contractor.
- b. Certification that any land clearing, construction, or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.
- c. An application fee as set forth in Section Five of this Ordinance.

- d. A faithful performance bond or bonds, letter of credit, or other improvement security satisfactory to the City Attorney in an amount deemed sufficient by the Director of Engineering to cover all costs of improvements, landscaping, maintenance of improvements and landscaping, and soil erosion and sediment control measures for such period as specified by the Director of Engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site on a form acceptable to the Director of Engineering. (See sample in the Appendix). Upon satisfactory completion of the improvements, the documented security would be void.

- e. A site plan shall be submitted for both existing and proposed property conditions for applicable developments and for an appropriate distance surrounding the subject property. The plan shall be based on a topographic survey of the property, shall be drawn at a scale of not more than fifty (50) feet to one (1) inch, and include the following (unless otherwise specified by the Director of Engineering):
 - 1. Proposed and existing grading shown with one (1) foot contours. East Moline city datum shall be used (unless otherwise specified by the Director of Engineering).
 - 2. Property boundary, interior lot lines (if applicable), dimensions, and acreage
 - 3. Zoning classification and required setback dimensions
 - 4. All existing and proposed structures and sizes
 - 5. Existing and proposed streets, driveways, sidewalks, parking lots or other similar features
 - 6. Square feet of existing and proposed impervious surface
 - 7. Existing and proposed easements and right-of-way
 - 8. Existing abandoned and proposed water or monitoring well head locations
 - 9. Existing abandoned and proposed water mains
 - 10. Existing and proposed sanitary sewer lines and septic systems
 - 11. The banks and centerline of streams and channels
 - 12. Shoreline of lakes, ponds, and detention basins with normal water level elevation
 - 13. Farm drains and tiles
 - 14. All existing and proposed of storm water conduits and drainage swales showing location, size and slope
 - 15. Detention facilities
 - 16. Overland flow path for storm water flow that exceeds the capacity of on-site drainage features.
 - 17. Existing and proposed storm water inlets, manholes, outlets or other drainage structures, including finished grades
 - 18. Existing and proposed utilities.
 - 19. Base flood elevation, flood fringe, and regulatory floodway
 - 20. Location map, locating the site within the City of East Moline.
 - 21. Title, scale, north arrow, legend, seal of Licensed Professional Engineer, date, and name of person preparing plans
 - 22. Sub-watershed boundaries within the property
 - 23. Abandoned Mines
 - 24. Soil Classifications
 - 25. Existing and proposed fencing indicating the type and height of fence
 - 26. Construction plans for public or private improvements for streets, storm drainage, sewer, water, or other utilities.

- f. The following certifications and design statements shall be provided:
 - 1. Basis of design for the final drainage system components
 - 2. A statement giving any applicable engineering assumptions and calculations
 - 3. A statement by the design engineer of the drainage system's provision for handling events greater than the 100 year, 24 hour runoff
 - 4. Design calculations and other submittals as required by this Ordinance
 - 5. A statement of certification of all drainage plans, calculations, and supporting data by a Licensed Professional Engineer

- g. A depiction of environmental features of the property and immediate vicinity including the following:
 - 1. The limits of designated regulatory and non-regulatory wetland areas
 - 2. The location of trees greater than eight (8) inches in diameter in areas to be disturbed
 - 3. Any designated natural areas or prime farmland
 - 4. Any proposed environmental mitigation features
- h. Any and all local, state or federal maps marked to reflect any proposed change in the floodway delineation, base flood, or 100-year frequency flood elevation will change due to the proposed project.
- i. Conditional approval by FEMA or other regulatory agencies of the proposed changes in the floodway map that have been made if the floodway delineation, base flood, or 100-year frequency flood elevation will change due to the proposed project.
- j. Engineering calculations and data supporting all proposed plans. Hydrologic design shall be completed in accordance with Section Three, Article II (Hydrologic Design Criteria) of this Ordinance. Detention system design shall be completed in accordance with Section Three, Article III (Detention System Design Criteria) of this Ordinance.
- k. If the project involves channel modification, the following information shall be submitted:
 - 1. A discussion of the purpose and need for the proposed work
 - 2. Discussion of the practicability of using alternative locations or methods to accomplish the purpose of the proposed work
 - 3. Analysis of the impacts of the proposed project, considering cumulative effects on the physical and biological conditions of the body of water affected
 - 4. Additional information as required by this Ordinance
- l. Storm Water Pollution Prevention Plan (SWPPP) prepared in accordance with Section 4 of this Ordinance.

B. Permit Exceptions

Except as exempted below, no person shall commence construction prior to obtaining the appropriate Grading and Drainage Permit as defined below. The Director of Engineering will issue Grading and Drainage Permits.

In order to preclude inappropriate phasing of developments to circumvent the intent of this Ordinance, when a proposed development activity will occur on a lot or parcel of land that has contiguous lots or parcels of lands owned by the same property owner, then the criteria as defined in this section will be applied to the total land area compiled from aggregate ownership parcels.

A Grading and Drainage Permit shall not be required for the following circumstances:

- 1. Any construction activity below the minimum thresholds for a Class 1 Grading and Drainage Permit.
- 2. The agricultural use of land, including the implementation of conservation measures included in a farm conservation plan approved by the Natural Resources Conservation Service, and including the construction of agricultural structures.
- 3. The maintenance of any existing storm water control facility including dredging, levee restoration, tree removal or other function that maintains the original design capacities of the facility.
- 4. The construction of, improvements to, or the maintenance of any street, road, highway or interstate highway or other public infrastructure performed by the City of East Moline. However the requirements of this Ordinance will be honored by the City of East Moline for such improvements.

C. Submittal, Review, and Approval

If a Building Permit is also required for the development, the Grading and Drainage Permit application shall be submitted to the Building Inspector at the time application is made for a Building Permit. Departments of the City of East Moline shall coordinate their activities to prevent additional, unnecessary delays.

1. Each application for an approved Grading and Drainage Permit shall be reviewed and acted upon according to the following procedures. The Director of Engineering shall:
 - a. Provide a written evaluation to the applicant regarding the adequacy and effectiveness of the proposal to address the provisions of this Ordinance. The Director of Engineering may retain the services of an independent professional to perform this evaluation. The City of East Moline may assess a fee for this evaluation service as set forth in Section Five of this Ordinance.
 - b. Attend a pre-construction meeting with the applicant or designated agent to review implementation of Grading and Drainage Permit.
 - c. Conduct on-site inspections during the active construction phases of and development projects to determine whether site development is in compliance with the approved grading and drainage plans, and determine adjustments needed to the approved plans. After construction has been completed, determine whether permanent site stabilization has been achieved and identify operation and maintenance needs.
 - d. Prepare correspondence as needed regarding the effectiveness (or corrective measures needed) or adequacy of soil erosion and sediment control measures.
 - e. Consult with land developers, consultants, and contractors concerning the design criteria, installation and maintenance procedures and other information regarding best management practices recommended under the provisions of this Ordinance.
 - f. After review of the application and required submissions if it is found to be in conformance with the provisions of this Ordinance.
 - i. Approve the Grading and Drainage Permit
 - ii. Approve the Grading and Drainage Permit subject to such reasonable conditions as may be necessary to secure substantially the objectives of this Ordinance, and issue the approval subject to these conditions
 - iii. Disapprove the Grading and Drainage Permit, indicating the deficiencies and the procedure for submitting a revised application and/or submission
2. No approval for a Grading and Drainage Permit shall be issued for an intended development site unless one or more of the following have been obtained as applicable:
 - a. Land use regulations that apply to the development have been approved by the City of East Moline where applicable.
 - b. Such permit is accompanied by or combined with a valid building permit issued by the Building Inspector.
 - c. The proposed earth moving is coordinated with any overall development program previously approved by the Director of Engineering for the area in which the site is situated.
 - d. All relevant federal, state, and local permits.
 - e. Applicant is successful in the appeals process.
3. Failure of the Director of Engineering to act on an original or revised application within sixty (60) days of receipt shall authorize the applicant to proceed in accordance with the plans as filed and in compliance with the regulations contained herein, unless such time is extended by agreement between the Director of Engineering and the applicant. Pending preparation and approval of a revised plan, development activities may be allowed to proceed in accordance with conditions established by the Director of Engineering.

D. Other Agency Permits

1. The Director of Engineering shall not issue a Grading and Drainage Permit unless all required federal, state and drainage district permits have been obtained by the applicant and copies thereof reviewed by the Director of Engineering. The acquisition of these permits shall be the sole responsibility of the applicant. The granting of a Grading and Drainage Permit under these regulations shall in no way affect the owner's responsibility to obtain the approval required by any other statute, ordinance or code, or to meet the requirements of other City of East Moline ordinances and regulations, including but not limited to: building permits; Section 404 of the Clean Waters Act; Section 106 of the National Historic Preservation Act; Section 10 of the Rivers and Harbors Act; or permitting required by the Illinois Department of Natural Resources, Office of Water Resources in accordance with the Rivers, Lakes and Streams Act, 615 ILCS; the Soil and Water Conservation Districts Act, 70 ILCS; the Farmland Preservation Act, 505 ILCS; the Illinois Groundwater Protection Act, 415 ILCS; and the National Pollutant Discharge Elimination System Permit (NPDES) and Section 401 of the Clean Water Act thru the Illinois Environmental Protection Agency, Division of Water Pollution Control; and the Threatened and Endangered Species Act, 16 USC 1531 ET. SEQ.
2. Any work involving the construction, modification or removal of a dam as defined herein, per 92 Ill. Adm. Code 702 (Rules for Construction of Dams), shall require an IDNR/OWR Dam Safety Permit prior to permit being issued by the City of East Moline. Any development involving work in waters of the United States, including wetlands and streams as identified and regulated by the U.S. Army Corps of Engineers, shall require permits or sign-offs from the Corps prior to the issuance of a City of East Moline permit.

E. Permit Limitations

1. The issuance of a Grading and Drainage Permit shall constitute an authorization to do only that work which is described or illustrated on the application for the permit or on the plans and specifications approved by the Director of Engineering.
2. The issuance of a permit or the approval of drawings and specifications shall not be construed to be a permit for, nor an approval of, any violation of or deviation from the provision of these Regulations or any other ordinance, law, rule, or regulation.
3. The issuance of a permit, based upon drawings and specifications, shall not prevent the Director of Engineering from thereafter requiring the correction of errors in said drawings and specifications or from stopping unlawful construction operations being carried on thereunder.
4. The Grading and Drainage Permit shall be valid until the completion date noted in the permit. The Director of Engineering may grant an extension if relevant design and construction standards have not changed and if in the Director of Engineering' opinion, the work approved under the permit does not unduly adversely affect the health, safety and general welfare of the public. Otherwise, a new permit shall be acquired before work is started or continued. The Director of Engineering may require modification of the SWPPP to prevent any increase in erosion or off-site sediment runoff resulting from any extension.

F. Revocation of Permits

1. The Director of Engineering may revoke a permit:
 - a. Where there has been any false or inaccurate statement or misrepresentation as to a material fact in the application or plans on which the permit was based.
 - b. When work is performed contrary to the provisions of the application or plans on which the permit is based.
2. When a permit is revoked, the Director of Engineering shall inform the permittee, in writing, of the specific steps the permittee must take in order to have the permit reissued.
3. It shall be unlawful to continue any work authorized by a permit after revocation of that permit until that permit is reissued or until a new permit is issued.

4. In cases where the permittee wishes to appeal the decision of the Director of Engineering, the appeal process outlined in Section One, Article IX will be followed. An appeal shall stay all proceedings in furtherance of the action appealed from unless the Director of Engineering certifies to the Storm Water Board of Appeals, after the notice of the appeal has been filed with him, that by reason of facts stated in the certificate a stay would, in his opinion, cause imminent peril to life or property.

G. Liability

1. Nothing in this article is intended to relieve the applicant for a drainage permit of responsibility for damage to persons or property otherwise imposed by law nor shall liability for any such damage be placed in any manner upon the City.
2. The City of East Moline, its employees, officers, or agents, will not be made liable for any damage, by (1) the issuance of a drainage permit under this article, (2) compliance with the provisions of that drainage permit or conditions attached to it by the Director of Engineering, (3) failure of the City of East Moline to observe or recognize hazardous or unsightly conditions, (4) failure of the City of East Moline officials to recommend denial or to deny a drainage permit, or (5) exemptions from drainage permit requirements of this article.
3. The City of East Moline will maintain those drainage facilities that are on public land, public rights-of-way, and easements, and have been dedicated and accepted for maintenance or stipulated by agreement for maintenance by the City of East Moline. All other drainage facilities, when located on other than public property, shall be the responsibility of the owner of the property on which they exist or the owner of the drainage facility, regardless of whether or not dedicated easements exist over said facilities and the City shall have no responsibility or liability therefore.

The responsible party shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed to achieve compliance with conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and appropriate quality assurance procedures. Abandonment and alteration, either structural or operational, of all facilities and systems shall occur only following application and issuance of a permit.

H. Retention of Plans

Plans, specifications, and reports for all site developments shall be retained by the Director of Engineering as required by Illinois Statute.

SECTION THREE POST CONSTRUCTION RUNOFF CONTROL

Section Three, Article I. – Best Management Practices Hierarchy

Use of BMPs identified by this Ordinance, or the use of any other BMPs not herein discussed, are strongly encouraged by this ordinance. This list of definitions is not exclusive and developers are encouraged to utilize whatever BMP's may be appropriate for a specific site.

A. Preserving Regulatory Floodplains, Flood Prone and Wetland Areas

1. **Buffer Zones.** An area along a shoreline, wetland, or stream where development is restricted or prohibited. The primary function of aquatic buffers is to physically protect and separate a stream, lake, or wetland from future disturbance or encroachment. The three types of buffers are water pollution hazard setbacks, vegetated buffers, and engineered buffers.
2. **Conservation Easements.** Voluntary agreements that allow an individual or group to set aside private property to limit the type or amount of development on their property. The conservation easement can cover all or a portion of a property and can either be permanent or last for a specified time. The easement is typically described in terms of the resource it is designed to protect (e.g., agricultural, forest, historic, or open space easements) and explains and mandates the restrictions on the uses of the particular property.

B. Minimizing Impervious Surfaces on the Property

1. **Open Space Design, Conservation Development.** A better site design technique that concentrates dwelling units in a compact area in one portion of the development site in exchange for providing open space and natural areas elsewhere on the site. The minimum lot sizes, setbacks and frontage distances for the residential zone are relaxed in order to create the open space.
2. **Narrower Streets.** In many residential settings, streets can be as narrow as twenty-two (22) to twenty-six feet (26) wide without sacrificing emergency access, on-street parking or vehicular and pedestrian safety. Even narrower access streets or shared driveways can be used when only a handful of homes need to be served. Use of narrower streets will only be allowed on public streets by requesting a variance from the City of East Moline subdivision ordinance.
3. **Eliminating Curbs and Gutters.** Elimination of curbs and gutters involves the use of grass swales and ditches as an alternative to curbs and gutters along residential streets. Eliminating curbs and gutters from public streets will only be allowed by requesting a variance from the City of East Moline subdivision ordinance.
4. **Alternative Turnarounds.** Alternative turnarounds are designs for end-of-street vehicle turnaround that replace cul-de-sacs and reduce the amount of impervious cover created in residential neighborhoods. Numerous alternatives create less impervious cover than the traditional forty (40) foot cul-de-sac. These alternatives include reducing cul-de-sacs to a thirty (30) foot radius and creating hammerheads, loop roads, and pervious islands in the cul-de-sac center by requesting a variance from the City of East Moline subdivision ordinance.
5. **Alternative Pavers.** Alternative pavers are permeable surfaces that can replace asphalt and concrete and can be used for driveways, parking lots, and walkways. Commercially available pavers are used which contain void spaces for grass or clean, washed stone or gravel. Gravel, cobble, or mulch parking lots are prohibited.

C. Storm Water Wetlands, Grassed Swales and Vegetated Filter Strips

1. **Storm Water Wetlands.** Storm water wetlands (a.k.a. constructed wetlands) are structural practices similar to wet ponds that incorporate wetland plants into the design. Storm water wetlands are designed specifically for the purpose of treating storm water runoff. A distinction should be made between using a constructed wetland for storm water management and diverting storm water into a natural wetland. The latter practice is

not recommended because altering the hydrology of the existing wetland with additional storm water can degrade the resource and result in plant die-off and the destruction of wildlife habitat.

2. Grassed Swales. The term swale (a.k.a. grassed channel, dry swale, wet swale, bio-filter) refers to a series of vegetated, open channel management practices designed specifically to treat and attenuate storm water runoff for a specified water quality volume. As storm water runoff flows through these channels, it is treated through filtering by the vegetation in the channel, filtering through a subsoil matrix, and/or infiltration into the underlying soils.
3. Vegetated Filter Strips. Vegetated surfaces that are designed to treat sheet flow from adjacent surfaces. Filter strips function by slowing runoff velocities and filtering out sediment and other pollutants.

D. Infiltrating Runoff On-Site

1. Sand and Organic Filters. Sand filters are usually two-chambered storm water practices; the first is a settling chamber, and the second is a filter bed filled with sand or another filtering media. As storm water flows into the first chamber, large particles settle out, and then finer particles and other pollutants are removed as storm water flows through the filtering medium. There are several modifications of the basic sand filter design, including the surface sand filter, underground sand filter, perimeter sand filter, organic media filter, and Multi-Chamber Treatment Train.
2. Infiltration Trenches. An infiltration trench is a rock-filled trench with no outlet that receives storm water runoff. Storm water runoff passes through some combination of pretreatment measures, such as a swale and detention basin, and into the trench. There, runoff is stored in the void space between the stones and infiltrates through the bottom and into the soil matrix.
3. Infiltration Basins. A shallow impoundment which is designed to infiltrate storm water into the ground water. Infiltration Basins should only be used on small drainage areas (less than ten (10) acres), and where soils are highly permeable.
4. Porous Pavements. Porous pavement is a permeable pavement surface with an underlying stone reservoir to temporarily store surface runoff before it infiltrates into the subsoil. This porous surface replaces traditional pavement, allowing parking lot storm water to infiltrate directly and receive water quality treatment. There are a few porous pavement options, including porous asphalt, pervious concrete, and grass pavers.
5. Bioretention. Bioretention areas are landscaping features adapted to provide on-site treatment of storm water runoff. They are commonly located in parking lot islands or within small pockets of residential land uses. Surface runoff is directed into shallow, landscaped depressions. These depressions are designed to incorporate many of the pollutant removal mechanisms that operate in forested ecosystems. During storms, runoff ponds above the mulch and soil in the system. Runoff from larger storms is generally diverted past the facility to the storm drain system. The remaining runoff filters through the mulch and prepared soil mix. Typically, the filtered runoff is collected in a perforated underdrain and returned to the storm drain system.

E. Providing Storm Water Retention Structures

1. On-Lot Treatment. A series of practices that are designed to collect runoff from individual residential or small commercial lots. The primary purpose of most on-lot practices is to manage rooftop runoff and, to a lesser extent, driveway and sidewalk runoff. Although there are a wide variety of on-lot treatment options, they can all be classified into one of three categories: 1) practices that collect and infiltrate rooftop runoff; 2) practices that divert runoff or soil moisture to a pervious area; and 3) practices that store runoff for later use.
2. Retention Basins. Retention basins that are designed to collect and hold storm water runoff, with no outlet pipes or structures. They are not necessarily infiltration basins, and are best designed to rely mostly on evaporation. Retention basins are only feasible when special circumstances of land and soil type are available.

F. Providing Wet or Wetland Detention Structures

Defined and controlled under the subsection of this Ordinance titled Detention System Design Criteria.

G. Providing Dry Detention Structures

Defined and controlled under the subsection of this Ordinance titled Detention System Design Criteria. Detention basins shall be designed to remove floatables from storm water runoff by providing trash grates or special outlet structures which separate floatables.

H. Constructing Storm Sewers

1. Manufactured Products for Storm Water Inlets. A variety of products for storm water inlets known as swirl separators, or hydrodynamic structures. Swirl separators are modifications of the traditional oil-grit separator and include an internal component that creates a swirling motion as storm water flows through a cylindrical chamber. The concept behind these designs is that sediments settle out as storm water moves in this swirling path. Additional compartments or chambers are sometimes present to trap oil and other floatables. There are several different types of proprietary separators, each of which incorporates slightly different design variations, such as off-line application.
2. Catch Basin Inserts. Catch basin efficiency can be improved using commercially available inserts, which can be designed to remove oil and grease, trash, debris, and sediment. Some inserts are designed to drop directly into existing catch basins, while others may require being installed as part of the construction of the basin.
3. In-Line Storage Structures. In-line storage refers to a number of practices designed to use the storage within the storm drain system to detain flows. Storage is achieved by placing devices in the storm drain system to restrict the rate of flow. Devices can slow the rate of flow by backing up flow, as in the case of a dam or weir, or through the use of vortex valves, devices that reduce flow rates by creating a helical flow path in the structure.

I. Water Quality and Multiple Uses

The drainage system should be designed to minimize adverse surface and groundwater quality impacts off-site and on the property itself. Detention basins shall incorporate design features to capture storm water runoff pollutants. All flows from the development shall be routed through the basin (i.e. low flows shall not be bypassed). Detention 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 drainage system should incorporate multiple uses where practicable. Uses considered compatible with storm water management include open space, aesthetics, aquatic habitat, recreation (boating, fishing, trails, playing fields), wetlands and water quality mitigation.

Section Three, Article II. – Hydrologic Design Criteria for Class 2 Projects

A. Referenced Standards

Design standards for hydrologic design shall comply with these regulations and with the applicable provisions of the IDOT Drainage and Design Manuals. Where the IDOT Drainage and Design Manuals do not detail requirements, the Illinois Urban Manual, latest edition, shall be used. Where this Ordinance imposes greater restrictions than those imposed by the IDOT Drainage and Design Manuals or those required by other provisions of law or ordinance, the provisions of this Ordinance shall prevail.

B. Release Rates

The drainage system for new developments or redevelopments shall be designed to control the peak rate of discharge from the total property under development so that in the event of a 100 year rainfall event in the post-developed condition, the release rate is less than or equal to the discharge from a five (5) year rainfall event in the pre-developed condition. Under no circumstances, with any rainfall event, shall the post-development discharge exceed the pre-development discharge. Where a detailed hydrologic or hydraulic model exists, release rates shall be established and incorporated as part of this Ordinance.

C. Drainage System Design and Evaluation

The following criteria should be used in evaluating and designing the drainage system. The design will provide capacity to pass the ten (10) year, 24 hour peak flow in the minor drainage system and an overload flow path (major drainage system) for flows in excess of the design capacity. Whenever practicable, the storm water systems shall not result in the inter-basin transfer of drainage unless no other alternative exists.

The design rainfall recurrence interval shall be set by the design application as follows:

Detention	100 year
Emergency Overflow Routing	100 year
Bridges	100 year
Roadway Underpasses	50 year
Swales, Ditches, and Culverts	25 year
Storm Sewers	10 year

D. Design Methodologies

An applicable hydrologic design method may be selected from the IDOT Drainage Manual with the following modifications and clarifications. Minor conveyance systems for areas up to 100 acres, and Major conveyance systems up to 10 acres may be designed using the Rational Method. Design runoff rates may be calculated using a continuous simulation model or by event hydrographic methods. If event hydrographic methods are used they must be HEC-HMS, HEC-1, SCS TR20, or SCS TR55. Event methods must incorporate the following assumptions.

- 1) Antecedent moisture condition 2 (normal moisture)
- 2) Huff or SCS type 2 distribution

For design events the Illinois State Water Survey Bulletin 70 (Northwest) rainfall data must be used. Storage volumes for detention must be 24 hour events. Storm water conveyance capacities must be designed for the critical duration creating the highest peak. The following table lists data from Bulletin 70.

**Frequency Distributions (in inches) for Zone 1
Illinois State Water Survey, Bulletin 70**

<i>Duration</i>	Frequency								
	<i>2-month</i>	<i>6-month</i>	<i>1-year</i>	<i>2-year</i>	<i>5-year</i>	<i>10-year</i>	<i>25-year</i>	<i>50-year</i>	<i>100-year</i>
48 hr	1.47	2.24	2.80	3.42	4.28	4.96	6.07	7.02	8.07
24 hr	1.40	2.08	2.57	3.11	3.95	4.63	5.60	6.53	7.36
18 hr	1.30	1.92	2.37	2.86	3.63	4.26	5.15	6.01	6.92
12 hr	1.23	1.81	2.24	2.71	3.43	4.03	4.88	5.66	6.51
6 hr	1.06	1.56	1.93	2.33	2.96	3.48	4.20	4.90	5.69
2 hr	0.84	1.23	1.52	1.83	2.33	2.74	3.31	3.86	4.47
1 hr	0.67	0.98	1.21	1.46	1.86	2.18	2.63	3.07	3.51
30 min	0.52	0.77	0.95	1.15	1.46	1.71	2.07	2.42	2.77
15 min	0.38	0.57	0.70	0.84	1.07	1.25	1.51	1.76	1.99
5 min	0.17	0.25	0.31	0.37	0.47	0.56	0.67	0.78	0.89

E. Positive Drainage

All developments must be provided an overland flow path that will pass the one hundred (100) year, 24 hour flow within designated drainage easements or the public right-of-way with a freeboard of at least one (1) foot. Overland flow paths shall be provided drainage easements unless the flow is contained in the public right-of-way.

F. Culvert, Road and Driveway Crossings

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

G. 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, shall be designed to follow criteria in the Illinois Urban Manual. Whenever practicable, runoff from impervious surfaces should be directed onto filter strips and swales comprised of native grasses and forbs before being routed to a storm sewer or detention basin.

H. Maintenance Considerations

The storm water drainage system shall be designed to minimize and facilitate maintenance. Use of native vegetation is strongly encouraged to reduce maintenance, increase wildlife habitat, and to provide other benefits. Where nonnative vegetation is used, turfed side slopes shall be designed to allow lawn-mowing equipment to easily negotiate them. Wet basins shall be provided with alternate outflows, which can be used to completely drain the pool for sediment removal. Pumping may be considered if drainage by gravity is not feasible. Pre-sedimentation basins shall be included, where feasible, for localizing sediment deposition and removal. Site access for heavy equipment shall be provided. A maintenance plan for the ongoing maintenance of all storm water management system components including wetlands is required prior to plan approval. The plan shall include:

1. Maintenance tasks.
2. The party responsible for performing the maintenance tasks.
3. A description of all permanent public or private access maintenance easements and overland flow paths, and compensatory storage areas.
4. A description of dedicated sources of funding for the required maintenance.

I. Provisions for Agricultural Drainage

1. Existing easements for any agricultural drainage systems located underneath areas that will be developed shall be preserved. If no such easement exists, an easement shall be dedicated for access and maintenance as provided for in this Ordinance.
2. All agricultural drainage systems that serve upstream areas outside of the development and that are located underneath areas that will be developed shall be replaced with non-perforated conduit to prevent root blockage, provided, however, that the existing drainage district system may remain in place with the approval of the appropriate entity.
3. Agricultural drainage systems that, due to development, will be located underneath streets, driveways, and other paved areas as allowed by this Ordinance, shall be replaced with conduits meeting the City of East Moline's standards as needed to prevent the collapse of the agricultural drainage conduit.
4. Agricultural drainage systems may be relocated within the development area upon the approval of the Director of Engineering. 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 appropriate entity responsible for the system. If the system is not under the authority of a drainage district, the Director of Engineering shall consider the interests of those landowners who are served by the system.

J. Channel Modifications

Channel modification is acceptable if the purpose is to restore natural conditions and improve water quality. If the proposed development activity involves a channel modification, it must be demonstrated that:

1. Water quality and other natural functions would be significantly improved by the modification or the impacts are offset by the replacement of an equivalent degree of natural resource values.
2. The activity has been planned and designed and will be constructed in a way which will minimize its adverse impacts on the natural conditions of the stream or body of water affected.

Section Three, Article III. – Detention System Design Criteria

A. Referenced Standards

Design standards for detention basin design and construction shall comply with the provisions of the following, unless otherwise stated by this Ordinance.

- c. IL Urban Manual, latest edition
- d. IDOT Standard Specifications, latest edition
- e. IDOT Drainage Manual, latest edition
- f. IL Department of Natural Resources Dam Safety Regulations
- g. Clean Water Act (discharges regulated by the US EPA through NPDES permits)
- h. City of East Moline Design Standards and Technical Specifications
- i. The Subdivision and Zoning Ordinances

B. Detention Storage Requirements

The design storage to be provided in the detention basin shall be based on the runoff from the runoff difference between the five (5) year pre-developed condition and the 100 year post-developed condition. All detention basin storage shall be computed using Hydrograph Methods utilizing reservoir routing (also called modified puls or level pool) or equivalent method as described by this Ordinance.

C. Waiver of Requirements

1. The requirement for storm water detention and release rate does not apply when:
 - a. The development is in accord with the approved site plan and is on a lot in a new subdivision for which detention is otherwise provided.
 - b. The development is on a lot or parcel in a subdivision for which detention was provided and approved prior to the effective date of these Regulations.
2. The requirement for storm water detention and release rate shall be waived by the Director of Engineering when he/she determines it is in the best interest of the City of East Moline to require a fee in lieu of detention as described in Section Three, Article III, R.

D. Ownership

Detention basins are owned by the property owner (often a Homeowner's Association) unless otherwise described by this Ordinance or indicated by the Director of Engineering. Property developers shall contact the Director of Engineering to inquire about the ownership and maintenance responsibility of existing regional detention basins which may affect the development.

E. Maintenance and Repair Responsibilities

1. Detention ponds and associated inflow and outflow systems are maintained by the property owner absent any specific legal agreement to the contrary.
2. Maintenance agreements may be required at the option of the Director of Engineering to define parties responsible for the maintenance of commercial detention basins.
3. The detention basin owner shall be responsible for the following items:
 - a. An annual report on the detention basin condition, using the attached checklist, shall be submitted to the Director of Engineering.
 - b. At five (5) year intervals, the basin shall be inspected by a professional engineer registered in the State of Illinois. A report of this inspection shall be submitted to the Director of Engineering within sixty

(60) days of the inspection. The inspection shall include an evaluation of the checklist items in the attached checklist. An annual report is not required the year the five year report is due.

- c. Detention basin owners shall notify subsequent owners of their maintenance responsibilities and transfer basin maintenance records to the party with active maintenance responsibility.
- d. These requirements shall be effective for all detention basins existing in the City of East Moline on the date of adoption of this Ordinance as well as detention basins constructed after the effective date.

F. General Basin Design Requirements

1. Erosion Control. Temporary and permanent erosion control shall be required for all detention basins in accordance with this Ordinance.
2. Verification and Final Approval.
 - a. Erosion protection shall be inspected throughout the project duration.
 - b. Detention basin storage volume shall be verified to the satisfaction of the Director of Engineering through as-built surveys or other means.
 - c. Inflow, outflow and emergency overflow elevations shall be verified through as-built surveys.
 - d. Final vegetative cover and permanent erosion control shall be inspected for completeness of cover.
 - e. The basin will receive final approval upon fulfillment of b, c, and d above, and the anniversary date of maintenance and repair reporting will be recorded as such.
 - f. All basins must receive final approval within ninety (90) days of the substantial completion as determined by the Director of Engineering of ANY of the following:
 - i. The first phase (as shown on approved plans) of construction of public utilities and roadways in any approved Subdivision project. Detention structures for the ultimate development area must be constructed during the first phase of the project, and approved at its completion. The detention structures must then be maintained and repaired in conformance with this Ordinance, during future construction phases.
 - ii. Parking areas, floor slabs and/or other impervious areas (as shown on approved plans, and not including sidewalks) for work on an individual lot requiring an individual permit under this Ordinance. Phased construction will be treated as in the above case.
 - iii. Mass earthwork or rough grading, if no other phased construction is scheduled to be started within one hundred eighty (180) days.
 - g. Failure to receive final approval as required will be considered a violation of this Ordinance.
3. Infiltration Practices. To effectively reduce runoff volumes, infiltration practices including basins, trenches, and porous pavement shall follow criteria in the Illinois Urban Manual and other relevant permitting. An appropriate sediment control device 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 seventy-two hours over eighty percent of the dry basin's bottom area for the maximum design event to be ex-filtrated. The bottom of infiltration basins or trenches shall be a minimum of three feet above the seasonally high groundwater and bedrock level if practicable. Engineering calculations demonstrating infiltration rates shall be included with the application.

4. Side Slopes. The side slopes of all detention basins at their design (full) capacity should be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance. It is desirable for the side slopes of detention basins and open channels to not be steeper than three (3) to one (1) (horizontal to vertical) – certain types of basins have different requirements as defined by this Ordinance. Detention basin side slopes above normal pool shall be designed with permanent erosion protection consisting of grass, non-grass vegetation, or other permanent finish. At least six (6) inches of topsoil must be provided on side slopes above normal pool elevation whenever non-structural, permanent erosion control is not being used. Permanent erosion protection shall be aesthetically suitable to the development or existing surrounding land use.
5. 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 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 one hundred (100) year rainfall event inflow rate. Weirs, dams and specialized outflows shall be designed by a Professional Engineer registered in the State of Illinois.
6. Detention Basin Outlet Design.
 - a. Backwater on the outlet structure from the downstream drainage system shall be addressed when designing the outlet.
 - b. 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 twelve (12) inches. If design release rates call for smaller outlets, a design that minimizes the possibility of clogging shall be used.
7. Other Design Requirements.
 - a. “Bubble up” outlets are prohibited.
 - b. Pumped outlets and other active control structures are discouraged and must be pre-approved on a case-by-case basis by the Director of Engineering.
 - c. Temporary erosion techniques shall be used as required to ensure a full stand of cover vegetation in minimum time.
8. Location Requirements.
 - a. In subdivisions, detention basins and their one hundred (100) year design high water shall be contained within platted lots dedicated for drainage purposes. In redevelopments, detention basins and their one hundred (100) year design high water shall be contained within a drainage easement.
 - b. Detention basin lots shall have a minimum of twenty (20) feet of frontage on a right-of-way for the purpose of providing unrestricted access for maintenance. Exceptions may be made for infill development.
 - c. A twenty (20) feet minimum setback shall be required from all property lines to the normal pool elevation which is considered to be the elevation of the water level at the permanent depth of the wet basin pool rather than the temporary depth during drainage events.
 - d. Detention basins shall be provided with a minimum of one (1) foot of freeboard above the one hundred (100) year design water elevation.
 - e. There shall be at least two (2) feet of freeboard between the one hundred (100) year design water elevation and all boundaries of the parcel or easement containing the basin.

9. Accommodating Flows from Upstream Tributary Areas. Storm water runoff from areas tributary to the property shall be considered in the design of the property's drainage system. Flows from upstream areas that are not to be detained should be routed around the basin being provided for the site being developed.
10. Upstream Areas NOT Meeting Ordinance Requirements. When there are areas not meeting the storage and release rates of this Ordinance, tributary to the applicant's property, the following steps shall be followed:
 - a. The applicant shall compute the storage volume needed for his property using the release rates and procedures described in this Ordinance .
 - b. Areas tributary to the applicant's property, not meeting the storage and release rate requirements of this Ordinance, shall be identified.
 - c. Using the areas determined above plus the applicant's property area, total storage and release rates needed for the combined properties shall be computed using the release rates and procedures described in this Ordinance. If tributary areas are not developed, a reasonable fully developed land cover, based on local zoning, shall be used for the purposes of computing storage.
 - d. Once the necessary combined storage is computed the City of East Moline may choose to pay for over-sizing the applicant's detention basin to accommodate the regional flows. The applicant's responsibility will be limited to the storage for his property as computed above. If regional storage is selected by the City of East Moline, the Director of Engineering will work with the applicant to implement the requirements of this Ordinance. If regional storage is rejected by the City of East Moline, the applicant shall bypass all tributary area flows around the applicant's basin whenever practicable as determined by Director of Engineering. If the applicant must route upstream flows through his basin and the upstream areas exceed one-square mile in size, the applicant must meet the provisions On-Stream Detention in this Ordinance.
11. Upstream Areas Meeting Ordinance Requirements. When there are areas which meet the storage and release rate requirements of this Ordinance, tributary to the applicant's property, the upstream flows shall be bypassed around the applicant's detention basin if this is the only practicable alternative as determined by Director of Engineering. Storage needed for the applicant's property shall be computed as described in this Ordinance. However, if the City of East Moline decides to route tributary area flows through an applicant's basin, the final design storm water releases shall be based on the combined total of the applicant's property plus tributary areas. It must be shown that at no time will the runoff rate from the applicant's property exceed the allowable release rate for his/her property alone.
12. Early Completion of Detention Facilities. Where detention or retention are to be used as part of the drainage system for a property, they shall be constructed as the first element of the initial earthwork program. Any eroded sediment captured in these facilities shall be removed by the applicant on a regular basis and before project completion in order to maintain the design volume of the facilities.

G. 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.

1. Wet Basin Depths. Wet basins shall be at least three feet deep, excluding near-shore banks and safety ledges. If fish habitat is to be provided they shall be at least ten (10) feet deep over twenty-five (25%) percent of the bottom area to prevent winterkill.
2. Wet Basin Shoreline Slopes. The side slopes of wet basins at the normal pool elevation shall not be steeper than five to one (5 to 1) horizontal to vertical. It is recommended that native aquatic vegetation be established around the perimeter to provide protection from shoreline erosion. Slopes below a depth of 8 feet are permitted to be two to one, In accordance with IDOT Standard Specifications Section 204.

3. Permanent Pool Volume. The permanent pool volume in a wet basin at normal depth shall be equal to the runoff volume from its watershed for the two (2) year, twenty-four (24) hour event as a minimum.
4. Wet Basin Inlet and Outlet Orientation. The distance between detention inlets and outlets shall be maximized. Inlets and outlets shall be at opposite ends of the basin providing that the orientation does not create undue hardship based on topography or other natural constraints. Designers are encouraged to use baffles or berms in the basin bottom to prevent short-circuiting. There shall be no low flow bypass between the inlet and outlet. The minimum flow length shall be ten (10) feet with a recommended minimum ratio of two to one (2:1) for width.
5. Safety Ledge. All wet detention basins shall have a level safety ledge at least four feet in width two and one-half to three (2.5 to 3) feet below the normal water depth.
6. Aeration. Wet bottom basins shall have a natural or artificial means of aeration.
7. Dewatering. An outlet structure shall be provided to allow dewatering of the pond for maintenance. Gravity dewatering is strongly preferred.
8. Soil Permeability. Wet bottom basin design shall include an evaluation of soil permeability. A basin liner shall be included in the design if needed to ensure water retention to normal pool elevation.
9. Detention/Sedimentation. It is encouraged that consideration of routing runoff from the development through a stilling basin be considered.

H. Dry Detention Basin Design

In addition to the other requirements of this Ordinance, 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.

1. Dry Basin Drainage. Dry basins shall be designed so that eighty percent (80%) of their bottom area shall have standing water no longer than seventy-two (72) hours for any runoff event less than the one hundred (100) year, twenty-four (24) hour event. Grading plans shall clearly distinguish the wet portion of the basin bottom. Underdrains directed to the outlet may be used to accomplish this requirement.
2. Minimum Bottom Slope. Dry bottom basins shall have two percent (2%) minimum bottom slopes or underdrain systems as approved by the Director of Engineering.
3. Low Flow Channel. Dry bottom basins may include a low flow channel with some form of erosion protection.
4. Velocity Dissipation. Velocity dissipation measures shall be incorporated into dry basin designs to minimize erosion at inlets and outlets and to minimize resuspension of pollutants.
5. Dry Basin Inlet and Outlet Orientation. Dry basin inlet and outlet orientation shall be the same as for wet basins.
6. Temporary Sediment Trap. A sediment trap shall be constructed at each major inlet to a dry basin during construction. The temporary sediment trap should be designed in accordance with criteria in the Illinois Urban Manual.

I. Detention on Prime Farmland

The placement of detention basins shall avoid the utilization of prime farmland. All detention basin construction shall examine potential impacts to adjacent agricultural land and shall address measures that will be implemented to eliminate such impacts and comply with other relevant permitting.

J. Detention in Flood Plains

The placement of detention basins within the flood plain is strongly discouraged because of questions about their reliable operation during flood events. However, the storm water detention requirements of this

ordinance may be fulfilled by providing detention storage within flood fringe areas on the project site, provided the following provisions are met as well as all required state, federal and local permits.

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 below the existing ten-year flood elevation shall be replaced below the existing ten-year elevation. All floodplain storage lost above the existing ten-year flood elevation shall be replaced above the existing ten-year flood elevation. All compensatory storage excavations shall be constructed to drain freely and openly to the watercourse.
2. Detention in Floodways. Detention basins shall be placed in the flood way only in accordance with Section Three, Article III, J. 3.
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 ordinance with respect to water quality and control of the 5 year and 100 year, 24 hour events from the property. The volume of detention shall be provided in addition to the existing stream flood way storage. Further criteria are presented in Section Three, Article III., K. of this ordinance. If on-stream detention is used in watersheds larger than one square mile, the applicant will use hydrographic modeling to demonstrate that the design will not increase the water level 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 for 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 pre-sedimentation basin;
 - d. Shall not involve any stream channelization or the filling of wetlands;
 - e. Shall require the implementation of an effective non-point source management program throughout the upstream watershed which shall include as a minimum: runoff reduction "Best Management Practices" (BMP's) consistent with Section Three, Article I.
 - f. Shall not occur downstream of a wastewater discharge;
 - g. Shall not contribute to the duration or flood frequency of any adjacent land.

K. Drainage Into Wetlands, Rivers, Streams, Lakes, Ponds, and Areas

Wetlands, rivers, streams, lakes and ponds shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. In addition to the other requirements of this Ordinance, the following requirements shall be met for all developments whose drainage flows into wetlands, rivers, lakes or ponds:

1. Detention in Wetlands, Rivers, Streams, Lakes or Ponds. Existing wetlands, rivers, lakes, or ponds shall not be modified for the purposes of storm water detention unless it is demonstrated that the proposed modifications will maintain or Improve its habitat and ability to perform beneficial functions and shall comply with other relevant permitting. Existing storage and release rate characteristics of wetlands, rivers, lakes or ponds 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 wetlands, rivers, lakes or ponds shall be protected during construction and as further regulated in Section Three, Article IV of this Ordinance.
3. Alteration of Drainage Patterns. Site drainage patterns shall not be altered to substantially decrease or increase the existing area tributary to wetlands, rivers, lakes or ponds. Drainage patterns shall not be altered by development to direct runoff offsite to other than natural drainage outlets existing prior to development.
4. Detention/Sedimentation. All runoff from the development shall be routed through a preliminary detention/sedimentation basin designed to capture the two (2) year, twenty-four (24) hour event and hold it for at least twenty-four (24) hours, before being discharged to the basin. This basin shall be constructed before property grading begins and shall be maintained throughout the construction process. In addition, the BMP hierarchy defined in Section Three, Article I, D. should be followed to minimize runoff volumes and rates being discharged.
5. Vegetated Buffer Strip. A buffer strip of at least twenty-five (25) feet in width, preferably vegetated with native plant species, shall be maintained or restored around the periphery of a wetland, river, stream, lake or pond.

L. Street Detention

If streets are to be used as part of the minor or major drainage system, ponding depths shall follow the criteria below:

1. Principal and Minor Arterials
 - a. Flow from a ten (10) year storm shall not inundate the center twenty (20) feet of the pavement.
 - b. Flow from a fifty (50) year storm shall be carried without damage to any building.
2. Collector Streets
 - a. Flow from a ten (10) year storm shall not inundate the center ten (10) feet of the pavement.
 - b. Flow from a fifty (50) year storm shall be carried without damage to any building.
3. Local Streets
 - a. Flow from a ten (10) year storm shall not top the curb.
 - b. Flow from a fifty (50) year storm shall be carried without damage to any building.

M. Parking Lot Detention

The maximum storm water ponding depth in any parking area shall not exceed six (6) inches.

N. Rooftop Detention

Rooftop storage of excess storm water shall be designed and constructed to meet with the City of East Moline building code.

O. Fee in Lieu of Detention

1. For the purpose of satisfying the requirements for storm water detention or compensatory storage for a development or redevelopment on a property for which detention or compensatory storage was not previously provided, a fee in lieu of detention or compensatory storage may be assessed against the development prior to the issuance of a permit. Fees shall be calculated to establish the property's fair share of costs to provide detention or compensatory storage for the watershed or drainage basin in which the property exists. The cost figures used for detention shall be actual costs for detention or compensatory storage being provided by contract or estimated costs for planned detention or compensatory storage facilities approved by the Director of Engineering. All revenues received through such fees shall be used for no purpose other than defraying public costs associated with providing detention or compensatory storage facilities.

2. The City of East Moline also may require a fee for each acre/foot of detention needed in lieu of the applicant building a basin on site, provided the property will discharge storm water into existing or proposed detention facilities with added capacity for the additional runoff.

P. Cooperative Detention

The City of East Moline will consider joint detention facilities developed through cooperative efforts that comply with all requirements of this Ordinance.

SECTION FOUR STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

A. General

1. The area disturbed shall be assumed to include the entire property area unless the applicable plans specifically exclude certain areas from disturbance.
2. The owner bears the responsibility for implementation of the SWPPP and notification of all contractors and utility agencies on the site.
3. SWPPP's must be provided for all phases of development, including sanitary sewer construction, storm drainage system construction, waterline, street and sidewalk construction, general grading and the construction of individual homes. The Class 2 Grading and Drainage Permit holder will not be required to provide an SWPPP for the activities of utility agencies.
4. The regulations for construction or post-construction management will be used for all regulated construction sites that are contained in the most recent edition of the Illinois Urban Manual.
5. The City of East Moline will use the Illinois Department of Transportation (IDOT) system of compliance that is outlined in the Bureau of Design and Environment (BDE) design manual.
6. The subsequent owners of individual lots in a subdivision with an approved SWPPP bears the responsibility for continued implementation of the approved SWPPP's for all construction activity within or related to the individual lot, excluding construction managed by utility agencies.

B. Requirements for Utility Construction

1. Utility companies shall be responsible for compliance with the requirements of this Ordinance.
2. Utility companies shall develop and implement Best Management Practices (BMPs) to prevent the discharge of pollutants on any site of utility construction within the City of East Moline. Disturbed areas shall be minimized, disturbed soil shall be managed and construction site entrances shall be managed to prevent sediment tracking. Sediment tracked onto public streets shall be removed immediately by the utility agency.
3. Prior to entering a construction site, utility agencies shall obtain a copy of any SWPPP's for the project from the owner. Any disturbance to BMPs resulting from utility construction shall be repaired immediately by the utility company in compliance with the SWPPP.

C. Required Documentation

A Class 2 Grading and Drainage Permit requires the execution and record maintenance of the following forms and reports (see also the Erosion Control Plan Action Matrix, NPDES Action Matrix - IDOT). The most current version of the standard forms from the Illinois Department of Transportation and the Illinois Environmental Protection Agency (IEPA) shall be used. The approved project erosion control documents shall be kept on file at the construction site or at a nearby field office and must be made available to the general public upon request.

1. A Storm Water Pollution Prevention Plan (SWPPP) using the IDOT SWPPP Template (form BDE 2342).
2. A Contractor Certification Statement (CCS) prepared prior to the start of construction by the contractor responsible for erosion control using the IDOT CCS Template (form BDE 2342a). The Grading and Drainage Permit holder shall provide the contractor responsible for erosion control with a copy of the IEPA NPDES statewide permit ILR10.
3. A Notice of Intent (NOI) shall be filed at least 48 hours prior to the start of construction and shall be prepared by the Grading and Drainage Permit holder (the original sent by certified mail to the IEPA with transmittal

copy to the Director of Engineering, and a copy kept in the project erosion control file). Use the IDOT NOI Template (Found in Forms Section of the IDOT Construction Manual WPC 623).

4. A NPDES / Erosion Control Inspection Report (ECIR) shall be prepared by the Grading and Drainage Permit holder on a weekly basis and after any 1/2-inch rainfall (to be kept in project erosion control file). Use current IDOT ECIR template (BC 2259).
5. An Incidence of Non-Compliance (ION) and corrective action shall be filed by the Grading and Drainage Permit holder within five (5) working days of the incident (the original sent by certified mail to the IEPA with transmittal copy to the Director of Engineering and a copy kept in the project erosion control file). Use current IDOT ION Template (Found in Forms Section of the IDOT Construction Manual WPC 624).
6. A Notice of Termination (NOT) shall be filed upon final stabilization of erosion (minimum 70% viable vegetative growth) by the Grading and Drainage Permit holder (the original sent by certified mail to the IEPA with transmittal copy to the Director of Engineering and a copy kept in the project erosion-control file). Use current IDOT NOT Template V (found in Forms Section of the IDOT Construction Manual WPC 621).

D. Applicability and Guidelines

1. It is the responsibility of the Grading and Drainage Permit holder to prepare and maintain documentation to meet the NPDES permit requirements for private grading and construction projects.
2. The Director of Engineering shall be given immediate access to all required project NPDES documents.
3. All notices sent to the IEPA shall be copied to the Director of Engineering.

E. Referenced Standards

Design standards for erosion and sediment control shall comply with the most current provisions of the USEPA regulations, IEPA regulations, IDOT Erosion Control / NPDES guidelines and per the "Illinois Urban Manual", prepared by the United States Department of Agriculture, Natural Resources Conservation Service unless otherwise stated by this Ordinance.

F. General Erosion and Sediment Control Design Features

The following principles shall apply to all construction undertaken under the authorization of a Class 2 Grading and Drainage Permit.

1. New development or redevelopment shall be designed to create the least potential for erosion. The disturbance of slopes greater than seven percent (7%) should be avoided wherever possible. Natural contours should be followed as closely as possible.
2. Natural vegetation shall be retained and protected wherever possible. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands are to be left undisturbed wherever possible. Temporary crossings of watercourses, when permitted, must include appropriate stabilization measures.
3. Special precautions shall be taken to prevent damages resultant from any necessary development activity within or adjacent to any stream, lake, pond or wetland. Preventive measures shall reflect the sensitivity of these areas to erosion and sedimentation.
4. The smallest practical area of land should be exposed for the shortest practical time during development.
5. Sediment basins or traps, filter barriers, diversions, and any other appropriate sediment or runoff control measures shall be installed prior to site clearing and grading and maintained to remove sediment from run-off waters from land undergoing development.
6. In the design of erosion control facilities and practices, aesthetics and the requirements of continuing maintenance must be considered.

7. Provisions shall be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development. Drainageways should be designed so that their final gradients and the resultant velocities and rates of discharge will not create additional erosion on-site or downstream.
8. Permanent vegetation and structures shall be installed and functional as soon as practical during development. Disturbed areas shall be stabilized with approved permanent measures within seven (7) calendar days following the end of active disturbance or redisturbance.
9. Those areas being converted from agricultural purposes to other land uses shall be vegetated with an appropriate protective cover prior to development.
10. All waste generated as a result of site development activity shall be properly disposed of and shall be prevented from being carried off the site by either wind or water.
11. All construction sites shall provide measures to prevent sediment from being tracked onto public or private roadways.
12. All temporary soil erosion and sediment control practices shall be maintained to function as intended until the contributing drainage area has been permanently stabilized at which time they shall be removed within thirty (30) days after final site stabilization.

G. Materials and Construction Notes

1. Silt fence and coconut fiber shall be installed in accordance with the material and construction requirements of the Illinois Urban Manual.
2. Erosion control blankets, bales, seeding and rip rap shall be installed in accordance with material and construction requirements of the Illinois Urban Manual, latest edition.

H. Testing and Inspection

Use the Residents Weekly NPDES / Erosion Control Inspection Report BC 2259 from the Illinois DOT Construction Manual.

I. Grading and Drainage Plan Requirements

A grading and drainage plan shall be submitted showing all measures necessary to meet the objectives of this Ordinance throughout all phases of construction. The development of a grading and drainage plan shall follow the requirements of this Ordinance and the procedures in the latest edition of the Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control which is hereby incorporated into this Ordinance by reference. Standards and specifications for BMPs shall follow the requirements of this Ordinance and the criteria in the latest edition of the Illinois Urban Manual which is hereby incorporated into this Ordinance by reference. The Director of Engineering may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of this Ordinance. Permanent soil erosion and sediment control features needed at the completion of any development site shall be included in the submittal.

The submitted grading and drainage plan shall include:

1. Mapping and Descriptions. The existing and proposed erosion and sediment control features of the property and immediate vicinity including:
 - a. Items as required for the Grading and Drainage Plan Submittal.
 - b. Location of the slope disturbance line.

- c. Location and description of the soil erosion and sediment control measures to be employed during construction.
- d. For any structures proposed to be located on the slope side of the slope disturbance line, the map shall include the limits of disturbance including: tree removal, soil erosion and sediment control measures during construction, details of method(s) proposed for providing slope stability, permanent storm water control measures, and permanent erosion and sediment control measures all being certified by a registered Professional Engineer or a "Certified Professional Erosion Control Specialist."
- e. The predominant soil types on the site, their location, and their limitations for the proposed use as defined by the U.S.D.A. Natural Resources Conservation Service (NRCS).
- f. Location and description, including standard details, of all sediment control measures and specifics of sediment basins and traps, including outlet details.
- g. Location and description (specification) of all soil stabilization and erosion control measures, including seeding mixtures and rates, types of sod, method of seedbed preparation (type and extent of tillage, weed control, planting equipment, etc.), expected seeding dates, type, method and rate of lime and fertilizer application (soil fertility testing required), kind and quantity of mulching for both temporary and permanent vegetative control measures, and types of non-vegetative stabilization measures.
- h. Location and description of all runoff control measures, including diversions, waterways, and outlets.
- i. Location and description of methods to prevent tracking of sediment off-site including construction entrance details, as appropriate.
- j. Description of dust and traffic control measures.
- k. Provisions for maintenance of control measures, including type and frequency of maintenance, easements, and estimates of the cost of maintenance.
- l. Identification (name, address, and telephone) of the person(s) or entity which will have legal responsibility for maintenance of soil erosion control structures and measures during development and after development is completed.

J. Site Development Requirements

On-site sediment control measures, as specified by the following criteria, shall be constructed as specified in the referenced handbooks, and functional prior to initiating clearing, grading, stripping, excavating or fill activities on the site.

- 1. For new developments or re-developments of more than one (1) acre but less than five (5) acres, a sediment trap or equivalent control measure shall be constructed at the downslope point of the disturbed area.
- 2. For new developments or re-developments of one (1) acre or more, a sediment basin or equivalent control measure shall be constructed at the down slope point of the disturbed area.
- 3. Sediment basin and sediment trap designs shall provide for both "dry" detention and "wet" detention sediment storage. The detention storage shall be composed of equal volumes of "wet" detention storage and "dry" detention storage and each shall be sized as regulated in this Ordinance. The release rate of the basin shall be that rate as regulated in this Ordinance. The elevation of the outlet structure shall be placed such that it only drains the dry detention storage.
- 4. The sediment storage shall be sized to store the estimated sediment load generated from the site over the duration of the construction period with a minimum storage equivalent to the volume or sediment generated in one year. For construction periods exceeding one year, the 1-year sediment load and a sediment removal schedule may be substituted.

5. To the extent possible or as otherwise regulated in this Ordinance all desirable trees eight (8) inches in diameter and larger shall be protected for their present and future value for erosion protection and other environmental benefits. Trees that have been selected for preservation shall be protected following criteria from IL Urban Manual prior to the beginning of any clearing, grading, stripping, excavation, or filling of the site. A "No" construction zone shall be established and marked at the perimeter of the dripline of each tree which is to be preserved.
6. Storm water conveyance channels, including ditches, swales, and diversions, and the outlets of all channels and pipes shall be designed and constructed as regulated in this Ordinance. All constructed or modified channels shall be stabilized within forty-eight (48) hours, consistent with the following standards and as required in the referenced handbooks:
 - a. For grades up to four percent (4%), seeding in combination with mulch, erosion blanket, or an equivalent control measure shall be applied. Sod or erosion blanket or mat shall be applied to the bottom of the channel.
 - b. For grades of four to eight percent (4-8%), sod or an equivalent control measure shall be applied in the channel.
 - c. For grades greater than eight percent (8%), rock, riprap, or an equivalent control measure shall be applied over filter fabric or other type of soil protection, or the grade shall be effectively reduced using drop structures.
7. Land disturbance activities in stream channels shall be avoided, where possible, or as regulated this Ordinance. If disturbance activities are unavoidable, the following requirements shall be met.
 - a. Construction vehicles shall be kept out of the stream channel to the maximum extent practicable. Where construction crossings are necessary, temporary crossings shall be constructed of non-erosive material, such as riprap or gravel.
 - b. The time and area of disturbance of stream channels shall be kept to a minimum. The stream channel, including bed and banks, shall be stabilized within 48 hours after channel disturbance is completed, interrupted, or stopped.
 - c. Whenever channel relocation is necessary, the new channel shall be constructed under dry conditions and fully stabilized before flow is diverted, incorporating meanders, pool and riffle sequence, and riparian planting.
8. Storm sewer inlets and culverts shall be protected by sediment traps or filter barriers meeting accepted design standards and specifications.
9. Soil storage piles containing more than ten (10) cubic yards of material shall not be located with a downslope drainage length of less than fifty (50) feet to a roadway, drainage channel, or abandoned mine. Filter barriers, including straw bales, filter fence, or equivalent, shall be installed immediately surrounding the perimeter of the pile.
10. If dewatering devices are used, discharge locations shall be protected from erosion. All pumped discharges shall be routed through appropriately designed sediment traps or basins, or equivalent and shall not be deposited into an abandoned mine.
11. Each site shall have graveled (or equivalent) entrance roads, access drives, and parking areas of sufficient length and width to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by shoveling or street cleaning (not flushing) before the end of each workday and transported to a controlled sediment disposal area.

**SECTION 5
FEES**

A. Class 1 Grading and Drainage Permit	\$150.00
B. Class 2 Grading and Drainage Permit	\$250.00
C. Appeal to the Storm Water Board of Appeals	\$150.00

APPENDIX A

**SAMPLE
LETTER OF CREDIT**

_____ (name of bank) _____

_____ (City bank's located) , _____ (State) _____

Irrevocable Credit No. _____ Date: _____, 20_____

City of East Moline, Illinois All drafts must be marked:

_____, Illinois "Drawn under Credit No. _____,
Dated _____, 20_____

Gentlemen:

We hereby open an Irrevocable Letter of Credit in the amount of _____
_____ (\$ _____) in your favor for the
account of _____ (Developer),
the developer of _____ (name of project) _____,
proposed in the City of East Moline _____, Illinois, or within its
territorial jurisdiction, for the benefit of the City of Moline.

Said money hereunder shall be available by your drafts at sight drawn on us drawn in the name of the City of East Moline, Illinois. All drafts so drawn must be marked "Drawn under _____ (name of bank) _____,
Credit No. _____ dated _____, 20_____."

Drafts must be accompanied by a signed statement by the Director of Engineering of the City of East Moline, Illinois, that the request is for the installation or construction of improvements required pursuant to the plans, specifications, and cost estimates dated _____, 20_____, and approved by the City of East Moline, Illinois, and on file with the Director of Engineering. Further, all requests for disbursements under this Letter of Credit made prior to _____ (must be 2 years after filing) _____, 20_____, shall be submitted by developer and accompanied by a certified estimate of units and value of work completed with contractor's sworn statement and waiver of mechanics' liens, all approved by the Developer's engineer and the Director of Engineering of the City of East Moline, Illinois. It is understood as to all disbursements that the Director of Engineering shall approve partial drawings only as long as there remains a sufficient balance to the Credit to cover said engineers then current estimate of costs for the required improvements which at that time remain to be completed but in no case shall his approval exceed ninety percent (90%) of the value of work completed.

In the event that all of the work for the improvements is not completed to the satisfaction of the City on or before _____ (1 day short of 2 years after filing) _____, 20_____, the funds remaining under this Letter of Credit shall be available to the City of East Moline, Illinois upon presentation of their draft at sight drawn on us in the name of the City of East Moline, Illinois. This draft so drawn must be marked as specified hereinabove. Further, such draft shall be accompanied by a signed statement by the Director of Engineering of the City of East Moline, Illinois as follows:

"I, _____ (name) _____, Director of Engineering for the City of East Moline, Illinois, do hereby certify that work on required improvements for the project named _____
_____ has not been completed to the satisfaction of the City of East Moline
_____ on or before _____ (ten days short of two years after filing) _____, 20_____.

**SAMPLE
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS, that _____, as
PRINCIPAL, _____, as SURETY, and _____,
as ADDITIONAL SURETY, are held and firmly bound unto the City of East Moline _____, Illinois,
as OBLIGEE, in the sum of _____ (\$ _____)
lawful money of the United States, for the payment whereof to the Obligee, the Principal and the Surety, and
Additional Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and
severally, firmly to these presents:

SIGNED, SEALED AND DATED, THIS ___ day of _____, 20_____.

WHEREAS, application was made to the Obligee for approval of a project entitled " _____
_____", located in the City of East Moline, Illinois, filed with the Director of
Engineering of the City of East Moline , Illinois, on _____, 20_____, said project may be
approved upon certain conditions, one of which is that a performance bond in the amount of _____
(\$ _____), to be filed with the City Clerk
to guarantee certain improvements in said project.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the above named Principal shall
within two (2) years from the date hereof will and truly make and perform the required improvements and
construction of public improvements in and adjacent to said project in accordance with the specifications of the City
of East Moline and the Stormwater Regulations of the City of East Moline , then this obligation to be void;
otherwise to remain in full force and effect.

It is hereby understood and agreed that in the event that any required improvements have not been installed as
provided aforesaid within the term of this Performance Bond, the City Council may thereupon declare this bond to
be in default and collect the sum remaining payable thereunder and upon receipt of the proceeds thereof, the City of
East Moline shall install such improvements as are covered by this bond and commensurate with the extent of
development that has taken place in said project but not exceeding the amount of such proceeds.

_____ Principal

By: _____ Principal

_____ Surety

By: _____
Attorney in Fact

Additional Surety

Approved as to Form:

By: _____

APPENDIX B

Covenant To Be Included In Subdivision Covenants

Storm Water Detention Basin

A storm water detention basin has been constructed within the subdivision, in accordance with the requirements of the municipal storm water ordinance, and is so designated as "Detention Basin" on subdivision plat. The detention basin shall provide for the temporary detention of storm water runoff from the subdivision to meet release rates as required by the municipality.

The real estate upon which the detention basin is located, designated as Outlot A on the Plat, shall be deeded from the Developer to the Homeowner's Association upon the sale of 75% of the lots within the Subdivision.

The Developer as owner, and subsequent to the conveyance of title, the Homeowners Association as owner, shall be responsible for the following:

- a. An annual report on the detention basin condition, using the checklist, designated below, shall be submitted to the Director of Engineering.
- b. At five (5) year intervals, the basin shall be inspected by a professional engineer registered in the State of Illinois. A report of this inspection shall be submitted to the Director of Engineering within sixty (60) days of the inspection. The inspection shall include an evaluation of the checklist items in the checklist below. An annual report is not required the year the five year report is due.
- c. The Developer, as owner, shall notify the Homeowners Association of its maintenance responsibilities and transfer basin maintenance records to the Homeowners Association.

Each owner of an improved lot within the Subdivision shall be assessed by the Homeowners Association for the cost of maintaining the Detention Basin and for the cost of complying with the requirements of these covenants and the requirements of the municipality. The Declaration regarding the establishment of a Homeowners Association and the procedures for the assessment and collection of dues for the cost of maintaining the detention basin shall be filed and recorded by the Developer as a separate document.

DECLARATION OF RESTRICTIVE AND PROTECTIVE COVENANTS AND CONDITIONS REGARDING THE ESTABLISHMENT OF A HOMEOWNERS ASSOCIATION FOR THE STORM WATER DETENTION BASIN SYSTEM AS LOCATED WITHIN _____

Dated _____

Filed _____

To The Public:

This Declaration, made on the date hereinafter set forth by _____, hereinafter referred to as "Declarant".

WITNESSETH:

Whereas, Declarant is the owner of certain property in the City of _____, Rock Island County, Illinois, which is more particularly described as:

NOW, THEREFORE, Declarant hereby declares that all of the properties described above shall be held, sold and conveyed subject to the following easements, restrictions, covenants and conditions, all of which are for the purpose of enhancing and protecting the value, desirability and attractiveness of the real property, and for the purpose of complying with storm water retention requirements of the City of _____. These covenants, restrictions and conditions shall run with the real property and shall be binding on all parties having or acquiring any right, title or interest in the described property or any part thereof, and shall inure to the benefit of each owner thereof.

ARTICLE I.

DEFINITIONS

1. "Association" shall mean and refer to Homeowners Association of _____, Inc., an Illinois nonprofit corporation, its successors and assigns.
2. "Properties" shall mean and refer to that certain real property hereinbefore described, more particularly described as: Lots _____ through _____ of _____, City of _____, Illinois, and such additions thereto as may hereafter be brought within the jurisdiction of the Association.
3. "Lot" shall mean and refer to any plot of land shown upon any recorded subdivision map or plat of the properties.
4. "Member" shall mean and refer to every person or entity who hold membership in the association.
5. "Owner" shall mean and refer to the record owner, whether one or more persons or entities, of a fee simple title to any lot which is a part of the Properties, including contract sellers, but excluding those having such interest merely as security for the performance of an obligation.
6. "Declarant" shall mean and refer to _____, to successors and assigns, if such successors or assigns should acquire more than one undeveloped lot from the Declarant for the purpose of Development.
7. "Developer" shall mean the same as "Declarant".

ARTICLE II

MEMBERSHIP AND VOTING RIGHTS

Every person or entity who is a record owner of a fee or undivided fee interest in any Lot which is subject by covenants of record to assessment by the Association, including contract Sellers, shall be a member of the Association. The foregoing is not intended to include persons or entities who hold an interest merely as security for the performance of an obligation. No owner shall have more than one membership. Membership shall be appurtenant to and may not be separated from ownership of any lot which is subject to assessment by the Association. Ownership of such lot shall be the sole qualification for membership.

ARTICLE III

ESCROW FUND FOR MAINTENANCE

The primary source of funds for maintenance of the master storm water detention system shall be an escrow fund. Declarant shall establish the Escrow Fund at some local banking institution at such time as the first lot in The Properties is transferred to an owner other than the Declarant. The Association shall have the power to expend the escrow fund for maintenance authorized in accordance with the provisions of Article V.

ARTICLE IV

COVENANT FOR MAINTENANCE ASSESSMENT

1. Creation of the lien and Personal Obligation of Assessments. The Declarant, for each improved Lot owned within the Properties, hereby covenants, and each Owner of any Lot by acceptance of a Deed therefor, whether or not it shall be so expressed in such Deed, is deemed to covenant and agree to pay to the Association: (1) annual assessments or charges, such assessments to be established and collected from time to time as hereinafter provided. The term "improved Lot" shall mean any Lot having a building erected thereon and ready for occupancy as approved by the City of _____, Illinois. The annual assessments, together with interest, shall be a charge on the land and shall be a continuing lien upon the property against which each such assessment is made. Each assessment together with interest, costs and reasonable attorney's fees for collection, shall also be the personal obligation of the person or entity who was the owner of such property at the time the assessment fell due. The personal obligation for delinquent assessments shall not pass to his successors in title unless expressly assumed by them.
2. Purpose of Assessments. The assessments levied by the Association shall be used exclusively to maintain the storm water detention basin system, as provided for under the Restrictive and Protective Covenants of _____. The Board of Directors of the Association shall establish a budget by January 1st of each year and shall levy an assessment upon each improved Lot without the Subdivision by February 1st of each year, payable by the 1st day of May.
3. Notice and Quorum for Any Action Authorized Under Section 3. Written notice of any meeting called for the purpose of establishing the budget and making the assessment shall be sent to all members not less than 15 days nor more than 30 days in advance of the meeting. At the first such meeting called, the presence of Members or of proxies entitled to cast 50% of all votes of each class of membership shall constitute a quorum. If the required quorum is not present, another meeting may be called subject to the same notice requirement, and the required quorum at the subsequent meeting shall be one-half of the required quorum at the preceding meeting. No such subsequent meeting shall be held more than 60 days following the preceding meeting.
4. Uniform Rate of Assessment. Annual assessments must be fixed at a uniform rate for all improved Lots and shall be collected on an annual installment basis, except as hereinafter provided.
5. Date of Commencement of Annual Assessments; Due Dates. The annual assessments provided for herein shall commence as to all improved Lots on the first day of the month following the conveyance of any such improved Lot. The first annual assessment shall be adjusted according to the number of months remaining in the calendar year. The Board of Directors of the Association shall fix the amount of the annual assessment against each lot at least 30 days in advance of each annual assessment period. Written notice of the annual assessment shall be sent to every Owner subject thereto. The annual assessment shall be paid in one annual payment, and the due dates and delinquency dates shall be uniformly established by the Board of Directors of the Association. The Association shall, upon demand, and for a reasonable charge, furnish a certificate signed by an officer of the Association setting forth whether the assessments on a specified Lot are current or delinquent. Such certificate shall be conclusive evidence of payment of any assessment therein stated to have been paid.
6. Effect of Non-payment of Assessments; Remedies of the Association. Any annual payment not paid within 30 days after the due date shall bear interest from the date of delinquency at the rate of 10% per annum. The Association may bring any action at law against the Owner personally obligated to pay the same, or foreclose the lien against the property by an action in equity. In any such action, interest, costs and reasonable attorneys fees shall be added to the amount of the delinquent assessment and collected as part of said judgment. In the event of such foreclosure, if the Association waives any and all rights to a deficiency judgment against the Owner, the period for redemption as provided by the statutes of the State of Illinois shall be reduced to six months from the date of foreclosure sale. Any lot ultimately acquired by the Association through Judges Deed after such a foreclosure shall be sold by the Association within a reasonable time either at public or private sale, and any surplus remaining after the payment of assessments, interest, costs and attorney's fees shall be paid over

to the former Owner of said Lot. No Owner may waiver or otherwise escape liability for the assessments provided for herein by non-use of the Detention Basin or by abandonment of his Lot.

7. Subordination of the Lien to Mortgages. The lien of the assessments provided for herein shall be subordinate to the lien of any first mortgage placed upon any Lot. Sale or transfer of any Lot shall not affect the assessment lien. However, the sale or transfer of any lot pursuant to Mortgage foreclosure or any assessments as to payments which became due prior to such sale or transfer, provided that such sale or transfer shall not extinguish the personal obligation of the prior Owner or his heirs, successors or assigns, for payment of such assessment. No sale or transfer shall relieve such Lot from liability for any assessments thereafter becoming due or from the lien thereof.

ARTICLE V

GENERAL PROVISIONS

1. Enforcement. The Association, or any Owner shall have the right to enforce by any proceeding at law or in equity all restrictions, conditions, covenants or reservations now or hereafter imposed by the provisions of this Declaration. The Association shall have the sole right to enforce, by proceedings at law or in equity, the liens and charges now or hereafter imposed by the provisions of this Declaration. Failure by the Association or by any Owner to enforce any covenant or restriction herein contained shall in no event be deemed a waiver of the right to do so thereafter.
2. Severability. Invalidation of any one of these covenants or restrictions by judgment or Court Order shall in no wise affect any other provisions which shall remain in full force and effect.
3. Duration. The covenants and restrictions of this Declaration shall run with and bind the land, for a term of 21 years from the date this Declaration is recorded, after which time they shall be automatically extended for successive periods of 10 years each.
4. Amendment. This Declaration may be amended during the first 21 years period by an instrument signed by not less than 75% of the Lot owners and thereafter by an instrument signed by not less than 65% of the Lot Owners, provided, however, that no such amendment shall be valid or effective until is has been, and a certified copy of said resolution, and a certified copy of the amendment adopted by the Lot Owners, having both been recorded in the office of the Recorder of Rock Island, Illinois.

By: _____
OWNER AND DECLARANT

By: _____
OWNER AND DECLARANT