

ORDINANCE 2006-26

**STORMWATER MANAGEMENT
ORDINANCE**

Town of Avon, Indiana



November 16, 2006 Final Draft

ACKNOWLEDGEMENTS

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TABLE OF CONTENTS

CHAPTER 1	GENERAL INFORMATION	1
SECTION 1:	SYNOPSIS AND TITLE.....	1
SECTION 2:	AUTHORITY	1
SECTION 3:	3	
	APPLICABILITY AND EXEMPTIONS	3
SECTION 4:	BACKGROUND.....	3
SECTION 5:	4	
	PURPOSE 4	
SECTION 6:	SAVING PROVISION	4
SECTION 7:	POLICY.....	4
SECTION 8:	PERMITS FOR CONSTRUCTION IN A FLOODWAY	5
SECTION 9:	WETLANDS	5
SECTION 10:	ESTABLISHMENT OF A REGULATED DRAIN	5
SECTION 11:	ADEQUATE DRAIN OUTLETS.....	5
SECTION 12:	COMPLIANCE.....	6
SECTION 13:	ABBREVIATIONS AND DEFINITIONS	6
SECTION 14:	RESPONSIBILITY FOR ADMINISTRATION	6
SECTION 15:	CONFLICTING ORDINANCES	6
SECTION 16:	INTERPRETATION	7
SECTION 17:	SEVERABILITY	7
SECTION 18:	EFFECTIVE DATE	7
SECTION 19:	DISCLAIMER OF LIABILITY	7
CHAPTER 2	DEFINITIONS AND ABBREVIATIONS	8
SECTION 1:	SYNOPSIS	8
SECTION 2:	DEFINITIONS.....	8
SECTION 3:	ABBREVIATIONS	23
CHAPTER 3	ILLICIT DISCHARGE AND CONNECTION CONTROLS.....	25
SECTION 1:	SYNOPSIS	25
SECTION 2:	PURPOSE/INTENT	25
SECTION 3:	APPLICABILITY.....	25
SECTION 4:	ULTIMATE RESPONSIBILITY	25
SECTION 5:	DISCHARGE PROHIBITIONS.....	26
SECTION 6:	ACCESSORY DRAINS.....	27
SECTION 7:	SUSPENSION OF MS4 ACCESS	27
SECTION 8:	INDUSTRIAL OR CONSTRUCTION ACTIVITY DISCHARGES.....	28
SECTION 9:	MONITORING OF DISCHARGES	28
SECTION 10:	REQUIREMENT TO PREVENT, CONTROL, AND REDUCE STORM WATER POLLUTANTS BY THE USE OF BEST MANAGEMENT PRACTICES.....	29
SECTION 11:	WATERCOURSE PROTECTION.....	30
SECTION 12:	NOTIFICATION OF SPILLS	30
SECTION 13:	ENFORCEMENT	30
CHAPTER 4	STORMWATER QUANTITY MANAGEMENT	32
SECTION 1:	SYNOPSIS	32
SECTION 2:	APPLICABILITY AND EXEMPTIONS	32
SECTION 3:	POLICY ON STORMWATER QUANTITY MANAGEMENT	32
SECTION 4:	CALCULATIONS, DESIGN STANDARDS AND SPECIFICATIONS	43
SECTION 5:	EASEMENT REQUIREMENTS.....	43

SECTION 6:	PLACEMENT OF UTILITIES	46
SECTION 7:	INSPECTION, MAINTENANCE, RECORD KEEPING, AND REPORTING	46
CHAPTER 5	CONSTRUCTION SITE AND POST-CONSTRUCTION STORMWATER CONTROLS .47	
.1	47	
.2	SECTION 1: SYNOPSIS	47
SECTION 2:	PURPOSE/INTENT	47
SECTION 3:	APPLICABILITY	47
SECTION 4:	ULTIMATE RESPONSIBILITY	48
SECTION 5:	RESPONSIBILITY OF CONSTRUCTION SITE OWNER	48
SECTION 6:	GENERAL REQUIREMENTS FOR STORMWATER QUALITY CONTROL	49
SECTION 7:	GENERAL REQUIREMENTS FOR INDIVIDUAL BUILDING LOTS WITHIN A PERMITTED PROJECT	52
SECTION 8:	MONITORING OF DISCHARGES	53
SECTION 9:	REQUIREMENT TO PREVENT, CONTROL, AND REDUCE STORM WATER POLLUTANTS BY THE USE OF BEST MANAGEMENT PRACTICES	53
SECTION 10:	POST-CONSTRUCTION CONTROLS FOR NEW DEVELOPMENT OR REDEVELOPMENT	54
SECTION 11:	ENFORCEMENT	55
SECTION 12:	INJUNCTIVE RELIEF	56
SECTION 13:	COMPENSATORY ACTION	56
SECTION 14:	VIOLATIONS DEEMED A PUBLIC NUISANCE	56
SECTION 15	REMEDIES NOT EXCLUSIVE	56
CHAPTER 6	PLAN SUBMITTAL REQUIREMENTS AND PROCEDURES	57
SECTION 1:	SYNOPSIS	57
SECTION 2:	PRELIMINARY DRAINAGE APPROVALS	57
SECTION 3:	STORMWATER PLAN REVIEW PROCEDURES	57
SECTION 5:	STORMWATER PLAN SUBMITTAL REQUIREMENTS	61
SECTION 6:	STORMWATER DRAINAGE TECHNICAL REPORT	65
SECTION 7:	STORMWATER POLLUTION PREVENTION PLAN FOR CONSTRUCTION SITES	67
SECTION 8:	POST-CONSTRUCTION STORM WATER POLLUTION PREVENTION PLAN	67
SECTION 9:	68	
	REVIEW OF INDIVIDUAL LOTS WITHIN A PERMITTED PROJECT	68
SECTION 10:	CHANGES TO PLANS	69
SECTION 11:	FEE STRUCTURE	69
SECTION 12:	REFUND OF PAYMENT	70
SECTION 13:	REQUIRED ASSURANCES	70
SECTION 14:	TERMS AND CONDITIONS OF PERMITS	71
SECTION 15:	DETERMINATION OF SENSITIVE AREAS	71
SECTION 16:	DETERMINATION OF IMPACT DRAINAGE AREAS	71
SECTION 17:	CERTIFICATION OF AS-BUILT PLANS	72
CHAPTER 7	ENFORCEMENT	74
SECTION 1:	SYNOPSIS	74
SECTION 2:	74	
	COMPLIANCE WITH THIS ORDINANCE	74
SECTION 3:	STOP WORK ORDER	74
SECTION 4:	FAILURE TO COMPLY OR COMPLETE	75
SECTION 5:	75	
	NOTICE OF VIOLATION	75
SECTION 6:	CORRECTIVE ACTION	75
SECTION 7:	APPEAL OF NOTICE OF VIOLATION	75
SECTION 8:	ENFORCEMENT MEASURES AFTER APPEAL	76
SECTION 9:	COST OF ABATEMENT OF THE VIOLATION	76
SECTION 10:	INJUNCTIVE RELIEF	76
SECTION 11:	COMPENSATORY ACTION	76

SECTION 12: VIOLATIONS DEEMED A PUBLIC NUISANCE	76
SECTION 13: CIVIL PENALTY	77
SECTION 14: REMEDIES NOT EXCLUSIVE	77
CHAPTER 8 ADOPTION	78
SECTION 1: SYNOPSIS	78
SECTION 2: ADOPTION OF TECHNICAL STANDARDS	78
SECTION 3: ADOPTION OF ORDINANCE	79

CHAPTER 1 GENERAL INFORMATION

Section 1: Synopsis and Title

This ordinance regulates stormwater management and construction within the Town of Avon. It is adopted in accordance with statutory authority granted under Plan Commission, flood control and IC 36-9-23. Stormwater quality regulations described in the ordinance are required by federal law under the Environmental Protection Agency’s Phase II stormwater regulations of the National Pollution Discharge Elimination System program authorized by the 1999 amendments to the Clean Water Act, the Indiana Department of Environmental Management’s Rule 13 (327 IAC 15-13), and the Indiana Department of Environmental Management’s Rule 5 (327 IAC 15-5). Based on this authority and these requirements, this ordinance regulates:

1. Discharges of prohibited non-stormwater flows into the storm drain system.
2. Stormwater drainage improvements related to development of lands located within the Town of Avon.
3. Drainage control systems installed during new construction and grading of lots and other parcels of land.
4. Erosion and sediment control systems installed during new construction and grading of lots and other parcels of land.
5. The design, construction, and maintenance of stormwater drainage facilities and systems.
6. The design, construction, and maintenance of stormwater quality facilities and systems.

This ordinance shall be known and may be cited as the Town of Avon Stormwater Management Ordinance.

Section 2: Authority

Whereas, the Town of Avon, Indiana (the Town) has constructed and has in operation a stormwater collection and conveyance system for the purpose of collecting stormwater within its jurisdiction; and

Whereas, new requirements for stormwater quality affect the Town directly resulting from the United State Environmental Protection Agency (EPA) regulation entitled “National Pollutant Discharge Elimination System (NPDES) – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges” (Federal Register, Volume 64, Number 235, pages 68722 – 68852)

on December 8, 1999 as required by section 402(p) of the Clean Water Act (CWA); and

Whereas, the new federal requirements for stormwater quality are administered by the Indiana Department of Environmental Management with the adoption of 327 IAC 15-5 for Storm Water Run-off Associated with Construction Activity, 327 IAC 15-6 for Storm Water Discharges Exposed to Industrial Activity, and 327 IAC 15-13 for Storm Water Run-Off Associated with Municipal Separate Sewer System Conveyances; and

Whereas, the Town of Avon, Indiana has been identified by the new program administered by the Indiana Department of Environmental Management with the adoption of 327 IAC 15-13 for Storm Water Run-Off Associated with Municipal Separate Storm Sewer System (MS4) Conveyances; and

Whereas, 327 IAC 15-13-14 requires the Town to pass an ordinance or other local regulatory mechanism prohibiting illicit discharges into the stormwater conveyance system and establishing appropriate enforcement procedures and actions; and

Whereas, 327 IAC 15-13-15(b) requires the Town to pass an ordinance or other local regulatory mechanism establishing a construction program that controls polluted run-off from construction activities with a land disturbance greater than or equal to one acre, or disturbances of less than one acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres of land; and

Whereas, 327 IAC 15-13-16(b) requires the Town to pass an ordinance or other local regulatory mechanism to implement planning procedures to promote improved water quality, which at a minimum must meet the post-construction requirements of 327 IAC 15-5-6.5(a)(8); and

Whereas, the required ordinance or other local regulatory mechanism must contain, at a minimum, the requirements of 327 IAC 15-5 except for state permitting process references and submittal deadlines of construction plans; and

Whereas, the creation of a new stormwater management program could help address stormwater management problems; and

Whereas, the Town operates its stormwater system under the provisions of IC 36-9-23, and the Common Council, under IC 36-9-23-3

Whereas, the Town has authority to regulate land use and development through its Plan Commission and flood plain management with its staff;

Now therefore be it hereby ordained by the Common Council of the Town of Avon, Hendricks

Town of Avon, Indiana Stormwater Management Ordinance

County, Indiana, that the municipal code be amended as follows:

Section 3: Applicability and Exemptions

This ordinance shall apply to all development which requires the Town of Avon Improvement Location Permits and official review and approval of any Town of Avon agencies.

Projects that require only individual Improvement Location Permits for a single family dwelling, a two-family dwelling, or their accessory structures are not subject to the runoff control requirements of Chapter 4 except as specifically stated elsewhere in the Ordinance.

Minor subdivisions that do not require off-site drainage easements and do not increase either the runoff or release rates, in the opinion of the Plan Commission Staff, are exempt from seeking Plan Commission approval under the provisions of Chapter 4. However, if in the watershed of an existing regulated drain, the developer must petition the Hendricks County Drainage Board to establish a maintenance fund assessment. In such cases, the Stormwater Plan will be reviewed by the Plan Commission Staff. All other requirements of this ordinance shall apply to the above referenced minor subdivisions.

It is further recognized that land disturbing activities may cause soil loss, siltation, and degradation of natural resources. The erosion control standards of this ordinance are applicable to all land disturbing activities that are necessary for any development regulated by this ordinance. Typical agricultural uses are exempt from this ordinance.

Town Projects shall be exempt from obtaining permits, but are expected to meet all the technical requirements of this ordinance and the Town Stormwater Technical Standards Manual.

Any construction project which has had its preliminary drainage plan approved by the Town prior to the effective date of this ordinance may be exempt from the runoff control requirements of Chapter 4. For projects approved under previous ordinances, requirements in Chapter 4 may be taken into consideration for exemption by the Town if supported by adequate documentation provided by the developer in identifying the hardship.

Section 4: Background

The Common Council of the Town of Avon, State of Indiana, on July 18, 1996, adopted an ordinance which established "Storm Drainage, Erosion and Sediment Control Ordinance", commonly known as the "SDESCO", in order to administer the control of runoff of stormwater and to protect, conserve and promote the orderly development of the land in the Town and its water resources. This code was primarily targeted at stormwater discharge quantity, erosion and sediment control.

Section 5: Purpose

The purpose of this ordinance is to provide for the health, safety, and general welfare of the citizens of the Town through the regulation of stormwater and non-stormwater discharges to the storm drainage system; to enhance economic objectives; and to protect, conserve and promote the orderly development of land and water resources within the Town. This ordinance establishes methods for managing the quantity and quality of stormwater entering into the storm drain system in order to comply with State and Federal requirements. The objectives of this ordinance are:

1. To reduce the hazard to public health and safety caused by excessive stormwater runoff.
2. To regulate the contribution of pollutants to the storm drain system from construction site runoff.
3. To regulate the contribution of pollutants to the storm drain system from runoff from new development and re-development.
4. To prohibit discharges of non-stormwater into the storm drain system.
5. To establish legal authority to carry out all inspection, monitoring, and enforcement procedures necessary to ensure compliance with this ordinance.
6. To establish minimum standards for Stormwater Plan Review and approval to receive an Improvement Location Permit.

Section 6: Saving Provision

These regulations shall not be construed as abating any action now pending under, or by any virtue of, prior existing regulations, or as discontinuing, abating, modifying, or altering any penalty accruing or about to accrue, or as affecting the liability of any person, firm, or corporation, or as waiving any right of the Town Council of the Town of Avon under any section or provision existing at the time of adoption of these regulations, or as vacating or annulling any right obtained by any person, firm or corporation, by lawful action of the Town except as shall be expressly provided for in these regulations.

Section 7: Policy

It is recognized that streams and drainage channels serving the Town of Avon may not have sufficient capacity to receive and convey storm water runoff resulting when land use changes from undeveloped or agricultural uses to a more urbanized use. It is further recognized that deposits of sediment from developments during and after construction can reduce capacities of storm sewers and drainage systems and results in damages to receiving lakes and streams.

Therefore, it shall be the policy of the Town of Avon Plan Commission that the storage and controlled release of storm water runoff shall be required of all new development and redevelopment, except as specifically exempted in this Ordinance. There are certain circumstances where detention is not justified or may be detrimental to the overall drainage basin. The Plan Commission may waive detention requirements in these cases. Open ditches with side slopes steeper than 3:1 are not allowed. No open ditch shall be greater than three (3) feet deep.

Section 8: Permits for Construction in a Floodway

The 1945 Flood Control Act (Indiana Code 14-28-01) of the State of Indiana prohibits the construction of abodes or residences in or on a floodway. Prior approval of Department of Natural Resources is required for any type of construction, excavation, or filling in or on a floodway. All projects must also comply with the requirements of the Town of Avon Zoning Ordinance.

All applications made to and granted approval by the Department of Natural Resources or US Army Corps of Engineers do not in any way relieve the owner of the necessity of securing easements or other property rights, permits or approval from affected property owners and local, state, and federal agencies.

Section 9: Wetlands

It shall be the responsibility of landowners or developers to notify and make applications to all appropriate state and federal agencies with authority for wetland protection. In cases where federal or state jurisdictional wetlands have been determined to exist, such wetland area and boundaries shall be indicated on preliminary and final drainage plans.

The Commission will not make determinations of the accuracy of delineation nor extend of jurisdictional wetlands. Approvals required by this ordinance may be deferred until wetland-related approvals have been obtained.

Section 10: Establishment of A Regulated Drain

If the county drainage board requires a regulated drain within the project, the Town will grant its approval subject to the establishment of the regulated drain.

Section 11: Adequate Drain Outlets

1. All projects subject to this ordinance must provide drainage outlets whose adequacy is based upon the following standards.
 - A. Use of the outlet will not increase the velocity or rate of outflow above that allowed by this ordinance.
 - B. The outlet shall be approved by all involved regulatory agencies including the Commission; and
 - C. Use of the outlet will not cause hardship or compound existing problems.
2. The following outlets will generally not be deemed to be adequate:
 - A. An outlet that is not legally and physically accessible and maintainable;
 - B. Overland flow which is not a watercourse as defined by this ordinance;
 - C. Existing or future Town gutters or roadside ditches;
 - D. Agricultural field tiles for surface water; and
 - E. Railroad side ditches without adequate improvements.

Section 12: Compliance

In addition to the requirements of this ordinance, compliance with the requirements set forth in other applicable ordinances with respect to submission and approval of primary and secondary subdivisions, site plan review, improvement plans, building and zoning permits, construction inspections, appeals, and similar matters and compliance with applicable State of Indiana statutes and regulations shall be required.

Section 13: Abbreviations and Definitions

For the purpose of this Ordinance, the abbreviations and definitions provided in Chapter 2 shall apply.

Section 14: Responsibility for Administration

The Town shall administer, implement, and enforce the provisions of this ordinance. Any powers granted or duties imposed upon the Town may be delegated in writing by the Town Manager to persons or entities acting in the beneficial interest of or in the employ of the Town.

Section 15: Conflicting Ordinances

The provisions of this ordinance shall be deemed as additional requirements to minimum standards required by other Town ordinances, and as supplemental requirements to Indiana's Rule 5 regarding Stormwater Discharge Associated with Construction Activity, (327 IAC 15-5), and Indiana's Rule 13 regarding Stormwater Runoff Associated with Municipal Separate Storm Sewer System Conveyances (327 IAC 15-13). In case of conflicting requirements, the most restrictive shall apply.

Section 16: Interpretation

Words and phrases in this ordinance shall be construed according to their common and accepted meanings, except that words and phrases defined in Chapter 2, shall be construed according to the respective definitions given in that section. Technical words and technical phrases that are not defined in this ordinance but which have acquired particular meanings in law or in technical usage shall be construed according to such meanings.

Section 17: Severability

The provisions of this ordinance are hereby declared severable, and if any court of competent jurisdiction should declare any part or provision of this ordinance invalid or unenforceable, such invalidity or unenforceability shall not affect any other part or provision of the ordinance.

Section 18: Effective Date

This ordinance shall become effective after its final passage, approval and publication as required by law.

Section 19: Disclaimer of Liability

The degree of protection required by this ordinance is considered reasonable for regulatory purposes and is based on historical records, engineering, and scientific methods of study. Larger storms may occur or stormwater runoff amounts may be increased by man-made or natural causes. This ordinance does not imply that land uses permitted will be free from stormwater damage. This ordinance shall not create liability on the part of Town or any officer, representative, or employee thereof, for any damage which may result from reliance on this ordinance or on any administrative decision lawfully made thereunder.

Chapter 2 Definitions and Abbreviations

Section 1: Synopsis

This chapter provides definitions and abbreviations to be used throughout this ordinance.

Section 2: Definitions

For the purposes of this ordinance, the following shall mean:

Administering Authority: The Plan Commission of the Town of Avon, Indiana.

Agriculture Land Disturbing Activity: Tillage, planting, cultivation, or harvesting operations for the production of agricultural or nursery vegetative crops. The term also includes pasture renovation and establishment, the construction of agricultural conservation practices, and the installation and maintenance of agricultural drainage tile. For purposes of this rule, the term does not include land disturbing activities for the construction of agricultural related facilities, such as barns, buildings to house livestock, roads associated with infrastructure, agricultural waste lagoons and facilities, lakes and ponds, wetlands; and other infrastructure.

Agricultural Land Use: Use of land for the production of animal or plant life including forestry, pasturing or yarding livestock and planting, growing, cultivating, and harvesting crops for human or livestock consumption.

Authorized Enforcement Agency: Employees or designees of the Town Manager of the Town of Avon, Indiana.

Base Flow: Stream discharge derived from groundwater sources as differentiated from surface runoff. Sometimes considered to include flows from regulated lakes and reservoirs.

Best Management Practices (BMPs): Schedules of activities, prohibitions of practices, general good house keeping practices, pollution prevention and educational practices, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants directly or indirectly to stormwater, receiving waters, or stormwater conveyance systems. BMPs also include treatment practices, operating procedures, and practices to control site runoff, spillage or leaks, sludge or water disposal, or drainage from raw materials storage.

Buffer Strip: An existing, variable width strip of vegetated land intended to protect water quality and habitat.

Capacity or a Storm Drainage Facility: The maximum flow that can be conveyed or stored by a storm drainage facility without causing damage to public or private property.

Catch Basin: A chamber usually built at the curb line of a street for the admission of surface water to a storm drain or subdrain, having at its base a sediment sump designed to retain grit and detritus below the point of overflow.

Channel: A natural or artificial watercourse which periodically or continuously contains moving water or which forms a connecting link between two (2) bodies of water. It has a defined bed and banks which serve to confine the water.

Clean Water Act: The federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.

Commercial Land Use: Use of land for the manufacturing, wholesale or retail sale of goods or services.

Commission: The Plan Commission of the Town of Avon, Indiana.

Compensatory Storage: An artificial volume of storage within a floodplain used to balance the loss of natural flood storage capacity when artificial fill or structures are placed within the floodplain.

Comprehensive Stormwater Management: A comprehensive stormwater program for effective management of stormwater quantity and quality throughout the community.

Constructed Wetland: A manmade shallow pool that creates growing conditions suitable for wetland vegetation and is designed to maximize pollutant removal.

Construction Activity: Activities subject to NPDES Construction Permits. These include construction projects resulting in land disturbance of 1 acre or more, as defined in 327 IAC 15-5. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

Construction Site Access: A stabilized stone surface at all points of ingress or egress to a project site, for the purpose of capturing and detaining sediment carried by tires of vehicles or other equipment entering or exiting the project site.

Contiguous: Adjoining or in actual contact with.

Contour: An imaginary line on the surface of the earth connecting points of the same elevation.

Contour Line: Line on a map which represents a contour or points of equal elevation.

Contractor or Subcontractor: An individual or company hired by the project site or individual lot owner, their agent, or the individual lot operator to perform services on the project site.

Conveyance: Any structural method for transferring stormwater between at least two points. The term includes piping, ditches, swales, curbs, gutters, catch basins, channels, storm drains, and roadways.

Cross Section: A graph or plot of ground elevation across a stream valley or a portion of it, usually along a line perpendicular to the stream or direction of flow.

Culvert: A closed conduit used for the passage of surface drainage water under a roadway, railroad, canal or other impediment.

Dechlorinated Swimming Pool Discharge: Chlorinated water that has either sat idle for seven (7) days following chlorination prior to discharge to the MS4 conveyance, or, by analysis, does not contain detectable concentrations (less than five-hundredths (0.05) milligram per liter) of chlorinated residual.

Design Storm: A selected storm event, described in terms of the probability of occurring once within a given number of years, for which drainage or flood control improvements are designed and built.

Detention: Managing stormwater runoff by temporary holding and controlled release.

Detention Basin: A facility constructed or modified to restrict the runoff of storm water to a prescribed maximum rate, and to detain for a specified period of time the excess waters that accumulate upstream from the outlet.

Detention Storage: The temporary detaining of storage of stormwater in storage facilities, on rooftops, in streets, parking lots, school yards, parks, open spaces, or other areas under predetermined and controlled conditions, with the rate of release regulated by appropriately installed devices.

Detention Time: The theoretical time required to displace the contents of a tank or unit at a given rate of discharge (volume divided by rate of discharge)

Detritus: Dead or decaying organic matter; generally contributed to stormwater as fallen leaves and sticks or as dead aquatic organisms.

Developer: Any person financially responsible for construction activity, or an owner of property who sells or leases, or offers for sale or lease, any lots in a subdivision.

Discharge: Usually the rate of water flow. A volume of fluid passing a point per unit time commonly expressed as cubic feet per second, cubic meters per second, gallons per minute, or millions of gallons per day.

Disposal: The discharge, deposit, injection, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that the solid waste or hazardous waste, or any

constituent of the waste, may enter the environment, be emitted into the air or be discharged into any waters, including ground waters.

Ditch: A man-made, open watercourse in or into which excess surface water or groundwater drained from land, stormwater runoff, or floodwaters flow continuously or intermittently.

Drain: A buried slotted or perforated pipe or other conduit (subsurface drain) or a ditch (open drain) for carrying off surplus groundwater or surface water.

Drainage: The removal of excess surface water or groundwater from land by means of ditches or subsurface drains. Also see Natural drainage.

Drainage Area: The area draining into a stream at a given point. It may be of different sizes for surface runoff, subsurface flow and base flow, but generally the surface runoff area is considered as the drainage area.

Drop Manhole: A manhole having a vertical drop pipe connecting the inlet pipe to the elevation of the outlet pipe. The vertical drop pipe shall normally be located immediately outside the manhole.

Dry Bottom Detention Basin: A basin designed to be completely dewatered after having provided its planned detention of runoff during a storm event.

Dry Well: A type of infiltration practice that allows stormwater runoff to flow directly into the ground via a bored or otherwise excavated opening in the ground surface.

Duration: The time period of a rainfall event.

Environment: The sum total of all the external conditions that may act upon a living organism or community to influence its development or existence.

Erodibility Index (EI): The soil erodibility index (EI) provides a numerical expression of the potential for a soil to erode considering the physical and chemical properties of the soil and the climatic conditions where it is located. The higher the index, the greater the investment needed to maintain the sustainability of the soil resource base if intensively cropped. It is defined to be the maximum of $(R \times K \times LS) / T$ (from the Universal Soil Loss Equation) and $(C \times I) / T$ (from the Wind Erosion Equation), where R is a measure of rainfall and runoff, K is a factor of the susceptibility of the soil to water erosion, LS is a measure of the combined effects of slope length and steepness, C is a climatic characterization of windspeed and surface soil and I is a measure of the susceptibility of the soil to wind erosion. Erodibility Index scores equal to or greater than 8 are considered highly erodible land.

Erosion: The wearing away of the land surfaced by water, wind, ice, gravity, or other geological agents. The following terms are used to describe different types of water erosion:

Accelerated Erosion – Erosion much more rapid than normal or geologic erosion, primarily as a result of the activities of man.

Channel Erosion – An erosion process whereby the volume and velocity of flow wears away the bed and/or banks of a well-defined channel.

Gully Erosion – An erosion process whereby runoff water accumulates in narrow channels and, over relatively short periods, removes the soil to considerable depths, ranging from 1-2 ft. to as much as 75-100 ft.

Rill Erosion – An erosion process in which numerous small channels only several inches deep are formed; occurs mainly on recently disturbed and exposed soils (See Rill).

Splash Erosion – The spattering of small soil particles caused by the impact of raindrops on wet soils; the loosened and spattered particles may or may not be subsequently removed by surface runoff.

Sheet Erosion – The gradual removal of a fairly uniform layer of soil from the land surface by runoff water.

Erosion and Sediment Control: A practice, or a combination of practices, to minimize sedimentation by first reducing or eliminating erosion at the source and then as necessary, trapping sediment to prevent it from being discharged from or within a project site.

Erosion and Sediment Control Measure: A practice or a combination of practices to control erosion and resulting off-site sedimentation.

Erosion and Sediment Control Plan: A written description and drawings of pertinent information concerning erosion and sediment control measures designed to meet the requirements of this ordinance.

Filter Strip: Usually a long, relatively narrow area (usually, 20-75 feet wide) of undisturbed or planted vegetation used near disturbed or impervious surfaces to filter stormwater pollutants for the protection of watercourses, reservoirs, or adjacent properties.

Floatable: Any solid waste that will float on the surface of the water.

Flood (Or Flood Waters): A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source.

Flood Elevation: The maximum level or high waters for a flood of given return period and rainfall duration.

Flood Hazardous Area: Any floodplain, floodway, floodway fringe, or any combination which is subject to inundation by the regulatory flood or any floodplain as delineated by Zone A on the current Flood Hazard Boundary Map of the Federal Emergency Management Agency.

Floodplain: The channel proper and the areas adjoining the channel which have been covered by the regulatory or 100-year flood. Any normally dry land area that is susceptible to being inundated by water from any natural source. The floodplain includes both the floodway and fringe districts.

Flood Protection Grade: An elevation which is a specific distance above the regulatory flood elevation as established by agencies having jurisdiction.

Floodway: The channel of a river or stream and those portions of the floodplains adjoining the channel which are reasonably required to efficiently carry and discharge the peak flow of the regulatory flood of any river or stream.

Floodway Fringe: The portion of the floodplain lying outside the floodway which is inundated by the regulatory flood.

Footing Drain: A drain pipe installed around the exterior of a basement wall foundation to relieve water pressure caused by high groundwater elevation.

Garbage: All putrescible animal solid, vegetable solid, and semisolid wastes resulting from the processing, handling, preparation, cooking, serving, or consumption of food or food materials.

Gasoline Outlet: An operating gasoline or diesel fueling facility whose primary function is the resale of fuels. The term applies to facilities that create five thousand (5,000) or more square feet of impervious surfaces, or generate an average daily traffic count of one hundred (100) vehicles per one thousand (1,000) square feet of land area.

Geographical Information System: A computer system capable of assembling, storing, manipulation, and displaying geographically referenced information. This technology can be used for resource management and development planning.

Grade: (1) The inclination or slope of a channel, canal, conduit, etc., or natural ground surface usually expressed in terms of the percentage the vertical rise (or fall) bears to the corresponding horizontal distance. (2) The finished surface of a canal bed, roadbed, top of embankment, or bottom of excavation; any surface prepared to a design elevation for the support of construction, such as paving or the laying of a conduit. (3) To finish the surface of a canal bed, roadbed, top of embankment, or bottom of excavation, or other land area to a smooth, even condition.

Gradient: The inclination or slope of a channel, conduit or natural ground surface expressed as a ratio of the vertical rise or fall to the corresponding horizontal distance.

Grading: The cutting and filling of the land surface to a desired slope or elevation.

Grass: A member of the botanical family Graminae, characterized by blade-like leaves that originate as a sheath wrapped around a stem.

Groundwater: Accumulation of underground water, natural or artificial. The term does not include manmade underground storage or conveyance structures.

Habitat: The environment in which the life needs of a plant or animal are supplied.

Hazardous Materials: Any material, including any substance, waste, or combination thereof, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, a substantial present or potential hazard to human health, safety, property, or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Highly Erodible Land (HEL): Land that has an erodibility index of eight or more.

Hydrolic Unit Code: A numeric United States Geologic Survey code that corresponds to a watershed area. Each area also has a text description associated with the numeric code.

Hydrology: The science of the behavior of water in the atmosphere, on the surface of the Earth and underground. A typical hydrologic study is undertaken to compute flow rates associated with specified flood events.

Illegal Discharge: Any direct or indirect non-storm water discharge to the storm drain system, except as exempted in Chapter 3 of this ordinance Illicit Discharge and Connection Stormwater Controls.

Illicit Discharge: Any discharge to a conveyance that is not composed entirely of stormwater except naturally occurring floatables, such as leaves or tree limbs.

Illicit Connections: An illicit connection is defined as either of the following:

Any drain or conveyance, whether on the surface or subsurface, which allows an illegal discharge to enter the storm drain system including but not limited to any conveyances which allow any non-storm water discharge including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an the Town or,

Any drain or conveyance connected from a commercial or industrial land use to the storm drain system which has not been documented in plans, maps, or equivalent records and approved by an the Town.

Impact Areas: Areas defined by the Commission which are unlikely to be easily drained because of one or more factors including, but not limited to, any of the following: Soil type; topography; land where there is not an adequate outlet; a flood way or floodplain; land within seventy-five

(75) feet of each bank of regulated drain or within seventy-five (75) feet from the centerline of any legal tile drain; or within recorded drainage easements of a regulated drain.

Impaired Waters: Waters that do not or are not expected to meet applicable water quality standards, as included on IDEM's CWA Section 303(d) List of Impaired Waters.

Impervious: A material through which water cannot pass or through which water passes with difficulty.

Impervious Surface: Surfaces, such as pavement and rooftops, which prevent the infiltration of stormwater into the soil.

Improvement Location Permit: A permit stating that the proposed erection, construction, enlargement or moving of a building or structure complies with the provisions of the Town of Avon Zoning Ordinance.

Individual Building Lot: A single parcel of land within a multi-parcel development.

Individual Lot Operator: A contractor or subcontractor working on an individual lot.

Individual Lot Owner: A person who has financial control of construction activities for an individual lot.

Industrial Activity: Activities subject to NPDES Industrial Permits as defined in 327 IAC 15-6.

Infiltration: Passage or movement of water into the soil. Infiltration practices include any structural BMP designed to facilitate the percolation of run-off through the soil of groundwater. Examples include infiltration basins or trenches, dry wells, and porous pavement.

Inlet: An opening into a storm sewer system for the entrance of surface storm water run-off, more completely described as a storm sewer inlet.

Junction Chamber: Structure used to facilitate the flow from one or more conduits into a main conduit.

Land Disturbing Activity or Nonagricultural Land Disturbing Activity: Any manmade change of the land surface including removing vegetative cover, excavating, filling, transporting, and grading. It includes any activity requiring the Town of Avon Improvement Location Permit, but does not include agricultural land uses.

Land Surveyor: A person licensed under the laws of the State of Indiana to practice land surveying.

Larger Common Plain of Development or Sale: A plan, undertaken by a single project site owner or a group of project site owners acting in concert, to offer lots for sale or lease; where such land is contiguous or is known, designated, purchased or advertised as a common unit or by a

common name, such land shall be presumed as being offered for sale or lease as part of a larger common plan. The term also includes phased or other construction activity by a single entity for its own use.

Lowest Adjacent Grade: The elevation of the lowest grade adjacent to a structure, where the soil meets the foundation around the outside of the structure (including structural members such as basement walkout, patios, decks, porches, support posts or piers, and rim of the window well.

Lowest Floor: Refers to the lowest of the following:

The top of the basement floor;

The top of the garage floor, if the garage is the lowest level of the building;

The top of the first floor of buildings constructed on a slab or of buildings elevated on pilings or constructed on a crawl space with permanent openings; or

The top of the floor level of any enclosure below an elevated building where the walls of the enclosure provide any resistance to the flow of flood waters unless:

The walls are designed to automatically equalize the hydrostatic flood forces on the walls by allowing for the entry and exit of flood waters, by providing a minimum of two opening (in addition to doorways and windows) having a total area of one (1) square foot for every two (2) square feet of enclosed area subject to flooding. The bottom of all such openings shall be no higher than one (1) foot above grade.

Such enclosed space shall be usable only for the parking of vehicles or building access.

Manhole: Storm sewer structure through which a person may enter to gain access to a storm sewer or enclosed structure. A manhole may also be an inlet for the storm sewer system.

Measurable Storm Event: A precipitation event that results in a total measured precipitation accumulation equal to, or greater than, one-half (0.5) inch of rainfall.

Municipal Separate Storm Sewer System (MS4): The regulatory definition of an MS4 (40 CFR 122.26(b)(8)) is " a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created to or pursuant to state law) including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of the Clean Water Act that discharges into waters of the United States. (ii) Designed or used for collecting or conveying stormwater; (iii) Which is not a combined sewer; and (iv) Which is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

National Pollutant Discharge Elimination System (NPDES) Storm Water Discharge Permit: A permit issued by EPA (or by a State under authority delegated pursuant to 33 USC § 1342(b)) 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.

Natural Drainage: The flow patterns of stormwater run-off over the land in its pre-developed state.

Nutrients: (1) A substance necessary for the growth and reproduction of organisms. (2) In water, those substances (chiefly nitrates and phosphates) that promote growth of algae and bacteria.

Non-Storm Water Discharge: Any discharge to the storm drain system that is not composed entirely of storm water.

Open Drain: A natural watercourse or constructed open channel that conveys drainage water.

Open Space: Any land area devoid of any disturbed or impervious surfaces created by industrial, commercial, residential, agricultural, or other manmade activities.

Outfall: (1) The point, location, or structure where a pipe or open drain discharges to a receiving body of water. (2) The point or location where storm runoff discharges from a sewer, channel or detention facility.

Outlet: The point of water disposal from a stream, river, lake, tidewater, or artificial drain.

Peak Flow: The maximum rate of flow of water at a given point in a channel or conduit resulting from a specified storm or flood of a given return period or duration.

Percolation: The movement of water through soil.

Perimeter Drain: A tile drain located around an absorption field in compliance with appropriate governmental regulations.

Permanent Stabilization: The establishment, at a uniform density of seventy percent (70%) across the disturbed area, of vegetative cover or permanent non-erosive material that will ensure the resistance of the soil to erosion, sliding, or other movement.

Person: Any individual, association, organization, partnership, firm, corporation or other entity recognized by law and acting as either the owner or as the owner's agent.

Pervious: Allowing movement of water.

Point Source: Any discernible, confined, and discrete conveyance including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete, fissure, or container from which pollutants are or maybe discharged (P.L. 92-500, Section 502[14]).

Pollutant: Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; oil and other automotive fluids; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects, ordinances, and accumulations, so that same may cause or contribute to pollution; floatables; pesticides, herbicides, and fertilizers; hazardous substances and wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; and noxious or offensive matter of any kind.

Porous Pavement: A type of infiltration practice to improve the quality and reduce the quantity of storm water run-off via the use of manmade, pervious pavement which allows run-off to percolate through the pavement and into underlying soils.

Premises: Any building, lot, parcel of land, or portion of land whether improved or unimproved including adjacent sidewalks and parking strips.

Professional Engineer: A person licensed under the laws of the State of Indiana to practice professional engineering.

Project Site: The entire area on which construction activity is to be performed.

Project Site Owner: The person required to submit a stormwater permit application, and required to comply with the terms of this ordinance, including a developer or a person who has financial and operational control of construction activities, and project plans and specifications, including the ability to make modifications to those plans and specifications.

Rain Garden: A vegetative practice used to alter impervious surfaces, such as roofs, into pervious surfaces for absorption and treatment of rainfall.

Rainfall Intensity: The rate of rainfall expressed as the amount of rain occurring within a given duration, normally expressed in inches per hour.

Reach: A specified length of a river, channel, or conduit.

Refueling Area: An operating gasoline or diesel fueling area whose primary function is to provide fuel to equipment or vehicles.

Receiving Stream, Receiving Channel, or Receiving Water: The body of water into which runoff or effluent is discharged. The term does not include private drains, unnamed conveyances, retention and detention basins, or constructed wetlands used as treatment.

Recharge: Replenishment of groundwater reservoirs by infiltration and transmission from the outcrop of an aquifer or from permeable soils.

Redevelopment: Alterations of a property that change a site or building in such a way that there is disturbances of one (1) acre or more of land. The term does not include such activities as exterior remodeling.

Regulated Area: All of the land under the jurisdiction of the Town of Avon Plan Commission.

Regulated Drain: Any drain that has been accepted and is maintained by the County Drainage Board in accordance with the 1965 Drainage Act and its amendments. Sometimes referred to as a Legal Drain.

Regulatory Flood: A flood with a peak having a probability of occurrence of one (1) percent in any given year, which is commonly referred to as a one hundred (100) year flood as calculated by a method and procedure which is acceptable to the Commission. If a permit for construction in the floodway is required by the Indiana Department of Natural Resources, the regulatory peak discharge shall be calculated by the method and procedure acceptable to the Commission and the Indiana Department of Natural Resources.

Regulatory Floodway: The channel of a river or stream and those portions of the floodplain adjoining the channel which are reasonably required to carry and discharge the peak flow of the regulatory flood of any river or stream.

Release Rate: The amount of water released from a storm water control facility per unit of time.

Reservoir: A natural or artificially created pond, lake, or other space used for storage, regulation or control of water. May be either permanent or temporary. The term is also used in the hydrologic modeling of storage facilities.

Retention: The storage of stormwater to prevent it from leaving the development site. May be temporary or permanent.

Retention Basin: A type of storage practice that has no positive outlet, used to retain storm water run-off for an indefinite amount of time. Runoff from this type of basin is removed only by infiltration through a porous bottom or by evaporation.

Return Period: The average interval of time within which a given rainfall event will be equaled or exceeded once. A flood having a return period of one hundred (100) years has a one (1) percent probability of being equaled or exceeded in any one (1) year.

Riparian Habitat: A land area adjacent to a waterbody that supports animal and plant life associated with that waterbody.

Riparian Zone: Of, on, or pertaining to the banks of a stream, river, or pond.

Runoff: The portion of precipitation from such sources as rainfall, snow melt, or irrigation water that flows over or under the ground surface and arrives at the point of consideration as surface water.

Runoff Coefficient: A factor in the rational formula which relates the ratio of peak runoff to rainfall and considers such factors as ground cover, soil types, and watershed configuration.

Sediment: Material of soil and rock origin transported, carried or deposited by water.

Sedimentation: The process that deposits soils, debris and other unconsolidated materials either on the ground surfaces or in bodies of water or watercourses.

Sensitive Water: A waterbody in need of priority protection or remediation based on its:

Providing habitat for threatened or endangered species,
Usage as a public water supply intake,
Relevant community value,
Usage for full body contact recreation,
Exceptional use classification as found in 327 IAC 2-1-11(b), outstanding state resource water classification as found in 327 IAC 2-1-2(3) and 327 IAC 2-1.5-19(b).

Siphon: A closed conduit, a portion of which lies above the hydraulic grade line resulting in a pressure less than atmospheric and requiring a vacuum within the conduit to start flow. An inverted siphon is used to carry flow under an obstruction.

Site: The entire area included in the legal description of the land on which the land disturbing activity is proposed in the permit application.

Slope: Degree of deviation of a surface from the horizontal, measured as a numerical ratio or percent. Expressed as a ratio, the first number is commonly the horizontal distance (run) and the second is the vertical distance (rise) – e.g., 2:1. However, the preferred method for designation of slopes is to clearly identify the horizontal (H) and vertical (V) components (length (L) and Width (W) components for horizontal angles). Also note that according to international standards (Metric), the slopes are presented as the vertical or width component shown on the numerator – e.g., 1V:2H. Slope expressions in this ordinance follow the common presentation of slopes – e.g., 2:1 with the metric presentation shown in parenthesis – e.g., (1V:2H). Slopes can also be expressed in “percents”. Slopes given in percents are always expressed as $(100 \cdot V/H)$ – e.g., a 2:1 (1V:2H) slope is a 50% slope.

Soil: The unconsolidated mineral and organic material on the immediate surface of the Earth that serves as a natural medium for the growth of land plants.

Soil and Water Conservation District: A public organization created under state law as a special purpose district to develop and carry out a program of soil, water, and related resource conservation, use, and development within its boundaries. A subdivision of state government with a local governing body, established under IC 14-32.

Solid Waste: Any garbage, refuse, debris, or other discarded material.

Spill: The unexpected, unintended, abnormal, unapproved dumping, leakage, drainage, seepage, discharge or other loss of petroleum, hazardous substances, extremely hazardous substances, or objectionable substances. The term does not include releases to impervious surfaces when the substance does not migrate off the surface or penetrate the surface and enter the soil.

Spill Way: A waterway in or about a hydraulic structure of the escape of excess water.

Stilling Basin: A structure used to dissipate the energy and/or velocity of flowing water.

Storage Duration: The length of time that water may be stored in any storm water control facility.

Storm Drainage System: Publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures.

Stormwater: Any surface flow, runoff, and drainage consisting entirely of water from any form of natural precipitation, and resulting from such precipitation.

Stormwater Technical Standards Manual: The Stormwater Technical Standards Manual of Hendricks County, Indiana.

Storm Water Drainage System: All means, natural or manmade, used for conducting storm water to, through or from a drainage area.

Stormwater Pollution Prevention Plan: A document which describes the Best Management Practices and activities to be implemented by a person or business to identify sources of pollution or contamination at a site and the actions to eliminate or reduce pollutant discharges to Stormwater, Stormwater Conveyance Systems, and/or Receiving Waters to the Maximum Extent Practicable.

Storm Water Runoff: The water derived from rains falling within a tributary basin, flowing over the surface of the ground or collected in channels and conduits.

Storm Water Quality Management Plan: A comprehensive written document that addresses storm water runoff quality.

Storm Water Quality Measure: A practice, or a combination of practices, to control or minimize pollutants associated with storm water runoff.

Strip Development: A multi-lot project where building lots front on an existing road.

Subdivision: Any land that is divided or proposed to be divided into lots, whether contiguous or subject to zoning requirements, for the purpose of sale or lease as part of a larger common plan of development or sale.

Subsurface Drain: A pervious backfield drench, usually containing stone and perforated pipe, for intercepting groundwater or seepage.

Surface Runoff: Precipitation that flows onto the surfaces of roofs, streets, the ground, etc., and is not absorbed or retained by that surface but collects and runs off.

Swale: An elongated depression in the land surface that is at least seasonally wet, is usually heavily vegetated, and is normally without flowing water. Swales conduct storm water into primary drainage channels and may provide some groundwater recharge.

Temporary Stabilization: The covering of soil to ensure its resistance to erosion sliding or other movement. The term includes vegetative cover, anchored mulch, or other non-erosive material applied at a uniform density of seventy percent (70%) across the disturbed area.

Tile Drain: Pipe made of perforated plastic, burned clay, concrete, or similar material, laid to a designed grade and depth, to collect and carry excess water from the soil.

Topographic Map: Graphical portrayal of the topographic features of a land area, showing both the horizontal distances between the features and their elevations above a given datum.

Topography: The representation of a portion of the Earth's surface showing natural and man-made features of a give locality such as rivers, streams, ditches, lakes, roads, buildings, and most importantly, variations in ground elevations for the terrain of the area.

Town: The Town of Avon, Indiana including its agents, successors, and assigns.

Trained Individual: An individual who is trained and experienced in the principles of storm water quality, including erosion and sediment control as may be demonstrated by state registration, professional certification, experience, or completion of coursework that enable the individual to make judgments regarding storm water control or treatment and monitoring.

Urban Drain: A drain defined as "Urban Drain" in Indiana Drainage Code.

Urbanization: The development, change or improvement of any parcel of land consisting of one or more lots for residential, commercial, industrial, instructional, recreational or public utility purposes.

Vegetated Swale: A type of vegetative practice used to filter storm water runoff via a vegetated, shallow-channel conveyance.

Wastewater: Any water or other liquid, other than uncontaminated storm water, discharged from a facility.

Waterbody: Any accumulation of water, surface, or underground, natural or artificial, excluding water features designed and designated as water pollution control facilities.

Watercourse: Any natural or manmade drainage way having a defined channel and banks and into which storm water runoff or floodwaters flow either regularly or intermittently.

Water Quality: A term used to describe the chemical, physical, and biological characteristics of water, usually in respect to its suitability for a particular purpose.

Water Resources: The supply of groundwater and surface water in given area.

Watershed: The region drained by or contributing water to a specific point that could be along a stream, lake or other stormwater facilities. Watersheds are often broken down into substances for the purpose of hydrologic modeling.

Watershed Area: All land and water within the confines of a drainage divide. See also Watershed.

Wet Bottom Detention Basin/Retention Basin: A basin designed to retain a permanent pool of water plus capacity to detain and release excess runoff.

Wetlands: Those areas which have hydric soils and that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support and that, 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.

Section 3: Abbreviations

AEP:	Annual Exceedence Probability
BFE:	Base Flood Elevation
BMP:	Best Management Process
COE:	United States Army Corps of Engineers
CWA:	Clean Water Act
EPA:	Environmental Protection Agency
GIS:	Geographical Information System
IDEM:	Indiana Department of Environmental Management
MS4:	Municipal Separate Storm Sewer Systems
NRCS:	USDA – Natural Resources Conservation Service

NPDES: National Pollution Discharge Elimination System
POTW: Publicly Owned Treatment Works
SWPPP: Stormwater Pollution Prevention Plan
USDA: United States Department of Agriculture
USFWS: United States Fish and Wildlife Service

Chapter 3 Illicit Discharge and Connection Controls

Section 1: Synopsis

The purpose of this chapter is to prohibit the connection of non-stormwater discharges to the stormwater system.

Section 2: Purpose/Intent

The purpose of this chapter is to provide for the health, safety, and general welfare of the citizens of the Town of Avon, Indiana through the regulation of non-storm water discharges to the storm drainage system to the maximum extent practicable as required by federal and state law. This chapter establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this chapter are:

1. To regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) by stormwater discharges by any user; and
2. To prohibit illicit connections and discharges to the municipal separate storm sewer system; and
3. To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this ordinance.

Section 3: Applicability

This chapter shall apply to all water entering the storm drain system generated on any developed and undeveloped lands unless explicitly exempted by an authorized enforcement agency.

Section 4: Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this ordinance are minimum standards; therefore this ordinance does not intend nor imply that compliance by any person will ensure that there will be no contamination, pollution, nor unauthorized discharge of pollutants.

Section 5: Discharge Prohibitions

1. Prohibition of Illegal Discharges

No person shall discharge or cause to be discharged into the municipal storm drain system or watercourses any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described as follows:

- A. The following discharges are exempt from discharge prohibitions established by this ordinance: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if de-chlorinated - typically less than one PPM chlorine), fire fighting activities, irrigation water, street wash water, and any other water source not containing pollutants.
- B. Discharges specified in writing by the authorized enforcement agency as being necessary to protect public health and safety.
- C. Dye testing is an allowable discharge, but requires a verbal notification to the authorized enforcement agency prior to the time of the test.
- D. The prohibition shall not apply to any non-storm water discharge permitted under an NPDES permit, waiver, or waste discharge order issued to the discharger and administered under the authority of the Federal Environmental Protection Agency, provided that the discharger is in full compliance with all requirements of the permit, waiver, or order and other applicable laws and regulations, and provided that written approval has been granted for any discharge to the storm drain system.

2. Prohibition of Illicit Connections

- A. The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited.
- B. 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.

- C. A person is considered to be in violation of this ordinance if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

Section 6: Accessory Drains

1. Sump Pumps and Footing Drains

Sump pumps installed to receive and discharge ground waters or other storm water shall be connected to a storm sewer, a subsurface drain or a designated storm discharge channel. They shall not outlet to street gutters or street underdrains. Floor drain flow or other sanitary sewage shall be connected to the sanitary sewers or septic systems and shall not discharge to storm sewers or surface outlets.

2. Down Spouts

All down spouts or roof drains shall discharge onto the ground except under circumstances where large buildings prohibit the practicality of this provision as determined by the Town of Avon. Every attempt should be made to allow downspout discharge to pass through appropriate vegetative buffers prior to entering the public stormwater conveyance system. Downspouts or roof drains shall not be connected to the sanitary sewers or subsurface drains.

3. Floor Drains

Floor drains shall be connected to the sanitary sewers or septic system.

4. Basement Drains

Basement drains shall not be connected to sump pumps which discharge to storm sewers.

5. Other Information

No accessory drain shall be connected to underdrains under the street or curb.

Section 7: Suspension of MS4 Access

1. Suspension due to Illicit Discharges in Emergency Situations

The Town of Avon may, without prior notice, suspend MS4 discharge access to a person when such suspension is necessary to stop an actual or threatened discharge,

which presents or may present imminent and substantial danger to the environment, or to the health or welfare of persons, or to the MS4 or Waters of the United States. If the violator fails to comply with a suspension order issued in an emergency, the Town may take such steps as deemed necessary to prevent or minimize damage to the MS4 or Waters of the United States, or to minimize danger to persons.

2. Suspension due to the Detection of Illicit Discharge

Any person discharging to the MS4 in violation of this ordinance may have their MS4 access terminated if such termination would abate or reduce an illicit discharge. The Town will provide to the violator fifteen (15) calendar days notice of the proposed termination of its MS4 access. The violator may petition the Town for a reconsideration and hearing.

A person commits a violation if the person reinstates MS4 access to premises terminated pursuant to this Section, without the prior approval of the Town.

Section 8: Industrial or Construction Activity Discharges

Any person subject to an industrial or construction activity NPDES storm water discharge permit shall comply with all provisions of such permit. Proof of compliance with said permit may be required in a form acceptable to the Town prior to the allowing of discharges to the MS4.

Section 9: Monitoring of Discharges

1. Applicability

This section applies to all facilities that have storm water discharges associated with industrial activity, including construction activity.

2. Access to Facilities

- A. The Town shall be permitted to enter and inspect facilities subject to regulation under this ordinance as often as may be necessary to determine compliance with this ordinance. If a discharger has security measures in force which require proper identification and clearance before entry into its premises, the discharger shall make the necessary arrangements to allow access to representatives of the authorized enforcement agency.
- B. Facility operators shall allow the Town ready access to all parts of the premises for the purposes of inspection, sampling, examination and copying of records that must be kept under the conditions of an NPDES permit to discharge storm water, and the performance of any additional duties as defined by state and federal law.

- C. The Town shall have the right to set up on any permitted facility such devices as are necessary in the opinion of the authorized enforcement agency to conduct monitoring and/or sampling of the facility's storm water discharge.
- D. The Town has the right to require the discharger to install monitoring equipment as necessary. The facility's sampling and monitoring equipment shall be maintained at all times in a safe and proper operating condition by the discharger at its own expense. All devices used to measure stormwater flow and quality shall be calibrated to ensure their accuracy.
- E. Any temporary or permanent obstruction to safe and easy access to the facility to be inspected and/or sampled shall be promptly removed by the operator at the written or oral request of the Town and shall not be replaced. The costs of clearing such access shall be borne by the operator.
- F. Unreasonable delays in allowing the Town access to a permitted facility is a violation of a storm water discharge permit and of this ordinance. A person who is the operator of a facility with a NPDES permit to discharge storm water associated with industrial activity commits an offense if the person denies the Town reasonable access to the permitted facility for the purpose of conducting any activity authorized or required by this ordinance.
- G. If the Town has been refused access to any part of the premises from which stormwater is discharged, and the Town is able to demonstrate probable cause to believe that there may be a violation of this ordinance, or that there is a need to inspect and/or sample as part of a routine inspection and sampling program designed to verify compliance with this ordinance or any order issued hereunder, or to protect the overall public health, safety, and welfare of the community, then the Town may pursue appropriate relief from any court of competent jurisdiction.

Section 10: Requirement to Prevent, Control, and Reduce Storm Water Pollutants by the Use of Best Management Practices

The Town of Avon will establish requirements identifying Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. The owner or operator of a commercial or industrial establishment shall provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a

stormwater pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

Section 11: Watercourse Protection

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

Section 12: Notification of Spills

Notwithstanding other requirements of law, as soon as any person responsible for a facility or operation, or responsible for emergency response for a facility or operation has information of any known or suspected release of materials which are resulting or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, or water of the U.S., said person shall take all necessary steps to ensure the discovery, containment, and cleanup of such release. In the event of such a release of hazardous materials said person shall immediately notify emergency response agencies of the occurrence via emergency dispatch services. In the event of a release of non-hazardous materials, said person shall notify the authorized enforcement agency in person or by phone or facsimile no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Town of Avon within three business days of the phone notice. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years.

Section 13: Enforcement

Notice of Violation.

1. Whenever the Town finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the Town may order compliance by written notice of violation to the responsible person. Emergency notifications may be made by an authorized Town employee. Such notice may require without limitation:
 - A. The performance of monitoring, analyses, and reporting;
 - B. The elimination of illicit connections or discharges;
 - C. That violating discharges, practices, or operations shall cease and desist;

- D. The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property; and
 - E. Payment of a fine to cover administrative and remediation costs; and
 - F. The implementation of source control or treatment BMPs.
2. If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.
 3. The process to appeal a violation is outlined in Chapter 7 Section 7 of this ordinance.

Chapter 4

Stormwater Quantity Management

Section 1: Synopsis

The purpose of this chapter is to establish a Stormwater Quantity Policy. This policy covers items such as the detention policy, grading for building pads and minimum floor elevations, adjoining property impacts policy and no net loss floodplain storage policy. It also outlines the calculations, design standards and specifications, easement requirements, placement of utilities and inspection, maintenance, record keeping and reporting requirements.

Section 2: Applicability and Exemptions

The storage and controlled release rate of excess stormwater runoff shall be required for all new business, commercial and industrial developments, residential subdivisions, planned development, rural estate subdivisions, and any redevelopment or other new construction located within Town of Avon. Possible exceptions to the requirement are minor subdivisions and parcelization as described in the Town of Avon Subdivision Control Ordinance. The Town of Avon, after thorough investigation and evaluation, may waive the requirement of controlled runoff for minor subdivisions and parcelization. Additional exemptions regarding the detention requirements are provided under Section 3.1.C. (below).

Section 3: Policy on Stormwater Quantity Management

1. Detention Policy

It is recognized that most streams and drainage channels serving the Town of Avon do not have sufficient capacity to receive and convey stormwater runoff resulting from continued urbanization. Accordingly, except for situations provided in Paragraph C and D (below), the storage and controlled release of excess stormwater runoff shall be required for all developments and redevelopments located within Town of Avon.

The Town of Avon encourages the use of detention facilities versus retention wherever additional land uses are possible within the detention area. Dry detention areas can reduce long term maintenance requirements, minimize safety concerns and function as designed. Retention (wet) areas where necessary should be designed so as to minimize the area and depth to meet the ordinance requirements.

A. General Release Rates

In general, the release rates of stormwater from developments shall be:

<u>Post-Developed Peak Rate</u>	Must Not Exceed	<u>Pre-Developed Peak Rate</u>
10-Year Frequency Storm		2-Year Frequency Storm
100-Year Frequency Storm		10-Year Frequency Storm

That is, the release rates for developments up to and including the 10-year return period storm may not exceed the pre-developed peak 2-year return period stormwater runoff rate. The release rate for developments for the 11 to 100 year return period storms shall not exceed the pre-developed peak 10-year return period rate. For sites where the pre-developed area has more than one outlet, the release rate should be computed based on pre-developed discharge to each outlet point. Methodology and computer models used for the analyses of pre- and post-developed conditions shall be the same.

In cases where adequate infrastructure exists, and downstream properties would not be affected adversely, storm events greater than 4% AEP may be released undetained. In cases where adequate infrastructure does not exist and/or downstream properties would be affected adversely by releasing storm events greater than the 4% AEP storm, the facility shall control the release rate from the 2% and the 1% AEP storm events to the undeveloped flow rates. Downstream analyses shall extend to a point as directed by the Town to assure adequate investigation into the impact of the development on existing facilities, properties, and structures.

B. Site-Specific Release Rates for Sites with Depressional Storage

For sites where depressional storage exists, the general release rates provided above may have to be further reduced. If depressional storage exists at the site, site-specific release rates must be calculated using appropriate references acceptable to the Town Engineer, accounting for the depressional storage by modeling it as a pond whose outlet is a weir at an elevation that stormwater can currently overflow the depressional storage area. Post developed release rate for sites with depressional storage shall be the 2-year pre-developed peak runoff rate for the post-developed 10-year storm and 10-year pre-developed peak runoff rate for the post-developed 100-year storm. In no case shall the calculated site-specific release rates be larger than general release rates provided above.

Also note that for determining the post-developed peak runoff rate, the depressional storage must be assumed to be filled unless the Town of Avon can be assured, through dedicated easement, that the noted storage will be preserved in perpetuity.

C. Management of Off-site Runoff

Runoff from all upstream tributary areas (off-site land areas) may be bypassed around the detention/retention facility without attenuation. Such runoff may also

be bypassed through the detention/retention facility without attenuation, provided that a separate outlet system or channel is incorporated for the safe passage of such flows, i.e., not through the primary outlet of a detention facility. Unless the pond is being designed as a regional detention facility, the primary outlet structure shall be sized and the invert elevation of the emergency overflow weir determined according to the on-site runoff only. Once the size and location of primary outlet structure and the invert elevation of the emergency overflow weir are determined by considering on-site runoff, the 100-year pond elevation is determined by routing the entire inflow, on-site and off-site, through the pond.

Note that the efficiency of the detention/retention facility in controlling the onsite runoff may be severely affected if the off-site area is considerably larger than the onsite area. As a general guidance, on-line detention may not be effective in controlling onsite runoff where the ratio of off-site area to on-site area is larger than 5:1. Additional detention (above and beyond that required for on-site area) may be required by the Town of Avon when the ratio of off-site area to on-site area is larger than 5:1.

D. Downstream Restrictions

In the event the downstream receiving channel or storm sewer system is inadequate to accommodate the post-developed release rate provided above, then the allowable release rate shall be reduced to that rate permitted by the capacity of the receiving downstream channel or storm sewer system. Additional detention or other measures, as determined by the Town of Avon, shall be required to store that portion of the runoff exceeding the capacity of the receiving sewers or watercourses.

If the proposed development makes up only a portion of the undeveloped watershed upstream of the limiting restriction, the allowable release rate for the development shall be in direct proportion to the ratio of its drainage area to the drainage area of the entire watershed upstream of the restriction.

E. Exemptions for Detention Requirements

Detention will not be required under the following circumstances with written justification submitted by the designer for Town review and approval:

1. Land alterations where the primary basis on which a stormwater drainage permit is required is the construction, enlargement, or location (on a permanent foundation) of a one-family dwelling, two-family dwelling, or accessory structure appurtenant to either a one- or two-family dwelling.
2. Approved fill areas or one-time addition to existing commercial buildings that do not increase the amount of impervious area on-site by more than a total of

0.5 acres, provided the existing runoff patterns and flow capacity of the property will not be altered by the filling operations.

3. Notwithstanding the provisions of Paragraph D (above), those site developments where the stormwater management system has been designed such that:
 - a. after combining flows from both the off-site and on-site drainage areas, there will be no increase in the total peak discharge from the developing site during the 2-, 10-, or 100-year storm events; and
 - b. the volume of runoff for each project site outlet has not been increased for 2-, 10-, or 100-year storm events; and
 - c. the flow width and velocity at the property boundary line for each subbasin is less than or equal to that flow width and velocity which existed prior to the development for the 2-, 10-, or 100-year storm events.
4. Where the direct release of runoff from the proposed development meets the conditions set forth in Paragraph F (below).
5. In certain circumstances, the design of a system that holds storage volumes other than the minimum amounts set out in this ordinance may be appropriate. Instances in which variance from these standards may occur include, but are not limited to:
 - a. Locations adjacent to a river or large stream, or properties in the 1% AEP flood plain,
 - b. Where runoff storage is deemed by the Town as not beneficial to the proposed improvement and surrounding areas, and
 - c. Areas in which the circumstances and conditions of the existing system require higher levels of detention than are defined in these standards.

F. Direct Release Provisions

It is the policy of the Town of Avon to allow the direct release (no detention) of runoff from a proposed development to an adjacent stream where the stormwater runoff from the development would be negligible to the receiving channel if supported by studies from the developer's engineer and agreed to in writing by the Town.

Due to unknowns regarding the future development patterns and the associated proposed stormwater management systems within a watershed, it is the policy of

the Town of Avon to discourage direct release. However, in rare circumstances, where a comprehensive watershed-wide hydrologic study or watershed plan of a major stream adopted by the Town of Avon substantiates the benefits of (or allows for) direct release for a proposed development located adjacent to a major stream, the detention requirements set in Section 3 (above) may be waived.

In substantiating the potential benefits of direct release, the watershed-wide hydrologic study provided by the applicant must demonstrate that the peak discharge associated with 2-year, 10-year, and 100-year precipitation events would not increase along the receiving stream. At a minimum, the stream reach to be examined needs to extend from the direct release point to a point downstream with a drainage area at least ten (10) times the drainage area of the proposed development and its off-site contributing drainage area. The required analyses must be done both for the existing land use and future potential land use (developed conditions) in the watersheds involved.

To be applicable to the development site, the sub-basin sizes for the watershed-wide analyses of the major stream (including the sub-basin area containing the proposed development and its off-site contributing areas) must be generally uniform (between 0.5 and 2.0 times the average sub-basin size). Furthermore, the maximum size of the sub-basin area containing the proposed development and its off-site contributing areas should not exceed 5.0 times the area of the proposed development.

1. Grading for Building Pads and Minimum Floor Elevations

Residential, commercial or industrial structures located within a FEMA Special Flood Hazards Area or within the Floodplain of an area with a drainage basin greater than or equal to one square mile shall have a lowest floor elevation, including basement, greater than 2 feet above the Q100 Base Flood Elevation (BFE). See Figure 4-1.

Residential, commercial or industrial structures located adjacent to regulated drains or detention facilities shall have the lowest adjacent grade greater than 2 feet above the Q100 BFE or emergency spillway elevation, whichever is higher. In addition if the structure is located within 50 feet of the thalweg of a regulated drain or normal pool of a detention basin, the basement floor elevation shall be one foot above the thalweg or normal pool. See Figure 4-2.

Residential, commercial or industrial structures located adjacent to rear yard swales shall have the lowest adjacent grade greater than 2 feet above the Q100 BFE. See Figure 4-3.

Residential, commercial or industrial structures located adjacent to Drainage System Overflow shall have the lowest adjacent grade elevation greater than 1 foot above the Q100 overflow path/ponding elevation as described in Chapter 4, Section M of the Hendricks County “Stormwater Technical Standards Manual.” See Figure 4-4.

Residential, commercial or industrial structures shall have a first floor elevation no less than 6 inches above the adjacent grade.

Residential, commercial or industrial structures shall have a first floor elevation no less than 15 inches above the adjacent street gutter elevation. See Figures 4-1 to 4-4.

Residential, commercial or industrial structures shall have maximum yard slopes less than or equal to 3:1 and greater than or equal to 2% where ground has been disturbed during construction. See Figures 4-1 to 4-4.

The 100-year flow paths throughout the development, whether shown on FEMA maps or not, must be shown as hatched area on the plans and 30 feet along the centerline of the flow path contained within permanent drainage easements. No fences or landscaping can be constructed within the easement areas that may impede the free flow of stormwater. These areas are to be maintained by the homeowners association or property owner. The Lowest Adjacent Grade for all residential, commercial, or industrial buildings shall be set a minimum of 1 foot above the noted overflow path/ponding elevation or be separated by a minimum distance of 50 feet from the overflow path/ponding boundary.

It shall be the property owner's responsibility to maintain the natural features on their lots and to take preventive measures against erosion and/or deterioration of natural or manmade features on their lots.

Figure 4-1

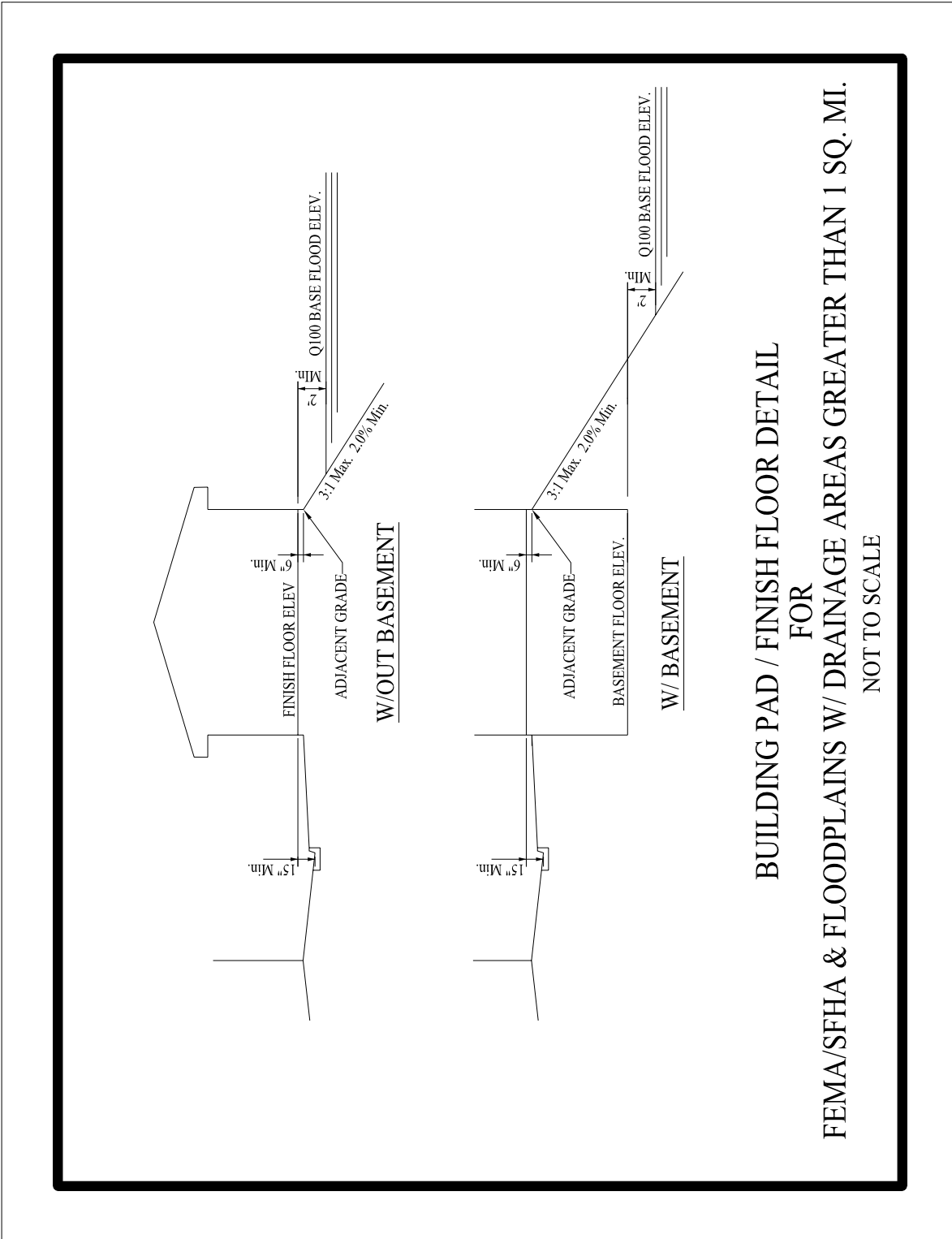


Figure 4-2

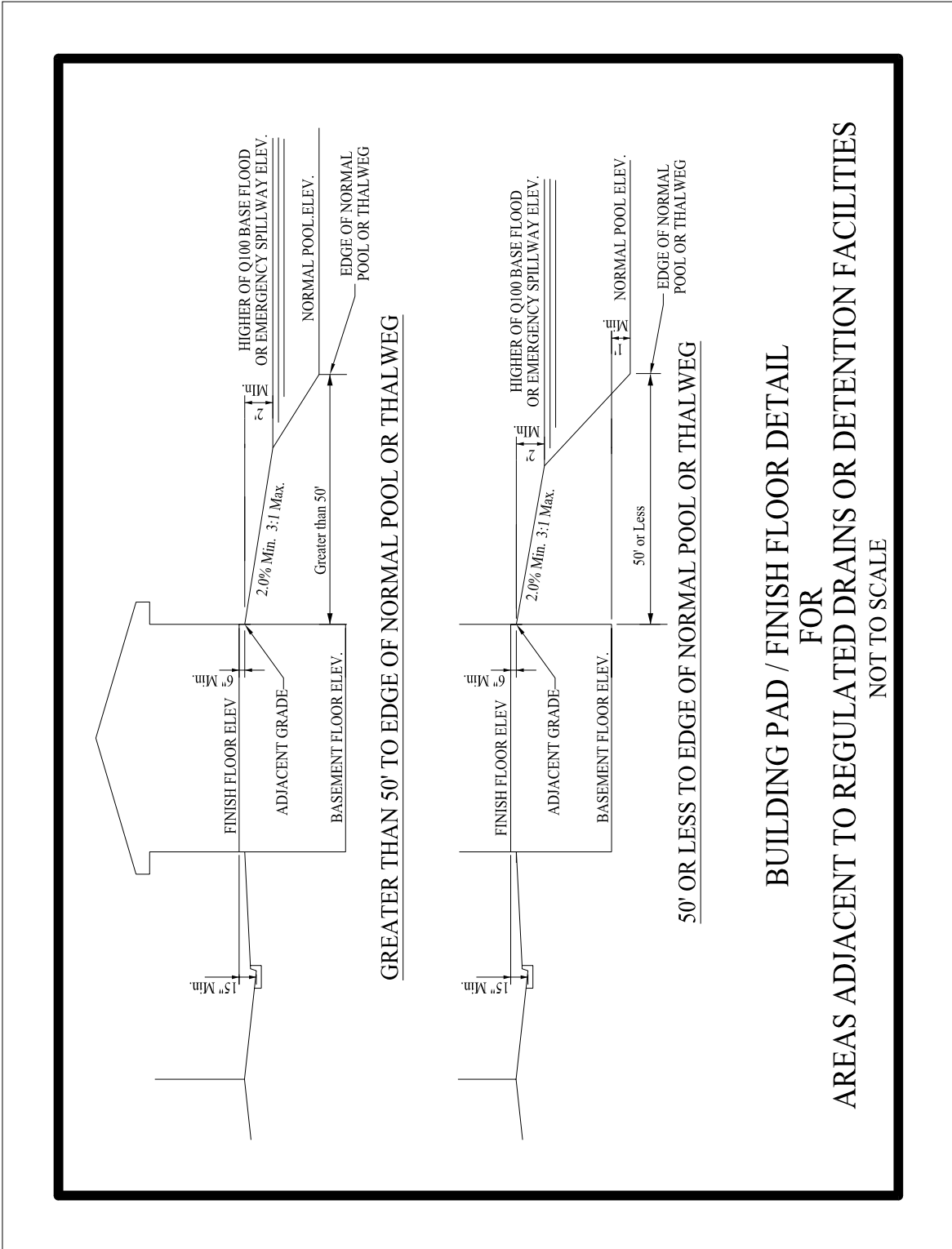
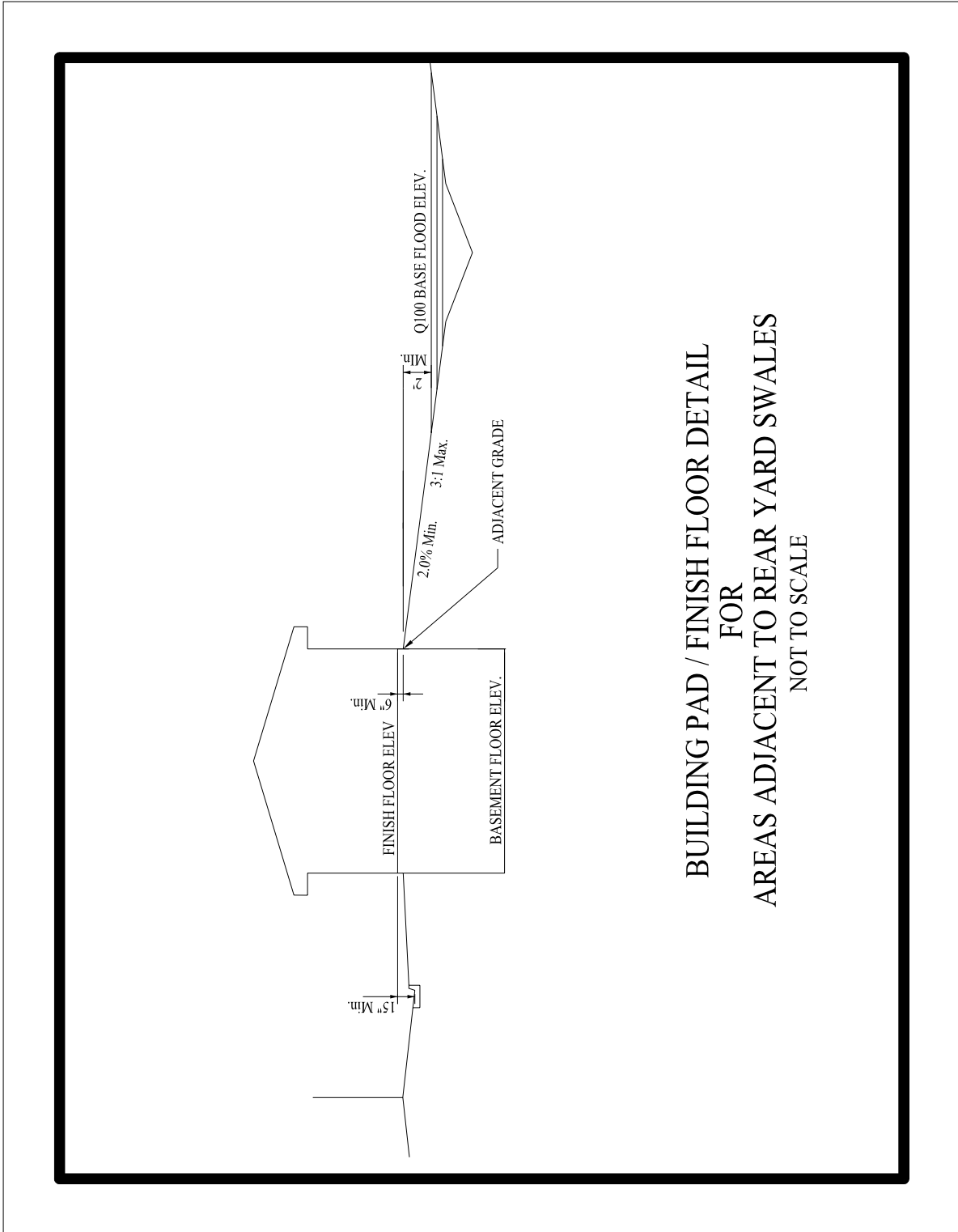
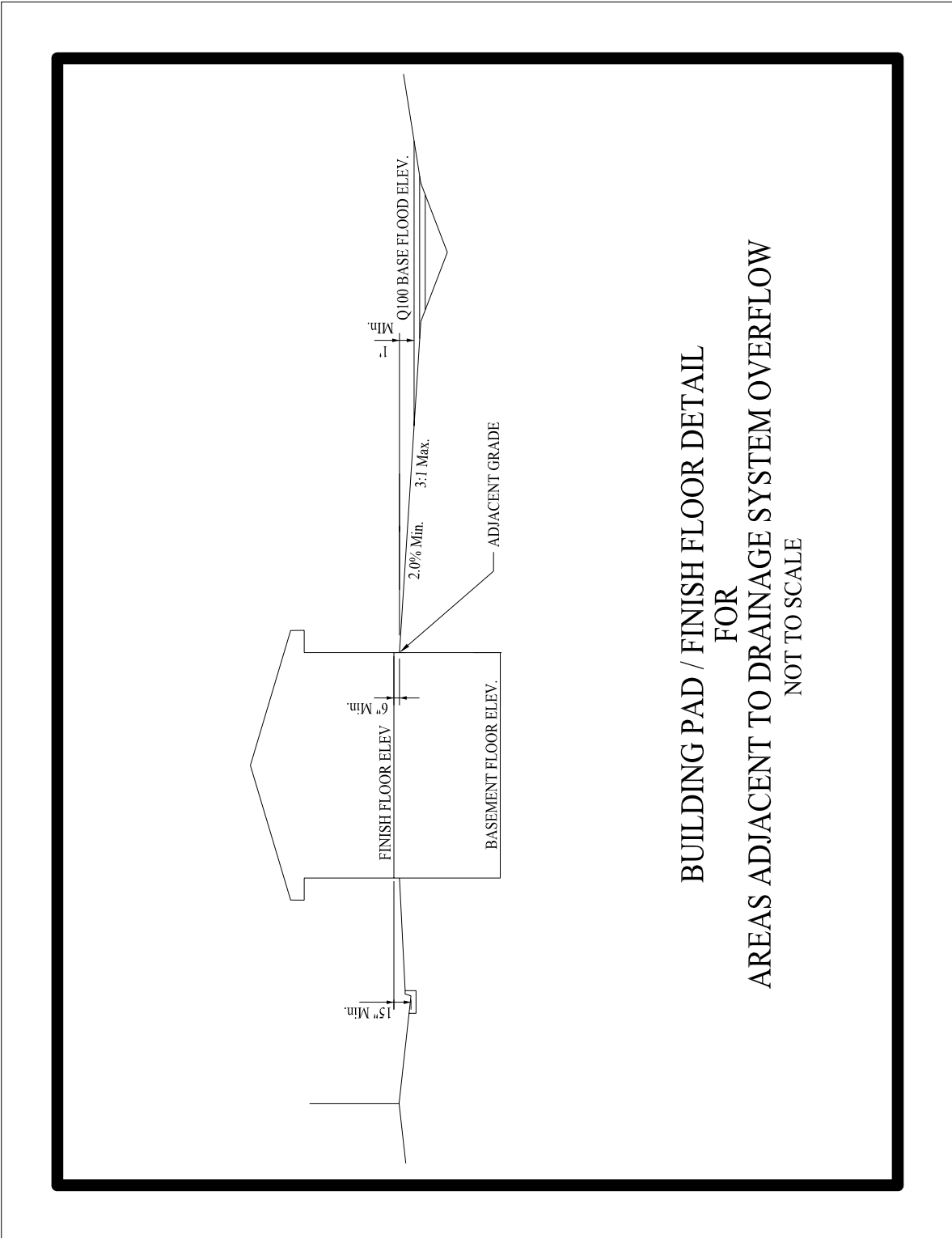


Figure 4-3



BUILDING PAD / FINISH FLOOR DETAIL
FOR
AREAS ADJACENT TO REAR YARD SWALES
NOT TO SCALE

Figure 4-4



**BUILDING PAD / FINISH FLOOR DETAIL
FOR
AREAS ADJACENT TO DRAINAGE SYSTEM OVERFLOW
NOT TO SCALE**

2. Adjoining Property Impacts Policy

Design and construction of the stormwater facility shall provide for the discharge of the stormwater runoff from off-site land areas as well as the stormwater from the area being developed (on-site land areas) to an acceptable outlet(s) (as determined by the Town of Avon) having capacity to receive upstream (off-site) and on-site drainage. The flow path from the development outfall(s) to a regulated drain or natural watercourse (as determined by the Town of Avon) shall be provided on an exhibit that includes topographic information. Any existing field tile encountered during the construction shall also be incorporated into the proposed stormwater drainage system or tied to an acceptable outlet.

Where the outfall from the stormwater drainage system of any development flows through real estate owned by others prior to reaching a regulated drain or natural watercourse, the developer will be responsible to determine if the project requires County Drainage Board approval and show proof to the Town prior to obtaining Town Stormwater Plan approval.

If an adequate outlet is not located on site, then off-site drainage improvements may be required. Those improvements may include, but are not limited to, extending storm sewers, clearing, dredging and/or removal of obstructions to open drains or natural water courses, and the removal or replacement of undersized culvert pipes as required by the Town of Avon.

3. No Net Loss Floodplain Storage Policy

Floodplains exist adjacent to all natural and man-made streams, regardless of contributing drainage area or whether they have been previously identified or mapped. Due to potential impacts of floodplain loss on peak flows in streams and on the environment, disturbance to floodplains should be avoided. When the avoidance of floodplain disturbance is not practical, the natural functions of floodplain should be preserved to the extent practical within the law.

In an attempt to strike a balance between the legitimate need for economic development within the Town of Avon and the need to preserve the natural functions of floodplains to the extent possible, compensatory excavation equivalent to the floodplain storage lost shall be required for activities within floodplain of streams located in the Town of Avon where drainage area of the stream is equal or larger than one square mile. This requirement shall be considered to be above and beyond the minimum requirements provided in the applicable flood hazard areas ordinance currently in effect in the Town of Avon. The Town of Avon may alter the compensation ratio, based on extenuating circumstances, for a specific project when supported by engineering calculations.

Note that by definition, compensatory storage is the replacement of the existing floodplain and, in rare exceptions, the floodway storage lost due to fill. Compensatory storage is required when a portion of the floodplain is filled, occupied by a structure, or

when as a result of a project a change in the channel hydraulics occurs that reduces the existing available floodplain storage.

The compensatory storage should be located adjacent or opposite the placement of the fill and maintain an unimpeded connection to an adjoining floodplain area.

Computations must show no net loss of floodplain storage for 2-year, 10-year, 50-year and through 100-year storm events. That is, the post-development 2-year floodplain storage along a stream shall be the same as 2-year pre-development floodplain storage along the stream within the property limits, the post-development 10-year floodplain storage along a stream shall be the same as 10-year pre-development floodplain storage along the stream within the property limits, and so on..

Calculations for floodplain volume shall be submitted in tabular form showing calculations by cross-section. The volume of floodplain storage under the without-project conditions and the with-project conditions should be determined using the average-end-area method with plotted cross-sections at a horizontal to vertical ratio of between 5:1 and 10:1, with 2- through 100-year flood elevations noted on each cross section. The scale chosen should be large enough to show the intent of proposed grading. Cross-sections should reflect both the existing and proposed conditions on the same plot. The location and extent of the compensatory storage area as well as the location and orientation of cross-sections should be shown on the grading plan.

Section 4: Calculations, Design Standards and Specifications

The calculation methods as well as the type, sizing, and placement of all stormwater facilities shall meet the adopted design criteria, standards, and specifications outlined in the Town of Avon Design Manual and the Hendricks County Stormwater Technical Standards Manual as identified in section 8-2 in this ordinance. The methods and procedures in the manuals are consistent with the policy stated above.

Section 5: Easement Requirements

There shall be no trees or shrubs planted, nor any structures or fences erected in any drainage easement, unless otherwise approved by Town of Avon. All stormwater systems, including detention or retention basins, conveyance systems, structures and appurtenances, located outside of the right-of-way shall be incorporated into the Town of Avon's system at the discretion of the Town of Avon.

The developer shall petition to incorporate the storm system into the Town of Avon's system. The Stormwater Plan Review shall not be approved until such petition is submitted in a form approved by the Town of Avon. Unless otherwise noted in this Ordinance, easements must be 10 feet from the top of bank on each side of a channel or each side of centerline of an underground pipe 36" in diameter or less and 10' deep or less from the invert. Larger pipe and greater depths

shall be determined during the approval process. For non-linear stormwater detention facilities such as ponds, wetlands, or others, the petition for easement should include a 25-foot wide perimeter beyond the top of the bank of the stormwater detention facility. For the purposes of monitoring, inspection, and general maintenance activities, a minimum drainage easement of 20 feet needs to be provided regardless of whether or not the drain is incorporated into the Town of Avon's system.

The following specific areas shall be included in a petition:

1. Subdivisions

- A. All new channels, drain tiles greater than 12 inches in diameter, inlet and outlet structures of detention and retention ponds, and appurtenance thereto as required by this chapter, that are installed in subdivisions requiring a stormwater management permit from the Town of Avon shall petition to become incorporated into the Town of Avon's system upon completion, proper inspection, and acceptance by Town of Avon. New drain tiles refer to all sub-surface stormwater piping, tubing, tiles, manholes, inlets, catch basins, risers, etc.
- B. New drain tile, 12-inch to 36 inches in diameter and 10' deep or less from the invert, shall be placed in a minimum 20-foot easement (10 feet from centerline on each side) and shall be designated on the record plat as 20-foot Drain Easement. Larger pipe and greater depths shall be determined during the approval process.
- C. A minimum of 10 feet from top of the bank on each side of a new channel shall be designated on the record plat as a Drain Easement.
- D. Rear-yard swales and emergency overflow paths associated with detention ponds shall not be included in petition for incorporation. However, a minimum of 20 feet width (10 feet from centerline on each side) needs to be designated as drainage easement.
- E. A minimum of 25 feet beyond the actual footprint of stormwater detention facilities shall be designated as drainage easement. A minimum 20-foot width easement shall also be required as access easement, unless the pond is immediately next to a public right-of-way.
- F. The statutory 75-foot (each side) drainage easement for drains already within the Hendricks County's system may be reduced if the drain is re-classified by the Drainage Board as an Urban Drain.
- G. An annual maintenance assessment shall be set up on each new regulated drain established in a new subdivision. The amount of the assessment will be determined by the Hendricks County Drainage Board and so certified by the Treasurer/Auditor.

- H. If the Town of Avon accepts the petition for incorporation into their system, the following statement shall become part of the Restrictive Covenants of every platted subdivision and shown on recorded plat: *“channels, tile drains 12-inch or larger, inlets and outlets of detention and retention ponds, and appurtenance thereto within designated drain easements are extensions of the Town of Avon’s stormwater drainage system and are the responsibility of the Town of Avon. Drainage swales and tile drains less than 12-inch in inside diameter shall be the responsibility of owner or homeowner association.”*
- I. The following statement shall be put on each subdivision plat if Regulated Drainage Easements have been petitioned from the Hendricks County Drainage Board: *“A petition addressed to the Hendricks County Drainage Board has been filed in duplicate with the County Surveyor, requesting that the subdivision’s storm drainage system and its easements be accepted into the County’s regulated drainage system. The storm drainage system and its easements that are accepted into the County’s regulated drainage system are delineated on the plat as Regulated Drainage Easements (RDEs). These drainage easements are established under authority of the Indiana Drainage Code and the said Board may exercise powers and duties as provided in said code (e.g., annual drainage assessment per lot). All other storm drainage easements have not been accepted into the County’s system. All drainage improvements performed relative to the conveyance of Stormwater runoff and the perpetual maintenance thereof, within the latter easements, shall be the responsibility of the owner or homeowner association. The Hendricks County Drainage Board assumes no responsibility relative to said improvements or the maintenance thereof. This subdivision contains _____ linear feet of open ditches and _____ linear feet of subsurface drains that will be included in the County’s Regulated Drainage System.”*
- J. Any crossing and/or encroachment of a Regulated Drainage Easement requires application and approval from the Hendricks County Surveyor’s office.

2. Non-Subdivisions

Where the Town of Avon is responsible for maintenance of the drainage system, drain easements of 10 feet from the top of bank on each side of the channel or each side of the tile centerline must be dedicated to the Town of Avon.

3. Establishment of New Regulated Drain

When the Hendricks County Drainage Board determines it is necessary to establish a new regulated drain, each developer shall provide the necessary information and meet the requirements of the 1965 Indiana Drainage Code, as amended, for the establishment of a new regulated drain. Necessary easements for adequate maintenance of any new regulated drain shall be determined by the Hendricks County Surveyor if not already established in this Ordinance.

Section 6: Placement of Utilities

No utility company may disturb existing storm drainage facilities without the consent of the Town of Avon, whose decision may be appealed to the Avon Town Board. All existing drainage facilities shall have senior rights and damage to said facilities shall result in penalties as prescribed in Chapter 7 of this ordinance.

Section 7: Inspection, Maintenance, Record Keeping, and Reporting

After the approval of the stormwater management permit by the Town of Avon and the commencement of construction activities, the Town of Avon has the authority to conduct inspections of the work being done to insure full compliance with the provisions of this chapter, the Stormwater Technical Standards Manual, and the terms and conditions of the approved permit.

Long-term inspection of stormwater quantity facilities shall be the responsibility of the Town. The inspection will cover physical conditions, available storage capacity, and the operational condition of key facility elements. Stormwater quantity facilities shall be maintained in good condition, in accordance with the terms and conditions of the approved stormwater management permit, and shall not be subsequently altered, revised or replaced except in accordance with the approved stormwater permit, or in accordance with approved amendments or revisions to the permit. If deficiencies are found during the inspection, the owner of the facility will be notified by the Town and will be required to take all necessary measures to correct such deficiencies within 90 days. If the owner fails to correct the deficiencies within the allowed time period, as specified in the notification letter, the Town of Avon may pursue enforcement under Chapter 7 of this ordinance.

Assignment of responsibility for maintaining facilities serving more than one lot or holding shall be documented by appropriate covenants to property deeds, unless responsibility is formally accepted by a public body, and determined before the final Stormwater Plan Review is approved. Stormwater detention/retention basins may be donated to the Town of Avon or other unit of government designated by the Town of Avon, for ownership and permanent maintenance providing the Town of Avon or other governmental unit is willing to accept responsibility.

Site designs should make every attempt to incorporate the stormwater detention/retention areas into the project to maximize the use of the land in the development for all intended uses. Site designs are encouraged to utilize dry detention storage areas for recreation or other uses that do not interfere with the functions of the stormwater system.

Chapter 5 Construction Site and Post-Construction Stormwater Controls

.1

.2 Section 1: Synopsis

The purpose of this chapter is to require Stormwater Pollution Prevention Plans which includes erosion and sediment control measures and materials handling procedures to be submitted as part of the construction plans and specifications in order to be issued an Improvement Location Permit for construction sites disturbing one acre or more of land.

Section 2: Purpose/Intent

The purpose of this chapter is to establish requirements for stormwater discharges from construction activities of one acre or more so that the public health, existing water uses, and aquatic biota are protected. This chapter establishes methods for controlling the introduction of pollutants into the municipal separate storm sewer system (MS4) in order to comply with requirements of the National Pollutant Discharge Elimination System (NPDES) permit process. The objectives of this ordinance are:

1. To regulate construction activities disturbing more than one acre of land as governed by 327 IAC 15-5.
2. To require construction site operators to develop and implement a Construction Plan including a Storm Water Pollution Prevention Plan in order to receive a grading permit from the Town.
3. To promote planning procedures meeting post-construction requirements of 327 IAC 15-5-6.5(a) (8).

Section 3: Applicability

This chapter covers any new development or re-development construction site resulting in the disturbance of one acre or more of total land area. Persons must meet the general permit rule applicability requirements under 327 IAC 15-2-6. This ordinance also applies to disturbances of less than one acre of land that are part of a larger common plan of development or sale if the larger common plan will ultimately disturb one or more acres of land within the corporate limits of the Town.

All terms, conditions, definitions, and other measures defined in 327 IAC 15-5 shall apply except for state permitting process references and submittal deadlines of construction plans.

This ordinance does not apply to persons who obtain an individual NPDES permit under 327 IAC 15-2-6.

This chapter does not apply to the Indiana Department of Transportation when it conducts its business within the Town corporate limit under its NPDES permit under 327 IAC 15.

This chapter does not apply to the following types of activities:

1. Agricultural land disturbing activities.
2. Forest harvesting activities.

This chapter does not apply to the following activities, provided other applicable permits contain provisions requiring immediate implementation of soil erosion control measures:

1. Landfills that have been issued a certification of closure under 329 IAC 10.
2. Coal mining activities permitted under IC 14-34.
3. Municipal solid waste landfills that are accepting waste pursuant to a permit issued by the Indiana Department of Environmental Management under 329 IAC 10 that contains equivalent stormwater requirements, including the expansion of landfill boundaries and construction of new cells either within or outside the original solid waste permit boundary.

Section 4: Ultimate Responsibility

The standards set forth herein and promulgated pursuant to this chapter are minimum standards; therefore this chapter does not intend nor imply that compliance by any person will ensure that there will not be violations of NPDES permits.

Section 5: Responsibility of Construction Site Owner

The construction site owner has the following responsibilities:

1. Ensure that a sufficient construction plan is completed and submitted in accordance with 327 IAC 15-5, as well as procedures established by the Town.
2. Complete a sufficient notice of intent (NOI) letter in accordance with 327 IAC 15-5, submitted to the Town with a copy sent to the Indiana Department of Environmental Management.
3. Make application for a grading permit in accordance with procedures established by the Town
4. Ensure compliance with this ordinance during:
 - A. the construction activity; and

- B. implementation of the construction plan.
- 5. Ensure that all persons engaging in construction activities on a permitted project site comply with the applicable requirements of this rule and the approved construction plan.
- 6. Notify the Town with a sufficient notice of termination (NOT) letter in accordance with 327 IAC 15-5, with a copy sent to the Indiana Department of Environmental Management.

For off-site construction activities that provide services (for example, road extensions, sewer, water, and other utilities) to a permitted project site, these off-site activity areas must be considered a part of the permitted project site when the activity is under the control of the project site owner.

For an individual lot where land disturbance is expected to be one acre or more and the lot lies within a project site permitted under this rule, the individual lot owner shall:

- A. Ensure that a sufficient construction plan is completed and submitted in accordance with 327 IAC 15-5, as well as procedures established by the Town.
- B. Complete his or her own notice of intent letter and submit it to the Town.
- C. Apply for a building permit in accordance with the procedures established by the Town.

For an individual lot where the land disturbance is less than one acre and the lot lies within a project site permitted under this rule, the individual lot operator shall:

- 1. Comply with the provisions and requirements of the construction plan developed by the project site owner in accordance with the procedures established by the Town.
- 2. Comply with the provisions set forth in Section 11 of this ordinance.
- 3. Not need to submit a notice of intent letter.
- 4. Apply for a building permit in accordance with the procedures established by the Town.

Section 6: General Requirements for Stormwater Quality Control

All storm water quality measures and erosion and sediment controls necessary to comply with this ordinance must be implemented in accordance with the construction plan and sufficient to satisfy the following conditions.

A project site owner shall, at least, meet the following requirements:

1. Sediment-laden water which otherwise would flow from the project site shall be treated by erosion and sediment control measures appropriate to minimize sedimentation.
2. Appropriate measures shall be implemented to minimize or eliminate wastes or unused building materials, including garbage, debris, cleaning wastes, wastewater, concrete truck washout, and other substances from being carried from a project site by run-off or wind. Identification of areas where concrete truck washout is permissible must be clearly posted at appropriate areas of the site. Wastes and unused building materials shall be managed and disposed of in accordance with all applicable statutes and regulations.
3. A stable construction site access shall be provided at all points of construction traffic ingress and egress to the project site.
4. Public or private roadways shall be kept cleared of accumulated sediment that is a result of run-off or tracking. Bulk clearing of sediment shall not include flushing the area with water. Cleared sediment shall be redistributed or disposed of in a manner that is in accordance with all applicable statutes and regulations.
5. Storm water run-off leaving a project site must be discharged in a manner that is consistent with applicable state or federal law.
6. The project site owner shall post a notice near the main entrance of the project site. For linear project sites, such as a pipeline or highway, the notice must be placed in a publicly accessible location near the project field office. The notice must be maintained in a legible condition and contain the following information:
 - A. Copy of the completed NOI letter and the NPDES permit number, where applicable.
 - B. Name, company name, telephone number, e-mail address (if available), and address of the project site owner or a local contact person.
 - C. Location of the construction plan if the project site does not have an on-site location to store the plan.
7. This permit and posting of the notice under subdivision (6) does not provide the public with any right to trespass on a project site for any reason, nor does it require that the project site owner allow members of the public access to the project site.
8. The storm water pollution prevention plan shall serve as a guideline for storm water quality, but should not be interpreted to be the only basis for implementation of storm water quality measures for a project site. The project site owner is responsible for

implementing, in accordance with 327 IAC 15-5, all measures necessary to adequately prevent polluted storm water run-off.

9. The project site owner shall inform all general contractors, construction management firms, grading or excavating contractors, utility contractors, and the contractors that have primary oversight on individual building lots of the terms and conditions of this rule and the conditions and standards of the storm water pollution prevention plan and the schedule for proposed implementation.
10. Phasing of construction activities shall be used, where possible, to minimize disturbance of large areas.
11. Appropriate measures shall be planned and installed as part of an erosion and sediment control system.
12. All storm water quality measures must be designed and installed under the guidance of a trained individual.
13. Collected run-off leaving a project site must be either discharged directly into a well-defined, stable receiving channel or diffused and released to adjacent property without causing an erosion or pollutant problem to the adjacent property owner.
14. Drainage channels and swales must be designed and adequately protected so that their final gradients and resultant velocities will not cause erosion in the receiving channel or at the outlet.
15. Natural features, including wetlands and sinkholes, shall be protected from pollutants associated with storm water run-off.
16. Unvegetated areas that are scheduled or likely to be left inactive for fifteen (15) days or more must be temporarily or permanently stabilized with measures appropriate for the season to minimize erosion potential. Alternative measures to site stabilization are acceptable if the project site owner or their representative can demonstrate they have implemented erosion and sediment control measures adequate to prevent sediment discharge. Vegetated areas with a density of less than seventy percent (70%) shall be restabilized using appropriate methods to minimize the erosion potential.
17. During the period of construction activities, all storm water quality measures necessary to meet the requirements of 327 IAC 15-5 shall be maintained in working order.
18. A self-monitoring program that includes the following must be implemented:
 - A. A trained individual shall perform a written evaluation of the project site:
 - I. by the end of the next business day following each 0.5 inch of rain; and

- II. at a minimum of one time per week.
- B. The evaluation must:
- I. address the maintenance of existing storm water quality measures to ensure they are functioning properly; and
 - II. identify additional measures necessary to remain in compliance with all applicable laws and ordinances.
- C. Written evaluation reports must include:
- I. the name of the individual performing the evaluation;
 - II. the date of the evaluation;
 - III. problems identified at the project site; and
 - IV. details of corrective actions recommended and completed.
- D. All evaluation reports for the project site must be made available to the Town within forty-eight (48) hours of a request.
19. Proper storage and handling of materials, such as fuels or hazardous wastes, and spill prevention and clean-up measures shall be implemented to minimize the potential for pollutants to contaminate surface or ground water or degrade soil quality.
20. Final stabilization of a project site is achieved when:
- A. all land disturbing activities have been completed and a uniform (for example, evenly distributed, without large bare areas) perennial vegetative cover with a density of seventy percent (70%) has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures have been employed; and
 - B. construction projects on land used for agricultural purposes are returned to its preconstruction agricultural use or disturbed areas, not previously used for agricultural production, such as filter strips and areas that are not being returned to their preconstruction agricultural use, meet the final stabilization requirements in clause 20. A above.

Section 7: General Requirements for Individual Building Lots within a Permitted Project

All storm water quality measures, including erosion and sediment control, necessary to comply with this ordinance must be implemented in accordance with the plan and sufficient to satisfy the following conditions.

Provisions for erosion and sediment control on individual building lots regulated under the original permit of a project site owner must include the following requirements:

1. The individual lot operator, whether owning the property or acting as the agent of the property owner, shall be responsible for erosion and sediment control requirements associated with activities on individual lots.
2. Installation and maintenance of a stable construction site access.
3. Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.
4. Sediment discharge and tracking from each lot must be minimized throughout the land disturbing activities on the lot until permanent stabilization has been achieved.
5. Clean-up of sediment that is either tracked or washed onto roads. Bulk clearing of sediment shall not include flushing the area with water. Cleared sediment must be redistributed or disposed of in a manner that is in compliance with all applicable laws and ordinances.
6. Adjacent lots disturbed by an individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.
7. For individual residential lots, final stabilization meeting the criteria in section 7(b)(20) of Rule 5 will be achieved when the individual lot operator:
 - A. completes final stabilization; or
 - B. has installed appropriate erosion and sediment control measures for an individual lot prior to occupation of the home by the homeowner and has informed the homeowner of the requirement for, and benefits of, final stabilization.

Section 8: Monitoring of Discharges

The Town shall have the authority to monitor discharges from construction sites covered under this ordinance as described in Chapter 3 of this ordinance Illicit Discharge and Connection Stormwater Controls.

Section 9: Requirement to Prevent, Control, and Reduce Storm Water Pollutants by the Use of Best Management Practices.

The Town will establish requirements identifying Best Management Practices for any activity, operation, or facility which may cause or contribute to pollution or contamination of storm water, the storm drain system, or waters of the U.S. The owner or operator of a construction site shall

provide, at their own expense, reasonable protection from accidental discharge of prohibited materials or other wastes into the municipal storm drain system or watercourses through the use of these structural and non-structural BMPs. Further, any person responsible for a property or premise, which is, or may be, the source of an illicit discharge, may be required to implement, at said person's expense, additional structural and non-structural BMPs to prevent the further discharge of pollutants to the municipal separate storm sewer system. Compliance with all terms and conditions of a valid NPDES permit authorizing the discharge of storm water associated with industrial activity, to the extent practicable, shall be deemed compliance with the provisions of this section. These BMPs shall be part of a stormwater pollution prevention plan (SWPP) as necessary for compliance with requirements of the NPDES permit.

Section 10: Post-Construction Controls for New Development or Redevelopment

On areas that undergo new development or redevelopment, site construction resulting in disturbance of one acre or more total land area, post-construction control measures in the form of structural and/or non-structural best management practices are required. Specifically, post-construction storm water pollutant loading should not exceed pre-construction pollutant loading. Pre-construction refers to the site immediately before the planned land disturbance and development activities occur. Pre-construction is not intended to be interpreted as that period before any human-induced land disturbance activity has occurred. Post-construction pollutant loadings will be controlled through the six minimum control measures under the Town's stormwater NPDES permit. Post-construction storm water best management practices (BMPs) shall follow Indiana's Storm Water Quality Manual as a guidance document. The Town shall have full technical and administrative approval authority on the application and design of all post-construction BMPs, conditions, definitions, and submittal requirements of construction plans and specifications and other related documents. The minimum measures implemented are to meet the terms defined in 327 IAC 15-5-6.5(a)(8) which are enumerated below:

The post-construction storm water pollution prevention plan must include the following information:

1. A description of potential pollutant sources from the proposed land use that may reasonably be expected to add a significant amount of pollutants to storm water discharges.
2. Location, dimensions, detailed specifications, and construction details of all post-construction storm water quality measures.
3. A description of measures that will be installed to control pollutants in storm water discharges that will occur after construction activities have been completed. Such practices include infiltration of run-off, flow reduction by use of open vegetated swales and natural depressions, buffer strip and riparian zone preservation, filter strip creation, minimization of land disturbance and surface imperviousness, maximization of open space, and storm water retention and detention ponds.

4. A sequence describing when each postconstruction storm water quality measure will be installed.
5. Storm water quality measures that will remove or minimize pollutants from storm water run-off.
6. Storm water quality measures that will be implemented to prevent or minimize adverse impacts to stream and riparian habitat.
7. A narrative description of the maintenance guidelines for all postconstruction storm water quality measures to facilitate their proper long term function. This narrative description shall be made available to future parties who will assume responsibility for the operation and maintenance of the postconstruction storm water quality measures.

Section 11: Enforcement

Enforcement of this chapter shall be subject to the severity of the violation and the construction site operator's efforts to comply. The Town shall reserve the right to interpret enforcement on a case by case basis. Tiered enforcement will be practiced at the Town Manager's discretion. The tiered enforcement may include:

1. Verbal warning to the construction site operator to make corrections.
2. Written warning to the construction site operator to make corrections within a specified period of time. The period of time shall take into account issues such as the severity of the problem, pending weather, seasonal conditions, and the level of effort necessary to correct the problem.
3. Warning of Non-Compliance with directions to the construction site operator that site conditions require immediate action.
4. Stop Work Order.
5. Other provisions provided for in Chapter 7 of this ordinance Enforcement.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

Section 12: Injunctive Relief

It shall be a violation for any person to fail to comply with any of the requirements of this chapter. If a person has violated or continues to violate the provisions of this chapter, the Town may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

Section 13: Compensatory Action

In lieu of enforcement proceedings, penalties, and remedies authorized by this ordinance, the Town may request that the violator to perform alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, or other actions promoting the goals of the Town.

Section 14: Violations Deemed a Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

Section 15 Remedies Not Exclusive

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Town to seek cumulative remedies.

Chapter 6 Plan Submittal Requirements and Procedures

Section 1: Synopsis

The purpose of this chapter is to outline the minimum submittal requirements for construction plans and stormwater review plan in order to be issued an Improvement Location Permit.

Section 2: Preliminary Drainage Approvals

In order to gain an understanding of the drainage requirements for a specific project, a developer shall submit preliminary drainage plans and calculations, by a licensed professional engineer or a licensed land surveyor registered in the State of Indiana, for review by the Town. The direction provided by the Town during such a review is based on preliminary data and shall not be construed as an approval or binding on either party. The following is a general listing of minimum data requirements for the review of preliminary drainage plans:

1. Two (2) complete sets of plans (plan sheets not to exceed 24" by 36").
2. Drainage Narrative.
3. Watershed Boundaries with USGS Contours or best information possible.
4. Existing and proposed drainage facilities.
5. Drainage Calculations to support narrative:
 - A. Existing and proposed runoff
 - B. Existing and proposed curve number
 - C. Existing and proposed time of concentration
 - D. Upstream and downstream restrictions
6. Letter of Intent for obtaining any needed consents, off-site easements, or right-of-way.
7. Topographic map of the project with layout.

Section 3: Stormwater Plan Review Procedures

This section applies to all development, or re-development of land, that results in land disturbance of one (1) acre or more. Individual lots with land disturbance less than one (1) acre, that are developed within a larger permitted project site, should refer to Section 4 for plan review

requirements and procedures. Figure 1 is a flowchart summarizing the plan review/permit approval process and can be found at the end of this chapter.

For projects located within the Town, the project site owner shall submit an application to the Town. The application will include a Notice of Intent letter (NOI), proof of public notice, construction plan sheets, stormwater drainage technical report, a stormwater pollution prevention plan, and any other necessary support information. Specific information to be included in the application can be found in Section 4. Four copies of each application must be submitted to the Town. Additionally, a digital copy of the construction plans is required in a format approved by the Town.

If projects require Town of Avon Advisory Plan Commission approval, the review of the plans will coincide with the Plan Commission schedule. If projects do not require Plan Commission approval, the initial review will be completed within 30 days and all subsequent reviews will be completed within 14 days. An Improvement Location Permit will not be issued until all requirements have been sufficiently met.

The project site owner must set up a preconstruction meeting and be issued an Improvement Location Permit (ILP) prior to construction commencing. Once construction starts, the project owner shall monitor construction activities and inspect all stormwater pollution prevention measures in compliance with this ordinance and the terms and conditions of the approved permit. Upon completion of construction activities, as-built plans must be submitted to the Town for review and acceptance. A Notice of Termination (NOT) shall be sent to the Town once the construction site has been stabilized and all temporary erosion and sediment control measures have been removed. The Town shall inspect the construction site to verify the requirements for a NOT have been met. Once the applicant receives a “verified” comply of the NOT, they must forward a copy to IDEM. Permits issued under this scenario will expire 5 years from the date of issuance. If construction is not completed within 5 years, the NOI must be resubmitted at least 90 days prior to expiration. **No Rule 5 (327 IAC 15-5) permit is required from IDEM for projects within the MS4 area boundary, since the Town is the permitting authority.**

notify the Town and IDEM 48 hours before beginning construction. Notification shall be in the form of an updated IDEM NOI form. Once construction starts, the project owner shall monitor construction activities and inspect all stormwater pollution prevention measures in compliance with this ordinance and the terms and conditions of the approved permit. Upon completion of construction activities, as-built plans must be submitted to the Town. A Notice of Termination (NOT) shall be sent to the Town once the construction site has been stabilized and all temporary erosion and sediment control measures have been removed. The Town shall inspect the construction site to verify the requirements for an NOT have been met. Once the applicant receives a “verified” copy of the NOT, they must forward a copy to IDEM. Permits issued under this scenario will expire 5 years from the date of issuance. If construction is not completed within 5 years, the NOI must be resubmitted at least 90 days prior to expiration.

Section 4:

Improvement Location Permit Requirements

1. Information Requirements

The applicant shall submit to the commission, drainage calculations detailing runoff before and after the proposed project which demonstrate compliance with this ordinance. In addition, the applicant shall submit a set of plans of sufficient detail and clarify to allow the commission to evaluate project compliance with this ordinance. The maximum sheet size shall be 24' x 36' and as much information as possible should be shown on as few sheets as possible. The plans must be prepared under the supervision of and certified by a registered land surveyor or a professional engineer licensed by the State of Indiana.

2. Site Plan Requirements

A. The plans submitted shall include the following information:

B. Existing Conditions

- I. Project name, developer, project engineer or surveyor, their address and telephone number, legal description, date of plans and any revisions, scale of plan, and north point
- II. Area Vicinity Map detailing project environs, current zoning, adjoining property owners, and street lines within one thousand (1000) feet of the project boundaries;
- III. Topography based on mean sea level elevation at a minimum one (1) foot interval for the project site and may adjoining areas whose topography may affect project drainage. If the drainage area is extensive, an additional map of sufficient clarity must be provided
- IV. The location of existing streams, lakes, ponds, watercourses, and other flood water runoff channels, the extent of the floodplain at the established one hundred (100) year flood elevation (regulatory floodway), and the limits of the floodway, all properly identified;
- V. The existing location of regulated drains, surface and subsurface farm drains inlets, and outfalls, easements that are visible or of record, existing seeps, springs, and wells that are visible or of record;
- VI. Existing storm and sanitary sewers, inlets or outfalls, existing septic tank systems, and treatment plant outlets and utilities;
- VII. Existing structures;

VIII. Identification of jurisdictional wetlands in conformance with Section 1.7;

IX. Boundary and acreage of project site indicated by a heavy solid line based on a traverse with angular and linear dimensions; and

X. Other significant conditions of the area proposed to be improved.

3. Site Improvements

A. Finished floor elevations for all improvements:

B. Proposed changes in streams, lakes, swamps, detention basins, watercourses and flood water runoff channels, floodplains, and the limits of the floodway, all properly identified;

C. Proposed location of regulated drains, surface and subsurface drains, inlets, outfalls, and easements;

D. Proposed location, materials, and gradients of storm and sanitary sewers, inlets and outfalls, on-site sanitary effluent disposal systems, and location of affected utilities.

E. Structures to be removed or relocated on the project site;

F. The location and design of proposed streets, roads, sidewalks, culverts, bridges, parking lots, hard surfaced areas, including depressed pavement used to convey or temporarily store overflow from heavier rainstorms, and outlets for such overflow;

G. The cross section of existing streams and floodplains to be maintained or changed and new channels to be constructed where changes are proposed or discharge into receiving streams is altered; and

H. The erosion and sediment control measures to be implemented including, but not limited to: design and installation details, location, vegetation and schedule.

4. Submittal and Consideration of Plans

All applications must be submitted on the forms approved by the plan Commission and provided by the Town of Avon Engineer's Office. Projects which require approval through the Plan Commission, such as subdivisions and site plan reviews, shall submit preliminary and final plans to the Plan Commission according to the Plan Commission Rules of Procedure.

The Plan Commission shall give proper notice of their decision and deliver the same to the applicant. The Commission shall approve or disapprove the plans within sixty

(60) days of submission unless the applicant consents to a continuance or extension. All approvals and disapprovals with written reasons shall be incorporated into the Commission minutes.

The Town of Avon Plan Commission may grant exemptions from any or all requirements of this ordinance and waive any requirements of this ordinance at its discretion.

5. Drainage Easements

Drainage easements must be provided to cover all elements of the drainage system and must be designed:

- A. To be adequate to install and maintain the drainage facilities;
- B. To minimize conflicts with utility easements; and
- C. To maintain a sufficient buildable area on each lot or parcel

Section 5: Stormwater Plan Submittal Requirements

1. Information Requirements

Specific projects or activities may be exempt from all or part of the informational requirements listed below. Exemptions are detailed in the “Applicability and Exemptions” Sections. If a project or activity is exempt from any or all requirements of this ordinance, an application should be filed listing the exemption criteria met, in lieu of the information requirements listed below. This level of detailed information is not required from individual lots, disturbing less than 1 acre of land, developed within a larger permitted project site. Review and approval of such lots is covered under Section 4 of this Chapter.

The different elements of a permit submittal include a Notice of Intent (NOI), proof of publication of a public notice, construction plans, a stormwater drainage technical report, a stormwater pollution prevention plan for active construction sites, a post-construction stormwater pollution prevention plan, and any other necessary supporting information.

2. Notice of Intent

The NOI is a standard form developed by the Indiana Department of Environmental Management which requires general project information. The NOI should be completed in full and accompanied by a proof of publication.

Proof of publication in a newspaper of general circulation, in the affected area, that notified the public that a construction activity is to commence. The publication must include the following language:

(Company name, address) is submitting an NOI letter to notify the Town and the Indiana Department of Environmental Management of our intent to comply with the requirements of the [name of ordinance], as well as the requirements of 327 IAC 15-5 and 327 IAC 15-13, to discharge stormwater from construction activities for the following project: (name of the construction project, address of the location of the construction project). Run-off from the project site will discharge to (stream(s) receiving the discharge(s)).

3. Construction Plans

Construction plan sheets (not to exceed 24” by 36” in size) and an accompanying narrative report shall describe and depict the existing and proposed conditions. Construction plans need to include the following detailed items:

- A. Project narrative and supporting documents, including the following information:
 - I. An index indicating the location, in the construction plans, of all information required by this subsection.
 - II. Description of the nature and purpose of the project.
 - III. A copy of a legal boundary survey for the site, performed in accordance with Rule 12 of Title 865 of the Indiana Administrative Code or any applicable and subsequently adopted rule or regulation for the subdivision limits, including all drainage easements.
 - IV. Soil properties, characteristics, limitations, and hazards associated with the project site and the measures that will be integrated into the project to overcome or minimize adverse soil conditions
 - V. General construction sequence of how the project site will be built, including phases of construction.
 - VI. 14-Digit Watershed Hydrologic Unit Code.
 - VII. A reduced plat or project site map showing the lot numbers, lot boundaries, and road layout and names. The reduced map must be legible and submitted on a sheet or sheets no larger than eleven (11) inches by seventeen (17) inches for all phases or sections of the project site.

- VIII. A topographic map of the land to be developed and such adjoining land whose topography may affect the layout or drainage of the development. The contour intervals shall be one (1) foot when slopes are less than or equal to two percent (<2%) and shall be two (2) feet when slopes exceed two percent (>2%). All elevations shall be given in either National Geodetic Vertical Datum of 1929 (NGVD) or North American Vertical Datum of 1988 (NAVD). The horizontal datum of topographic map shall be based on Indiana State Plane Coordinates, NAD83. The map will contain a notation indicating these datum information:
1. If the project site is less than or equal to two (2) acres in total land area, the topographic map shall include all topography of land surrounding the site to a distance of at least one hundred (100) feet
 2. If the project site is greater than two (2) acres in total land area, the topographic map shall include all topography of land surrounding the site to a distance of at least two hundred (200) feet and include all roads and buildings within a minimum 500' radius beyond the project boundaries
- IX. Identification of any other state or federal water quality permits that are required for construction activities associated with the owner's project site.
- B. Vicinity map depicting the project site location in relationship to recognizable local landmarks, towns, and major roads, such as a USGS topographic quadrangle map, or county or municipal road map.
- C. An existing project site layout that must include the following information:
- I. Location, name, and normal water level of all wetlands, lakes, ponds, and water courses on, or adjacent to, the project site.
 - II. Location of all existing structures on the project site.
 - III. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exists.
 - IV. Soil map of the predominant soil types, as determined by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Soil Survey, or as determined by a soil scientist. Hydrologic classification for soils should be shown when hydrologic methods requiring soils information are used. A soil legend must be included with the soil map.

- V. Identification and delineation of vegetative cover such as grass, weeds, brush, and trees on the project site.
 - VI. Location of storm, sanitary, combined sewer, and septic tank systems and outfalls.
 - VII. Land use of all adjacent properties.
 - VIII. Identification and delineation of sensitive areas.
 - IX. Existing topography at a contour interval appropriate to indicate drainage patterns.
 - X. The location of regulated drains, farm drains, inlets and outfalls, if any of record.
- D. Final project site layout, including the following information:
- I. Location of all proposed site improvements, including roads, utilities, lot delineation and identification, proposed structures, and common areas.
 - II. One hundred (100) year floodplains, floodway fringes, and floodways. Please note if none exists.
 - III. Proposed final topography, at a contour interval appropriate to indicate drainage patterns.
- E. A grading plan, including the following information:
- I. Delineation of all proposed land disturbing activities, including off-site activities that will provide services to the project site.
 - II. Location of all soil stockpiles and borrow areas.
 - III. Information regarding any off-site borrow, stockpile, or disposal areas that are associated with a project site, and under the control of the project site owner.
 - IV. Existing and proposed topographic information.
- F. A drainage plan, including the following information:

- I. An estimate of the peak discharge, based on the ten (10) year storm 24-hour event, of the project site for both pre-construction and post-construction conditions.
- II. Calculation showing peak runoff rate after development for the 10-year and 100-year return period 24-hour storms do not exceed the respective allowable release runoff rates.
- III. Location, size, and dimensions of all existing streams to be maintained, and new drainage systems such as culverts, bridges, storm sewers, conveyance channels, and 100-year overflow paths/ponding areas shown as hatched areas, along with all associated easements.
- IV. Locations where stormwater may be directly discharged into groundwater, such as abandoned wells or sinkholes. Please note if none exists.
- V. Locations of specific points where stormwater discharge will leave the project site.
- VI. Name of all receiving waters. If the discharge is to a separate municipal storm sewer, identify the name of the municipal operator and the ultimate receiving water.
- VII. Location, size, and dimensions of features such as permanent retention or detention facilities, including natural or constructed wetlands, used for the purpose of stormwater management. Include existing retention or detention facilities that will be maintained, enlarged, or otherwise altered and new ponds or basins to be built and the basis of their design.
- VIII. The estimated depth and amount of storage required by design of the new ponds or basins.
- IX. One or more typical cross sections of all existing and proposed channels or other open drainage facilities carried to a point above the 100-year high water and showing the elevation of the existing land and the proposed changes, together with the high water elevations expected from the 100 year storm under the controlled conditions called for by this ordinance, and the relationship of structures, streets, and other facilities.

Section 6: Stormwater Drainage Technical Report

A written stormwater drainage technical report must contain a discussion of the steps taken in the design of the stormwater drainage system. The technical report needs to include the following detailed items:

1. A summary report, including the following information:
 - A. The significant drainage problems associated with the project;
 - B. The analysis procedure used to evaluate these problems and to propose solutions;
 - C. Any assumptions or special conditions associated with the use of these procedures, especially the hydrologic or hydraulic methods;
 - D. The proposed design of the drainage control system; and
 - E. The results of the analysis of the proposed drainage control system showing that it does solve the project's drainage problems. Any hydrologic or hydraulic calculations or modeling results must be adequately cited and described in the summary description. If hydrologic or hydraulic models are used, the input and output files for all necessary runs must be included in the appendices. A map showing any drainage area subdivisions used in the analysis must accompany the report.

2. A Hydrologic/Hydraulic Analysis, consistent with the methodologies and calculations included in the adopted Stormwater Technical Standards (identified in Chapter 8, and including the following information:
 - A. A hydraulic report detailing existing and proposed drainage patterns on the subject site. The report should include a description of present land use and proposed land use. Any off-site drainage entering the site should be addressed as well. This report should be comprehensive and detail all of the steps the engineer took during the design process.
 - B. All hydrologic and hydraulic computations should be included in the submittal. These calculations should include, but are not limited to: runoff curve numbers and runoff coefficients, runoff calculations, stage-discharge relationships, times-of-concentration and storage volumes.
 - C. Copies of all computer runs. These computer runs should include both the input and the outputs. Electronic copies of the computer runs with input files must also be included.
 - D. A set of exhibits should be included showing the drainage sub-areas and a schematic detailing of how the computer models were set up.
 - E. A conclusion which summarizes the hydraulic design and details how this design satisfies this ordinance.

Section 7: Stormwater Pollution Prevention Plan for Construction Sites

A stormwater pollution prevention plan associated with construction activities must be designed to at least meet the requirements of this ordinance and must include the following:

1. Location, dimensions, detailed specifications, and construction details of all temporary and permanent stormwater quality measures.
2. Temporary stabilization plans and sequence of implementation.
3. Permanent stabilization plans and sequence of implementation.
4. Temporary and permanent stabilization plans shall include the following:
 - A. Specifications and application rates for soil amendments and seed mixtures.
 - B. The type and application rate for anchored mulch.
5. Construction sequence describing the relationship between implementation of stormwater quality measures and stages of construction activities.
6. A typical erosion and sediment control plan for individual lot development.
7. Self-monitoring program including plan and procedures.
8. A description of potential pollutant sources associated with the construction activities, which may reasonably be expected to add a significant amount of pollutants to stormwater discharges.
9. Material handling and storage associated with construction activity shall meet the spill prevention and spill response requirements in 327 IAC 2-6.1.

Section 8: Post-Construction Storm Water Pollution Prevention Plan

The post-construction storm water pollution prevention plan must include the following information:

1. A description of potential pollutant sources from the proposed land use, which may reasonably be expected to add a significant amount of pollutants to stormwater discharges.
2. Location, dimensions, detailed specifications, and construction details of all post-construction stormwater quality measures.

3. A description of measures that will be installed to control pollutants in stormwater discharges that will occur after construction activities have been completed. Such practices include infiltration of run-off, flow reduction by use of open vegetated swales and natural depressions, buffer strip and riparian zone preservation, filter strip creation, minimization of land disturbance and surface imperviousness, maximization of open space, and stormwater retention and detention ponds.
4. A sequence describing when each post-construction stormwater quality measure will be installed.
5. Stormwater quality measures that will remove or minimize pollutants from stormwater runoff.
6. Stormwater quality measures that will be implemented to prevent or minimize adverse impacts to stream and riparian habitat.
7. A narrative description of the maintenance guidelines for all post-construction stormwater quality measures to facilitate their proper long term function and name the responsible party. This narrative description shall be made available to future parties who will assume responsibility for the operation and maintenance of the post-construction stormwater quality measures.

Section 9: Review of Individual Lots within a Permitted Project

Although no permit is required for individual lots disturbing less than 1 acre, developed within a larger permitted project, a formal stormwater review will be required before a Improvement Location Permit can be issued. All stormwater management measures necessary to comply with this ordinance must be implemented in accordance with permitted plan for the larger project.

The following information must be submitted to the Town, for review and approval, by the individual lot operator, whether owning the property or acting as the agent of the property owner, prior to the issuance of a building permit.

1. A site layout for the subject lot and all adjacent lots showing building pad location, dimensions, and elevations, and the drainage patterns and swales.
2. Erosion and sediment control plan that, at a minimum, includes the following measures:
 - A. Installation and maintenance of a stable construction site access.
 - B. Installation and maintenance of appropriate perimeter erosion and sediment control measures prior to land disturbance.
 - C. Minimization of sediment discharge and tracking from the lot.

- D. Clean-up of sediment that is either tracked or washed onto roads. Bulk clearing of sediment shall not include flushing the area with water. Cleared sediment must be redistributed or disposed of in a manner that is in compliance with all applicable statutes and rules.
 - E. Adjacent lots disturbed by an individual lot operator must be repaired and stabilized with temporary or permanent surface stabilization.
 - F. Self-monitoring program including plan and procedures.
3. Certification of Compliance stating that the individual lot plan is consistent with the stormwater management permit, as approved by the Town, for the larger project.

The individual lot operator is responsible for installation and maintenance of all erosion and sediment control measures until the site is stabilized.

Section 10: Changes to Plans

Any significant change or deviation in the detailed plans and specifications after approval of the Improvement Location Permit shall be filed in duplicate with, and approved by, the Town prior to the land development involving the change. Copies of the changes, if approved, shall be attached to the original plans and specifications.

Section 11: Fee Structure

1. Fee Amount

As a condition of the submittal and the review of development plans by the Town, the applicant shall agree to pay the Town the costs incurred by the Town with respect to the review of all drainage submittals, preliminary plans, final plans, construction plans and accompanying information and data, as well as pre-paid inspection fees in accordance with the Town of Avon fee Schedule.

2. Time of Payment

After the meeting at which the Town is scheduled to consider approval of the applicant's final stormwater management plan, the Town will furnish a written statement to the applicant specifying the total cost of review fees incurred by the Town in connection with the review of the applicant's submittals, plans and accompanying information and data, including the total hours expended for review, and the amount required to be paid by applicant for review and pre-paid inspection fees in accordance with the Town of Avon fee Schedule.

As a condition of approval of final drainage plans by the Town, applicant shall pay to the Town Treasurer the sum set forth in said statement. The Town may issue such a billing statement before the project advances to the final approval stage, and such payment is due by applicant upon receipt of said billing statement regardless of whether the project is advanced to the final approval stage.

The Town shall have the right to not accept the drainage improvements or to not approve the advancement of any project for which the professional engineering fees have not been paid.

3. Method of Payment

A. Fees shall be paid by one of the following methods:

- I. Certified Check
- II. Cashier's Check
- III. Money Order

B. All checks shall be made payable to:

Town of Avon
6570 East U.S. Highway 36
Avon, IN 46123

Section 12: Refund of Payment

Fees are refundable **only** if the Town determines that compliance by the development to this Ordinance is not necessary.

Section 13: Required Assurances

As a condition of approval and issuance of the permit, the Town shall require the applicant to provide assurance in form of an irrevocable letter of credit or a bond when the stormwater management plan has been approved and before construction begins. Said assurance will guarantee a good faith execution of the stormwater drainage plan, the stormwater pollution prevention plan, the stormwater quality management plan, and any permit conditions. The assurance shall be for an amount equal to 110 percent of the total costs of all stormwater management measures for the entire project. The above mentioned costs shall be based on an estimate as prepared by a registered engineer or land surveyor. Said costs shall be for the installation and continuous monitoring and maintenance of erosion control measures and the construction and continuous monitoring and maintenance of storm drainage infrastructure, detention/retention facilities, and stormwater quality BMPs, as regulated under this Ordinance. Assurances shall be for a minimum of \$500. Local governmental jurisdictions may require additional performance and/or maintenance assurances. The intent of this assurance is not only to

complete the installation of storm drain infrastructure for the project, but also to insure that adequate stormwater pollution prevention measures are properly installed and maintained. If adequate assurances are set aside by the project site owner for the overall project, proof of total assurance can be submitted in place of an individual stormwater assurance.

Section 14: Terms and Conditions of Permits

In providing a stormwater review, the Town may impose such terms and conditions as are reasonably necessary to meet the purposes of this Ordinance. The project site owner shall insure compliance with such terms and conditions. Non-compliance with the terms and conditions of permits will be subject to enforcement as described in Chapter 7.

The project site owner shall inform all general contractor, construction management firms, grading or excavating contractors, utility contractors, and the contractors that have primary oversight on individual building lots of the terms and conditions of the terms and conditions of the stormwater management permit and the schedule for proposed implementation.

In the event that a project site is determined to impact or discharge to a Sensitive Area or is located in an Impact Drainage Area, the Town may require more stringent stormwater quantity and quality measures than detailed in this Ordinance or in the *Indiana Stormwater Quality Manual*.

Section 15: Determination of Sensitive Areas

Sensitive Areas include highly erodible soils, wetlands, threatened or endangered species habitat, outstanding waters, impaired waters, recreational waters, and surface drinking water sources. A listing of highly erodible soils, outstanding water, impaired water, recreation water and surface drinking water sources can be found in the Stormwater Technical Standards Manual. If wetlands are suspected on a site, a wetland delineation should be completed in accordance with the methodology established by the U.S. Army Corps of Engineers (COE). The presence of threatened or endangered species habitat will be determined by the Town during the permit review process. Special terms and conditions for development determined to impact or discharge to any Sensitive Area shall be included in the stormwater management permit.

Section 16: Determination of Impact Drainage Areas

The Town is authorized, but is not required, to classify certain geographical areas as Impact Drainage Areas. In determining Impact Drainage Areas, the Town shall consider such factors as topography, soil type, capacity of existing drains, and distance from adequate drainage facility. The following areas shall be designated as Impact Drainage Areas, unless good reason for not including them is presented to the Town.

1. A floodway or floodplain as designated by the most updated Town Code dealing with floodplain regulation.
2. Land within 75 feet of each bank of any ditch within the Town's system.
3. Land within 75 feet of the centerline of any drain tile or enclosed conduit within the Town's system.

Land that does not have an adequate outlet, taking into consideration the capacity and depth of the outlet, may be designated as an Impact Drainage Area by the Town. Special terms and conditions for development within any Impact Drainage Area shall be included in the stormwater management permit.

Section 17: Certification of As-Built Plans

After completion of construction of the project and before final approval of the stormwater management plan, a professionally prepared and certified 'as-built' set of plans shall be submitted to the Town for review. Additionally, a digital copy of the 'as-built' plans is required in a format approved by the Town. These plans shall include all pertinent data relevant to the completed storm drainage system and stormwater management facilities, and shall include:

1. Pipe size and pipe material
2. Invert elevations
3. Top rim elevations
4. Pipe structure lengths
5. BMP types, dimensions, and boundaries/easements
6. F. "As-planted" plans for BMPs, as applicable
7. Data and calculations showing detention basin storage volume
8. Data and calculations showing BMP treatment capacity
9. Certified statement on plans stating the completed storm drainage system and stormwater management facilities substantially comply with construction plans and the stormwater management permit as approved by the Town. (See certificate in Stormwater Technical Standards_Manual].)

The property owner, developer, or contractor shall be required to file a three-year maintenance bond or other acceptable guarantee with the Town, prior to acceptance, in an amount not to exceed ten percent (25%) of the cost of the stormwater drainage system, and in a form satisfactory to the Town's attorney in order to assure that the stormwater system installation was done according to standards of good workmanship, that the materials used in the construction

and installation were of good quality and construction, and that the project was done in accordance with the approved plans, and this Ordinance. The bond or other acceptable guarantee shall be in effect for a period of three years after the date of the final project approval by the Town.

Chapter 7 Enforcement

Section 1: Synopsis

This chapter defines the mechanisms by which the Town may enforce the requirements of this Ordinance.

Section 2: Compliance with this Ordinance

In addition to the requirements of this Ordinance, compliance with the Subdivision Control and Zoning Ordinances is also necessary. Compliance with all applicable ordinances of the Town, as well as with applicable State of Indiana statutes and regulations, shall also be required. Unless otherwise stated, all other specifications referred to in this Ordinance shall be the most recent edition. Violations of the requirements of this Ordinance are subject to the procedures listed in this Ordinance and other Town ordinances. Where appropriate, tiered enforcement mechanisms have been identified in chapters of this Ordinance. The Town Manager may use discretion in determining enforcement procedures.

Any person who aids or abets a person in a violation of this Ordinance shall be subject to the penalties provided in this Ordinance and other Town ordinances.

For purposes of this section, "subsequent offense" means a violation of the provisions of this Ordinance committed by the same person within 12 months of a previous violation of the same provision of this Ordinance for which said person admitted responsibility or was adjudicated to be responsible.

Section 3: Stop Work Order

In addition to the penalties and procedures outlined in this Ordinance, if construction activities are conducted contrary to the provisions of this ordinance or the approved final stormwater management plans, the Town may order the work stopped by notice in writing served on any person engaged in doing or causing of such work to be done. Any persons notified shall immediately stop such work until authorized by the Town to proceed with the work. The Town may also undertake or cause to be undertaken, any necessary or advisable protective measures to prevent violations of this Ordinance or to avoid or reduce the effects of noncompliance. The cost of any such protective measures shall be the responsibility of the owner of the property upon which the work is done and the responsibility of any person carrying out or participating in the work.

Any person who neglects or fails to comply with a stop work order from the Town, shall be subject to any penalties available under the law.

Section 4: Failure to Comply or Complete

In addition to any other remedies, should any owner fail to comply with the provisions of this ordinance, the Town may, after giving notice and opportunity for compliance, have the necessary work done, and the owner shall be required to promptly reimburse the Town for all costs of such work.

Section 5: Notice of Violation

Whenever the Town finds that a person has violated a prohibition or failed to meet a requirement of this Ordinance, the Town may order compliance by written notice of violation to the responsible person. Emergency notifications may be made by an authorized Town employee.

If abatement of a violation and/or restoration of affected property is required, the notice shall set forth a deadline within which such remediation or restoration must be completed. Said notice shall further advise that, should the violator fail to remediate or restore within the established deadline, the work will be done by a designated governmental agency or a contractor and the expense thereof shall be charged to the violator.

Section 6: Corrective Action

Nothing herein contained shall prevent the Town from taking other lawful action as may be necessary to prevent or remedy any violation. All costs connected therewith shall accrue to the person or persons responsible. Costs include, but are not limited to, repairs to the storm drain system made necessary by the violation, as well as those penalties levied by the EPA or IDEM for violation of the Town's NPDES permit, attorney fees, and other costs and expenses.

Section 7: Appeal of Notice of Violation

Any person receiving a Notice of Violation may appeal the determination to the Town Council. The notice of appeal must be received within 30 days from the date of the Notice of Violation. Hearing on the appeal before the Town Council shall take place within 60 days from the date of receipt of the notice of appeal. The decision of the Town Council shall be final.

In considering any such appeal, the Town may grant a variance from the terms of this Ordinance to provide relief, in whole or in part, from the action being appealed, but only upon finding that the following requirements are satisfied:

1. The application of the Ordinance provisions being appealed will present or cause practical difficulties for a development or development site; provided, however, that practical difficulties shall not include the need for the developer to incur additional reasonable expenses in order to comply with the Ordinance; and

2. The granting of the relief requested will not substantially prevent the goals and purposes of this Ordinance, nor result in less effective management of stormwater runoff.

Section 8: Enforcement Measures after Appeal

If the violation has not been corrected pursuant to the requirements set forth in the Notice of Violation, or in the event of an appeal, within 60 days of the decision of the Town Council upholding the decision of the Notice of Violation, then representatives of the Town shall enter upon the subject private property and are authorized to take any and all measures necessary to abate the violation and/or restore the property. In the event any person, owner, agent or person in possession of any premises to refuse to allow the Town or designated contractor to enter upon the premises for the purposes set forth above, the Town may pursue appropriate action in any court of competent jurisdiction.

Section 9: Cost of Abatement of the Violation

Within 30 days after abatement of the violation, the owner of the property will be notified of the cost of abatement, including administrative costs. If the amount due is not paid within a timely manner, the Town may pursue any remedies available to it under the law.

Section 10: Injunctive Relief

It shall be a violation for any person to fail to comply with any of the requirements of this Ordinance. If a person has violated or continues to violate the provisions of this ordinance, the Town may petition for a preliminary or permanent injunction restraining the person from activities which would create further violations or compelling the person to perform abatement or remediation of the violation.

Section 11: Compensatory Action

In lieu of enforcement proceedings, penalties, and remedies authorized by this Ordinance, the Town may request the violator to perform alternative compensatory actions, such as storm drain stenciling, attendance at compliance workshops, creek cleanup, or other actions promoting the goals of the Town.

Section 12: Violations Deemed a Public Nuisance

In addition to the enforcement processes and penalties provided, any condition caused or permitted to exist in violation of any of the provisions of this Ordinance is a threat to public health, safety, and welfare, and is declared and deemed a nuisance, and may be summarily

abated or restored at the violator's expense, and/or a civil action to abate, enjoin, or otherwise compel the cessation of such nuisance may be taken.

Section 13: Civil Penalty

Any person that has violated or continues to violate this ordinance shall be liable to civil penalties to the fullest extent of the law, and shall be subject to a fine of up to 500 dollars per violation per day.

The Town may recover all attorney's fees court costs and other expenses associated with enforcement of this ordinance, including sampling and monitoring expenses.

Section 14: Remedies Not Exclusive

The remedies listed in this ordinance are not exclusive of any other remedies available under any applicable federal, state or local law and it is within the discretion of the Town to seek cumulative remedies.

Chapter 8 Adoption

Section 1: Synopsis

This chapter adopts Technical Standards to use as guidance in complying with the ordinance and adopts the ordinance by action of the Common Council of the Town of Avon, Indiana.

Section 2: Adoption of Technical Standards

The Town hereby adopts the following Technical Standards with the following exceptions, additions, and deletions.

1. Town of Avon Design Standards Manual
2. Hendricks County, Indiana Stormwater Technical Standards Manual

Chapter	Parts Accepted for Adoption	Exceptions to Adoption
1	None	
2	None	
3	None	
4	All	Section L Connections to Storm Sewer System. See Ordinance Chapter 3, Section 6
5	All	Section D-3. Minimum swale slopes are 0.5% Use minimum swale slope of 1.0%
6	All	
7	None	
8	Only Table 8-1	
9	None	
10	None	
Appendix A	None	
Appendix B	None	
Appendix C	None	
Appendix D	None	

3. Indiana Stormwater Quality Manual, by Indiana Department of Environmental Management.
4. “National Management Measures to Control Nonpoint Source Pollution from Urban Areas,” United States Environmental Protection Agency, Office of Water, Washington, D.C., 20460, (4503F) EPA-841-B-05-004, November 2005

5. The “Stormwater Drainage Manual” by the Highway Extension Research Project for Indiana Counties and Cities (HERPICC), Purdue University, July 1994 and subsequent releases.
6. “Hydraulic Design of Highway Culverts” by the Federal Highway Administration, September 1985.
7. Hydraulic Engineering Circular 12, “Drainage of Highway Pavements,” FHWA-TI-84-202, by the Federal Highway Administration.
8. Technical Release 55, “Urban Hydrology for Small Watersheds,” by the Soil Conservation Service (now Natural Resources Conservation Service).
9. “Rainfall Frequency for Indiana, by Department of Natural Resources Division of Water, 1994.
10. NOAA Technical Memorandum NWS Hydro 35, “5 Minutes to 48 Hours Precipitation Frequency for Eastern and Central United States,” 1977

Section 3: Adoption of Ordinance

This ordinance shall be in full force and effect upon its final passage and adoption. All prior ordinances and parts of ordinances in conflict with this ordinance are hereby repealed.

PASSED AND ADOPTED this ____ day of _____, 20__.

Town Council of Avon, Indiana

President

Vice President

Member

Attest:

Member

Clerk Treasurer

Member