THE VILLAGE OF HOMER GLEN
WILL COUNTY, ILLINOIS

ORDINANCE
NUMBER 09-003

THE VILLAGE OF HOMER GLEN WATER RESOURCE MANAGEMENT ORDINANCE

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WATER RESOURCE MANAGEMENT ORDINANCE
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NOW, THEREFORE, BE IT ORDAINED by the President and Village Board of Trustees of the Village of Homer Glen, Will County, Illinois, as follows:

100.0 Authority and Short Title

101.0 Authority

This ordinance is enacted pursuant to the village's home rule power and the police powers granted to the village by 65 ILCS 5/1-2-1, 5/7-4-4, 5/11-12-12, 5/11-30-2, 5/11-30-8, 5/11-31-2, 5/11-111.1-1 and 5/11-104.1

102.0 Short Title

This Ordinance shall be known and may be cited as the Village of Homer Glen Water Resource Management Ordinance.

200.0 Purpose and Definitions

201.0 Purpose of this Ordinance

It is the purpose and intent of this Ordinance to:

- Promote the health, safety, and general welfare of the present and future residents of Village of Homer Glen and downstream drainage areas. This shall be accomplished through the preservation and enhancement of the quality of surface waters and the wise utilization of water and land resources;
- Promote effective, equitable, acceptable, and legal Stormwater Management measures by establishing reasonable rules and regulations for development;
- Guide, regulate, and control the design, construction, use, and maintenance of any development or other activity which disturbs or breaks the topsoil or otherwise results in the movement of earth on land situated in Homer Glen;
- Provide for the protection, preservation, proper maintenance, and use of Village of Homer Glen watercourses, lakes, ponds, floodplain, and wetland areas;
- Maintain the Village of Homer Glen's eligibility in the National Flood Insurance Program;
- Manage and mitigate the effects of urbanization on stormwater drainage throughout the Village of Homer Glen through planning, appropriate engineering practices and proper maintenance;
- Protect from, and reduce the existing potential for, loss of human life, health, safety and property from the hazards of flooding damages on a watershed basis by preserving storm and flood water storage capacity;
- Preserve and enhance the natural hydrologic and hydraulic functions, balance, and natural characteristics of watercourses, floodplains, and groundwater to protect or improve water quality, protect aquatic habitats, reduce flood damages, reduce soil erosion, provide recreational and aesthetic benefits, and enhance community and economic development by storing and providing for infiltration of wet-period runoff in floodplains and wetlands and releasing it slowly to the stream;

- Control sediment and erosion in and from stormwater facilities, developments, agricultural fields, and construction sites;
- Reduce, protect, and repair streambank and shoreline erosion;
- Require that planning for development provide for water resource management, taking into account natural features such as vegetation, wildlife, waterways, wetlands, and topography in order to reduce the probability that new development will increase flood or drainage hazards to others or create unstable conditions susceptible to erosion;
- Maintain and enhance the aesthetic qualities of developing areas;
- Protect environmentally sensitive areas and areas of special recreation, scenic, or scientific interests from deterioration or destruction by private or public actions;
- Protect fish spawning, breeding, nursery, and feeding grounds;
- Require appropriate and adequate provision for site runoff control, especially when the land is developed with a large amount of impervious surface;
- Require the design and evaluation of each site Stormwater Management plan consistent with watershed capacities;
- Encourage the use of stormwater storage and infiltration of stormwater in preference to stormwater conveyance, including maintaining natural runoff conveyance systems, which minimizes the need for major storm sewer construction and drainage way modification and improves water quality by filtering and storing sediments and attached pollutants, nutrients, and organic compounds before they drain into streams or wetlands;
- Lessen the taxpayers' burden for flood-related disasters, repairs to flood-damaged public facilities and utilities, and flood rescue and relief operations;
- Minimize conflicts and incompatibilities between agricultural and urban drainage systems and maintain agriculture as a viable and productive land use;
- Allow the use of simple technologies whenever appropriate and realistic, but require the use of more sophisticated techniques when necessary to ensure the adequacy of stormwater controls;
- Meet the requirements of 616 ILCS 5/18g Rivers, Lakes and Streams Act;
- Make federally subsidized flood insurance available for property in the Village by fulfilling the requirements of the National Flood Insurance Program;
- Comply with the rules and regulations of the National Flood Insurance Program codified as 44 CFR 59-79, as amended;
- Encourage the continued economic growth and high quality of life of Village of Homer Glen, which depends in part on an adequate quality of water, a pleasing natural environment, and recreational opportunities in proximity to the Village of Homer Glen; and
- Require strict compliance with and enforcement of this Ordinance.

This Ordinance further is adopted to avoid the following impacts:

- Erosion from areas undergoing development for certain non-agricultural uses including but not limited to the construction of dwelling units, commercial buildings and industrial plants, the building of roads and highways, the modification of stream channels and drainage ways, the creation of recreational facilities;

- Washing, blowing, and falling of eroded soil across and upon roadways, which endanger the health and safety of users thereof by decreasing vision and reducing traction of road vehicles;
- Costly repairing of gullies, washed-out fills, and embankments;
- Clogged sewers and ditches and the pollution and siltation of rivers, streams, lakes, wetlands, and reservoirs;
- The growth of undesirable aquatic weeds and the destruction of fish and other desirable aquatic life; and
- The reduction of the channel capacity of waterways and storage capacity of floodplains and natural depressions, resulting in increased chances of flooding at risk to public health and safety.

202.0 Definitions
Within the context of this Ordinance the following words and terms shall have the meanings set forth except where otherwise specifically indicated. Words and terms not defined shall have the meanings indicated by common dictionary definition.

Accessory Structure: A structure that is detached from a principal structure (dwelling) on the same lot, and customarily incidental and subordinate to the principal structure or use.

Administrative Violation: An administrative violation of the Ordinance occurs when rules and procedures regarding permit applications and permits are not followed.

Agricultural Subsurface Drainage: A water management technique driven by economic and safety concerns, where the rate at which surplus groundwater should be removed is determined primarily by the moisture/air requirements of the vegetation (commonly called “Tiles, “Field Tiles”, etc.)

Applicant: Any Person, Firm or Agency who executes the necessary forms to procure official approval of a development or permit to carry out construction of a development from the Village.

Appropriate Engineering Practice: Procedures, methods, or materials recommended in standard engineering textbooks or references as suitable for the intended purpose.

Appropriate Use: Only uses of the designated floodway that are permissible and will be considered for permit issuance. The only uses that will be allowed are as specified in Section 1605.0 of this Ordinance.

Armoring: A form of channel modification which involves the placement of materials (e.g., concrete, riprap, bulkheads, etc.) within a stream channel or along a shoreline to protect property above streams, lakes and ponds from erosion and wave damage caused by wave action and stream flow.

Base Flood: The flood having a one percent probability of being equaled or exceeded in a given year.

Base Flood Elevation (BFE): The highest water surface elevation that can be expected during the base flood.

Basin Trap: A structure or area that allows for the temporary deposit and removal or disposal of sediment materials from stormwater runoff.

Best Management Practices (BMP): A measure used to control the adverse stormwater-related effects of development. BMPs include structural devices (e.g., swales, filter strips, infiltration trenches, and detention basins) designed to remove pollutants, reduce runoff rates and volumes, and protect aquatic habitats. BMPs also include nonstructural approaches, such as public education efforts to prevent the dumping of household chemicals into storm drains.

Bio-Infiltration: Temporary storage of runoff water in a vegetated depression with porous soils to encourage retention/uptake of nutrients by the vegetation and groundwater recharge to the natural subsoils, primarily in a grass covered area with no surface outlet, excepting flooding of adjacent areas during the extreme event, which will ultimately lead to infiltration and evaporation.

Buffer: An area of predominantly vegetated land located adjacent to channels, wetlands, lakes or ponds for the purpose of reducing contaminants in stormwater that flows to such areas.

Building: A structure that is principally above ground and is enclosed by walls and a roof. The term includes a gas or liquid storage tank, a manufactured home, mobile home or a prefabricated building. This term also includes recreational vehicles and travel trailers to be installed on a site for more than 180 days, unless fully licensed and ready for highway use.

Building Permit: A permit issued by the Village for the construction, erection, or alteration of a structure or building.

Bulkhead: A retaining wall that protects property along water.

Bulletin 70: "Frequency Distributions and Hydroclimatic Characteristics of Heavy Rainstorms in Illinois" by Floyd Huff and James Angel of the Illinois State Water Survey (1989).

Bypass Flows: Stormwater runoff or groundwater from upstream properties tributary to a property's drainage system but not under its control.

Certify or Certification: Formally attesting that the specific inspections and tests where required have been performed, and that such tests comply with the applicable requirements of this Ordinance.

Channel: Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, flowage, slough, ditch, conduit, culvert, gully, ravine, wash, or natural or manmade drainage way, which has a definite bed and bank or shoreline, in or into which surface, groundwater, effluent, or industrial discharges flow either perennially or intermittently.

Channel Modification or Channelization: The alteration of a watercourse by changing the physical dimension or materials of the channel. Channel modification includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining, and removal of bottom or woody vegetation. Channel modification does not include the clearing of debris or trash from the watercourse. Channelization is a severe form of channel modification involving a significant change in the channel cross-section and typically involving relocation of the existing channel (e.g., straightening).

Channel Relocation: A severe form of channel modification involving a significant change in the channel cross-section and relocation of the existing channel (e.g., straightening).

Clearing: Any activity which removes vegetative ground cover.

Commercial: Sale of goods to the public at large where the traffic generated warrants construction of site improvements.

Compensatory Storage: An excavated, hydrologically and hydraulically equivalent volume of storage created to offset the loss of existing flood storage.

Conditional Approval of a Designated Floodway Map Change: Pre-construction approval by Illinois Department of Natural Resources/Office of Water Resources (IDNR/OWR) and Federal Emergency Management Agency (FEMA) of a proposed change to the floodway map. This pre-construction approval, pursuant to this Part, gives assurances to the property owner that once an Appropriate Use is constructed according to permitted plans, the floodway map can be changed, as previously agreed, upon review and the acceptance of as-built plans.

Conditional Letter of Map Revision (CLOMR): A letter which indicates that FEMA will revise base flood elevations, flood insurance rate zones, flood boundaries or floodway as shown on an effective Flood Hazard Boundary Map or Flood Insurance Rate Map, once the as-built plans are submitted and approved.

Conservation Planning: The practices and procedures associated with the management of soil, water, plants, plant nutrients and other elements of agricultural production. Documentation of the management system shall only be as required by the NRCS or in cases of a complaint, as requested by the Administrator in response to a notification of a complaint.

Control Structure: A structure designed to limit the rate of flow that passes through the structure to a specific rate, given a specific upstream and downstream water surface elevation.

Critical Duration: The duration of a storm event that results in the greatest peak runoff.

Cross-Section: A section formed by a plane cutting through an object, usually at right angles to an axis.

Cubic Yards: The amount of material in excavation and/or fill measured by the method of "average end areas."

Culvert/Culvert Crossing: A structure designed to carry drainage water or small streams below barriers such as roads, driveways, or railway embankments.

Dam: Any obstruction, wall embankment, or barrier, together with any abutments and appurtenant works, constructed to store or divert water or to create a pool (not including underground water storage tanks).

Delineation: Written description of characteristics and determination of boundary lines of watercourses, wetlands, and any buffers located on the property and marked with flags or tape. (For complete requirements see Army Corp of Engineers Delineation Manual Y-87-1)

Depressional Area: Any area which is lower in elevation on all sides than surrounding properties (i.e., it does not drain freely), or whose drainage is severely limited such as by a restrictive culvert. A depressional area will fill with water on occasion when runoff into it exceeds the rate of infiltration into underlying soil or exceeds the discharge through its controlled outlet. Large depressional areas may provide significant stormwater or floodplain storage.

Depressional Storage: The volume contained below a closed contour on a 1-foot contour interval topographic map, the upper elevation which is determined by the invert of a surface gravity outlet.

Design Runoff Event: The runoff quantity produced from the design storm event, which is typically the 100-year event for detention, overland flow route and flood conveyance calculations; the 10-year event for storm sewer and inlet calculations; and the 2-year for release rate calculations.

Designated Floodway: The channel, including on-stream lakes, and that portion of the floodplain adjacent to a stream or watercourse as designated by INDR/OWR which is needed to store and convey the existing 100-year frequency flood discharge with no more than a 0.1 foot increase in stage due to the loss of flood conveyance or storage, and no more than a ten percent (10%) increase in velocities.

1. The floodways are designated for the Village of Homer Glen on the Flood Boundary and Floodway Map prepared by FEMA (or the Department of Housing and Urban Development) and dated.
2. To locate the designated floodway boundary on any site, the designated floodway boundary should be scaled off the designated floodway map and located on a site plan, using reference marks common to both maps. Where interpretation is needed to determine the exact location of the designated floodway boundary, IDNR/OWR should be contacted for the interpretation.

Designated Natural Areas: Land areas officially designated as such, which are unoccupied by any structure and exhibit distinctive natural characteristics, including but not limited to fish and wildlife habitat, native vegetation habitat, water quality, enhancement, and natural and created flood storage; which shall be permanently devoted to open space use by, but not limited to, conservancy easements, or dedication for such purposes to a Municipal corporation with authority to so use such land.

Detention Basin (Site Runoff Storage Facility): A constructed structure for the temporary storage of stormwater runoff with a controlled release rate.

Developer: A person who creates or causes a development.

Development: Any constructed change to real estate including but not limited to:

1. Construction, reconstruction, repair, or replacement of a building or an addition to a building;
2. Installing a Manufactured Home on a site, preparing a site for a Manufactured Home, or installing a travel trailer or recreational vehicle on a site for more than 180 days. If the travel trailer or recreational vehicle is on-site for less than 180 days, it must be fully licensed and ready for highway use;
3. Drilling, mining, installing utilities, construction of roads, bridges or similar projects;
4. Construction or erection of levees, walls, fences, dams, culverts, channel modifications, filling, dredging, grading, excavating, paving, or other non-agricultural alterations of the ground surface, storage materials, deposit of solids or liquid waste;
5. Any other activity of man/woman that might change the direction, height, or velocity of flood or surface water, including extensive vegetation removal;
6. Placement or removal of any fill, storm sewer, culvert, or tile (other than agricultural tiles as discussed further herein) in a manner that either impedes flow from upgradient properties or hastens flow onto downgradient properties.

The activities, including but not limited to the following are not considered development:

1. Maintenance of existing buildings and facilities such as reroofing or resurfacing of roads when there is no increase in elevation;
2. Construction of trails and/or paths through native wooded areas or adjacent to waterways when not within a road right of way or when not within or tributary to an area for which a stormwater control system exists or is planned;
3. Plowing and cultivation and other similar agricultural practices that do not involve filling, grading or construction of levees.

The activities, including but not limited to the following, that do not individually or aggregately hasten or alter the flow of surface water, are considered minor development:

1. Garden sheds;
2. Landscaping or planters;
3. Fences;
4. Gazebos;
5. Swimming pools;
6. Patios or decks.

District: The Lowland Conservancy Overlay District as defined in Section 1504.0 of this ordinance.

Drainage Area: The land area above a given point that may contribute runoff flow at that point from rainfall.

Drainage Easement: Property which is dedicated to either the sole, or shared purpose of conveying stormwater flows either overland or via a buried conduit. Drainage easements may be granted to the Village, a homeowners' association, or other entity responsible for the maintenance of drainage facilities within a development. No party may construct any structure for any purpose within a drainage easement if the structure will, in the sole opinion of the Village block or impede either maintenance of drainage facilities or the flow of stormwater.

Drainage Facilities: The system including, but not limited to pipes, manholes, inlets, swales, basins, rain gardens, waterways, curbs, easements, etc. that collects, transports, detains, treats, discharges, retains, and infiltrates stormwater.

Effective Date: The date to be determined by the Village of Homer Glen from which this ordinance will be in effect.

Effective Infiltration Area: The area of the infiltration system that is used to infiltrate runoff excluding the area used for site access, berms or pretreatment.

Elevation Certificates: A form published by FEMA that is used to certify the elevation to which a building has been elevated.

Emergency Overland Flow: The scenario where all storm sewer inlets are completely blocked and the 100 year stormwater drainage can only be conveyed through an overland flow path.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of a wetland (undisturbed or degraded) site to heighten, intensify, or improve specific function(s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland acres. This term includes activities commonly associated with management, manipulation, and directed alteration.

Erosion: The general process whereby soils are moved by flowing water or wave action.

Evapotranspiration: Total amount of water transferred from the earth's surface to the atmosphere by evaporation from lakes, streams, and soil surfaces and by transpiration from plants.

Exempt Organization: Organizations, which are exempt from this Ordinance per Illinois Compiled Statutes (ILCS) including state, federal, or local units of government.

Excavation: Any act by which the organic matter, earth, sand, gravel, rock, or any other similar material is cut into, dug, quarried, uncovered, removed, displaced, relocated, or bulldozed and shall include the conditions resulting there from.

Existing Manufactured Home Park or Subdivision: A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) has been completed before January 23, 1996.

Expansion to an Existing Manufactured Home Park or Subdivision: The preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA: Federal Emergency Management Agency and its regulations at 44 CFR 59-79 effective as of September 29, 1989. This incorporation does not include any later editions or amendments.

Fill: Any act by which earth, sand, gravel, rock or any other material is deposited, placed, replaced, pushed, dumped, pulled, transported, or moved by man to a new location and shall include the conditions resulting there from.

Filter Barrier: A structure composed of burlap or standard weight synthetic filter fabric stapled to wooden stakes.

Filter Strip / Vegetated Filter Strip: A strip or area of herbaceous vegetation that removes contaminants from overland flow for the purposes of:

- Reducing suspended solids and associated contaminants in runoff.
- Reducing dissolved contaminants in runoff.

The flow length through a filter strip shall be not less than 30 feet.

Filtered View: The maintenance or establishment of woody vegetation of sufficient density to screen developments from a stream or wetland, to provide for streambank stabilization and erosion control, to serve as an aid to infiltration of surface runoff, and to provide cover to shade the water. The vegetation need not be so dense as to completely block the view. Filtered view means no clear cutting.

Finished Grade: The vertical location of the ground or pavement surface after the grading work is completed in accordance with the site development plan.

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

Flood Boundary and Floodway Map (FBFM): A floodplain management map issued by FEMA that depicts, based on detailed analysis, the boundaries of the base flood, the two tenth percent (0.2%) probability flood, and the floodway.

Flood Frequency: Normally expressed as a period of years, based on a percent chance of occurrence in any given year from statistical analysis, during which a flood of a stated magnitude may be expected to be equaled or exceeded. For example, the 2-year flood frequency has a fifty percent (50%) chance of occurrence in any given year. Similarly, the 100-year flood frequency has a one percent (1%) chance of occurrence in any given year.

Flood Fringe: That portion of the floodplain outside of the designated floodway.

Flood Hazard Boundary Map (FHBM): A map issued by FEMA that is an official Community map, which depicts generalized areas of floodplains, replaced by a detailed Flood Insurance Study.

Flood Insurance Rate Map (FIRM): A map issued by FEMA that is an official Community map, on which map FEMA has delineated both the special flood hazard areas and the risk premium zones applicable to the Community. This map may or may not depict floodways.

Flood Insurance Study (FIS): A study of flood discharges and flood profiles for a Community, adopted and published by FEMA.

Floodplain: That land typically adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation including detached special flood hazard areas, ponding areas, etc. The floodplain is also known as the special flood hazard area (SFHA).

Floodproofing: Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodproofing Certificate: A form published by FEMA that is used to certify that a building has been designed and constructed to be structurally dry and flood proofed to the flood protection elevation.

Flood Protection Elevation (FPE): A point two feet above the water surface elevation of the one-hundred-year recurrence interval flood.

Floodway or Designated Floodway: The floodway includes the channel, on-stream lakes, and that portion of the floodplain adjacent to a stream or channel which is needed to store and convey the critical duration 100-year frequency flood discharge with no more than a 0.1 foot increase in flood stage due to the loss of flood conveyance or storage, and no more than a 10% increase in velocities.

Floristic Quality Assessment (FQA): A method, developed by Swink and Wilhelm, to assess the floristic integrity of vegetation; FQA shall be used for determining wetland quality in the Village of Homer Glen.

Floristic Quality Index (FQI): An index derived from floristic inventory data and calculated by the following formula from Swink & Wilhelm (1979, 1994):

FQI = C' ($\sqrt{N}$), in which:

C = coefficient of conservatism
C' = $\sum$ C/N (mean coefficient of conservatism)
N = number of taxa

Forebay: A small reservoir at the inlet of a detention facility designed to facilitate sediment removal.

Forested Areas: Any land that is capable of producing or has produced forest growth or, if lacking forest growth, has evidence of a former forest and is not now in use.

Freeboard: An increment of height added to the BFE or 100-year design water surface elevation to provide a factor of safety for uncertainties in calculations, unknown local conditions, wave actions and unpredictable effects such as those caused by ice or debris jams.

Functional: In the context of the usage in this Ordinance, functional refers to stormwater facilities, which serve their primary purpose of meeting developed release rate requirements but do not meet all of the final design conditions. For example, a detention basin, which has been excavated but has not had the side slopes graded, nor the final landscaping placed, may be considered "functional" as a site runoff storage facility.

Good Husbandry: Generally accepted agricultural practices found in good farm management.

Grading: Excavation or fill or any combination thereof and shall include the conditions resulting from any excavation or fill.

Groundwater: Water that is located within soil or rock below the surface of the earth. Same as subsurface water.

Groundwater Control System: A designed system which may consist of tiles, under drains, French drains, or other appropriate stormwater facilities whose purpose is to lower the groundwater table to a predictable elevation throughout the year.

High Quality Aquatic Resource: A water of the U.S. and other wet or perennially wet land including those listed in Appendix A of this ordinance.

High Quality Natural Area: Land areas officially designated as such, which are unoccupied by any structure and exhibit distinctive natural characteristics, including but not limited to fish and wildlife habitat, native vegetation habitat, water quality, enhancement, and natural and created flood storage; which shall be permanently devoted to open space use by, but not limited to, conservancy easements, or dedication for such purposes to a Municipal corporation with authority to so use such land.

High Water Level (blocked restrictor): The water surface elevation of a pond, lake or other major drainage facility that occurs during the 100-year storm when the outlet structure is completely blocked and water is discharged through Overland Flow Path.

High Water Level (design): The water surface elevation of a pond, lake or other major drainage facility that occurs during the 100-year storm when the outlet structure is functioning properly.

Historic Structure: Any structure that is:

1. Listed individually in the National Register of Historic Places or preliminary determination by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminary determination by the Secretary of the Interior as contributing to the historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on the State inventory of historic places by the Illinois Historic Preservation Agency;
4. Individually listed on a local inventory of historic places that has been certified by the Illinois Historic Preservation Agency;

Hydraulic Characteristics: The features of a watercourse which determine its water conveyance capacity. These features include, but are not limited to, size and configuration of the cross-section of the watercourse and floodway; texture and roughness of materials along the watercourse; alignment of the watercourse; gradient of the watercourse; amount and type of vegetation within the watercourse; and size, configuration, and other characteristics of structures within the watercourse. In low-lying areas the characteristics of the overbank area also determine water conveyance capacity.

Hydraulically Connected Impervious Area: Hydraulically connected impervious area shall consist of those areas of concrete, asphalt and gravel surfaces along with roof tops which convey flows directly to an improved drainage system consisting of storm sewers or paved channels. Rooftops whose downspouts discharge to unpaved surfaces which are designed for the absorption and filtration of stormwater runoff shall not be considered as hydraulically connected impervious surfaces. Roadways whose primary conveyance is through open ditches and swales shall not be considered as hydraulically connected impervious surface. Roadways drained by curb and gutter and storm sewer, and driveways hydraulically connected to those roadways shall be considered as directly connected impervious surface.

Hydraulically Equivalent Compensatory Storage: Compensatory storage either adjacent to the floodplain fill or not located adjacent to the development but can be shown by hydrologic and hydraulic analysis to be equivalent to compensatory storage located adjacent to the development.

Hydraulics: The science and study of the mechanical behavior of water in physical systems and processes.

Hydric Soils: A soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Hydrological and Hydraulic Calculations: Engineering analysis that determines expected flood flows and flood elevations based on land characteristics and rainfall events.

Hydrologically Disturbed: An area where the land surface has been cleared, grubbed, compacted, or otherwise modified that changes runoff, volumes, rates, or direction.

Hydrology: The science of the behavior of water, including its dynamics, composition, and distribution in the atmosphere, on the surface of the earth, and underground.

IDNR-OWR: The Illinois Department of Natural Resources, Office of Water Resources.

Impervious: Surfaces that cause the majority of rainfall to be converted to direct runoff. Asphalt, concrete, gravel parking areas and roofing systems will be considered impervious.

Infiltration Devices: A system that collects rainwater that falls on a site, stores it temporarily, and then releases it into the ground.

Infiltration Volume: The average annual volume of water that is retained on a site by the entry and movement of precipitation or runoff into or through soil on a parcel exclusive of initial abstractions, evaporation, transpiration, and runoff.

Intermittent Stream: A stream whose bed intersects the groundwater table for only a portion of the year on the average or any stream which flows continuously for at least one month out of the year but not the entire year.

Institutional Development: A public or private, profit or non-profit use designated to advance the knowledge or application of educational, religious, health, cultural or other similar objectives.

Isolated Waters: Wetlands and other waters not regulated by the U.S. Army Corps of Engineers. These include lakes, ponds, streams (including intermittent streams), and farmed wetlands, but do not include permitted excavations, areas created by incidental construction grading, or roadside ditches unless regulated by another unit of government.

Lake: A natural or artificial body of water encompassing an area of two or more acres, which retains water throughout the year.

Land Clearing: The process of removing trees, stumps, brush, stones and other obstacles from an area as required to obtain a constructible plot of land.

Letter of Map Amendment (LOMA): Official determination by FEMA that a specific structure is not in a 100-year flood zone; amends the effective Flood Hazard Boundary Map (FHBM) or FIRM.

Letter of Map Revision (LOMR): Letter that revises base flood or 100-year frequency flood elevations, flood insurance rate zones, flood boundaries or floodways as shown on an effective FHBM or FIRM.

Lot: A platted parcel of land intended to be separately owned, developed and otherwise used as a unit.

Lowland Conservancy Overlay District: As further defined in Section 1504.0, an overlay to the zoning districts created by the Village of Homer Glen zoning ordinance as amended.

Manufactured Home: A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term manufactured homes also includes park trailers, travel trailers and other similar vehicles placed on site for more than 180 consecutive days. The term "manufactured home" does not include a "recreational vehicle."

Manufactured Home Park or Subdivision: A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Maintenance Agreement: An agreement guaranteeing that the applicant and all future owners of the property will maintain its stormwater drainage system.

Major Drainage System: That portion of a stormwater facility needed to store and convey flows beyond the capacity of the minor stormwater system.

Mass Grading: Development in which the primary activity is a change in topography affected by the movement of earth materials.

Minor Drainage System: Shall consist of all infrastructure including curb, gutter, culverts, roadside ditches and swales, storm sewers, and sub-surface drainage systems intended to convey stormwater runoff at less than a 100-year flood frequency.

Mitigation: Measures taken to offset negative impacts from development in wetlands or the floodplain.

National Flood Insurance Program (NFIP): A Federal program whose requirements are codified in Title 44 of the Code of Federal Regulations.

National Geodetic Vertical Datum of 1929 (NGVD): Reference surface set by the National Geodetic Survey deduced from a continental adjustment of all existing adjustments in 1929.

Natural: In reference to watercourses, those stream channels, grassed waterways, and swales formed by the existing surface topography of the earth prior to changes made by unnatural causes. A natural stream tends to follow a meandering path; its floodplain is not constrained by levees; the area near the bank has not been cleared, mowed or cultivated; the stream flows over soil and geologic materials typical of the area with no alteration of the course or cross-section of the stream cause by filling or excavating.

Net Benefit in Water Quality: A finding that when compared to the pre-development condition can be judged to reduce downstream sediment loading or pollutant loadings.

Net Watershed Benefit: A finding that, when compared to the existing condition, the developed project will do one of the following: substantially reduce (more than 10%) downstream peak discharges; reduce downstream flood stages (more than 0.1 ft.); or reduce downstream damages to structures occurring in the pre-development condition. The demonstration of one of these conditions must be through detailed hydrologic and hydraulic analysis of watersheds on a regional scale as approved by the Administrator.

New Manufactured Home Park or Subdivision: Manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) has been completed on, or after, January 23, 1996.

Non-riverine: Areas not associated with a stream or river such as isolated depressional storage areas, ponds and lakes.

Normal Water Level: The static water surface elevation of a pond, lake or other major drainage facility that occurs between rain events.

North American Vertical Datum of 1988 (NAVD 88): The accepted standard orthometric datum, referenced to the single control point at Father Point, Quebec, Canada.

NRCS: The United States Department of Agriculture, Natural Resources Conservation Service.

Observation Structures: Structures built on a field tile where the pipe inflow and outflow is visible upon removal of a lid.

On-Stream Detention: Temporary storage of runoff within a principal drainage system, such as in the receiving streams.

On-Stream Impoundment: A reservoir that is filled by the river or stream flowing through it.

Open Channel: A conveyance system with a definable bed and banks carrying the discharge from field tiles and surface drainage. Open channels do not include grassed swales within farm fields under agricultural production, which are ephemeral in nature.

Ordinary High Water Mark (OHWM): The point on the bank or shore up to which the presence and action of surface water is so continuous so as to leave a distinctive mark, such as by erosion, destruction or prevention of terrestrial vegetation, predominance of aquatic vegetation, or other easily recognized characteristic.

Overland Flow Path: A design feature of the major stormwater system which carries flows in excess of the minor stormwater system design capacity in an open channel or swale, or as sheet flow or weir flow over a feature designed to withstand the particular erosive forces involved.

Parcel: All contiguous land under one ownership.

Perennial Streams: Riverine watercourses whose thalwag generally intersects the groundwater table elevation and flows throughout the year.

Permittee: Any person to whom a Site Development Permit is issued.

Person: Any individual, firm, or corporation, public or private, the State of Illinois and its agencies or political subdivisions, and the United States of America, its agencies and instrumentalities, and any agent, servant, officer or employee of any of the foregoing.

Plugged Inlet Event: The scenario where all storm sewer inlets are completely blocked and stormwater drainage can only be conveyed through an overland flow path.

Pond: A body of water of less than two acres, which retains a normal water level year round.

Presedimentation Basin (Forebay, Sedimentation Basin, Siltation Basin, Stilling Basin): A basin constructed for the purpose of allowing silt to drop out of waters before entering the main detention or retention basin. Its purpose is to localize siltation in the detention facilities to an area that that can be more regularly, more easily, and more cost effectively dredged of accumulated sediment than the entire basin. The terms herein are interchangeable.

Primary Gravity Outlet: The outlet structure designed to meet the release rate requirements of this Ordinance.

Prior Converted Wetlands: Wetlands which were converted to non-wetland uses such as cultivation or pasture prior to the current understanding of the importance of wetlands.

Professional Land Surveyor: A land surveyor registered in the State of Illinois, under The Illinois Land Surveyors Act. (225 ILCS 330/1, et seq.), as amended.

Professional Engineer/Registered Professional Engineer: An engineer registered in the State of Illinois, under The Illinois Professional Engineering Practice Act. (225 ILCS 325/1 et seq.), as amended.

Property: Contiguous land under single ownership or control.

Property Owners Association (Homeowners Association, HOA): The legal entity created for the purpose of developing, selling, managing and maintaining a residential, commercial or industrial development, which shall have the primary responsibility for providing for the care, maintenance, renewal and replacement of stormwater drainage facilities.

Protected Wetland: Any wetland protected by federal, state or local government laws or regulations.

Public Bodies of Water: All open public streams and lakes capable of being navigated by watercraft in whole or in part for commercial uses and purposes and all lakes, rivers and streams, which in their natural conditions were capable of being improved and made navigable, or that are connected with or discharge their waters into navigable lakes or rivers within, or upon the borders of the State of Illinois, together with all bayous, sloughs, backwaters, and submerged lands that are open to the main channel or body of water directly accessible thereto.

Public Flood Control Project: A flood control project, which will be operated and maintained by a public agency to reduce flood damages to existing buildings and structures, which includes a hydrologic and hydraulic study of the existing and proposed conditions of the watershed. Nothing in this definition shall preclude the design, engineering, construction or financing in whole or in part of a flood control project by persons or parties who are not public agencies.

Public Flood Easement: An easement acceptable to the appropriate jurisdictional body that meets the regulations of the OWR, the Village of Homer Glen, and that provides legal assurances that all areas subject to flooding in the created backwater of the development will remain open to allow flooding.

Qualified Professional: A person trained in natural and/or physical sciences (such as one or more of the disciplines of biology, geology, soil science, engineering, or hydrology) who's training and experience ensure a competent analysis and assessment of stream, lake, pond, and wetland conditions and impacts.

Record Drawings: Drawings prepared, signed, and sealed by a registered professional engineer or registered land surveyor representing the final "as-built" record of the actual in-place elevations, location of structures, and topography.

Recreational Vehicle or Travel Trailer: A vehicle, which is:

1. Built on a single chassis;
2. Four hundred square (400) feet or less when measured at the largest horizontal projection;
3. Designed to be self-propelled or permanently tow-able by a light duty truck; and,
4. Designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel or seasonal use.

Regional Detention Basin: A common detention basin which can be utilized by multiple adjacent properties.

Registered Structural Engineer: A person licensed under the laws of the State of Illinois as a structural engineer.

Regulatory Floodplain: The floodplain as depicted on maps recognized by FEMA as defining the limits of the SFHA.

Regulatory Floodway: Regulatory floodways are those portions of the floodplain depicted on maps as floodway and recognized by the IDNR-OWR for regulatory purposes.

Removal: Cutting vegetation to the ground or stumps, complete extraction, or killing by spraying.

Repair, Remodeling, or Maintenance: Development activities which do not result in any increases in the outside dimensions of a building or any changes to the dimensions of a structure.

Residential Development: A parcel that is divided into lots with single or multi-family structures constructed on each piece of subdivided land.

Retention Facility: A retention facility stores stormwater runoff without a gravity release.

Riverine (SFHA): Any SFHA subject to flooding from a river, creek, intermittent stream, ditch, on-stream lake system, or any other identified channel. This term does not include areas subject to flooding from lakes, ponding areas, areas of sheet flow, or other areas not subject to over-bank flooding.

Runoff: The waters derived from melting snow or rain falling within a tributary drainage basin that exceeds the infiltration capacity of the soils of that basin.

Seasonal High Groundwater Table: The upper limits of the soil temporarily saturated with water, being usually associated with spring wetness conditions. This may be indicated by soil mottles with a Munsell color of 2 chroma or less.

Sediment Basin: A structure or area that allows for the temporary deposit and removal or disposal of sediment materials from stormwater runoff.

Sedimentation: The process that deposits hydraulically moved soils, debris, and other materials either on other ground surfaces or in bodies of water or stormwater drainage systems.

Seepage: The movement of drainable water through soil and rock.

Setback: The horizontal distance between any portion of a structure or any development activity and the ordinary high water mark of a perennial or intermittent stream, the ordinary high water mark of a lake or pond, or the edge of a wetland, measured from the structure or development's closest point to the ordinary high water mark or edge.

Short-circuiting: The rapid flow of incoming water through the center of the pond directly to the outlet.

Silt Fence: A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched.

Site: A lot or parcel of land, or a contiguous combination thereof, where grading work is performed as a single unified operation.

Site Development: Altering terrain and/or vegetation and construction improvements.

Site Development Permit: A permit issued by the Village for the construction or alteration of ground improvements and structures for the control of erosion, runoff, and grading, or for the clearing, grading, stripping, excavating, or filling of land.

Special Flood Hazard Area (SFHA): An area having special flood, mudslide or mudflow, or flood-related erosion hazards, and which area is shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E.

Special Service Area: A special taxing district that serves as a backup for the Property Owners Association to provide for the care, maintenance, renewal and replacement of stormwater drainage facilities in the event that the Property Owners Association defaults in its responsibilities.

Stilling/Sedimentation Basin: A man-made depression in the ground where runoff water is collected and stored to allow suspended solids to settle out.

Stormwater Facility: All ditches, channels, conduits, bridges, culverts, levees, ponds, natural and man-made impoundments, wetlands, riparian environment, tile, swales, sewers, or other natural or artificial structures or measures which serve as a means of draining surface and subsurface water from land.

Stormwater Pollution Prevention Plan (SWPPP): A plan for stormwater discharge that includes erosion prevention measures and sediment controls that, when implemented, will decrease soil erosion on a parcel of land and decrease off-site nonpoint pollution.

Stream: A body of running water flowing continuously or intermittently in a channel on or below the surface of the ground. 7.5 minute topographic maps of the U.S. Geological Survey and the Village's Comprehensive Plan are two references for identifying perennial and intermittent streams. For purposes of this ordinance, the term "stream" does not include storm sewers.

Streambank Stabilization: The stabilization and protection of eroding streambanks with selected vegetation.

Stripping: Any activity which removes the vegetative surface cover including tree removal, clearing, and storage or removal of topsoil

Structure: The results of a built change to the land constructed on or below the ground, including the construction, reconstruction or placement of a building or any addition to a building; installing a Manufactured Home on a site; preparing a site for a Manufactured Home or installing a travel trailer on a site for more than 180 days unless they are fully licensed and ready for highway use.

Subdivision: A housing development that is created by dividing a tract of land into individual lots for sale or lease.

Substantial Damage: A building is considered substantially damaged when it sustains damage from any cause (fire, flood, earthquake, etc.), whereby the cost of fully restoring the structure would equal or exceed fifty percent (50%) of the pre-damage market value of the structure, regardless of the actual repair work performed.

Substantial Improvement:

1. Any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either, (a) before the improvement or repair is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred.
2. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.
3. The term does not, however, include either (a) any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or (b) any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a historic structure.

Subsurface Drainage: The removal of excess soil water to control water table levels at predetermined elevations for structural, environmental or other reasons in areas already developed or being developed for agricultural, residential, industrial, commercial, or recreational uses.

Subsurface Water: Water beneath the ground or pavement surface, sometimes referred to as ground water or soil water.

Subwatershed: A subdrainage area within a watershed.

Swale / Drainage Swales: A natural or constructed waterway, usually broad and shallow, covered with erosion-resistant grasses, used to conduct surface water from a field, diversion, or other site feature.

T Factor: The T factor is the soil loss tolerance. It is defined as the maximum amount of erosion at which the quality of a soil as a medium for plant growth can be maintained. Erosion losses are estimated by Universal Soil Loss Equation (USLE) and Revised Universal Soil Loss Equation (RUSLE).

Tail Water: The water surface elevation at the downstream side of a hydraulic structure.

Topography: Graphic representation of the surface features of a place or region on a map, indicating their relative positions and elevations.

Transition Section: Reaches of the stream or floodway where water flows from a narrow cross-section to a wide cross-section or vice versa.

Tributary Areas: The area upstream of a specified point including all overland flow that directly or indirectly connects down-slope to the specified point.

Upstream Tributary Area: Areas upstream of a given tributary area for which detention is not provided.

Vegetation: All plant growth, especially trees, shrubs, mosses, and grasses.

Village: The Village of Homer Glen or its designee for enforcement of this ordinance.

Village of Homer Glen Water Resource BMP Guidelines: A document that includes BMP Practices of which the Village encourages use. This document does not warrant nor guarantee the effectiveness of the BMP, is not to be considered as exclusive, and may be updated from time to time.

Water Resource Management Plan: A study, evaluation, permits, construction plan and maintenance plan for an individual parcel's stormwater management, floodplain management, erosion control, groundwater recharge, wetland preservation, water quality and flood control.

Water Resource Management System: The system including, but not limited to storm sewers, subsurface drains, inlets, catch basins, manholes, stormwater management facilities, floodplain management facilities, permanent erosion control, groundwater recharge facilities, wetlands, water quality facilities and flood control facilities that function in combination to control the direction, volume, rate, and quality of surface and subsurface drainage within, into, and away from a development.

Water Table: The upper limit of a free water surface in a saturated soil or underlying material.

Watercourse: Any river, stream, creek, brook, branch, natural or artificial depression, ponded area, slough, gulch, draw, ditch, channel, conduit, culvert, swale, grass waterway, gully, ravine, wash, or natural or man-made drainage way, which has a definite channel, bed and banks, in or into which stormwater runoff and floodwater flow either regularly or intermittently.

Waters of the U.S.: As defined by the United States Army Corps of Engineers in their Federal Methodology for the Regulation of Wetlands. For purposes of this Ordinance, waters of the U.S. include wetlands, lakes, rivers, streams, creeks, bogs, fens, and ponds. Waters of the U.S. do not include maintained stormwater facilities.

Watershed: All land area drained by, or contributing water to, the same stream, lake, stormwater facility, or draining to a point.

Watershed Benefit: (See Net Watershed Benefit).

Watershed Characteristics: Watershed characteristics include land use, physiology, habitat, climate, drainage system and community profile.

Watershed Plan: A study and evaluation of an individual drainage basin's stormwater management, floodplain management, water quality and flood control needs and capabilities.

Wetland: As defined in current Federal methodology recognized by the U.S. Army Corps of Engineers.

Wetland, Regulated: A wetland that is subject to development restrictions imposed by any government agency, including the Village of Homer Glen. Wetlands regulated by the Village of Homer Glen are those that meet the definition of a High-Quality Aquatic Resource.

Wetland Quality: For the purposes of this ordinance, wetland quality is determined using Floristic Quality Index (FQI) and mean coefficient of conservatism (C'). Wetlands with a FQI less than 10 and C less than 2.0 are considered low-quality wetlands. Wetlands with a FQI greater or equal to 20 and C greater than 3.5 are considered high quality wetlands.

300.0 Applicability and Exceptions

This Ordinance shall apply to all platted and unplatted lands within the geographic boundaries of The Village Homer Glen. Unless listed below all development activities shall comply with the full requirements of this ordinance.

Description	Ordinance Section			
	1300.0 Stormwater Management	1400.0 Soil Erosion & Sediment Control	1500.0 Stream & Wetland Protection	1600.0 Floodplain
1. Clearing, grading, stripping, filling or excavating associated with the construction of a single-family residence on a site equal to or greater than five (5) acres.	Exempt	Not Exempt	Not Exempt *STC	Not Exempt *STC
2. Clearing, grading, stripping, filling or excavating associated with the construction of single-family accessory structures on a site equal to or greater than two and one-half (2.5) acres provided that the aggregate footprint of the structure and/or additions constructed as of the effective date of this ordinance is equal to or less than three thousand (3,000) square feet in area.	Exempt	Not Exempt	Not Exempt *STC	Not Exempt *STC
3. Clearing, grading, stripping, filling or excavating associated with the construction of an addition to an existing residential building or the construction of a single-family residential accessory structure, provided that the aggregate footprint of either as of the effective date of this ordinance is equal to or less than one thousand (1,000) square feet in area.	Exempt	Not Exempt	Not Exempt *STC	Not Exempt *STC

4. Clearing, grading, stripping, filling or excavating associated with the agricultural use of land, including the implementation of conservation practices included in a farm conservation plan approved by the Will/South Cook Soil and Water Conservation District, and including the construction of structures used for agricultural purposes.	Exempt	Exempt	Exempt	Exempt
5. Clearing, grading, stripping, filling or excavating associated with the installation, renovation or replacement of a septic system to serve an existing dwelling or structure.	Exempt	Not Exempt	Exempt	Exempt
6. Removal of plant cover in an aggregate amount as of the effective date of this ordinance of less than or equal to five thousand (5,000) square feet in an area when structures are not involved.	Exempt	Not Exempt *STC	Not Exempt *STC	Exempt
7. Emergency work necessary to preserve life or property. When emergency work is performed under this section, the person performing it shall report the pertinent facts relating to the work to the Village of Homer Glen within ten (10) working days after commencement of the work and shall thereafter obtain a permit and shall perform such work as may be determined by the agency to be reasonably necessary to correct any impairment to the watercourse, lake, pond, floodplain or wetland (in terms of the purposes of this ordinance indicated in Section 201.0);	Not Exempt *STC	Not Exempt *STC	Not Exempt *STC	Not Exempt *STC

8. Lands adjacent to farm ditches if: a. Such lands are not adjacent to a natural stream, river, wetland or High Quality Aquatic Resources; or b. Those parts of such drainage ditches adjacent to such lands were not streams before it became a ditch; c. Such lands are maintained in agricultural uses without buildings and structures. Where farm ditches are found to contribute to adverse environmental impacts or hazards to persons or property, the Village of Homer Glen may include designated farm ditches in the Lowland Conservancy District. The Village of Homer Glen may also require that linings, bulkheads, dikes and culverts be removed to mitigate hazards or that other mitigating measures be taken, such as the maintenance of a natural vegetation buffer strip.	Not Exempt	Not Exempt	Not Exempt *STC	Not Exempt *STC
9. Excavation, fill or any combination thereof which is equal to or less than: a. Twenty (20) cubic yards in volume on a site less than one (1) acre; b. b. Forty (40) cubic yards in volume on a site between one (1) acre and two (2) acres; c. c. Sixty (60) cubic yards on a site greater than two (2) acres in size Where no structures are involved and the proposed activity is not located within ten (10) feet from a property line, drainage feature (swale, ditch, creek, etc.), wetland, floodplain or located within an easement. See Zoning Ordinance for setback requirements and applicable restrictions.	Exempt	Not Exempt *STC	Exempt (a & b) Not Exempt *STC (c only)	Exempt

10. Minor Development Activities where the proposed activity is not located within ten (10) feet from a drainage feature (swale, ditch, creek, etc.), wetland or floodplain or is located within an easement. See Zoning Ordinance for setback requirements and applicable restrictions.	Exempt	Not Exempt *STC	Exempt	Exempt

*Subject To Conditions (STC) – See appropriate section(s) for requirements.

400.0 Site Development Permit

To ensure that proposed development activity can be carried out in a manner which is compatible and harmonious with the natural amenities and surrounding land uses, a request for a Site Development Permit shall be submitted and approved by the Village of Homer Glen for any clearing, grading, stripping, excavating, or filling of land, except as otherwise provided in this Ordinance. Failure to obtain a site development permit is a violation of this ordinance.

Application for a Site Development Permit shall be made by the owner of the property, or his/her authorized agent, to the Village of Homer Glen on a form furnished for that purpose. Each application shall bear the name(s) and address(es) of the owner or developer of the site and of any consulting firm retained by the applicant together with the name of the applicant's principal contact at such firm, and shall be accompanied by a filing fee. Each application shall include certification that any land clearing, construction, or development involving the movement of earth shall be in accordance with the plans approved upon issuance of the permit.

No permit shall be issued unless the Village of Homer Glen finds that:

1. The development will not detrimentally affect or destroy natural features such as ponds, streams, wetlands, and forested areas (as defined in the Village's other ordinances, including but not limited to the Village's Tree Preservation Ordinance and Conservation Design Ordinance), nor impair their natural functions, but will preserve and incorporate such features into the development's site;
2. The locations of natural features and the site's topography have been considered in the designing and sitting of all physical improvements;
3. Adequate assurances have been received that the clearing of the site of topsoil, trees, and other natural features will not occur before the commencement of building operations and; only those areas approved for the placement of physical improvements may be cleared;
4. The development will not reduce the natural retention storage capacity of any watercourse, nor increase the magnitude and volume of flooding at other locations;
5. The development will not increase stream velocities; and
6. The soil and subsoil conditions are suitable for excavation and site preparation, and the drainage is designed to prevent erosion and environmentally deleterious surface runoff.

None of the following activities shall commence unless and until a site development permit is granted subject to the provisions of this Ordinance:

i. Clearing or removal of ground cover and/or trees within the Lowland Conservancy Overlay District for any purpose.
ii. Dumping, filling, mining, excavating, dredging, or transferring of any earth material within the Lowland Conservancy Overlay District.
iii. Creation of ponds or impoundments.
iv. Any alterations or improvements in the Lowland Conservancy Overlay District for recreational uses, stormwater management, flood control, agricultural uses, or as scenic features.

This ordinance is not intended to preclude the removal of vegetation (e.g., removal of exotic species or selective thinning in order to increase sunlight penetration) as part of a management program for maintenance and restoration of natural areas.

401.0 Review and Approval

Each application for a Site Development Permit shall be reviewed and acted upon according to the following procedures:

1. The Village of Homer Glen will review each application for a Site Development Permit to determine its conformance with the provisions of this ordinance. The Village of Homer Glen may also refer for review and comments any application to the Will/South Cook County Soil and Water Conservation District and/or any other local government or public agency within whose jurisdiction the site is located. Upon completion of the review the Village of Homer Glen shall, in writing, (a) approve the permit application if it is found to be in conformance with the provisions of this ordinance, and issue the permit; (b) approve the permit application subject to such reasonable conditions as may be necessary to secure substantially the objectives of this ordinance, and issue the permit subject to these conditions; or (c) disapprove the permit application, indicating the deficiencies and the procedure for submitting a revised application and/or submission.

2. No Site Development Permit shall be issued for an intended development site unless:

    A. All relevant local, federal and state permits (i.e., for floodplains and wetlands) have been received for the portion of the site subject to soil disturbance;
    B. Proper zoning is obtained for the proposed use; and
    C. The development, including, but not limited to, subdivisions and planned unit, developments, has been approved by the Village of Homer Glen Board where applicable and as defined by Ordinance No. 06-053 Regulating Commencement of Construction for Development; or
    D. The proposed development is coordinated with any overall development program previously approved by Village of Homer Glen for the area in which the site is situated.

402.0 Expiration of Permit

Every Site Development Permit shall expire and become null and void if the work authorized by such permit has not been commenced within one hundred and eighty (180) days, or is not completed within one (1) year; except that the Village may, if the permittee presents satisfactory evidence that unusual difficulties have prevented work being commenced or completed with the specified time limits, grant a reasonable extension of time if written application is made before the expiration date of the permit. The Village may require modification of the erosion control plan to prevent any increase in erosion or offsite sediment runoff resulting from any extension.

403.0 Retention of Plans

When required as part of the submission process, plans, specifications, and reports for all site developments shall be submitted to the Village in a digital form utilizing the latest version of AutoCAD, or other software approved by the Village of Homer Glen. The applicant shall keep a copy of the approved Site Plan on site for reference at all times during construction.

500.0 Appeals

The Village Board shall hear and decide appeals from an administrative order, requirement or determination under this Ordinance. An appeal taken to the Village Board shall be conducted in the same manner as an appeal taken to the Plan Commission as more fully set forth in applicable sections of Section 12 of the Village of Homer Glen Zoning Ordinance.

The Village Board may, by separate ordinance, create and authorize a committee or commission to conduct public hearings to hear and decide appeals from an administrative order, requirement or determination under this Ordinance and to make recommendations to the Village Board.

600.0 Variance

601.0 Application for Variance

An application for a variance, signed by the owner or developer of the development to which it relates, shall be filed with the Village. No application for a variance will be accepted for filing unless it relates to a previously or contemporaneously filed application for a Site Development Permit, Building Permit, Development Permit or Zoning Permit. No action will be taken on an application for a variance unless it has been demonstrated that all other requirements of this ordinance and related conditions as placed upon the project by the Village, can be met. Where formal variances are requested, they shall be considered approved after receiving a vote from the Village Board and after the Site Development Permit has been issued. When applicable, the Village shall send a copy of the complete application to the Will County Stormwater Director and to all other communities within the same watershed.

An application for variance shall contain the following information:

1. The common addresses and legal descriptions of all lands comprising the development;
2. The names and addresses of all owners of record of the legal title of all lands comprising the development;
3. If title to any of the land comprising the development is held in trust, the names and addresses of all beneficiaries of the trust;
4. The names and addresses of the developers of the land, if different from the owner;
5. The names and addresses of all consultants retained by the developer in connection with the application for a variance;
6. The names and addresses of all property owners within two-hundred fifty feet (250') of the property being developed;
7. The specific feature or features of the development that require a variance;
8. The specific provision of this Ordinance from which a variance is sought and the precise extent of the variance there from;
9. A statement of the characteristics of the development that prevent compliance with the provisions of this Ordinance;
10. A statement that the variance requested is the minimum variance necessary to permit the development; and
11. A statement as to how the variance requested satisfies the standards set forth in Section 605.0 of this Ordinance.

602.0 Application Fee

With the filing of the application for a variance, the applicant shall pay the fee prescribed by a separate act of the permitting authorities.

603.0 Public Hearing

After an application for variance is accepted, the Village will schedule a public hearing on the application before the Village Board and notify the applicant. Not more than 30 or less than 15 days before the hearing. When applicable, notice of the hearing shall be sent by first class mail,

postage prepaid, to the applicant, to the Will County Stormwater Director, to all property owners within two-hundred fifty feet (250') of the development as disclosed in the application. Within the same time period, notice of the hearing shall be published at least once in a newspaper published within the Village of Homer Glen. The notices given under the section shall set forth the common name, address and legal description of the development and a brief description of the variance requested.

604.0 Granting of Variances

The Village Board shall not grant a variance for a project from the provisions of this Ordinance unless the variance is consistent with the purpose of this Ordinance and meets the following minimum criteria as demonstrated by the applicant based upon substantial evidence submitted at the hearing:

1. The variance will not increase measurably the probability of flood damage to insurable structures;
2. The variance requested is the minimum required considering each of the following statements of underlying intent of this Ordinance;

    A. Detention of stormwater shall also contribute to the improvement of the quality of stormwater runoff.
    B. The volume of detention storage provided in open air vegetated facilities is maximized consistent with other land use site constraints including zoning requirements essential for the proposed development.
    C. Conveyance of stormwater from the project shall not increase peak discharges from existing offsite conveyance facilities beyond design capacity for any storm event from the 2-year to the 100-year flood frequency.
    D. High quality natural areas shall be preserved on the site, including without limiting the generality of the foregoing, stands of native trees, existing wetlands, natural floodplain storage or other valuable environmental and biological resources.

3. There are no means other than the requested variance by which the alleged hardships can be avoided or remedied to a degree sufficient to permit the reasonable continuation of the development;
4. The variance is not requested solely for the purpose of increasing the density of the development nor impervious areas on the site;
5. The variance is not requested solely as a result of economic hardship;
6. The variance is required due to unique, natural topographical features of the site; and
7. The applicant's circumstances are not self-imposed.

No variance shall be granted for any development in the regulatory floodway, the effect of which would be to create regulation less restrictive than the federal or state minimum standards applicable to development in such areas.

605.0 Floodway & Floodplain Variances

605.1 Floodway Variances

No variances shall be granted for any development located in a designated floodway as defined in Section 202.0.

605.2 Floodplain Variances

In addition to meeting the requirements of Section 605.0, a floodplain variance is also subject to the criteria outlined in this section and shall be demonstrated by the applicant:

1. Whenever the standards of this Ordinance place undue hardship on a specific development proposal, not located in a designated floodway, the applicant may apply to the Village for a variance.
2. The Village shall review the applicant's request for a variance and may attach such conditions to granting of a variance as it deems necessary to further the flood protection intent of this ordinance.
3. No variation from the regulations of this Section shall be granted unless the applicant also demonstrates that:
   A. The development activity cannot be located outside the SFHA;
   B. An exceptional hardship would result if the variance were not granted;
   C. The relief requested is the minimum necessary;
   D. There will be no additional threat to public health, safety, beneficial stream uses and functions, especially aquatic habitat, or creation of a nuisance;
   E. There will be no additional public expense for flood protection, lost environmental stream uses and functions, rescue or relief operations, policing, or repairs to streambeds and banks, roads, utilities, or other public facilities;
   F. The provisions of Sections 1604.0-2 and 1606.0-1-B of this Ordinance shall still be met;
   G. The activity will not violate the applicable regulations as set forth by FEMA and IDNR.
   H. The applicant's circumstances are unique and do not represent a general problem, and;
   I. The granting of the variance will not alter the essential character of the area involved including existing stream uses.

4. Variances requested in connection with restoration of a historic site or historic structure as defined in 202.0 "Historic Structures," may be granted using criteria more permissive than the requirements of this section, subject to the conditions that:
   A. The repair or rehabilitation is the minimum necessary to preserve the historic character and design of the structure; and
   B. The repair or rehabilitation will not result in the structure being removed as a certified historic structure.

606.0 Recommendations

In its discretion, the Village Board may authorize a designee to review the application for a variance and present his/her written recommendations to the Village Board at the public hearing. The written recommendations shall be accompanied by written findings of fact with respect to each of the considerations set forth in Section 604.0, Section 605.0 and if applicable Section 605.2.

607.0 Decision

The Village Board shall grant the variation, grant the variation with modifications or conditions, or deny the variation in writing within 45 days after the date of the public hearing or of any continuation of the public hearing. In the event the Village Board does not act within the time limits set forth herein, the application shall be considered denied.

608.0 Conditions

1. A variance less permissive than that requested may be granted when the record supports the applicant's right to some relief, but not to the relief requested.
2. In granting a variance, the Village Board may impose such specific conditions and limitations concerning any matter relating to the purposes and objectives of this Ordinance on the applicant as may be necessary or appropriate.
3. Whenever any variance is granted subject to any condition or limitation to be met by the applicant, upon meeting such conditions, the applicant shall file evidence to that effect with the Village.

700.0 Liability

1. The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based on available information derived from engineering and scientific methods of study.
2. Floods exceeding design criteria may occur or flood heights may be increased by man-made or natural causes.
3. This Ordinance does not imply that development, either inside or outside of the SFHA, will be free from flooding or damage.
4. This Ordinance does not create liability on the part of the Village or any officer or employee thereof for any flood damage that results from reliance on this Ordinance or any administrative decision lawfully made hereunder.

Prior to issuance of a construction permit, the applicant shall enter into an agreement with the Village of Homer Glen. The agreement will run with the property, and be in a form acceptable to the Village's Attorney, indemnifying and insuring the Village of Homer Glen, its officers, representatives or engineers for any damage resulting from development activity on the subject property.

The permittee shall not be relieved of responsibility for damage to persons or property otherwise imposed by law, and the Village or its officers or agents will not be made liable for such damage by (1) the issuance of a permit under this Ordinance, (2) compliance with the provisions of that permit or with conditions attached to it by the Village, (3) failure of Village officials to observe or recognize hazardous or unsightly conditions, (4) failure of Village officials to recommend denial of or to deny a permit, or (5) exemptions from the permit requirements of this Ordinance.

800.0 Abrogation and Greater Restrictions

1. This Ordinance is not intended to repeal, abrogate or impair any existing easements, covenants, or deed restrictions.
2. Where this Ordinance and other ordinance, easements, covenants, or deed restrictions conflict or overlap, whichever imposes the more stringent restrictions shall prevail.
3. The Village of Homer Glen is part of Will County and is therefore subject to and under the regulations of the Will County Stormwater Management Ordinance. In any cases where the Village of Homer Glen Stormwater Ordinance and the Will County Stormwater Management Ordinance are in conflict, the more restrictive of the two shall govern.

900.0 Reserved

1000.0 Submission Requirements

Each applicant shall submit the following information, where applicable, to ensure that the provisions of this Ordinance are met. The submittal shall include sufficient information to evaluate the environmental characteristics of the property, the potential adverse impacts of the development on water resources both on-site and downstream, and the effectiveness of the proposed drainage plan in managing stormwater runoff. The applicant shall certify on the application and any drawings that all clearing, grading, drainage, and construction shall be accomplished in strict conformance with the requirements of this ordinance.

1001.0 Minimum Submission Requirements

For minor development activity or activity relating to development on a parcel of land that is consistent with the land use specified in an approved stormwater management plan that was developed at the time that the parcel was created, only the following minimum information must be provided by the applicant:

1. Site Plan Application
2. A paper sketch (digital information is not required) of the proposed development which includes the following:
   A. Floodplains (if any). A potential applicant may review an indication of the floodplain status of a property by visiting the FEMA Map Service Center at http://msc.fema.gov. However, this is only a preliminary indication as the Village must make its own determination;
   B. Easements and buffers (if any);
   C. Erosion control measures to be taken to avoid deposition of sediment onto other properties and/or into storm sewers, drainage channels, lakes, streams, ponds or any body of water;
   D. A copy of the subdivision grading plan, if available.

If there are issues unique to this site such as, but not limited to: a history of drainage or erosion concerns, steep slopes or highly erodible soils, or if the information provided by the applicant causes the Village to require additional information to complete its review; additional information consistent with the further requirements of this ordinance may be requested by the Village and it shall be provided and approved prior to the issuance of any permit.

1002.0 Basic Submission Requirements

For development activities on parcels 5 acres or less that do not qualify for the Minimum Submission Requirements above, the applicant must provide the following information, prepared by and bearing the seal and signature of a registered Illinois Professional Engineer (P.E.), in addition to that information required for Minimum Submissions:

1. Topographic Map: A topographic survey of the property at one-foot (1') contours under existing and proposed conditions, and areas upstream and downstream, necessary to determine off-site impacts of the proposed drainage plan. As a minimum, this information shall include ground and structure elevations within one-

hundred feet (100') of the subject parcel and/or project. The map shall be keyed to a consistent datum specified by the Village of Homer Glen.

2. Mapping and descriptions, where relevant, of existing water resource management system features of the property and immediate vicinity including:
   A. The banks and centerline of streams and channels, buffer areas or conservation easements;
   B. Shoreline of lakes, ponds, wetlands, and detention basins and any buffer areas or conservation easements;
   C. Farm drains and tiles where information is available;
   D. Sub-watershed boundaries within the property indicating the direction of runoff from the property with designation of receiving storm sewer inlet and/or swale and detention facility;
   E. Watershed soils classifications;
   F. A general description of the predominant soil types on the site, their location, and their limitations for the proposed use;
   G. The property's location within the larger watershed, demonstrating all off-site areas tributary to the property;
   H. Location, size and slope of stormwater conduits and drainage swales;
   I. Sanitary or combined sewers, wells and septic systems;
   J. Depressional storage areas;
   K. Delineation of upstream and downstream drainage features and watershed which might be affected by the development;
   L. Detention facilities with labeled normal water level, high water level, top of berm, location of control structure and type of facility (wet, wetland bottom, dry bottom, etc.);
   M. Roads, streets, other paved areas, and associated stormwater inlets;
   N. Base flood elevation, and designated floodway where identified for the property;
   O. Location of scaled floodplain and regulatory floodway;
   P. Project benchmark location and datum consistent with Will County;
   Q. Existing and proposed structure locations and foundation elevations, vegetative cover, paved areas, and other significant natural or man-made features on the site and adjacent land within 100' of the project site.

3. Mapping and descriptions, where relevant, of proposed water resource management system features of the development including:
   A. Location, size and slope of stormwater conduits and drainage swales including calculations to support ditch sizing, culvert sizing, and other design aspects;
   B. Sanitary or combined sewers, wells and septic systems;
   C. Detention facilities with labeled normal water level, high water level, top of berm, location of control structure and type of facility (wet, wetland bottom, dry bottom, etc.);
   D. Roads, streets, other paved areas, and associated stormwater inlets;
   E. Base flood elevation, and designated floodway where identified for the property;
   F. Location of scaled floodplain and regulatory floodway;
   G. Proposed structure locations (or areas of building pad), garage floor elevations and foundation elevations;

H. Percent grade of driveways and swales;
I. Spot elevations at all property and building corners;
J. Proposed basement floor elevations or indication that no basement is proposed;
K. Sufficient spot elevations to verify requirements of this Ordinance are met;
L. Retaining wall locations and top and bottom elevations;
M. Assessment of minor drainage systems, major drainage systems, and emergency overland flow routes that will be impacted by the development;
N. Location of silt fence, and other erosion and sediment control measures and the note "Erosion and Sediment Control to be applied per the latest edition of Illinois Procedures for Urban Soil Erosion and Sedimentation Control and the Illinois Urban Manual;" and
O. Signed and sealed drainage certificate.

4. Environmental Features: A depiction of environmental features of the property and immediate vicinity including the following:
   A. The limits and quality assessment of wetland areas and buffers;
   B. Any designated natural areas and buffers; and
   C. Any proposed environmental mitigation features.

5. Should the information required per 1002.0-4 show impact to any natural area or buffer, the following Stream and Wetland information shall be provided as specified in the ordinance sections cited:

   General provisions:

Site Development Plan	Section 1507.0
Soil Mapping	Section 1508.0
Delineation	Section 1509.0
Drainage Control Plan	Section 1510.0
Site Grading and Excavation Plan	Section 1511.0
Landscape Plan	Section 1512.0

   Justification for Watercourse Relocation and Minor Modifications:

Stream Modification/Relocation Plan	Section 1513.0
Channel and Bank Armoring	Section 1516.0
Culverts	Section 1517.0
Mitigation	Section 1518.0
Impact Assessment	Section 1519.0

6. A Stormwater Pollution Prevention Plan (SWPPP) to minimize silt load to Village streams and sewers.

These submissions shall be prepared in accordance with the requirements of this Ordinance and the standards and requirements contained in the Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement prepared in 1995 by the Natural Resources Conservation Service for the Illinois Environmental Protection Agency and the Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control prepared by the Northeastern Illinois Soil Erosion and Sedimentation Control Steering Committee and

adopted by the Will/South Cook Soil and Water Conservation District, which standards and requirements are hereby incorporated into this Ordinance by reference.

The Village may waive specific requirements for the content of submissions upon finding that the information submitted is in his/her best professional judgment sufficient to show that the work will comply with the objectives and principles of this Ordinance.

Where a proposed development activity occurs on a parcel five (5) acres or less in area, the Village of Homer Glen may waive or simplify any or all of the above submission requirements provided that the person responsible for any such development shall implement necessary protection measures to satisfy the purpose and intent set forth in Section 200.0 of this ordinance (see Section 600.0, Variances).

1003.0 Advanced Submission Requirements

The same information required as Basic Submission Requirements shall be provided by the applicant for properties larger than five (5) acres, where the activity does not qualify as a minor development activity, along with the following additional information for the minor drainage system's design runoff event and the 100-year runoff event of critical duration:

7. Elevations and maps of 100-year flooding;
8. Cross-section data for open channel flow paths and designated overland flow paths;
9. Direction of storm flows;
10. Flow rates and velocities at representative points in the drainage system; and
11. A statement by the design engineer of the drainage system's provisions for handling events greater than the 100-year event's runoff.
12. Proposed use of the site, including present development and planned utilization; areas of clearing, stripping, grading, excavation and filling; proposed contours, finished grades, and street profiles; provisions for storm drainage, including storm sewers, swales, detention basins and any other measures to control the rate of runoff, with a drainage area map, indications of flow directions and computations; kinds and locations of utilities; and areas and acreages proposed to be paved, covered, sodded or seeded, vegetative stabilized, or left undisturbed;
13. Detailed soil mapping obtained from borings per Section 1402-2;
14. A copy of the development plan provided in digital format acceptable to the Village of Homer Glen; and
15. The proposed phasing of development of the site, including stripping and clearing rough grading and construction, and final grading and landscaping. Phasing should identify the expected date on which clearing will begin, the estimated duration of exposure of cleared areas, and the sequence of installation of temporary sediment control measurers (including perimeter controls), clearing and grading, installation of temporary soil stabilization measures, installation of storm drainage, paving streets and parking areas, final grading and the establishment of permanent vegetative cover, and the removal of temporary measures.

    It shall be the responsibility of the applicant to notify the Village of any significant changes, which occur in the site development schedule after the initial erosion, and sediment control plan has been approved.

After reviewing the submitted information, the Village reserves the right to request additional information concerning the impacts of storm events of differing frequencies on the proposed developments or adjacent properties.

1004.0 Additional Submission Requirements

Additional submission requirements, as identified in sections 1300, 1400, 1500 and 1600, may be required based on the applicability per Section 300 and/or the proposed development activity.

1100.0 Inspections and Enforcement

1101.0 Inspections During Construction

General site grading shall not begin until the applicant's engineer provides record drawings and certifies that necessary detention facilities are in place and operational. The Village's representative may also conduct periodic inspections of the work in progress to be certain that the drainage system is being built as designed. If any violations of the provisions or requirements of this Ordinance are noted during such inspections, the Village shall notify the property owner in writing of the items needing correction. The property owner shall have ten (10) calendar days to make such corrections unless given a specific extension of time in writing by the Village.

Failure to complete such corrections within the specified time period shall constitute a violation of this Ordinance.

1102.0 Final Inspection

Upon notification by the applicant that any component of the water resource management system (e.g. storm sewerage, stormwater management, permanent erosion control, floodplain management, constructed wetlands, etc.) is completed, the Village shall conduct a final inspection. If the component is found to contain deficiencies that require correction, the Village's representative shall notify the property owner of the necessary corrections. The property owner shall correct such deficiencies within ten (10) calendar days unless given a specific extension of time in writing by the Village. Failure to make necessary corrections within the specified time period shall constitute a violation of this Ordinance.

1103.0 Routine Inspections

For lands platted after the effective date of this ordinance the owner of all privately owned water resource management systems shall obtain inspection of the facilities by a qualified professional not less often than once per year. A report acceptable to the Village shall be filed with the Village of the results of any inspection accompanied by details of any problems which need correction, and the schedule for the corrections.

1104.0 Record Drawings (As-Built Plans)

After completion of all drainage system improvements, and prior to the final approval, the applicant shall make, or cause to be made, a map showing the actual location and elevation of all inlets, manholes, stubs, storm sewers, detention and/or retention facilities, emergency overflows, outlet control structures, channels, overflow routes, and such other facilities as the Village shall require. This map shall be in a digital form utilizing the latest version of AutoCAD, or other software approved by the Village, and shall bear the signature and seal of an Illinois Registered Professional Engineer. The presentation of this map shall be a condition of final approval of the improvements.

1105.0 Stop-Work Order: Revocation of Permit

1105.1 Site Development Permit NOT Issued for Subject Property

In the event any person has not obtained a Site Development Permit and work controlled by the Ordinance has been initiated, a stop work order shall be issued to prevent further violations of this Ordinance. Continuing to work at a site after a stop work order has been issued is a violation of this Ordinance.

Any person, firm, corporation or governmental body not exempted by state law that commences any clearing, grading, stripping, excavating, or filling of land without first obtaining a Site Development Permit from the Village shall be required to obtain an after-the-fact Site Development Permit at a cost that is double the normal fee. After issuance of the Site Development Permit, the person, firm, corporation or governmental body shall correct all violations and complete work in a timely fashion in accordance with the permit, approved plans and this ordinance and are then subject to permit suspension, penalties and other provisions of Sections 1105.2 and 1106.0.

1105.2 Site Development Permit Issued for Subject Property

In the event that any person holding a Site Development Permit pursuant to this Ordinance violates the terms of the permit, or carries onsite development in such a manner as to materially adversely affect the health, welfare or safety of persons residing or working in the neighborhood of the development site or so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the Village may suspend or revoke the Site Development Permit.

1. Suspension of a permit shall be by a written stop-work order issued by the Village and delivered to the permittee or his/her agent or the person performing the work. The stop-work order shall be effective immediately, shall state the specific violations cited, shall state the conditions under which work may be resumed, and shall state the schedule for the work to be completed.
2. The Village may make an application to the Circuit Court for an injunction-requiring conformance with this Ordinance or make such other order, as the Court deems necessary to secure compliance with the Ordinance.
3. The Village may record a notice of violation on the title to the property.
4. A Site Development Permit may be suspended until a hearing is held by the Village. Written notice of such hearing shall be served on the permittee, either personally or by registered mail, and shall state:
    A. The grounds for complaint or reasons for suspension or revocation, in clear and concise language; and,
    B. The time and the place where such hearing will be held. Such notice shall be served on the permittee at least five (5) days prior to the date set for the hearing. At such hearing, the permittee shall be given an opportunity to be heard and may call witnesses and present evidence on his/her behalf. The Village shall determine within fourteen (14) days of the conclusion of the hearing whether the permit shall be suspended or revoked.

5. The Village shall inform the owner that any violation of the floodplain sections of this ordinance is considered a willful act to increase flood damages and, therefore, may cause coverage by a Standard Flood Insurance Policy to be suspended.
6. Nothing herein shall prevent the Village of Homer Glen from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible for the work without a permit or work in violation of the permit, including disturbance of ground in the SFHA or regulated wetland.

1106.0 Penalty

1. If such property owner, permittee, person, partnership, corporation or other entity (herein after "violator") fails after ten days notice to correct any violation:
   A. The Village may make application to the Circuit Court for an injunction requiring compliance with this Ordinance or request such other remedy from the Court as may be appropriate.
   B. Any person who violates this Ordinance shall, upon conviction thereof, be fined not less than two hundred and fifty dollars ($250.00) or more than seven hundred and fifty dollars ($750.00) for each offense.
   C. A separate offense shall be deemed committed upon each day during or on which each violation occurs or continues.
   D. The Village may record a notice of violation on the title to the property.
2. If applicable, the Village shall inform the violator that any such violation is considered a willful act to increase flood damages and, therefore, may cause coverage by a Standard Flood Insurance Policy to be suspended.
   A. The Village is authorized to issue an order requiring the suspension of the subject development. The stop-work order shall be in writing, shall indicate the reason for the issuance, and shall order the action, if necessary, to resolve the circumstances requiring the stop-work order. The stop-work order constitutes a suspension of the permit.
   B. No site development permit shall be permanently suspended or revoked until a hearing is held by the Village. Written notice of such hearing shall be served on the violator and shall state: (1) the grounds for complaint or reasons for suspension or revocation; and (2) the time and place of the hearing. At such hearing, the violator shall be given an opportunity to present evidence on his/her behalf. At the conclusion of the hearing, the Village shall determine whether the permit shall be suspended or revoked.
3. Nothing herein shall prevent the Village from taking such other lawful action to prevent or remedy any violations. All costs connected therewith shall accrue to the person or persons responsible.

In addition to any other penalty authorized by this Ordinance, any owner, permittee, person, partnership, corporation or other business entity convicted of violating any of the provisions of this Ordinance shall be required to restore the site to the condition existing prior to commission of the violation, or to bear the expense of such restoration.

1107.00 Enforcement

Proceedings to enforce violations of this Ordinance may be initiated and conducted in accordance with and pursuant to the provisions of the Village Ordinance Providing for Administrative Adjudication of Municipal Code Violations or by any other means provided by law for local enforcement of code violations including, but not limited to, an action for injunctive relief.

1200.0 Reserved

1300.0 Stormwater Management Items

1301.0 Drainage Plan Submission Requirements

The applicant shall certify on the drawings required as part of the submission requirements of Section 1000.0 that all clearing, grading, drainage, and construction shall be accomplished in strict conformance with the drainage plan.

In addition to the submission requirements of Section 1000.0 applicants may be required by the Village to submit information necessary to evaluate the environmental characteristics of the property, the potential adverse impacts of the development on water resources both on-site and downstream, and the effectiveness of the proposed drainage plan in managing stormwater runoff.

1302.0 Minimization of Increases in Runoff Volumes and Rates

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

1. Preserve natural resource features of the development site (e.g., native woodlands, prairie remnants, wetlands, floodplains and other areas recognized within the Village's Comprehensive Plan);
2. The restoration of wetlands in locations where natural features (e.g., depressional areas, hydric soils, prior converted wetlands) will support such restoration;
3. Preserve existing swales, drainage ways, streams, and depressions;
4. Minimize impervious surfaces on the property, consistent with the needs of the project (e.g., reduce pavement, minimize driveway lengths and width, share driveways, cluster houses);
5. Preserve the natural infiltration characteristics of the site and incorporate designed infiltration devices (e.g., trenches and basins);
6. Attenuate surface runoff by use of open vegetated swales and natural depressions;
7. Provide stormwater detention structures to slow the rate of runoff and reduce runoff pollutants leaving the site; and,
8. Construct storm sewers.

1303.0 Water Quality and Multiple Uses

The drainage system should be designed to minimize adverse water quality impacts downstream and on the property itself. Stormwater management shall incorporate design features to capture stormwater runoff pollutants and promote infiltration. Retention and infiltration of stormwater shall be implemented throughout the property's drainage system to reduce the volume of stormwater runoff and to reduce the quantity of runoff pollutants.

Appropriate Best Management Practices (BMPs) shall be incorporated into the design. Design guidance for BMPs is provided, but not limited to those in *the Village of Homer Glen Water Resource BMP Guidelines.*

The drainage system should incorporate multiple uses where practicable. Uses considered compatible with stormwater management include open space, aesthetics, aquatic habitat, recreation (boating, trails), wetlands and water quality mitigation. The applicant should avoid using portions of the property exclusively for stormwater management.

1304.0 Design Criteria, Standards, and Methods

1. Release Rates: the drainage system for a property shall be designed to control the peak rate of discharge from the property for the two-year, 24-hour and 100-year, 24-hour events to levels which will not cause an increase in flooding or channel instability downstream when considered in aggregate with other developed properties and downstream drainage capacities. The peak discharge from events less than or equal to the two-year event shall not be greater than 0.04 cfs per acre of property drained. The peak 100-year discharge shall not be greater than 0.15 cfs per acre of property drained.

   Stormwater management shall be designed to maximize infiltration on the site so as to minimize the volume of stormwater runoff from the site. The total volume of water released from the site, exclusive of bypass flows, shall be calculated by an approved hydrograph method listed in Section 1304.0-7 below. The total volume of water leaving the site, calculated as the area under the hydrograph, shall be calculated for the 2-year, 24-hour storm event in both the undeveloped and developed conditions. The volume of runoff is not limited to the 24-hour duration of the storm, but it shall include the entire duration of runoff from the site. The total volume of water leaving the site for a 2-year storm event following development shall be equal to or less than the total volume of water leaving the site in the undeveloped condition. This may be accomplished through application of a permanent pool volume in a basin without, or partially without, an impermeable liner in combination with the infiltration requirements of Section 1309.0. In the event that the applicant deems that the existing soils for the site prevent subsurface infiltration from occurring as intended, it shall be so demonstrated by soil boring and/or soil sample data, hydrologic models and hydraulic calculations. In no event shall the infiltration area be less than specified in Section 1309.0 for purposes of water quality using bioengineered soils, native plantings or other best management practices.

   In the event the downstream drainage facilities are inadequate to receive the release rate herein above provided, then the allowable release rate shall be reduced to that rate permitted by the receiving downstream sewers, streams, and channels; additional detention shall be required to store that portion of the runoff exceeding the capacity of the downstream facilities.

2. Detention Basin Outlet Design
   Backwater on the outlet structure from the downstream drainage system shall be evaluated when designing the outlet.

3. Maximum Bounce
   The maximum depth of water from design high water level (open restrictor) to normal water level, or outlet invert shall be six feet (6’). This maximum bounce may be adjusted

up to 1' higher upon approval of the Village based on related conditions of the site, surrounding or downstream properties, structures or stormwater conveyance systems.

4. Detention Storage Requirements
   Design maximum storage to be provided in a detention basin shall be based on the runoff from the 100-year, 24-hour event and reservoir (also called modified Puls or level pool) routing or equal. Detention storage shall be computed using hydrograph methods as described in this section.

5. Detention System Design Selection
   Selection of the detention system design shall be based on the following hierarchy:

   A. Bio-Infiltration
   B. Wetland Detention Basin
   C. Wet Detention/Retention
   D. Dry Detention
   E. Underground Detention (commercial only)

   The applicant shall first thoroughly investigate the first two preferred detention system designs (bio-infiltration followed by wetland detention). If these designs are found to be impractical, the applicant may then investigate the next detention system alternate. Underground detention systems will only be considered for commercial uses. All systems shall include an infiltration component in accordance with Section 1309.0.

6. Drainage System Design and Evaluation
   Storm sewers shall be designed to convey the 10-year storm in a full pipe (non-surcharged) condition. Inlets shall have capacity to allow the inflow of the 10-year storm with no more than three (3) inches of ponding with 50% of the opening blocked. Storm sewer in public right-of-way shall be reinforced concrete pipe confirming to ASTM C76 with O-ring joints confirming to ASTM C443 with sufficient cover per IDOT specifications. Swales shall be designed to carry the 10-year storm without encroachment onto the shoulder of the road or any paved surface. The underlying objective is to provide capacity to pass the 10-year peak flow in the minor drainage system and an overland flow path for flows in excess of the design capacity.

   A. Design Methodologies: Major and minor conveyance systems for tributary areas up to five (5) acres may be designed using the Modified Rational Method. Runoff hydrograph methods as described in Section 1304.0-7 must be used for major drainage system design for all systems with greater than five (5) acres of drainage area and for the design of all detention basins.
   B. Positive Drainage: All areas of the property must be provided an overland flow path that will pass the 100-year flow from onsite and offsite tributary flow areas at a stage at least one foot (1') below the lowest foundation grade in the vicinity of the flow path. Overland flow paths shall be provided drainage easements. Street ponding and flow depths shall not exceed the edge of pavement by six inches (6") with no curb, nor exceed curb height by more than one inch (1") in the 100-year, plugged inlet condition. Rear yard ponding must not exceed twelve inches (12") in

the 100-year, plugged inlet condition. An exhibit showing the extent of ponding in a 100-year, plugged inlet event shall be provided as part of the stormwater design calculations. When the 100-year flow path is to be contained within a closed conduit system, inlets to that system shall be designed for 50% of the inlet flow area blocked.

7. Methods for Generating Runoff Hydrographs
   Runoff hydrographs shall be developed incorporating the following assumptions of rainfall amounts and antecedent moisture described in Sections 1304.0-7-A and 1304.0-7-B. The following hydrologic design procedures are considered acceptable for generation of hydrographs: Corps of Engineers HEC-1, Soil and Water Conservation Service TR-20 (and TR-55, subject to rainfall distribution modifications), U.S. EPA's SWMM, and continuous simulation (e.g., HSPF). Other appropriate models may be considered acceptable by the Village.

   A. Rainfall
      Unless a continuous simulation approach to drainage system hydrology is used, all design rainfall events shall be based on the Illinois State Water Survey's Bulletin 70, Appendix A, Point Frequency Distributions. The first quartile point rainfall distribution shall be used for the design and analysis of conveyance systems with critical durations less than or equal to twelve (12) hours. The third quartile point rainfall distribution shall be used for the design and analysis of detention basins and conveyance system with critical durations greater than twelve (12) and less than or equal to twenty-four (24) hours. The fourth quartile distribution shall be used in the design and analysis of systems with durations greater than twenty-four (24) hours. The first, third, and fourth quartile distributions described by Huff are presented in Table 37 of Bulletin 70. The SCS Type II distribution may be used as an alternate to the Huff distributions.

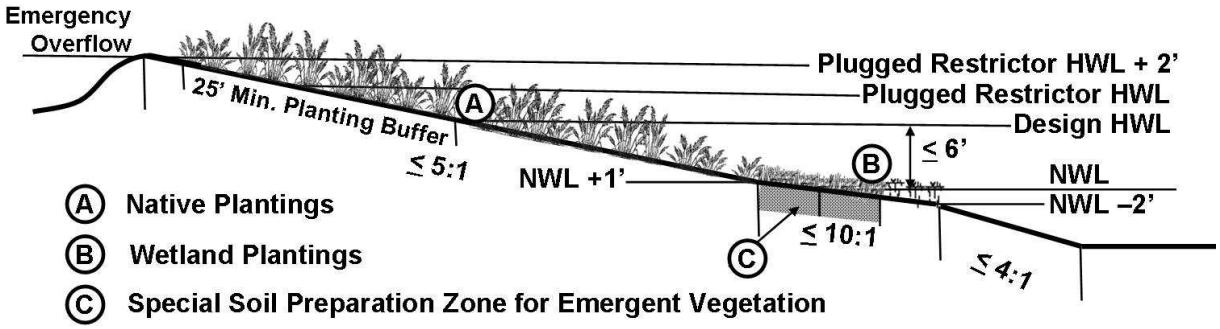
   B. Antecedent Moisture
      Computations of runoff hydrograph which do not rely on a continuous accounting of antecedent moisture conditions shall assume a normal antecedent moisture condition (e.g., SCS TR-20 and TR-55 antecedent moisture condition number).

8. Detention Basin Design
   A. Wet Detention Basin Design
      Wet detention basins shall be designed to remove stormwater pollutants, to be safe, irregularly shaped, aesthetically pleasing, and as much as feasible to be available for recreational use. A presedimentation basin, inlet / outlet orientation to avoid short-circuiting, and a planting / safety ledge with shallow wetland vegetation to limit shoreline erosion are required elements. They shall have a minimum depth of 8 feet under no less than 25% of the pond surface area to promote fish life.

   B. Wet Basin Shoreline Slopes
      Upper slopes of detention basins (higher than one foot above normal stage) should be no steeper than 5:1. Slopes flatter than 5:1 are preferred. From one foot above a

normal stage to two feet (2') below normal stage the slopes shall be no steeper than 10:1. Below 2' below NWL the slopes shall be no steeper than 4:1.

Typical Detention Pond



Appropriate soil conditions shall be provided in the shoreline zone from one foot above the normal pool stage to at least one foot below the normal pool stage. First, compaction of both subsoil and topsoil shall be minimized (i.e., to less than 275 psi). Where subsoil compaction cannot be avoided, it should be disked to a depth of 6-8 inches with a chisel plow before spreading topsoil. Second, suitable, uncompacted topsoil at a minimum thickness of one foot, shall be spread to provide a suitable growth medium for aquatic plants. Coarse soils with minimal clay content and a high organic content are recommended.

C. Shoreline Vegetation

Water tolerant native vegetation shall be used to landscape the shorelines of wet detention facilities. The selected plants and planting methods shall conform to the soils, hydrology, and water quality condition present in such facilities, with plants being tolerant of highly variable hydrologic conditions and degraded water quality (e.g., high turbidity and salinity content). A critical consideration in site preparation is the provision of an adequate growing medium for new plants. Construction of stormwater facilities typically requires excessive grading, causing resultant soils to become highly disturbed and unsuitable for planting. The planning and sequencing of construction activity shall minimize the negative impacts on soils and provide means for restoring soils following construction. Guidance for the selection of shoreline vegetation is provided in the *Village of Homer Glen Water Resource BMP Guidelines*.

D. Permanent Pool Volume

The minimum permanent pool volume in a wet basin at normal depth shall be equal to the runoff volume from its watershed for the two-year event.

E. Wetland Detention Basin Design

In addition to the other requirements of this Ordinance, wetland basins shall be designed to remove stormwater pollutants, to be safe, to be aesthetically pleasing, and as much as feasible to be available for multiple uses.

F. Wetland Basin Grading

The side slopes of wetland basins (from one foot above the normal pool stage to at least one foot below the normal pool stage) and the basin bottom shall not be steeper than 10 to 1 (horizontal to vertical). Steeper slopes are permitted in settling basins and open water zones near the basin outlet.

Appropriate soil conditions shall be provided in the shoreline zone and basin bottom. First, compaction of both subsoil and topsoil shall be minimized (i.e., to less than 275 psi). Where subsoil compaction cannot be avoided, it should be disked to a depth of 6-8 inches with a chisel plow before spreading topsoil. Second, suitable uncompacted topsoil at a minimum thickness of one foot (1') shall be spread to provide a suitable growth medium for aquatic plants. Coarse soils with minimal clay content and a high organic content are recommended.

As indicated in the guidance for wet basins, soil preparation is critical in shoreline and shallow water zones. Guidance for the selection of wetland vegetation is provided in the *Village of Homer Glen Water Resource BMP Guidelines*.

Upper slopes of detention basins (higher than one foot (1') above normal stage) should be no steeper than 5:1. Slopes flatter than 5:1 are preferred.

G. Wetland Vegetation

Water tolerant native vegetation shall be used to landscape the bottoms (non-open water areas) of wetland detention facilities. The selected plants and planting methods shall conform to the soils, hydrology, and water quality conditions present in such facilities, with plants being tolerant of highly variable hydrologic conditions and degraded water quality (e.g., high turbidity and salinity content). Plant selection should conform to the guidance in the *Native Plant Guide for Streams and Stormwater Facilities in Northeastern Illinois* (NRCS et al, 1998), which is hereby adopted by reference.

Native vegetation is required for side slopes (higher than one foot above normal stage) of all wet and wetland detention facilities to a point two vertical feet (2') above the high water level during the plugged restrictor condition.

H. Stilling/Sedimentation Basins

Wetland detention basins shall be constructed with sediment basins or forebays at all major inlets to the basins. The volume of the basins should be at least 500 cubic feet per acre of impervious surface in the drainage area. Side slopes below one foot (1') of depth should be no steeper than 5 to 1 (horizontal to vertical) and basin depth should be at least three feet (3') and designed to allow access for sediment removal equipment.

I. Inlet and Outlet Orientation

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

Maximizing the distance between inlets and outlets will prevent the short-circuiting of flows through a basin. Short-circuiting is counterproductive to the removal of

stormwater pollutants. Short-circuiting can be avoided by designing elongated basins (ideal length: width ratio of at least 3:1), or by the use of baffles or berms in the basin bottom. Low flows and the "first flush" of storm runoff often contain the most concentrated pollutants, therefore it is critical that all flows be routed through a sedimentation basin to provide opportunities for effective pollutant removal. (See NIPC Model Stormwater Drainage & Detention Ordinance Pages 11 – 24.)

J. Minimum Detention Outlet Size

Pipe outlets or orifice plates controlling discharge shall have a minimum diameter of two and one half inches (2 ½"). If this minimum orifice size permits release rates greater than those specified in this section, and regional detention is not a practical alternative, alternative outlet design shall be utilized that incorporates self-cleaning flow restrictors.

K. Dry Bottom Basin Design

Dry bottom ponds shall have a minimum slope of 2% and maximum side slope of 4:1. There shall be no low flow bypass between the inlet and outlet. However, infiltration trenches, wet channels with soil stabilization fabric, or other permanent erosion and silt control measures are suitable erosion control techniques. They shall be irregularly shaped and aesthetically pleasing, landscaped and shall include native plantings.

L. Underground Basin Design

Design of underground facilities shall include measures to collect sediment and floatable debris, designed with regards to access and maintenance. If approved infiltration calculations reveal that the 2 year-24 hour storm will be fully infiltrated within 24 hours, then fifty percent (50%) of the volume of stone void space shall be allowed as detention volume. All designs of underground facilities shall be signed and sealed by an Illinois Licensed Structural Engineer.

M. Detention Area Retaining Walls

The use of retaining walls as part of any detention system shall be discouraged. However, as a design entrance feature or within commercial areas they may be considered by the Village subject to the following features which must be clearly documented in any request for a detention area retaining wall:

i. Public Safety Provisions;
ii. Architectural Features;
iii. Habitat Features;
iv. Maintenance plan/funding provisions;
v. Maximum height of four feet (4'); and
vi. Any wall shall be designed and sealed by an Illinois Structural Engineer

N. Setback from public right of ways

Detention facilities shall not be located within a distance of ten feet (10') plus one and one-half (1.5) times the depth of the detention facility from any public right-of-way.

Any earthen berm shall not be constructed such that the toe of such berm will be nearer than ten feet (10') to any public right-of-way.

O. The storage facilities shall be accessible and easily maintained. The top width of berm shall be a minimum of 5' but shall be increased to a minimum of 10' within the access route to the outlet control structure.

P. Storage facilities shall facilitate sedimentation and catchment of floating material. Unless specifically approved by the Village, concrete lined low-flow ditches shall not be used in detention basins.

Q. Storage facilities shall be designed such that the existing pre-development peak runoff rate from the 100-year critical duration rainfall will not be exceeded assuming the primary restrictor is blocked.

1305.0 Detention in Flood Fringe Areas

1. Storage facilities located within the regulatory floodplain are discouraged, but shall:
   A. Conform to all applicable requirements specified in this Ordinance; and
   B. Store the required amount of site runoff to meet the release rate requirement under all stream flow and backwater conditions in the receiving stream up to the 10-year flood elevation. However, the Village may approve designs which can be shown by detailed hydrologic and hydraulic analysis to provide a net watershed benefit not otherwise realized by strict application of this requirement.

2. Compensatory Storage
   The placement of a detention basin in a flood fringe area shall require compensatory storage of at least 1.5 times the volume below the base flood elevation occupied by the detention basin at design HWL including any berms.

   Excavations for compensatory storage along watercourses shall be opposite or adjacent to the area occupied by detention. All floodplain storage lost below the ten-year flood elevation shall be replaced below the ten-year flood elevation. All floodplain storage lost above the existing ten-year flood elevation shall be replaced above the proposed ten-year flood elevation. All compensatory storage excavations shall be constructed to drain freely and openly to the watercourse.

3. Detention in Floodways is prohibited.

4. On-Stream Detention is prohibited.

1306.0 Protection of Wetlands and Depressional Storage Areas

The function of existing on-site depressional storage shall be preserved for both on-site and off-site tributary flows in addition to required detention. When depressional storage is removed it must be compensated for in the site runoff storage facility at no less than a 1 to 1 ratio. This requirement is in addition to the site runoff storage required in this Ordinance. The Village may allow the function of depressional storage to be preserved if the applicant performs detailed pre- and post-project hydrologic and hydraulic modeling to identify the effect of the depressional storage on discharges over a range of rainfall frequencies. Wetlands and other depressional storage areas shall be protected from damaging modifications and adverse changes in runoff quality and quantity associated with land developments. In addition to the other requirements of this Ordinance, the following requirements shall be met for all developments whose drainage flows into wetlands and depressional storage areas (as appropriate).

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

   Low quality wetlands are those that have been substantially disturbed. This disturbance is usually reflected in a low diversity of habitat and the presence of only insensitive and/or invasive plant species (e.g., a monoculture of cattails). Certain modifications of low quality wetlands, such as the limited excavation of open water areas, may actually enhance their value. It is important, however, that the storage functions of wetlands and depressional storage areas be preserved, in addition to meeting the detention requirements of this Ordinance.

2. Sediment Control
   Existing wetlands shall be protected during construction by appropriate soil erosion and sediment control measures and shall not be filled.

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

4. Detention/Sedimentation
   All runoff from the development shall be routed through a preliminary detention/sedimentation basin designed to capture the two-year, 24-hour event and hold it for at least twenty-four (24) hours before being discharged to the wetland. This basin shall be constructed before property grading begins. In addition, the drainage hierarchy defined in Section 1302.0 should be followed to minimize runoff volumes and rates being discharged to the wetland.

5. Vegetated Buffer Strip
   A vegetated buffer strip of at least seventy-five feet (75') in width, containing native plant species, shall be maintained or restored around the periphery of existing or constructed wetlands which are not defined as wetland detention areas. Detention ponds require a twenty-five foot (25') buffer. This buffer width may be reduced to a minimum of 1/2 of the buffer width required, upon approval of the Village, provided that the total buffer area required is achieved adjacent to the area being buffered. The permitting and/or consultation process with any other agency such as the IDNR, USACE or U.S. Fish & Wildlife Service may override the ability to average buffer areas upon approval of the Village.

   The native vegetation strip shall extend landward a minimum of 25 feet from the ordinary high water mark of a man made wet detention/retention pond.

6. Subsurface Drainage (Drain Tiles)
   The applicant shall submit a subsurface drainage inventory with the final engineering plans. The inventory shall locate existing farm and storm drainage tiles by means of slit trenching and other appropriate methods performed by a qualified subsurface drainage consultant. All existing drain tile lines damaged during the investigation shall be repaired and functional.

   Agricultural drainage systems shall be maintained so as to convey the expected flows for good drainage practices. The existing agricultural surface drainage systems shall not be enlarged unless such enlargement is consistent with all other sections of this ordinance.

   A. The applicant shall provide a topographical boundary map locating these lines showing:
      i. Location of each slit trench and identified to correspond with the tile investigation report and field staked at no less than 50 foot intervals;
      ii. Location of each drain tile with a flow direction arrow, tile size and any connection to adjoining properties; a summary of the tile investigation report showing trench identification number, tile size, material and quality, percentage of the tile filled with water, percentage of restrictions caused by sitting, depth of ground cover, and soil texture at grade.
      iii. Name, address and phone number of person or firm conducting tile location investigation.

   B. Information collected during the drainage investigation shall be used to design and develop a stormwater management system that will provide drainage that is appropriate for the development and connecting tile lines on adjoining properties.

   C. Stormwater systems shall properly incorporate and be compatible with existing subsurface and surface drainage systems including agricultural systems. Designs shall not cause damage to the existing drainage system(s) or the existing adjacent or tributary land including those with agricultural uses. The following principles and requirements shall be observed in the design:

i. Off-Site Outfall: Existing downstream agricultural subsurface systems shall not be utilized for the outfall of any stormwater system. Existing downstream surface drainage systems shall be evaluated with regard to their capacity and capability to properly convey low flow groundwater and site runoff storage facility release without damage to downstream structures and land use on the adjacent property. If the existing outfall drainage systems prove to be inadequate it will be necessary to modify the existing systems or construct new systems which will not conflict with the existing systems and will not impact the existing agricultural land use.

ii. On-Site: Agricultural drainage systems shall be located and evaluated on-site. All existing on-site agricultural drain tile not serving a beneficial use shall be abandoned by trench removal prior to other development and recorded on record plans. If any existing drain tiles continue to upland watersheds the developer must maintain drainage service during construction until new sewers can be installed for a permanent connection.

iii. Off-Site Tributary: Existing drainage systems shall be evaluated with regard to existing capabilities and reasonable future expansion capacities. All existing tributary drain tiles shall be incorporated into the new conduits including observation structures located at the property limits, shall provide a free flow discharge and shall not allow surface runoff to enter the system.

iv. New roadway construction shall preserve existing sub-surface systems within the right-of-way. Inspection wells shall be placed at the right-of-way (ROW) and tiles found to not be flowing between inspection wells at the end of the construction shall be replaced.

D. Existing subsurface drains shall be excavated and removed to a point not less than ten feet (10') from any proposed structure within the development prior to the excavation of any foundation, or as a component of mass site grading, whichever is earlier and applicable to the proposed development.

1307.0 Extended Detention Requirement

The requirements of this section will apply only when an existing agricultural land use is downstream of and adjacent to a site runoff storage facility outlet. The runoff from not less than a 0.75-inch rainfall event over the hydraulically connected impervious area of the new development shall be stored below the elevation of the primary gravity outlet (extended detention) of the site runoff storage facility. The facility may be designed to allow for evapotransporation or infiltration of this volume and shall not be conveyed through a direct positive connection to downstream areas.

The hydraulically connected impervious area used in the calculation of required extended detention volume may be reduced by the Village if the soils are prepared to maximize infiltration and deep rooted grasses or other plants selected for their ability to promote infiltration or water absorption are planted in areas appropriately dedicated. The reduction in hydraulically connected impervious area used in the calculation shall be equal to the area of the development meeting the above soils/native planting requirement.

Subsurface drainage systems may be designed as a component of the extended detention portion of the detention basin to assist in infiltration in accordance with the following criteria:

1. The extended detention volume shall be discharged at a rate no greater than that required to empty the calculated extended detention volume within 5 days of the storm event;
2. No subsurface drainage pipe shall be located within ten feet (10') of drainage pipes directly connected to the detention basin;
3. For purposes of meeting the maximum subsurface drainage discharge requirements, flow control orifices and weirs may be used;
4. All design extended detention volume shall be provided above the seasonal high ground water table or the invert elevation of the groundwater control system;
5. Farm field tile shall not be considered a subsurface drainage system; and
6. Design infiltration from extended detention facilities will be counted toward meeting the infiltration requirements for the site.

1308.0 Street, Parking Lot, Culvert, and Property Drainage

1. Streets
   If streets are to be used as part of the minor or major drainage system, ponding depths shall not exceed the edge of pavement by six inches (6") with no curb, nor exceed curb height by more than one inch (1") and shall not remain flooded for more than eight (8) hours for any event less than or equal to the 100-year event. An exhibit showing the extent of ponding in a 100-year, plugged inlet event shall be provided as part of the stormwater design calculations.

2. Parking Lots
   The maximum storm water ponding depth in any parking area shall not exceed six inches (6") in a plugged inlet condition. As parking lot detention provides little or no water quality benefits, it is, therefore, not allowed. An exhibit showing the extent of ponding in a 100-year, plugged inlet event shall be provided as part of the stormwater design calculations.

3. Culvert Road and Driveway Crossings
   Sizing of culvert crossings shall consider entrance and exit losses as well as tail water conditions on the culvert.

4. Property Drainage
   Drainage from a property within a development for which a stormwater management plan exists shall not cross property lines, except under the following conditions and restrictions:
   A. The drainage is contained within a drainage easement;
   B. The drainage is consistent with the approved overall grading plan of the development; and
   C. Any downspout or sump pump discharge line must outlet:
      i. At least two feet from the foundation of the structure being drained;
      ii. At least two feet from any adjacent property line; and

iii. Perpendicular to any adjacent property line and/or along the flow line of the drainage easement.

1309.0 Infiltration Requirements

1. Applicability
   BMPs shall be followed during design, installation and maintenance to infiltrate runoff to the maximum extent practicable, except for:
   A. Storage and loading areas from industrial properties, although rooftops and parking areas shall be infiltrated;
   B. Fueling and vehicle maintenance areas;
   C. Areas with less than two feet (2') separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater or the top of bedrock;
   D. Areas with runoff from industrial, commercial and institutional parking lots and roads and residential arterial roads with less than four feet (4') separation distance from the bottom of the infiltration system to the elevation of seasonal high groundwater or the top of bedrock;
   E. Areas within four-hundred feet (400') of a community water system well or within one-hundred feet (100') of a private well except for residential infiltration devices capturing less than one (1) acre of tributary acreage; and
   F. Any area where the soil does not exhibit one of the following characteristics between the bottom of the infiltration system and the seasonal high groundwater and top of bedrock:
      i. At least a 2−foot soil layer with 20% fines or greater; or
      ii. At least a 4−foot soil layer with 10% fines or greater.

   This exclusion does not apply where the soil medium within the infiltration system provides an equivalent level of protection and does not prohibit infiltration of roof runoff.

2. Exemptions
   The following are not required to meet the requirements of this section:

   A. Areas where the infiltration rate of the soil is less than 0.4 inches/hour measured at the bottom of the infiltration system.
   B. Parking areas and access roads less than 5,000 square feet for commercial and industrial development.
   C. Roads in commercial, industrial and institutional land uses and arterial residential roads.

3. Residential Requirements
   For residential developments one of the following shall be met:

   A. Infiltrate sufficient runoff volume so that the post development infiltration volume shall be at least 90% of the predevelopment infiltration volume, based on an average annual rainfall.

However, when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area.

B. Infiltrate 25% of the post development runoff volume from the 2−year, 24−hour design storm with a Type II distribution.

Separate curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes and not composite curve numbers as defined in TR−55. However, when designing appropriate infiltration systems to meet this requirement, no more than 1% of the project site is required as an effective infiltration area

Design infiltration from extended detention facilities will be counted toward meeting the infiltration requirements for the site.

4. Nonresidential Requirements
For nonresidential development, including commercial, industrial and institutional development, one of the following shall be met:

A. Infiltrate sufficient runoff volume from rooftop and parking areas so that the post development infiltration volume shall be at least 60% of the predevelopment infiltration volume, based on an average annual rainfall over those areas.

However, when designing appropriate infiltration systems to meet this requirement, no more than 2% of the project site is required as an effective infiltration area.

B. Infiltrate 10% of the post development runoff volume from rooftop and parking areas for the 2−year, 24−hour design storm with a Type II distribution.

Separate curve numbers for pervious and impervious surfaces shall be used to calculate runoff volumes and not composite curve numbers as defined in TR−55. However, when designing appropriate infiltration systems to meet this requirement, no more than 2% of the project site is required as an effective infiltration area.

Pretreatment: Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for runoff from new road construction in commercial, industrial and institutional areas that will enter an infiltration system. The pretreatment shall be designed to protect the infiltration system from clogging prior to scheduled maintenance and to protect groundwater quality. Pretreatment options may include, but are not limited to, oil/ grease separation, sedimentation, bio-infiltration, filtration, swales and/or filter strips.

Design infiltration from extended detention facilities will be counted toward meeting the infiltration requirements for the site.

5. Soils
To effectively reduce runoff volumes, infiltration practices including basins, trenches, and porous pavement should be located on soils in hydrologic soil groups “A” or “B” as

designated by the U.S. Soil and Water Conservation District when present within the project area. A sediment settling basin shall be provided to remove coarse sediment from stormwater flows before they reach infiltration basins or trenches.

6. Bypass During Construction
   While under construction, and prior to the establishment of permanent soil stabilization practices, an upstream stormwater bypass system shall be constructed and maintained to prevent siltation and plugging of infiltration BMPs. During this period, temporary stormwater controls shall be in place to prevent peak discharges in excess of those permitted of this Ordinance.

1. Vegetated Filter Strips and Swales

   To effectively filter stormwater pollutants and promote infiltration of runoff, sites should be designed to maximize the use of vegetated filter strips and swales. Runoff from impervious surfaces should be directed onto filter strips and swales before being routed to a storm sewer or detention basin. Native vegetation should be used for landscaping of filter strips and swales.

1310.0 Safety Consideration

The drainage system, components, and especially all detention basins, shall be designed to protect the safety of any children or adults coming into contact with the system during or following runoff events.

1. Side Slopes
   The side slopes of detention basins at 100-year capacity shall be as level as practicable to prevent accidental falls into the basin and for stability and ease of maintenance.

2. Velocity
   Velocities throughout the surface drainage system shall be controlled to safe levels taking into consideration rates and depths of flow.

3. Overflow Structures
   All stormwater detention basins shall be provided with an overflow structure capable of safely passing excess flows at a stage at least two feet (2') below the lowest top of foundation grade in the vicinity of the detention basin, including walk-outs and/or look-outs. The design flow rate of the overflow structure shall be equivalent to the 100-year inflow rate.

4. Inlet/Outlet Pipe Protection
   The inlet and outlet pipes from all stormwater basins shall be designed to minimize the velocity of flow as it enters and exits the basin. Inlet and outlet pipes shall be supplied with sloped grating per IDOT Standards.

1311.0 Maintenance Considerations

The water resource management system shall be designed to minimize and facilitate maintenance. Detention basins shall be provided with alternate outflows which can be used to completely drain the pool for sediment removal. Pumping may be considered if drainage by gravity is not feasible. Pre-sedimentation basins shall be included, for localizing sediment deposition and removal. Access for heavy equipment shall be provided. On detention basin side slopes steeper than 5:1, excelsior blankets or similar erosion devices shall be used during construction to minimize erosion.

Long term maintenance shall adhere to a Village approved maintenance, monitoring and funding plan and shall include as a minimum: a) The routine removal of excessive trash or debris and the removal of obstructions from the basin outlet structure; b) Periodic removal of accumulated sediment (e.g., from swales, forebays, and settling basins) also shall be done to maintain the function and aesthetics of stormwater facilities. At a minimum, sediment shall be removed from forebays and sediment basins whenever one foot (1') or more of sediment has accumulated in the basin bottom; c) Maintenance of shorelines, water edges and vegetation; and d) Routine inspections in accordance with Section 1103.0.

Naturally landscaped areas of detention and drainage facilities may be maintained via controlled burning every one to three years, as needed to control invasive weeds. Where controlled burning is not feasible, a program of mowing and application of selective herbicides shall be performed as needed. Mowing should be performed on all turfed areas on a regular basis to maintain grass height below six inches (6").

1312.0 Natural Condition, Soils

The recommendations of the Will County Soil Manual must be followed with respect to the land plan and construction details of proposed subdivisions. Soil borings must be made to confirm the soils map information included in the USDA, NRCS Soil Survey of Will County, Illinois. Representative soil borings must be taken to a depth at least five feet (5') below the lowest proposed foundation, two feet (2') below the lowest proposed sewer, or the point of refusal. At least one boring must be made per ten acres (10) or more if necessary to confirm the Soil Survey.

1313.0 Accommodating Flows from Upstream Tributary Areas

Stormwater runoff from areas tributary to the property shall be considered in the design of the property's drainage system. Whenever practicable, flows from upstream areas that are not to be detained should be routed around the basin being provided for the site being developed.

1. Upstream Areas Not Meeting Ordinance Requirements
   When there are areas not meeting the storage and release rates of this Ordinance, tributary to the applicant's property, regionalized detention on the applicant's property shall be explored by the applicant. The following steps shall be followed:
   A. The applicant shall compute the storage volume needed for his property and the tributary area using the release rates and procedures described in Section 1304.0;

B. Areas tributary to the applicant's property, not meeting the storage and release rate requirements of this Ordinance, shall be identified; and
C. Using the areas determined in Section 1313.0-1-B above plus the applicant's property area, total storage needed for the combined properties shall be computed.

Allowable release rates shall be computed using the combined property areas. Storage shall be computed as described in Section 1304.0. If tributary areas are not developed, a reasonable fully developed land cover, based on local zoning, shall be assumed for the purposes of computing storage.

Once the necessary combined storage is computed, the Village may require the applicant to implement regionalized detention to accommodate upstream flows. If regional storage is selected by the Village, then the design produced in Section 1314.0 shall be implemented. Procedures for regional detention shall be as outlined in Section 1314.0. If regional storage is rejected by the Village, the applicant shall bypass all tributary area flows around the applicant's basin whenever practicable.

2. Upstream Areas Meeting Ordinance Requirements

When there are areas, tributary to the applicant's property, which meet the storage and release rate requirements of this Ordinance, the upstream flows shall be bypassed around the applicant's detention basin, or be routed through the applicant's detention basin if this is the only practicable alternative. However, the 2-year and 100-year restrictors shall not be oversized to pass offsite flows. Storage needed for the applicant's property shall still be computed as described in Section 1313.1.A. The applicant must demonstrate that at no time will the runoff rate from the applicant's property exceed the allowable release rates for his/her property alone due to the combined release rate.

1314.0 Regional Detention

In instances where regional benefits and economies of scale can be achieved, the Village encourages adjacent properties to utilize a common regional detention basin. Developers of all single-family residential developments under five (5) acres in size and all other developments under one (1) acre in size shall consider the use of regional detention for stormwater management of their development. In these instances, the developer shall submit to the Village a study of the feasibility of regional detention for the local watershed. Upon review of this study, the Village may, at its discretion, require the implementation and/or use of regional detention facilities for the local watershed.

For the purposes of establishing regional detention facilities, the local watershed is defined as all lands that drain to a point downstream of the subject property. This point shall be the most upstream point to which the entire subject property drains.

Where regional detention facilities are required but have not been implemented, stormwater detention facilities shall be designed and constructed in conjunction with the initial development within the local watershed. Facilities shall be designed to serve the proposed development and all adjacent lands within the local watershed. The design of regional detention facilities shall

meet all requirements of this Ordinance. The regional detention facilities shall be operational prior to the development of any lands tributary to the detention facility.

Subsequent to the construction of regional detention facilities, all development within the local watershed shall be required to utilize the regional detention facilities. The developers of lands tributary to a regional detention facility shall design and perform such modifications to the regional detention facility as may be necessary to bring it into compliance with the requirements of this Ordinance.

Property owners of lands tributary to regional detention facilities are encouraged to participate in cost sharing for the design and implementation of the regional detention. Where a cost sharing agreement cannot be reached or where there are no plans for development of other lands within the local drainage basin, the Village may:

1. Establish a recapture agreement to the developer for the regional drainage basin. The cost for land, design and construction of the regional detention shall be submitted by the initial developer and reviewed by the Village. Upon approval of the cost by the Village, a recapture agreement shall be prepared to allocate among the parcels benefited by the detention facilities the costs on a pro-rata basis according to the amount of land in the local watershed, exclusive of the detention facilities themselves;
2. Fund the construction portion of the regional detention system for future recapture to the Village, or;

Should every attempt at establishing either 1 or 2 above fail, reduce or eliminate the requirement for regional detention.

1315.0 Early Completion of Detention Facilities

Where detention, retention, or depressional storage areas are to be used as part of the drainage system for a property, they shall be constructed as the first element of the initial earthwork program. Any eroded sediment captured in these facilities shall be removed by the applicant before project completion in order to maintain the design volume of the facilities.

1316.0 Maintenance Responsibility

Maintenance of water resource management systems located on private property shall be the responsibility of the owner of that property. Maintenance includes mowing and/or burning, selective weed control, clearing debris, and repairing damaged components to ensure that the stormwater treatment capacity of the facility is maintained and shall include routine inspections and reports to the Village as required in Section 1103.

Before a building permit is obtained from the Village, the applicant shall execute a maintenance agreement with the Village guaranteeing that the applicant and all future owners of the property will maintain its stormwater drainage system. The maintenance agreement shall also specifically authorize representatives of the Village to enter onto the property for the purpose of inspections and maintenance of the drainage system. Such agreement shall be recorded with the Recorder of Deeds of Will County. The maintenance agreement shall include a schedule for regular maintenance of each aspect of the property's stormwater drainage system and shall provide for

access to the system for inspection by the Village. The maintenance agreement shall also stipulate that if the Village notifies the property owner in writing of maintenance problems that require correction, the property owner shall make such corrections within thirty (30) calendar days of such notification. If the corrections are not made within this time period the Village may have the necessary work completed and assess the cost to the property owner. The maintenance agreement shall also set forth the property owner's consent to the creation of a special service area hereinafter described.

The property owner and developer shall, prior to the issuance of a building permit, agree to and cooperate with the Village in the establishment of a special service area ("SSA") for the property to be utilized as a backup mechanism for the care, maintenance, renewal and replacement of the stormwater drainage facilities. In the event a property is developed into more than one lot or parcel which require one or more stormwater drainage facilities, the property owner and developer shall establish through a declaration of covenants on the property a property owner's association which shall have the primary responsibility for providing for the care, maintenance, renewal and replacement of the stormwater drainage facilities. Further, the property owner and developer shall in such covenants consent to the creation of an SSA on behalf of the property owner, developer, subsequent grantees, and their successors in interest. If at any time such property owner or property owner's association fails to perform such care, maintenance, renewal or replacement of the stormwater drainage facilities, then the Village shall have the right, but not the obligation, to undertake such care, maintenance, renewal or replacement and utilize the SSA to provide sufficient funds to pay the costs of such care, maintenance, renewal or replacement undertaken by the Village. The SSA shall provide for the authority of the Village to levy up to twenty cents ($0.20) per $100.00 of assessed valuation to fund the payment of the aforesaid costs and expenses. Notwithstanding the foregoing, the special tax roll shall not be levied hereunder, and the SSA shall be "dormant" and shall take effect only if the Village finds that the property owner or the property owner's association has failed to conduct such care, maintenance, renewal or replacement.

The Village has the option of requiring a bond to be filed by the property owner for maintenance of the storm water drainage system.

1317.0 Fee-In-Lieu of Detention

The developer may request in writing that a fee-in-lieu of detention be approved by the Village provided that all of the following are demonstrated to the sole satisfaction of the Village:

1. The drainage plan will not increase flooding, and
2. The drainage plan provides a net benefit in water quality compared to the existing development.
3. The fee shall be computed by the Village for each acre-foot of detention required and approved in accordance with the procedures of this ordinance.

1400.0 Soil Erosion and Sediment Control Items

1401.0 Stormwater Pollution Prevention Plan Submittal Requirements

A. A Stormwater Pollution Prevention Plan (SWPPP) is required for all projects disturbing 1 acre or more to minimize silt load to Village streams and sewers. Erosion and sediment control is still required for activities disturbing less than 1 acre and/or for minor development activities. Proposed erosion and sediment control measures for these activities shall be reviewed and approved by the Village prior to the start of construction. For those projects disturbing 1 acre or more the SWPPP must specify the best management practices to be adopted during and after construction of the site. The SWPPP must follow the requirements of the NRCS Illinois Urban Manual and must be designed in a manner appropriate for the site to minimize erosion and prevent silt from leaving the site. In addition, the SWPPP must include the following:

i. Location and description, including standard details, of all sediment control measures and design specifics of sediment basins and traps, including outlet details;
ii. Location and description of all soil stabilization and erosion control measures, including seeding mixtures and rates, types of sod, method of seedbed preparation, expected seeding dates, type and rate of lime and fertilizer application, kind and quantity of mulching for both temporary and permanent vegetative control measures, and types of non-vegetative stabilization measures;
iii. Location and description of all runoff control measures, including diversions, waterways, and outlets;
iv. Location and description of methods to prevent tracking of sediment offsite, including construction entrance details, as appropriate;
v. Description of dust and traffic control measures;
vi. Locations of stockpiles and description of stabilization methods;
vii. Description of off-site fills or borrow volumes, locations, and methods of stabilization;
viii. Provisions for maintenance of control measures, including type and frequency of maintenance, easements, and estimates of the cost of maintenance;
ix. Identification (name, address, and telephone) of the person(s) or entity, which will have legal responsibility for maintenance of erosion control structures and measures during development and after development, is completed.
x. A plan for indentifying and remediating failing best management practices both during site construction and post-construction. Qualified personnel must inspect the site at least once every 7 calendar days and within 24 hours of the end of a ½ inch or greater rain event. The following regions must be inspected, and a report filed with the Village within 48 hours of any inspection:
    a. Disturbed Areas;
    b. Structural Control Measures; and
    c. Areas where vehicles enter and exit.

Filing of this report does not relieve the applicant of the requirement to notify any and all other permitting agencies. The SWPPP must be submitted to the Village and be approved before construction activities are begun. The parties responsible for site construction must also maintain the best management practices during construction and after the construction activities are completed.

1402.0 Design and Operation Standards and Requirements

1. Applicability
   All clearing, grading, stripping, excavating and filling which is subject to the permit requirements of this Ordinance shall be subject to the applicable standards and requirements set forth in Section 1400.0 and subsequent sections.

2. Soil Mapping
   Development activity subject to the provisions of this section shall also require soil mapping to be performed. Prior to the submission of any preliminary plat, concept plan or site plan, the applicant shall provide a topographic map at a scale no greater than 1" = 100'. Soil mapping of the site shall extend at least 100 feet beyond the subject property and shall be shown on the topographic map.

   Applicants are not required to provide soil mapping for site development of lots within a platted subdivision for which soil mapping has been provided or for minor development activities. For lots within platted subdivisions that contain hydric soils, the site plan shall contain the soil mapping information provided for the subdivision.

   The procedure for soil mapping shall be as follows:
   i. The applicant shall obtain a Natural Resource Information Report for the site from the Will/South Cook County Soil and Water District.
   ii. The recommendations of the Will County Soil Manual must be followed to the extent practicable with respect to the land plan and construction details of proposed development.
   iii. Soil borings must be made to confirm the soils map information included in the USDA, NRCS Soil Survey of Will County, Illinois.
   iv. Representative soil borings must be taken to a depth at least 5 feet below the lowest proposed foundation, 2 feet below the lowest proposed sewer, or the point of refusal.
   v. At least one boring must be made per 10 acres. More borings may be necessary to confirm the Soil Survey.
   vi. The site specific soil mapping shall be performed by a certified soil classifier.

1403.0 Handbooks Adopted by Reference

The standards and specifications contained in Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement and the Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control cited in Section, are hereby incorporated into this Section 1403.0 and made a part hereof by reference for the purpose of

delineating procedures and methods of operation under site development and erosion and sedimentation control plans approved under Section 400.0. In the event of conflict between provisions of said manuals and of this Ordinance, the Ordinance shall govern.

1404.0 Maintenance of Control Measures

The applicant shall post, and maintain throughout construction, a sign (in accordance with the Village Sign Ordinance) on site that provides the following information:

1. Applicant's name, address, and emergency telephone number.
2. Contractor's name, address, and telephone number (if different from applicant).
3. Site Development Permit Number issued by the village.
4. Village Building Department address and telephone number.
5. Contractor's working hours (In accordance with Ordinance OR 05-062).
6. Statement that trash shall be picked up daily.
7. Statement that streets will be cleaned at least weekly.

The posted sign must be at least six (6) square feet and be visible from the adjacent roadway.

All soil erosion and sediment control measures necessary to meet the requirements of this Ordinance shall be maintained periodically by the applicant or subsequent land owner during the period of land disturbance and development of the site in a satisfactory manner to ensure adequate performance. Failure to maintain working soil erosion control is a violation of this Ordinance. Repair of damage to adjacent or downstream properties resulting from improperly installed or maintained erosion control measures is the responsibility of the applicant and shall be corrected immediately upon notification of such damage. Failure to correct such damage may result in forfeiture of the letter of credit and is a violation of this ordinance.

1405.0 Inspection

1. The permittee or his/her certified agent, as described under Section 1406.0, and site contractor(s) shall schedule a pre-construction meeting with the Village of Homer Glen or its designated agent at least one week prior to the start of construction.
2. The Village of Homer Glen or designated agent shall make inspections as hereinafter required and either shall approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the *Erosion and Sediment Control Plan* as approved. Plans for grading, stripping, excavating, and filling work approved by the Village of Homer Glen shall be maintained at the site during the progress of the work. To obtain inspections, the permittee shall notify the Village of Homer Glen at least <u>*two*</u> working days before the following:

    A. Start of construction
    B. Installation of sediment and erosion measures
    C. Completion of site clearing
    D. Completion of rough grading
    E. Completion of final grading
    F. Close of the construction season

G. Completion of final landscaping

3. The permittee or his/her agent shall make regular inspections of all control measures in accordance with the inspection schedule outlined on the approved Site Development Permit. The purpose of such inspections will be to determine the overall effectiveness of the control plan and the need for additional control measures. All inspections shall be documented in a form acceptable to the Village and submitted to the Village of Homer Glen at the time interval specified in the approved permit. Inspections will be conducted weekly and within 24 hours after a 0.5 inch rain event.
4. The Village of Homer Glen or its designated agent shall enter the property of the applicant as deemed necessary to make regular inspections to ensure the validity of the reports filed under Section 1405.0-3 and to monitor and sample site discharges as deemed appropriate by the Village of Homer Glen.

1406.0 Certified Agent Training and Certification

Parties who will act as a certified agent for the permittee as specified under Section 1406.0 must complete the following certification and training to be recognized by the village under this ordinance:

1. The Village of Homer Glen shall require certification of responsible personnel. The village recognizes the Certified Professional in Erosion and Sediment Control (CPESC) or Certified Erosion, Sediment and Storm Water Inspector (CESSWI) as sufficient to meet this requirement. Responsible personnel shall obtain certification by completing the CPESC or CESSWI approved training program and examination. Enrollment of existing and future responsible personnel is the responsibility of the permittee.
2. The Village of Homer Glen may approve certification programs other than those developed by CPESC if they meet the following criteria:

    A. Educational materials covering the following topics:

        i. Ecological and resource values of the waters of the location;
        ii. The benefits of proper and effective erosion and sediment control implementation and maintenance;
        iii. The purpose and provisions of erosion and sediment control laws, ordinances, and regulations;
        iv. A description of sediment as a pollutant;
        v. The process of:
            a. Erosion;
            b. Sediment transport; and
            c. Sediment deposition;
        vi. Proper implementation of erosion and sediment control;
        vii. Recognition and correction of improperly implemented erosion and sediment controls;
        viii. Proper maintenance of erosion and sediment controls; and
        ix. Responsibilities of supervisory and enforcement personnel;

1407.0 Special Precautions

1. If at any stage of the grading of any development site the Village determines by inspection that the nature of the site is such that further work authorized by an existing permit is likely to imperil any property, public way, stream, lake, wetland, or drainage structure, the Village may require, as a condition of allowing the work to be done, that such reasonable special precautions to be taken as is considered advisable to avoid the likelihood of such peril. “Special Precautions” may include, but shall not be limited to, a more level exposed slope, construction of additional drainage facilities, berms, terracing, compaction, or cribbing, installation of plant materials for erosion control, and recommendations of a registered engineer and/or engineering geologist which may be made requirements for further work.
2. Where it appears that storm damage may result because the grading on any development site is not complete, work may be stopped and the permittee required to install temporary structures or take such other measures as may be required to protect adjoining property or the public safety. On large developments or where unusual site conditions prevail, the Village may specify the time of starting grading and time of completion, or may require that the operations be conducted in specific stages so as to insure completion of protective measures or devices prior to the advent of seasonal rains.

1408.0 Amendment of Plans

Major amendments of the site development permit or erosion and sedimentation control plans shall be submitted to the Village of Homer Glen and shall be processed and approved or disapproved in the same manner as the original plans. Field modifications of a minor nature shall only be authorized by the Village in writing to the permittee.

1500.0 Stream and Wetland Protection Items

1501.0 Applicability

Each application for a Site Development Permit shall be reviewed by the Village or one of its designees to determine if the proposed development activity will be within the Lowland Conservancy Overlay District Boundary as defined within Section 1505 of this ordinance. If any portion of the development activity is found to fall within the Lowland Conservancy Overlay District, the provisions of Section 1500 shall apply.

1502.0 Effect on Other Permits

The granting of a Site Development Permit under the provisions herein shall in no way affect the owner's responsibility to obtain the approval required by any other statute, ordinance, or regulation of any state agency or subdivision thereof, or to meet other Village of Homer Glen Ordinances and regulations. Where State and/or federal permits are required, a Site Development Permit will not be issued until they are obtained.

The Village of Homer Glen shall have jurisdiction for the regulation of wetlands under this ordinance. Issuance of a permit by the State of Illinois or the Army Corp of Engineers shall not relieve the person from obtaining a Site Development Permit under this ordinance.

1503.0 General Provisions: Areas Affected

Section 1500 of this ordinance applies to development in or near streams (including intermittent streams), lakes, ponds, and regulated wetlands within the Village of Homer Glen. Streams, lakes, and ponds include, but are not limited to, those which are shown on the United States Department of the Interior Geological Survey (USGS) 7.5 minute quadrangle maps and those additional streams, lakes, and ponds delineated on maps adopted as part of this ordinance. Those maps are hereby made a part of this ordinance, and two copies thereof shall remain on file in the office of the Village of Homer Glen for public inspection. Within the jurisdiction of Village of Homer Glen, those water bodies and watercourses that are named and are subject to the provisions of this ordinance are located within the Fraction Run, Fiddyment Creek, Spring Creek, Long Run Creek, Marley Creek and Big Run Creek watersheds.

Regulated Wetlands are those designated in the Village of Homer Glen/U.S. Fish and Wildlife Service/Illinois Department of Natural Resources wetland inventory (NRCS Map) Will/South Cook County Soil and Water Conservation District and those additional wetlands found in the field for which jurisdiction is claimed by the United States Army Corps of Engineers, Illinois Department of Natural Resources, United States Fish and Wildlife Service, or other governmental entity. The Special Flood Hazard Areas (SFHA) are those identified on the most recently adopted Flood Insurance Rate Maps (FIRM).

If new drainage courses, lakes, ponds or wetlands are created as part of a development, the requirements for setbacks and uses within setbacks, and the criteria for watercourse relocation and minor modification shall apply. The District shall be amended as appropriate to include these areas.

1504.0 The Lowland Conservancy Overlay District

The Lowland Overlay Conservancy District shall be considered as an overlay to the zoning districts created by the Village of Homer Glen zoning ordinance as amended. Its limits are defined as the area within the District Boundary defined in the following section. In addition to the requirements of this ordinance, applicants for a Site Development Permit within the District shall meet all requirements of the underlying zoning districts. In the event of a conflict between the overlay district requirements and the underlying zoning district requirements, the most restrictive requirements prevail.

1505.0 The Lowland Conservancy Overlay District Boundary

The procedures, standards, and requirements contained in this ordinance shall apply to all lots, or portions thereof, within regulated wetlands and streams, and all lots lying wholly or in part:

1. Within the Special Flood Hazard Area (SFHA) designated by the Federal Emergency Management Agency (FEMA); or
2. Within one hundred (100) feet of the ordinary high water mark (OHWM) of a perennial stream or intermittent stream, with a tributary area greater than one hundred fifty (150) acres, or the edge of a regulated wetland.

1506.0 Minimum Setback from Streams, Lakes, Ponds, and Wetlands

No improvements or development activity (except as provided below) may occur, on parcels proposed for development after the date of adoption of this ordinance, within the minimum setback which is defined as 75 feet from the ordinary high water mark of streams, lakes and ponds, or the edge of regulated wetlands, or within a designated depressional area. No improvements or development activity shall occur within the 75 foot setback on parcels created prior to the date of adoption of this ordinance without an approved Site Development Permit and evidence that it cannot be located outside the setback area. This setback may be reduced to a minimum of 1/2 of the setback width required, upon approval of the Village, provided the total setback area required is achieved adjacent to the area. In no case shall the setback be less than the boundary of the 100-year floodway as defined by FEMA. These setback requirements do not apply to a stream in a culvert unless the stream is taken out of the culvert as part of development activity. If a culvert functions as a low-flow culvert, where water is intended to periodically flow over it, the setback requirements apply.

The following activities may be permitted within the minimum setback areas only if, as a practical matter, they cannot be located outside the setback area. Such activities will only be approved based upon a report, prepared by a qualified professional, which demonstrates that they will not adversely affect water quality; destroy, damage or disrupt significant habitat area; adversely affect drainage and/or stormwater retention capabilities; adversely affect flood conveyance and storage; lead to unstable earth conditions, create erosion hazards, or be materially detrimental to any other property in the area of the subject property or to the Village of Homer Glen as whole, including the loss of open space or scenic vistas.

1. Minor improvements such as walkways, sidewalks, bike paths, benches, comfort stations, informational displays, directional signs, foot bridges, observation decks, and docks.
2. The maintenance, repair, replacement, and reconstruction of existing highways and bridges, electrical transmission and telecommunication lines, poles, and towers; and the establishment and development of public and private parks and recreation area, education areas, historic natural and scientific areas, game refuges, fish and wildlife improvement projects, game bird and animal, farms, wildlife preserves and public boat launching ramps.

Review of the proposed improvements or development activity within the minimum setback area will consider the following:

1. Only limited filling and excavating necessary for the development of public boat launching ramps, swimming beaches, or the development of park shelters or similar structures is allowed. The development and maintenance of roads, parking lots and other impervious surfaces necessary for permitted uses are allowed only on a very limited basis, and where no alternate location outside of the setback area is available;
2. Land surface modification within the minimum setback shall be permitted for the development of stormwater drainage swales between the developed area of the site (including a stormwater detention facility on the site) and a stream, lake or pond or wetland. Detention basins within the setback are generally discouraged; unless it can be shown that resultant modifications will not impair water quality, habitat, or flood storage functions;
3. No filling or excavating within wetlands is permitted except as a wetland restoration activity and/or to install piers for the limited development of walkways and observation decks. Walkways and observation decks should avoid high quality wetland areas, and should not adversely affect natural areas designated in the Illinois Natural Areas Inventory or the habitat of rare or endangered species;
4 Wetland area occupied by the development of decks and walkways must be mitigated by an equal area of wetland habitat improvement; and
5. Modification of degraded wetlands for purposes of stormwater management is permitted where the quality of the wetland is improved and total wetland acreage is preserved. Where such modification is permitted, wetlands shall be protected from the effects of increased stormwater runoff by measures such as detention or sedimentation basins, vegetated swales and buffer strips, groundwater infiltration systems and level spreaders, and sediment and erosion control measures on adjacent developments. The direct entry of storm sewers into wetlands shall be avoided. Environmental impact analysis of wetland modification may be required in accordance with Section 1515.0 of this ordinance.

An applicant must stabilize areas left exposed after land surface modification with vegetation native to northeastern Illinois. The planting of native vegetation is recommended as the preferred stabilization measure. In cases where native vegetation alone is not suitable, additional biotechnical erosion control measures such as live fascines, live pole drains, coir rolls with brush layering, pole planting, modified brush layers and brush shall be utilized unless flow velocity and shear conditions exceed the parameters for biotechnical techniques. In that instance, the preferred alternative is riprap using natural rock materials where practicable, installed on eroding

bank areas in a manner that provides interstitial space for vegetative growth and habitat for macroinvertebrates and other stream organisms. Lining of the stream channel bottom is not permitted.

The applicant shall minimize access to the applicant's proposed improvements or development activity within all or part of the Lowland Conservancy Overlay District where such access could adversely affect the stream, lake, pond, wetland, or related environmentally sensitive areas.

1507.0 Stream and/or Wetland Site Development Plan

In conjunction with the Development Site Plan Review a stream and/or wetland site development plan must be prepared for any proposed development within, or partly within, the Lowland Conservancy Overlay District and/or if the proposed development will result in Wetland impacts to Isolated Waters, High Quality Aquatic Resources and/or Regulated wetlands. This plan must include:

1. A cover letter signed by a Certified Wetland Specialist that provides a clear project purpose and need statement, a description of the proposed development activity, the area (in acres) of wetland impact and a statement on the category to be used as follows:

    A. Category-I: Wetland impacts less than or equal to 1 acre and does not impact high-quality aquatic resources;
    B. Category-II: Wetland impacts greater than 1 acre and less than 2 acres and does not impact high-quality aquatic resources;
    C. Category-III: Wetland impacts greater than or equal to 2 acres or impacts high-quality aquatic resources;
    D. Category-IV: Wetland impacts for the restoration, creation and enhancement of wetlands provided that there are net gains in aquatic resource function; and
    E. Category-V activities include shoreline and streambank erosion restoration.

2. Dimension and area of parcel, showing also the vicinity of the site in sufficient detail to enable easy location, in the field, of the site for which the Site Development Permit is sought, and including the boundary line, underlying zoning, a legend, a scale, and a north arrow. This requirement may be satisfied by the submission of a separate vicinity map;
3. Location of any existing and proposed structures;
4. Location of existing or proposed on-site sewage systems or private water supply systems;
5. Location of any perennial or intermittent stream, lake or pond, and its ordinary high water mark;
6. Location and landward limit of all wetlands;
7. Location of setback lines as defined in this ordinance;
8. Location of the 100-year floodway;
9. Location of existing or future access roads;
10. Specifications and dimensions of stream, wetland or other water areas proposed for alterations; and
11. Cross-sections and calculations indicating any changes in flood storage volumes; and such other information as reasonably requested by the Village of Homer Glen.

12. Evidence, prepared by a qualified professional that demonstrates that the proposed work will not endanger health and safety, including danger from the obstruction or diversion of flood flow. The applicant shall also show, by submitting appropriate calculations and resource inventories, that the proposed work will not substantially reduce natural floodwater storage capacity, destroy valuable habitat for aquatic or other flora and fauna, adversely affect water quality or ground water resources, increase stormwater runoff velocity so that water levels on other lands are substantially raised or the danger from flooding increased, or adversely impact any other natural stream, floodplain, or wetland functions, and is otherwise consistent with the intent of this ordinance.
13. Prior to the issuance of any permits or land development approval, the applicant is required to provide a wetland delineation report to the Village if any of the following criteria apply:

    A. Wetlands or prior converted wetlands have been identified in the Natural Resource Information Report.
    B. The National Wetland Inventory Map indicates a wetland on, adjacent to, or directly downstream of the property.
    C. If there are floodplains, floodways, perennial streams, intermittent streams, depressional storage areas, or hydric soils present on the site, the Village may require a wetland delineation.

1508.0 Reserved

1509.0 Requirements for Wetland Delineation

1. The applicant shall identify the boundaries, extent, function, and quality of all wetland areas on the development site and prepare a Wetland Determination Report. The presence and extent of wetland areas shall be determined by, or under supervision of a Consultant using an on-site wetland procedure within three (3) years of the initial permit application date in accordance with the methodology contained in the 1987 U.S. Army Corps of Engineers wetland delineation manual or as otherwise noted below.
2. Wetland Determination Report

    The following are minimum requirements for the Wetland Determination Report:

    A. A plan showing the exact location of wetlands within the development boundaries. The wetland boundary shall be flagged in the field and surveyed;
    B. An aerial photograph delineating the wetland and the development boundary;
    C. A copy of the following maps (most recent) delineating the development boundary:

        i. U.S.G.S. quadrangle map;
        ii. Village of Homer Glen/NRCS Wetland Inventory map;
        iii. FEMA floodplain map;
        iv. Will/Cook Soil and Water survey; and
        v. Hydrologic Atlas.

    D. U. S. Army Corps of Engineers data sheets with representative color photographs provided for each data point;

E. A written description of the wetland(s) that includes a Floristic Quality Assessment as determined by methodology contained in Swink, F. and G. Wilhelm's Plants of the Chicago Region (1994. 4th Edition, The Morton Arboretum, Lisle, Illinois). Floristic quality assessments shall generally be conducted during the growing season (between May 15 and October 1). Non-growing season assessments may require additional sampling during the growing season to satisfy this requirement. Identification of all high-quality aquatic resources, found in Appendix A, or statement that none exist on site shall be provided.

F. The approximate location, extent, and relative quality of off-site wetlands on properties adjoining the development shall be identified by using the using 1987 Federal wetland delineation manual.

G. A report for the development site indicating the presence of cropland wetlands as defined by the National Food Security Act manual (most recent edition).

1510.0 Hydrologic Controls/Drainage Control Plan

A drainage control plan that describes the hydraulic characteristics of on-site and nearby watercourses as well as the proposed drainage plan, prepared by a registered professional engineer experienced in hydrology and hydraulics, shall be submitted with each application for land development within the Lowland Conservancy Overlay District. Unless otherwise noted, the following restrictions, requirements and standards shall apply to all development within the Lowland Conservancy Overlay District:

1. Natural open-channel drainage ways shall be preserved; and
2. Runoff from areas of concentrated impervious cover (e.g., roofs, driveways, streets, patios, etc.) shall be collected and transported to a drainage way (preferably a natural drainage way) with sufficient capacity to accept the discharge without undue erosion or detrimental impact. Vegetated drainage swales are preferred over conveyances constructed of concrete or other manufactured materials.

The drainage control plan shall identify appropriate measures, such as recharge basins, and detention/retention basins, which will limit the quantitative and qualitative effects of stormwater runoff to pre-development conditions.

1511.0 Site Grading and Excavation Plan

This section applies to the extent that grading and excavation and erosion control plans, which satisfy the following requirements, are not already required by a jurisdiction.

A site grading and excavation plan, prepared by a registered professional engineer, trained and experienced in civil engineering, shall be submitted with each application for land development within the Lowland Conservancy District and shall include the following:

1. Details of the existing terrain and drainage pattern with one-foot contours;
2. Proposed site contours at one-foot intervals;
3. Dimensions, elevation and contours of grading, excavation and fill;

4. A description of methods to be employed in disposing of soil and other material that is removed from allowable grading and excavation sites, including location of the disposal site if on the property;
5. A schedule showing when each stage of the project will be completed, including the total area of soil surface to be disturbed during each stage, and estimated starting and completion dates. The schedule shall be prepared so as to limit, to the shortest possible period, the time soil's exposed and unprotected. In no case shall the existing natural vegetation be destroyed, removed, or disturbed more than fifteen (15) days prior to initiation of the improvements; and
6. A detailed description of the revegetation and stabilization methods to be employed, to be prepared in conjunction with the landscape plan per Section 1512.0. This description should include locations of erosion control measures such as sedimentation basins, straw bales, diversion swales, etc.

The grading and excavation plan must be consistent with all the provisions of this ordinance.

Unless otherwise provided in this ordinance, the following restrictions, requirements and standards shall apply to all development within the Lowland Conservancy District:

1. Every effort shall be made to develop the site in such a manner so as to minimize the alteration of the natural topography;
2. No grading, filling, cleaning, clearing, terracing or excavation of any kind shall be initiated until final engineering plans are approved;
3. The depositing of any excavation, grading, or clearing material within a stream, lake, pond or wetland area (i.e., within the Lowland Conservancy District) shall be prohibited.

In addition to locating all site improvements on the subject property to minimize adverse impacts on the stream, lake, pond, or wetland, the applicant shall install erosion control and temporary fencing, or other physical barrier during construction. Following completion of the project, where necessary permanent grading shall be constructed to prevent direct runoff and erosion from any modified land surface into a stream, lake, pond, or wetland. All parking and vehicle circulation areas should be located as far as possible from a stream, lake, pond, or wetland.

The Village of Homer Glen may limit development activity in or near a stream, lake, pond, or wetland to specific months, and to a maximum number of continuous days or hours, in order to minimize adverse impacts. Also, the Village of Homer Glen may require that equipment be operated from only one side of a stream, lake, or pond in order to minimize bank disruption. Other development techniques, conditions, and restrictions may be required in order to minimize adverse impacts on streams, lakes, ponds or wetlands, and on any related areas not subject to development activity.

1512.0 Native Vegetation Buffer Strip Required: Vegetation and Revegetation/Landscape Plan

To minimize erosion, stabilize the streambank, protect water quality, maintain water temperature at native levels, preserve fish and wildlife habitat, screen man-made structures, and preserve aesthetic values of the native watercourse and wetland areas, a native vegetation strip shall be

maintained along the edge of streams, lake, natural ponds, wetlands or manmade wet detention/retention ponds.

The native vegetation strip shall extend landward a minimum of 75 feet from the ordinary high water mark of a perennial or intermittent stream, lake or natural pond, and the edge of a wetland. The buffer width for a stream, lake or natural pond, or a wetland may be reduced to a minimum of 1/2 of the buffer width required, upon approval of the Village, provided that the total buffer area required is achieved adjacent to the area being buffered. The permitting and/or consultation process with any other agency such as the IDNR, USACE or U.S. Fish & Wildlife Service may override the ability to average buffer areas upon approval of the Village.

Within the native vegetation strip, trees and shrubs may be selectively pruned or removed for harvest of merchantable timber, to achieve a filtered view of the water body from the principal structure, prevent excess shading that kills groundcover species, and for reasonable private access to the stream, lake, pond, or wetland. Said pruning and removal activities shall ensure that a live root system stays intact to provide for streambank stabilization and erosion control.

A landscape plan, prepared by a professional landscape architect, shall be submitted with each Site Development Permit application for development activity within the Lowland Conservancy Overlay District and contain the following:

1. A plan describing the existing vegetative cover of the property and showing those areas where the vegetation will be removed as part of the proposed construction; and
2. A plan describing the proposed revegetation of disturbed areas specifying the materials to be used.

The vegetation must be planned in such a way that access for stream maintenance purposes shall not be prevented.

1513.0 Watercourse Relocation and Minor Modifications (including Channelization and Relocation)

Watercourse relocation or modification as a convenience for site design purposes is not permitted. However, these activities may be considered for permit in the following circumstances:

1. When off-site hydrologic conditions are causing erosion, flooding and related problems and the proposed project is designed to significantly reduce, or eliminate these problems; or
2. When on-site soil and geologic conditions are resulting in unstable conditions that pose hazards to life, health, and existing structures or property and the proposed project is designed to significantly reduce or eliminate these problems; or
3. The quality of previously modified or relocated streams can be upgraded or enhanced by the proposed project; or
4. Public utilities, including sanitary sewers, pipelines, and roadways require stream crossing or relocation where there are not practical alternatives; or

5. The project solely involves the relocation, modification, or repair of an existing culvert or existing man-made ditch.

Any such allowed relocation or modification shall be subject to the following conditions and requirements.

1514.0 Conditions and Restrictions for Permitting Watercourse Modification

Watercourse modification, when permitted, is subject to the following conditions and restrictions:

1. Water quality, habitat, and other natural functions must be significantly improved by the modification; no significant habitat area may be destroyed;
2. The amount of flow and velocity of a watercourse is not to be increased or decreased as the watercourse enters or leaves a subject property, unless this reflects an improvement over previous conditions in terms of reduced flooding, reduced erosion, or enhanced low-flow conditions;
3. Prior to diverting water into a new channel, a qualified professional engineer retained by the applicant and approved by the Village of Homer Glen shall inspect the watercourse modification, and issue a written report to the Village of Homer Glen that the modified watercourse complies with the requirements in Section 1515.0; and
4. Watercourse channel enlargement, or other modifications that would increase conveyance, shall not be permitted if the intended purpose is to accommodate development activities in the floodplain.

1515.0 Required Content of Watercourse Modification/Relocation Plan

Watercourse relocation may be permitted in accordance with a watercourse relocation plan which provides for:

1. The creation of a natural meander pattern, pools, riffles, and substrate;
2. The formation of gentle side slopes (at least three feet horizontally per one foot vertically), including installation of erosion control features;
3. The utilization of natural materials wherever possible;
4. The planting of vegetation normally associated with streams, including primarily native riparian vegetation that is deep-rooted and capable of holding banks and soil in place;
5. The creation of spawning and nesting areas wherever appropriate;
6. The re-establishment of the native fish population wherever appropriate;
7. The restoration of water flow characteristics compatible with native fauna habitat areas, wherever appropriate;
8. The filling and revegetation of the prior channel;
9. A proposed phasing plan, specifying time of year for all project phases;
10. Plans for sediment and erosion control; and
11. Establishment of a low-flow channel which reflects the conditions of a natural stream.

1516.0 Criteria for Permitting Armoring of Channels and Banks

Armoring in the form of bulkheads, riprap or other materials or devices is not permitted except in accordance with the following:

1. Significant erosion cannot be prevented in any other way and the use of revegetation and gradual bank slopes has not sufficiently stabilized the shoreline or bank;
2. The bulkhead or other device is not placed within a wetland, or between a wetland and a lake or pond;
3. The bulkhead, riprap or other device will minimize the transmittal of wave energy or currents to other properties; and
4. The change in the horizontal or vertical configuration of the land must be kept to a minimum.

Where permission to install bulkheads or other armoring devices is requested as part of the permit application, documentation and certification pertaining to the items above must be submitted.

1517.0 Criteria for Permitting the Use of Culverts

Culverts are not permitted in streams except in accordance with and subject to the following:

1. Where a culvert is necessary for creating access to a property (use of culverts as a convenience, in order to facilitate general site design, is not to be considered);
2. The culvert must allow passage of fish inhabiting the stream, and accommodate the 100-year flood event without increasing upstream flooding, except where a restricting culvert is desirable as part of an overall storm and floodwater management plan;
3. The culvert must be maintained free of debris and sediment to allow free passage of water, and if applicable, fish; and
4. The stream bottom should not be significantly widened for the placement of a culvert as this increases siltation; if multiple culverts must be installed, one culvert should be at the level of the bottom of the stream and the others at or above normal water elevation.

1518.0 Compensatory Mitigation

1. Mitigation shall not be considered a substitute for making all prudent attempts to avoid wetland impacts, regardless of Wetland Quality.

    A. Prior to the Village considering a proposal for wetland mitigation, the Applicant and/or their agent shall make all of the following findings and provide a narrative report to the Village of the following:

        i. That all feasible and prudent efforts have been made to avoid the loss of a regulated wetland;
        ii. That all practical means have been considered to minimize protected wetland impacts;

iii. That it is practical to replace the protected wetland which will be unavoidably eliminated; and
iv. That all alternatives for preserving protected wetlands and water courses have been evaluated and found to be impractical, inappropriate, or ineffective.

B. To ensure no net loss of wetlands in the Village of Homer Glen, mitigation shall be required in instances where there are losses of wetlands and where the Wetland Consultant, the Plan Commission or the Village Board, have made the findings required in Section 1518.0.1 not possible. The following hierarchy shall be followed. Allowance to the next lower step is permitted only when justified by a narrative report approved by the Homer Glen Village Board.

i. On-site wetland mitigation meeting the requirements of the project mitigation document.*
ii. In the Village of Homer Glen and in the same watershed as wetland impact: A Village of Homer Glen Approved Wetland Mitigation bank, or a U.S. Army Corps Approved Wetland Mitigation Bank; meeting the requirements of the project mitigation document.*
iii. In the same watershed as the impact and outside the Village of Homer Glen. A Village of Homer Glen Approved Wetland Mitigation bank, or a U.S. Army Corps Approved Wetland Mitigation Bank; meeting the requirements of the project mitigation document.*
iv. In the Village of Homer Glen and in a different watershed as wetland impact: A Village of Homer Glen Approved Wetland Mitigation bank, or a U.S. Army Corps Approved Wetland Mitigation Bank; meeting the requirements of the project mitigation document.*
v. Outside the Village of Homer Glen and within a different watershed (at double the required mitigation acreage): A Village of Homer Glen Approved Wetland Mitigation bank, or a U.S. Army Corps Approved Wetland Mitigation Bank; meeting the requirements of the project mitigation document. *

* 1518.0-2 Criteria for Approving Proposals for wetland Mitigation, 1518.0-3 Mitigation Size Requirements and 1518.0-4 Mitigation Requirements.

2. Criteria for Approving Wetland Mitigation Proposals

If the Wetland Consultant, Plan Commission or the Homer Glen Village Board, as applicable determines that it is practical to replace the protected wetlands which will be impacted, mitigation plans shall be approved only if all of the following criteria are met:

A. That the mitigation plan provides for the substantial replacement of the predominant functional values of the protected wetland to be lost;
B. That the mitigation plan provides for no net loss of protected wetlands and watercourses unless the Wetland Consultant, the Planning Commission or the Homer Glen Village Board, as applicable determines that the net loss will result in a minimum negative impact upon protected wetlands, watercourses, and attendant

natural resources under all of the circumstances;

C. A project mitigation document (PMD) shall be submitted for all mitigation projects in conformance with the U. S. Army Corps of Engineers Chicago District's Mitigation Guidelines and Requirements latest version. The guidelines contain requirements for performance standards, monitoring, and completion standards that may be considered as a minimum. Unique site and/or development circumstances may require different, project specific approaches, which exceed these minimum standards;

D. A five-year wetland mitigation surety for 125% of mitigation cost shall be submitted prior to obtaining a permit. See Section 1518.0-2 mitigation requirements; and

E. Time Schedule of bond reduction for mitigating Wetlands. Listed below are the requirements for the annual inspection of compensatory wetlands and buffers as applicable to bond reduction. The applicant is required to have this annual inspection performed by a qualified professional. The bond reduction time line will begin upon completion of plant installation and that annual report will need to satisfy the values stated below. The report shall be submitted to the Village for acceptance or rejection within 30 days of submission. If the applicant fails to produce an approved report, or to take the required corrective action recommended in an approved report in the given timeline the Village retains the right to hire a qualified professional and/or contractor to perform the required work for which all costs incurred by the Village shall be paid by the developer:

   i. One year after the wetland is planted it will need to meet and continue meeting all applicable performance standards established in the approved mitigation document. If these requirements are met or exceeded then the bond amount can be reduced 20 percent to 80 percent of the original amount. If these values are not met, a corrective action report must be completed within 15 working days. The recommendation from this report must be completed within the approved timeline of this report. Once these values are met year two will start.

   ii. A second inspection will be required one year after the first values are met. At this time the wetland will need to meet and continue meeting all the approved performance standards established in the approved mitigation document. If these requirements are met or exceeded then the bond amount can be reduced an additional 20 percent to 60 percent of the original amount. If these values are not met, a corrective action must be completed within 15 working days. The recommendation from this report must be completed within the approved timeline of this report. Once these values are met year three will start.

   iii. A third inspection will be required one year after the second values are met. At this time the wetland will need to meet or exceed a FQI value of 16 and a C-Value of 2.8 and will need to continue meeting all applicable performance standards. If these requirements are met or exceeded then the bond amount can be reduced 20 percent to 40 percent of the original amount. If these values are not met, corrective action must be completed within 30 working days (per IDOT Standard 108.04). Once these values are met year four will start.

   iv. A fourth inspection will be required one year after the third values are met. At this time the wetland will need to meet or exceed a FQI value of 18 and a C-

Value of 3.15 and will need to continue meeting all Army Corp of Engineers (Chicago District) performance standards. If these requirements are met or exceeded then the bond amount can be reduced 20 percent to 20 percent of the original amount. If these values are not met, corrective action must be completed within 30 working days (per IDOT Standard 108.04). Once these values are met year four will start.

v. A final inspection will be required one year after the fourth values are met. At this time the wetland will need to meet or exceed a FQI value of 20, a C-Value of 3.5, will need to continue meeting all Army Corps of Engineers (Chicago District) performance standards and all other requirements identified by the Village to reduce the remainder of the bond. If these values are not met, corrective action must be completed within 30 working days (per IDOT Standard 108.04).

3. Wetland Mitigation Size Requirements

A. Mitigation is required within Village of Homer Glen for wetland impacts greater than or equal to (0.25) acres to regulated wetlands of the Village of Homer Glen.

B. Mitigation shall provide for the replacement of the wetland environment lost to development at the following proportional rates (i.e., creation acreage to wetland impact acreage):

i. A minimum of 1.5:1 for wetland impacts under Categories I, II and III that are not high quality aquatic resources, for approved and fully certified wetland mitigation bank credits;

ii. A minimum of 3:1 for wetland impacts that are high quality aquatic resources; and

iii. A minimum of 6:1 for wetland impacts that are forested wetlands as defined in Appendix A.

C. Creation of wetlands for the mitigation of development wetland impacts shall take place only within areas not currently comprised of wetlands or forested areas. Enhancement of farmed wetlands meeting the size criterion of this ordinance may be used for up to 80% of the mitigation requirement.

D. A wetland mitigation management and monitoring plan indicating the legally responsible parties for long-term operation and maintenance and dedicated funding sources.

E. The developer shall provide annual monitoring reports on the status of the constructed mitigation measures. The developer shall undertake all necessary remedial action to bring the area into compliance with the wetland mitigation plan.

F. Wetland impacts occurring prior to issuance of a permit shall presume the wetland disturbed was a high quality aquatic resource requiring mitigation at a minimum rate of 3:1, except 6:1 for wetland impacts that are forested wetlands as defined in Appendix A.

4. Mitigation Requirements

   A. Wetland mitigation and monitoring plans shall become conditions to the wetland use permit and shall be the responsibility of the applicant.
   B. Financial assurances that mitigation is accomplished as specified by the permit condition will be required by the Wetland Consultant, Planning Commission or Homer Glen Village Board, as applicable. See Section 1518.0-2-E for time schedule of bond reduction.
   C. Any mitigation activity shall be completed before initiation of other permitted activities, unless a phased concurrent schedule can be agreed upon between the Wetland Consultant, Planning Commission or Homer Glen Village Board, as applicable, and the applicant.
   D. Wetland mitigation plans that create less than two (2) acre of wetlands shall meet at least three of the conditions listed below.

      i. The site supports state or federal endangered or threatened plants, fish, or wildlife appearing on a list specified in Section 36505 of the Natural Resources and Environmental Protection Act (Act 451 of 1994 [previously Section 6 of the Endangered Species Act of 1974, Act No. 203 of the Public Acts of 1974].
      ii. The site represents what is identified as a locally rare or unique ecosystem.
      iii. The site supports plants or animals of an identified local importance.
      iv. The site provides groundwater recharge.
      v. The site provides flood and storm control by the hydrologic absorption and storage capacity of the wetland.
      vi. The site provides wildlife habitat by providing breeding, nesting, feeding grounds or cover for forms of wildlife, waterfowl, including migratory waterfowl, and rare, threatened, or endangered wildlife species.
      vii. The site provides protection of subsurface water resources and provision of valuable watersheds and recharging groundwater supplies.
      viii. The site provides pollution treatment by providing conditions for biological and chemical oxidation.
      ix. The site provides erosion control by serving as a sedimentation area and filtering basin, absorbing silt and organic matter.
      x. The site provides sources of nutrients in water food cycles and nursery grounds and sanctuaries for fish.

5. Detention in Isolated Waters of Homer Glen

   Detention shall only be allowed in farmed wetlands currently in farm production or when the existing vegetated wetland acreage is covered by a minimum 85% of one or more of the following species:

   A. reed canary grass *(Phalaris arundinacea)*
   B. purple loosestrife *(Lythrum salicaria)*
   C. common reed *(Phragmites australis)* or
   D. buckthorn *(Rhamnus* spp.)

1519.0 Impact Assessment

The Village of Homer Glen may ask an applicant to submit a report prepared by a qualified professional, and approved by the Village of Homer Glen, in order to assess the potential impact of proposed development on a lake, stream or wetland and associated environmentally sensitive areas, including loss of flood storage potential, loss of habitat, changes in species diversity and quantity, impacts on water quality, increases in human intrusion, and impacts on associated streams, lakes, ponds, wetlands or downstream areas.

1520.0 Stream Maintenance Easement

The applicant shall grant an access easement for stream maintenance purposes to the Village of Homer Glen over twenty-five feet parallel to the stream bank.

1600.0 Floodplain Items

1601.0 General Requirements for Floodplain Items

1. The Village of Homer Glen shall be responsible for fulfilling all of the duties listed in Section 1601.0 by assignment or designation of reviews.
2. To fulfill those duties, the assigned designee, who must be a Professional Engineer (P.E.), first should use the criteria listed in Section 1603.0, Base Flood Elevations, to determine whether the development site is located within a floodplain.
3. Once it has been determined that a development is located within a floodplain, the Village must determine whether the development site is within a flood fringe, a designated floodway, or within a SFHA or floodplain for which no floodway has been identified.
   A. If the site is within a flood fringe, the Village shall require that the minimum requirements of Section 1604.0 be met in addition to other applicable requirements of this Ordinance.
   B. If the site is within a floodway, the Village shall require that the minimum requirements of Section 1605.0 be met in addition to other applicable requirements of this Ordinance.
   C. If the site is located within a SFHA or floodplain for which no detailed study has been completed and approved, the Village shall require that the minimum requirements of Section 1606.0 be met.
4. In addition, the general requirements of Section 1607.0 shall be met for all developments meeting the requirements of Section 1604.0, 1605.0, or 1606.0.
5. The Village shall assure that all subdivision proposals shall meet the requirements of Section 1608.0
6. If a variance is to be granted for a proposal, the Village shall review the requirements of Section 600.0 to make sure they are met. In addition, the Applicant shall complete all notification requirements and shall provide to the Village certified copies of all correspondence.
7. In order to assure that property owners obtain permits as required in this Ordinance, the Village of Homer Glen may take any and all actions as outlined in Section 1105.0.

1602.0 Duties of the Enforcement Official(s)

The Village shall be responsible for the general administration and enforcement of this ordinance which shall include the following:

1. Determining the Floodplain Designation
   A. Check all new development sites to determine whether they are in a Special Flood Hazard Area (SFHA).
   B. If they are in a SFHA, determine whether they are in a floodway, flood fringe or in a floodplain for which a detailed study has not been conducted and which drains more than one (1) square mile in an urban or urbanizing area, or more than ten (10) square miles in a rural area.

2. Professional Engineer Review
   A. If the development site is within a floodway or in a floodplain for which a detailed study has not been conducted and which drains more than one hundred acres, the permit shall be referred to a registered professional engineer under the employ or contract of the Village for review to ensure that the development meets Sections 1605.0-1606.0-1.
   B. In the case of an Appropriate Use, the P.E. shall state in writing that the development meets the requirements of Section 1605.0.
3. Dam Safety Requirements
   A. Ensure that an IDNR/OWR permit has been issued or a letter indicating no permit is required, if the proposed development activity includes construction of a dam as defined previously.
   B. Regulated dams may include weirs, restrictive culverts or impoundment structures.
4. Other Permit Requirements
   Ensure that any and all required federal, state and local permits are received prior to the issuance of a Site Development Permit.
5. Plan Review and Permit Issuance
   A. Ensure that all development activities within the SFHAs of the jurisdiction of the Village meet the requirements of this Ordinance; and
   B. Issue a Site Development Permit in accordance with the provisions of this Ordinance and other regulations of this community when the development meets the conditions of this Ordinance.
6. Development Review
   Ensure all development projects have reviews completed before, during, and after construction to assure proper elevation of the structure and to ensure compliance with the provisions of this Ordinance.
7. Elevation and Flood Proofing Certificate
   Maintain permit files including:
   A. An Elevation Certificate certifying the elevation of the lowest floor (including basement) of a residential or non-residential building subject to Section 1607.0 of this Ordinance, and/or;
   B. The elevation to which a non-residential building has been flood proofed, using a Flood Proofing Certificate, for all buildings subject to Section 1607.0 of this Ordinance for public inspection and provide copies of the same.
8. Records for Public Inspection
   Maintain for public inspection and furnish upon request base flood data, SFHA and designated floodway maps, copies of federal or state permit documents, Site Development Permit documentation, variance documentation, Conditional Letter of Map Revision, Letter of Map Revision, Letter of Map Amendment and “as-built” elevation and flood proofing and/or elevation certificates for all buildings constructed subject to this Ordinance.
9. Ensure that construction authorized has been granted approval by IDNR/OWR, for all development projects subject to Sections 1605.0 and 1606.0 of this Ordinance, unless enforcement responsibility has been delegated to the Village. Upon acceptance of this Ordinance by IDNR/OWR and FEMA, responsibility is hereby delegated to the Village per 92 IL Administrative Code 708 (See Appendix 18.3) for construction in the designated floodway and floodplain when floodways has not been defined in Section

1605.0 and 1606.0 of this Ordinance. However, the following review approvals are not delegated to the Village and shall require review or permits from IDNR/OWR:

A. Projects, which are undertaken by Organizations which are exempt from this Ordinance, as per the Illinois Compiled Statutes;
B. IDNR/OWR projects, dams or impoundment structures as defined in Section 202.0 and all other state, federal or local unit of government projects, including projects of the Village;
C. An engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, per Section 1605.0-2-C-v;
D. An engineer's determination that a proposed bridge affected by backwater from a downstream receiving stream may be built with a smaller opening per Section 1605.0-2-C-iv;
E. Review and approval of Alternate transition section and hydraulically equivalent compensatory storage as indicated in Section 1605.0-2-C-i, ii, viii;
F. Permit issuance of structures within, under, or over publicly navigable rivers, lakes and streams;
G. Any changes in the Base Flood Elevation or floodway locations; and
H. Base Flood Elevation determinations where none now exist.

10. Cooperation with Other Agencies
    A. Cooperate with the state and federal floodplain management agencies to improve base flood or 100-year frequency flood and floodway data and to improve the administration of this Ordinance;
    B. Submit data to IDNR/OWR and FEMA for proposed revisions of a regulatory map;
    C. Submit reports as required for the National Flood Insurance Program; and
    D. Notify FEMA of any proposed amendments to this Ordinance.

11. Promulgate Regulations
    Promulgate rules and regulations as necessary to administer and enforce the provisions of this Ordinance, subject however to the review and approval of IDNR/OWR and FEMA for any Ordinance changes.

1603.0 Base Flood Elevation

1. This Ordinance's protection standard is based on the Flood Insurance Study for the Village.
    A. If a base flood elevation or 100-year frequency flood elevation is not available for a particular site, then the protection standard shall be according to the best existing data available in the Illinois State Water Survey's Floodplain Information Repository that has been approved by IDNR/OWR and FEMA.
    B. When a party disagrees with the best available data, he/she may finance the detailed engineering study needed to replace existing data with better data and submit it to IDNR/OWR and FEMA.
2. The base flood or 100-year frequency flood elevation for the SFHAs of the Village of Homer Glen shall be as delineated on the 100-year flood profiles in the Flood Insurance Study of the Village prepared by FEMA (or the Department of Housing and Urban

Development) and such amendments to such study and maps as may be prepared from time to time.

3. The base flood or 100-year frequency flood elevation for the SFHAs of those parts of the Village of Homer Glen shall be as delineated on the 100-year flood profiles in the most recent Flood Insurance Study of the Village of Homer Glen prepared by FEMA (or Department of Housing and Urban Development), and such amendments or revisions to such study and maps as may be prepared from time to time.
4. The base flood or 100-year frequency flood elevation for each SFHA delineated as an "AE Zone," "AH Zone," or "AO Zone" shall be that elevation (or depth) delineated on the Flood Insurance Rate Map of the Village of Homer Glen.
5. The base flood or 100-year frequency flood elevation for each of the remaining SFHAs delineated as an "A Zone" on the Flood Insurance Rate Map of the Village shall be according to the best existing data available in the Illinois State Water Survey Floodplain Information Repository.
    A. When no base flood or 100-year frequency flood elevation exists, the base flood or 100year frequency flood elevation for a riverine SFHA shall be determined from a backwater model, such as HEC-RAS, HEC-II, WSP-2, or a dynamic model such as HIP.
    B. The flood flows used in the hydraulic models shall be obtained from a hydrologic model, such as HEC-HMS, HEC-I, TR-20, or HIP, or by techniques presented in various publications prepared by the United States Geological Survey for estimating peak flood discharges.
    C. Along any watercourses draining more than one (1) square mile in an urban or urbanizing area, or more than ten (10) square miles in a rural area, the above analyses shall be submitted to IDNR/OWR for approval. Once approved it must be submitted to the Illinois State Water Survey Floodplain Information Repository for filing.
    D. For a non-riverine SFHA, the Base Flood Elevation shall be the historic Flood of Record plus three feet, unless calculated by a detailed engineering study and approved by IDNR/OWR for drainage areas greater than one (1) square mile.
    E. For an unmapped extended SFHA (with drainage area less than one square mile), the base flood elevation shall be determined by the applicant utilizing a method as approved in this Section of the Ordinance.

1604.0 Occupation and use of Flood Fringe Areas

Development in and/or filling of the flood fringe will be permitted if protection is provided against the base flood or 100-year frequency flood by proper elevation, and compensatory storage, and other applicable provisions of this Ordinance. No use will be permitted which adversely affects the capacity of drainage facilities or systems. Developments located within the flood fringe shall meet the requirements of this Section, along with the requirements of Section 1607.0.

1. Site Development Permit for Development in the SFHA

    A. No person, firm, corporation, or governmental body not exempted by state law shall commence any development in the SFHA without first obtaining a Site

Development Permit from the Village of Homer Glen. Failure to obtain a Site Development Permit prior to the initiation of any development activities is a violation of this Ordinance.

B. Any person, firm, corporation or governmental body not exempted by state law that commences any development in the SFHA without first obtaining a Site Development Permit from the Village shall be required to obtain an after the fact Site Development Permit at a cost that is double the normal fee (refer to Section 1500.0).

C. Application for a Site Development Permit shall be made on a form provided by the Village.

   i. The application shall be accompanied by drawings of the site, drawn to scale, showing property line dimensions and legal description for the property and sealed by a licensed engineer, architect or land surveyor; existing grade elevations in M.S.L., 1929 adj. Datum or N.G.V.D. and all changes in grade resulting from excavation or filling; the location and dimensions of all buildings and additions to buildings.
   ii. For all proposed buildings, the elevation of the lowest floor (including basement) and lowest adjacent grade shall be shown on the submitted plans and the development will be subject to the requirements of Section 1607.0 of this Ordinance.

D. Upon receipt of a Site Development Permit application, the Village shall compare the elevation of the site to the base flood or 100-year frequency flood elevation.

   i. Any development located on land that can be shown to be higher than the base flood elevation of the current Flood Insurance Rate Map and which has not been filled after the date of the site's first Flood Insurance Rate Map without a Site Development Permit as required by this Ordinance is not in the SFHA and, therefore, not subject to the requirements of this Ordinance.
   ii. The Village shall maintain documentation of the existing ground elevation at the development site and certification that this ground elevation existed prior to the date of the site's first Flood Insurance Rate Map identification.

E. A soil erosion and sediment control plan for disturbed areas shall be submitted in accordance with Section 1400.0. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and re-vegetation measures, and the identification of a responsible party to ensure post-construction maintenance.

F. The applicant shall be responsible for providing the Village copies of all other federal, state, and local permits, approval or permit-not-required letters that may be required for this type of activity. The Village shall not issue a permit unless all other federal, state, and local permits have been obtained.

2. Preventing Increased Damages

No development in the flood fringe shall create a threat to public health and safety.

A. If fill is being used to elevate the site above the base flood or 100-year frequency flood elevation, the applicant shall submit sufficient data and obtain a letter of map revision (LOMR) from FEMA for the purpose of removing the site from the floodplain.
B. Compensatory Storage.

i. Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood or 100-year frequency flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood or 100-year frequency flood elevation.
ii. The excavation volume shall be at least equal to 1.50 times the volume of storage lost due to the fill or structure.
iii. In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.
iv. All floodplain storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All floodplain storage lost above the proposed 10-year flood elevation shall be replaced above the proposed 10-year flood elevation.
v. All such excavations shall be constructed to drain freely and openly to the watercourse.

1605.0 Occupation and use of Designated Floodways

This Section applies to proposed development, redevelopment, site modification or building modification within a designated floodway. The designated floodway for the Village of Homer Glen shall be as delineated on the designated floodway maps designated by IDNR/OWR according to and referenced in Section 200.0. Only those uses and structures will be permitted which meet the criteria in this Section. All floodway modifications shall be the minimum necessary to accomplish the purpose of the project. The development shall also meet the requirements of Section 1607.0.

1. Site Development Permit for Development in a Floodway

No person, firm, corporation or governmental body not exempted by state law shall commence any development in a floodway without first obtaining a Site Development Permit from the Village and IDNR/OWR. Failure to obtain a Site Development Permit prior to the initiation of any development activities is a violation of this Ordinance.

A. Any person, firm, corporation or governmental body not exempted by state law that commences any development in the SFHA without first obtaining a Site Development Permit from the Village and who has been issued a stop work order

shall be required to obtain an after the fact Site Development Permit at a cost that is double the normal fee (refer to Section 1500.0).

B. Application for a Site Development Permit shall be made on a form provided by the Land Use Department. The application shall include the following information:

i. Name and address of applicant;
ii. Site location (including legal description) of the property, drawn to scale, on the designated floodway map, indicating whether it is proposed to be in an incorporated or unincorporated area;
iii. Name of stream or body of water affected;
iv. Description of proposed activity;
v. Statement of purpose of proposed activity;
vi. Anticipated dates of initiation and completion of activity;
vii. Name and mailing address of the owner of the subject property if different from the applicant;
viii. Signature of the applicant or the applicant's agent;
ix. If the applicant is a corporation, the president or other authorized officer shall sign the application form;
x. If the applicant is a partnership, each partner shall sign the application form;
xi. If the applicant is a land trust, the trust officer shall sign the name of the trustee by him/her as trust officer. A disclosure affidavit shall be filed with the application, identifying each beneficiary of the trust by name and address and defining the respective interests therein.
xii. Plans of the proposed activity shall be provided which include as a minimum:

a. A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale, and north arrow;
b. A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the structure or work, elevations in mean sea level (1929 adjustment) datum or NGVD or North American Vertical Datum, adjacent property lines and ownership, drainage and flood control easements, location of any channels and any existing or future access roads, distance between proposed activity and navigation channel (when the proposed construction is near a commercially navigable body of water), designated floodway limit, floodplain limit, specifications and dimensions of any proposed channel modifications, location and orientation of cross-sections, north arrow, and a graphic or numerical scale;
c. Cross-section views of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the work as shown in the plan view, existing and proposed elevations, normal water elevation, 10-year frequency flood elevation, 100-year frequency flood elevation, and graphic or numerical scales (horizontal and vertical);

d. A soil erosion and sediment control plan for disturbed areas in accordance with Section 1400.0. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and re-vegetation measures, and the identification of a responsible party to ensure post-construction maintenance.
e. A copy of the designated floodway map, marked to reflect any proposed change in the designated floodway location.

xiii. Any and all other federal, state, and local permits or approval letters that may be required for this type of development;
xiv. Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the permit criteria of Section 1605.0-2;
xv. If the designated floodway delineation, base flood or 100-year frequency flood elevation will change due to the proposed project, the application will not be considered complete until IDNR/OWR has indicated conditional approval of the designated floodway map change. No structures may be built until a Letter of Map Revision has been approved by FEMA;
xvi. The application for a structure shall be accompanied by drawing of the site, drawn to scale showing property line dimensions and existing ground elevations and all changes in grade resulting from any proposed excavation or filling, and floodplain and floodway limits; sealed by a registered professional engineer, licensed architect or registered land surveyor; the location and dimensions of all buildings and additions to buildings; and the elevation of the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 1607.0 of this Ordinance; and
xvii. If the proposed project involves a channel modification, the applicant shall submit the following information:

a. A description of the purpose of and need for the proposed work;
b. A description of the feasibility of using alternative locations or methods (see 1605.0-2-C-ix) to accomplish the purpose of the proposed work;
c. An analysis of the extent and permanence of the impacts each feasible alternative identified in 1605.0-2-C-ix of this Section would have on the physical and biological conditions of the body of water affected; and
d. An analysis of the impacts of the proposed project, considering cumulative effects on the physical and biological conditions of the body of water affected.

C. The applicant shall be responsible for submitting to the Village copies of all other federal, state, and local permits and approvals that may be required for this type of activity.

i. The Village shall not issue the Site Development Permit unless all required federal and state permits have been submitted.
ii. A Registered Professional Engineer, under the employ or contract of the

Village shall review and approve applications submitted under this Section.

2. Preventing Increased Damages and a List of Appropriate Uses.

A. The only development in a floodway which will be allowed are Appropriate Uses, which will not cause a rise in the base flood elevation, and which will not create a damaging or potentially damaging increase in flood heights or velocity or be a threat to public health and safety and welfare or impair the natural hydrologic and hydraulic functions of the floodway or channel, or permanently impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this Ordinance. Only the following Appropriate Uses will be allowed per 92 Ill. Adm. Code Part 708:

i. Public flood control structures, dikes, dams and other public works or private improvements relating to the control of drainage, flooding of existing structures, erosion, or water quality or habitat for fish and wildlife;
ii. Structures or facilities relating to the use of, or requiring access to, the water or shoreline, such as in stream aeration and similar treatment facilities.
iii. Facilities and improvements related to recreational boating, and commercial shipping and other functionally water dependent uses;
iv. Storm and sanitary sewer outfalls;
v. Underground and overhead utilities;
vi. Public open space and recreational facilities such as trail systems, including any related fencing (at least fifty percent (50%) open when viewed from any one direction) built parallel to the direction of flood flows, including open air pavilions, and including parking facilities and any modification thereto associated with an appropriate public facility;
vii. Bridges, culverts, and associated roadways, sidewalks, and railways, necessary for crossing over the floodway or for providing access to other appropriate uses in the floodway and any modification thereto;
viii. Regulatory floodway re-grading, without fill, to create a positive non-erosive slope toward a watercourse;
ix. Flood proofing activities to protect previously existing lawful structures including the construction of water tight window wells, elevating structures, or construction of floodwalls around residential, commercial or industrial principal structures where the outside toe of the floodwall shall be no more than ten (10) feet away from the exterior wall of the existing structure, and, which are not considered substantial improvements to the structure.
x. The replacement, reconstruction or repair of a damaged building, provided that the outside dimensions of the building are not increased, and provided that, if the building is damaged to fifty percent (50%) or more of the building market value before it was damaged, or if the building requires a substantial improvement, the building will be protected from flooding to the Flood Protection Elevation.
xi. Modifications to an existing building that would not increase the enclosed first floor area of the building below the 100-year frequency flood elevation, and which will not block flood flows including, but not limited to, fireplaces, bay

windows, decks, patios, and second story additions. If the building is improved to fifty percent (50%) or more of the building market value before modification occurred, the building will be protected from flooding to the Flood Protection Elevation.

B. Appropriate uses do not include the construction or placement of any new structures, fill, building additions, buildings on stilts, excavation or channel modifications done to accommodate otherwise non-appropriate uses in the floodway, fencing (including landscaping or planting designed to act as a fence) and storage of materials except as specifically defined above as an Appropriate Use.

C. Within the designated floodway as identified on the floodway maps designated by IDNR/OWR, the construction of an Appropriate Use, will be considered permissible provided that the proposed project meets the following engineering and mitigation criteria and is so stated in writing with supporting plans, calculations and data by a registered professional engineer and provided that any structure meets the protection requirements of Section 1605.0 of this Ordinance:

i. Preservation of Flood Conveyance, so as Not to Increase Flood Stages Upstream

For appropriate uses other than bridges or culvert crossings, on-stream structures or dams, all effective designated floodway conveyance lost due to the project will be replaced for all flood events up to and including the 100-year frequency flood. In calculating effective designated floodway conveyance, the following factors shall be taken into consideration:

a. Designated floodway conveyance, "K" = $(1.486/n)(AR^{2/3})$ where "n" is Manning's roughness factor, "A" is the effective flow area of the cross-section, and "R" is the ration of the area to the wetted perimeter. (See Open Channel Hydraulics, Ven Te Chow, 1959, McGraw-Hill Book Company, New York)

b. The same Manning's "n" value shall be used for both existing and proposed conditions unless a recorded maintenance agreement with a federal, state, or local unit of government can assure the proposed conditions will be maintained or the land cover is changing from a vegetative to a non-vegetative land cover.

c. Transition sections shall be provided and used in calculations of effective designated floodway conveyance. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:

I. When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one foot horizontal for every four feet of the flooded stream's length.

II. When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one (1) foot horizontal for every one foot of the flooded stream's length.

III. When expanding or contracting flows in a vertical direction, a minimum of one-foot vertical transition for every ten feet of stream length shall be used.

IV. Transition sections shall be provided between cross-sections with rapid expansions and contractions and when meeting the designated floodway delineation on adjacent properties.

V. All cross-sections used in the calculations shall be located perpendicular to flood flows.

ii. Preservation of Floodway Storage so as Not to Increase Downstream Flooding.

a. Compensatory storage shall be provided for any designated floodway storage lost due to the proposed work from the volume of fill or structures placed and the impact of any related flood control projects.

b. Compensatory storage for fill or structures shall be equal to at least 1.50 times the volume of floodplain storage lost.

c. Artificially created storage lost due to a reduction in head loss behind a bridge shall not be required to be replaced.

d. The compensatory designated floodway storage shall be placed between the proposed normal water elevation and the proposed 100-year flood elevation. All designated floodway storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All designated floodway storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10-year flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.

e. If the compensatory storage will not be placed at the location of the proposed construction, the applicant's engineer shall demonstrate to IDNR/OWR through a determination of flood discharges and water surface elevations that the compensatory storage is hydraulically equivalent.

f. There shall be no reduction in floodway surface area as a result of a floodway modification, unless such modification is necessary to reduce flooding at an existing structure.

iii. Preservation of Floodway Velocities so as Not to Increase Stream Erosion or Flood Heights.

a. For all Appropriate Uses, except bridges or culverts or on stream structures, the proposed work will not result in an increase in the average channel or designated floodway velocities or stage for all flood events up to and including the 100-year frequency event.

b. In the case of bridges or culverts or on stream structures built for the purpose of backing up water in the stream during normal or flood flows, velocities may be increased at the structure site if scour, erosion and sedimentation will be avoided by the use of rip-rap or other design measures.

iv. Construction of New Bridges or Culvert Crossings and Roadway Approaches.

a. The proposed structure shall not result in an increase of upstream flood stages greater than 0.1 foot when compared to the existing conditions for all flood events up to and including the 100-year frequency event; or the upstream flood stage increases will be contained within the channel banks (or within existing vertical extensions of the channel banks) such as within the design protection grade of existing levees or flood walls or within recorded flood easements.

b. If the proposed construction will increase upstream flood stages greater than 0.1 feet, the developer must contact IDNR/OWR to obtain a permit for a dam or waiver.

I. The engineering analysis of upstream flood stages must be calculated using the flood study flows, and corresponding flood elevations for tail water conditions for the flood study specified in Section 1603.0 of this Ordinance. Culverts must be analyzed using the U.S. DOT, FHWA Hydraulic Chart for the Selection of Highway Culverts. Bridges must be analyzed using the U.S. DOT/Federal Highway Administration Hydraulics of Bridge Waterways' calculation procedures.

II. Lost floodway storage must be compensated for per Section 1605.0-2-C-ii.

III. Velocity increases must be mitigated per Section 1605.0-2-C-iii.

IV. If the crossing is proposed over a public water that is used for recreational or commercial navigation, an IDNR/OWR permit must be received.

V. The hydraulic analysis for the backwater caused by the bridge showing the existing condition and proposed regulatory profile must be submitted to IDNR/OWR for concurrence that a CLOMR is not required by Section 1605.0-2.

VI. All excavations for the construction of the crossings shall be designed per Section 1605.0-2-C-viii.

v. Reconstruction or Modification of Existing Bridges, Culverts, and Approach Roads.

a. The bridge or culvert and roadway approach reconstruction or modification shall be constructed with no more than 0.1 foot increase in backwater over the existing flood profile for all flood frequencies up to and including the 100-year event, if the existing structure is not a source of flood damage.

b. If the existing bridge or culvert and roadway approach is a source of flood damage to buildings or structures in the upstream floodplain the applicant's engineer shall evaluate the feasibility of redesigning the structure to reduce the existing backwater, taking into consideration the effects on flood stages on upstream and downstream properties.

c. The determination as to whether or not the existing crossing is a source of flood damage and should be redesigned must be prepared in accordance with 92 Ill Adm. Code Part 708 (Floodway Construction in Northeastern Illinois) and submitted to IDNR/OWR for review and concurrence before a permit is issued.

vi. On-stream Structures Built for the Purpose of Backing Up Water.

a. Any increase in upstream flood stages greater than 0.0 foot when compared to the existing conditions, for all flood events up to and including the 100year frequency event shall be contained within the channel banks (or within existing vertical extensions of the channel banks) such as within the design protection grade of existing levees or flood walls or within recorded flood easements.

b. A permit or letter indicating a permit is not required must be obtained from IDNR/OWR for any structure built for the purpose of backing up water in the stream during normal or flood flow.

c. All dams and impoundment structures as defined in Section 202.0 shall meet the permitting requirements of 92 Ill. Adm. Code Part 702 (Construction and Maintenance of Dams). If the proposed activity involves a modification of the channel or floodway to accommodate an impoundment, it shall be demonstrated that:

I. The impoundment is determined to be in the public interest by providing flood control, public recreation, or regional storm water detention;

II. The impoundment will not prevent the migration of indigenous fish species, which require access to upstream areas as part of their life cycle, such as for spawning;

III. The impoundment will not cause or contribute to degraded water quality or habitat conditions. Impoundment design should include gradual bank slopes, appropriate bank stabilization measures, and a pre-sedimentation basin;

IV. A non-point source control plan has been implemented in the upstream watershed to control the effects of sediment runoff as well as minimize the input of nutrients, oil and grease, metals, and other pollutants. If there is more than one municipality in the upstream watershed, the municipality in which the impoundment is constructed should coordinate with upstream municipalities to ensure comprehensive watershed control;

V. The project otherwise complies with the requirements of Section 1605.0.

vii. Flood Proofing of Existing Habitable, Residential and Commercial Structures.

a. If construction is required beyond the outside dimensions of the existing building, the outside perimeter of the flood proofing construction shall be placed no further than ten (10) feet from the outside of the building.
b. Compensation for lost storage and conveyance will not be required for flood proofing activities.

viii. Excavation in the Floodway.

a. When excavation is proposed in the design of bridges and culvert openings, including the modifications to and replacement of existing bridge and culvert structures, or to compensate for lost conveyance or other appropriate uses, transition sections shall be provided for the excavation.
b. The following expansion and contraction ratios shall be used unless an applicant's engineer can prove to IDNR/OWR through engineering calculations or model tests that more abrupt transitions may be used with the same efficiency:

I. When water is flowing from a narrow section to a wider section, the water should be assumed to expand no faster than at a rate of one (1) foot horizontal for every four (4) feet of the flooded stream's length;
II. When water is flowing from a wide section to a narrow section, the water should be assumed to contract no faster than at a rate of one (1) foot horizontal for every one (1) foot of the flooded stream's length; and
III. When expanding or contracting flows in a vertical direction, a minimum of one-foot vertical transition for every ten feet of stream length shall be used.
IV. Erosion/scour protection shall be provided inland upstream and downstream of the transition sections.

ix. If the proposed activity involves a channel modification, it shall be demonstrated that:

a. There are no practicable alternatives to the activity, which would accomplish its purpose with less impact to the natural conditions of the body of water affected. Possible alternatives include levees, bank stabilization, flood proofing of existing structures, removal of structures from the floodplain, clearing the channel, high flow channel, or the establishment of a streamside buffer strip or green belt. Channel modification is acceptable if the purpose is to restore natural conditions and improve water quality and fish and wildlife habitat;
b. Water quality, habitat, and other natural functions would be significantly improved by the modification and no significant habitat

area may be destroyed, or the impacts are offset by the replacement of an equivalent degree of natural resource values;

c. The activity has been planned and designed and will be constructed in a way which will minimize its adverse impacts on the natural conditions of the body of water affected, consistent with the following criteria:

I. The physical characteristics of the modified channel shall match as closely as possible those of the existing channel in length, cross section, slope and sinuosity. If the existing channel has been previously modified, restoration of more natural physical conditions should be incorporated into channel modification design, where practical.

II. Hydraulically effective transitions shall be provided at both the upstream and downstream ends of the project, designed such that they will prevent erosion.

III. One-sided construction of a channel shall be used when feasible. Removal of streamside (riparian) vegetation should be limited to one side of the channel, where possible, to preserve the shading and stabilization effects of the vegetation.

IV. Clearing of stabilizing vegetation shall be limited to that which is essential for construction of the channel.

V. Channel banks shall be constructed with a side slope no steeper than 3:1 horizontal to vertical, wherever practicable. Native vegetation and gradual side slopes are the preferred methods for bank stabilization. Where high velocities or sharp bends necessitate the use of alternative stabilization measures, soil bioengineering techniques, natural rock or riprap are preferred approaches. Artificial materials such as concrete, gabions, or construction rubble should be avoided unless there are no practicable alternatives.

VI. All disturbed areas associated with the modification shall be seeded or otherwise stabilized as soon as possible upon completion of construction. Erosion blanket or an equivalent material shall be required to stabilize disturbed channel banks prior to establishment of the vegetative cover.

VII. If the existing channel contains considerable bottom diversity such as deep pools, riffles, and other similar features, such features shall be provided in the new channel. Spawning and nesting areas and flow characteristics compatible with fish habitat shall also be established, where appropriate.

VIII. A sediment basin shall be installed at the downstream end of the modification to reduce sedimentation and degradation of downstream water quality.

IX. New or relocated channels should be built in the dry and all items of construction, including vegetation, should be completed prior to diversion of water into the new channel.

X. There shall be no increases in stage or velocity as the channel enters or leaves the project site for any frequency flood unless necessitated by a public flood control project or unless such an increase is justified as part of a habitat improvement or erosion control project.

XI. Unless the modification is for a public flood control project, there shall be no reduction in the volume of floodwater storage outside the floodway as a result of the modification.

d. The project otherwise complies with the requirements of Section 1605.0.

x. Seeding and Stabilization Plan.

For all activities located in a floodway, a seeding and stabilization plan shall be submitted by the applicant.

xi. Soil Erosion and Sedimentation Measures.

For all activities in the floodway, including grading, filling, and excavation, in which there is potential for erosion of exposed soil, soil erosion and sedimentation control measures shall be employed consistent with the following criteria:

a. The construction area shall be minimized to preserve the maximum vegetation possible. Construction shall be scheduled to minimize the time soil is exposed and unprotected. In no case shall the existing natural vegetation be destroyed, removed, or disturbed more than fifteen (15) days prior to the initiation of improvements.

b. Temporary and/or permanent soil stabilization shall be applied to denuded areas as soon as possible. As a minimum, soil stabilization shall be provided within fifteen (15) days after final grade is reached on any portion of the site, and within fifteen (15) days to denuded areas, which may not be at final grade but will remain undisturbed for longer than sixty (60) days.

c. Sedimentation control measures shall be installed before any significant grading or filling is initiated on the site to prevent the movement of eroded sediments off site or into the channel. Potential sediment control devices include filter fences, straw bale fences, check dams, diversion ditches, and sediment traps and basins.

d. A vegetated buffer strip of at least seventy-five (75) feet in width shall be preserved and/or re-established, where possible, along existing channels (See Section 1605.0-2-C-xvi). The buffer width may be reduced to a minimum of 1/2 of the buffer width required, upon approval by the Village, provided that the total buffer area required is achieved adjacent to the area being buffered. The permitting and/or consultation process with any other agency such as the IDNR, USACE

or U.S. Fish & Wildlife Service may override the ability to average buffer areas upon approval of the Village.

Construction vehicle use of channels shall be minimized. Temporary stream crossings shall be constructed, where necessary, to minimize erosion. Necessary construction in or along channels shall be restabilized immediately.

e. Soil erosion and sedimentation control measures shall be designed and implemented consistent with "Procedures and Standards for Urban Soil Erosion and Sedimentation Control in Illinois" (1998) and "The Illinois Urban Manual" (NRCS, 1995).

xii. Public Flood Control Projects. For public flood control projects, the permitting requirements of this Section will be considered met if the applicant can demonstrate to IDNR/OWR through hydraulic and hydrologic calculations that the proposed project will not singularly or cumulatively result in increased flood heights outside the project right-of-way or easements for all flood events up to and including the 100-year frequency event.

xiii. General Criteria for Analysis of Flood Elevations.

a. The flood profiles, flows and floodway data in the designated floodway study, referenced in Section 1603.0, must be used for analysis of the base conditions. If the study data appears to be in error or conditions have changed, IDNR/OWR shall be contacted for approval and concurrence on the appropriate base conditions data to use.

b. If the 100-year designated floodway elevation at the site of the proposed construction is affected by backwater from a downstream receiving stream with a larger drainage area, the proposed construction shall be shown to meet:

I. The requirements of this Section for the 100-year frequency flood elevations of the designated floodway conditions; and

II. Conditions with the receiving stream at normal water elevations.

c. If the applicant learns from IDNR/OWR, local governments, or a private owner that a downstream restrictive bridge or culvert is scheduled to be removed, reconstructed, modified, or a regional flood control project is scheduled to be built, removed, constructed or modified within the next five years, the proposed construction shall be analyzed and shown to meet the requirements of this Section for both the existing conditions and the expected flood profile conditions when the bridge, culvert or flood control project is built.

xiv. Conditional Letter of Map Revision.

a. If the Appropriate Use would result in a change in the designated floodway location or the 100-year frequency flood elevation, the

applicant shall submit to IDNR/OWR and FEMA all information, calculations and documents necessary to be issued a conditional designated floodway map revision and receive from IDNR/OWR a conditional concurrence of the designated floodway change before a permit is issued.

b. The final designated floodway map will not be changed by FEMA until as-built plans or record drawings of initial filling, grading, dredging, or excavating activities are submitted and accepted by FEMA and IDNR/OWR.

c. In the case of non-government projects, the municipality in incorporated areas and the county in unincorporated areas shall concur with the proposed conditional designated floodway map revision before IDNR/OWR approval can be given.

d. No filling, grading, dredging or excavating shall take place until a conditional approval is issued.

e. After initial filling, grading, dredging or excavating, no activities shall take place until a final Letter of Map Revision (LOMR) is issued by FEMA with concurrence from IDNR/OWR.

xv. Professional Engineer's Supervision.

All engineering analyses shall be performed by or under the supervision of a registered professional engineer.

xvi. For all activities in the floodway involving construction within seventy-five (75) feet of the channel, the following criteria shall be met:

a. A natural vegetation buffer strip shall be preserved within at least seventy-five (75) feet of the ordinary high water mark of the channel.

b. Where it is impossible to protect this buffer strip during the construction of an Appropriate Use as allowed in Section 1605.0-2-A, a vegetated buffer strip shall be established upon completion of construction.

xvii. After receipt of conditional approval of the designated floodway change and issuance of a permit and a Conditional Letter of Map Revision, construction as necessary to change the floodway designation may proceed but no buildings or structures or other construction that is not an Appropriate Use may be placed in that area until the designated floodway map is changed and a final Letter of Map Revision is received. The designated floodway map will be revised upon acceptance and concurrence by IDNR/OWR and FEMA of the "as-built" plans.

3. Development Activities Requiring State Review

For those projects listed below located in a designated floodway, the following criteria shall be submitted to IDNR/OWR for their review and concurrence prior to the issuance of a permit by the Village, which is the delegated state permitting authority in the floodway.

A. An engineer's analysis of the flood profile due to a proposed bridge pursuant to Section 1605.0-2-C-iv.
B. An engineer's determination that an existing bridge or culvert crossing is not a source of flood damage and the analysis indicating the proposed flood profile, pursuant to Section 1605.0-2-C-v.
C. Alternative transition sections and hydraulically equivalent storage pursuant to Section 1605.0-2-C-i, ii, viii.
D. The construction of any IDNR/OWR projects, dams (as defined in Section 200.0) and all other state, federal, or local units of government projects, including projects of the municipality or county.
E. An engineer's determination that a proposed bridge affected by backwater from a downstream receiving stream may be built with a smaller opening.
F. Projects which revise the floodway and/or flood profiles.
G. Projects in public bodies of water.

4. Other Permits

A. In addition to the other requirements of this Ordinance, a development permit for a site located in a floodway shall not be issued unless the applicant first obtains a permit or written documentation that a permit is not required from IDNR/OWR, issued pursuant to 615 ILCS 5/4.9 et seq.
B. No permit from IDNR/OWR shall be required if IDNR/OWR has delegated this responsibility to the Village.

5. Permits for Dams

A. Any work involving the construction, modification or removal of a dam as defined in Section 10.3 per 92 Ill. Adm. Code Part 702 (Rules for Construction of Dams) shall obtain an IDNR/OWR permit prior to the start of construction of a dam.
B. If the Village finds a dam that does not have an IDNR/OWR permit, the Village shall immediately notify the IDNR/OWR Schaumburg office.

6. Activities That Do Not Require A Registered Professional Engineer's Review

The following activities may be permitted without a registered professional engineer's review. Such activities shall still meet the other requirements of this Ordinance, including the mitigation requirements.

A. Underground and overhead utilities that:

i. Do not result in any increase in existing ground elevations, or
ii. Do not require the placement of above ground structures in the floodway, or
iii. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of three feet (3') below the existing streambed, and
iv. Overhead utility lines shall be constructed above the estimated 100-year frequency flood elevation or attached above the low chord of an existing bridge (with the permission of the bridge owner). No supporting towers shall be placed in the watercourse and shall be designed so as to not catch debris.
v. Disturbance of streamside vegetation shall be kept to a minimum during construction to prevent erosion and sedimentation. All disturbed floodway areas, including the stream banks shall be restored to their original contours and seeded or otherwise stabilized upon completion of construction.
vi. A utility crossing carrying material which may cause water pollution as defined by the Environmental Protection Act 415 ILCS 5 (1992 State Bar Edition) shall be provided with shut off valves on each side of the body of water to be crossed.
vii. All Illinois Commerce Commission, National Electric Safety Codes, and federal requirements for clearance must be met.

B. Storm and sanitary sewer relief outfalls that:

i. Do not extend riverward or lakeward of the existing adjacent natural bank slope,
ii. Do not result in an increase in ground elevation, and
iii. Are designed so as not to cause stream erosion at the outfall location.

C. Construction of sidewalks, athletic fields (excluding fences), properly anchored playground equipment and patios at grade.
D. Construction of shoreline and stream bank protection:

i. That does not exceed one thousand feet (1,000') in length.
ii. Where materials are not placed higher than the existing top of bank.
iii. Where materials are not placed so as to reduce the cross-sectional area of the stream channel or bank of the lake.
iv. Where stabilization utilizing native vegetation and gradual side slopes are the preferred mitigation methods for existing erosion problems. Where high channel velocities, sharp bends or wave action necessitate the use of alternative stabilization measures, soil bioengineering techniques, natural rock or riprap are preferred materials. Artificial materials such as concrete, construction rubble, and gabions should be avoided unless there are no practicable alternatives.
v. Where temporary stream crossings in which:

a. The approach roads will be one-half (½) foot or less above natural grade.
b. The crossing will allow stream flow to pass without backing up the water above the stream bank vegetation line or above any drainage tile

or outfall invert.

c. The top of the roadway fill in the channel will be at least two feet (2') below the top of the lowest bank. Any fill in the channel shall be non-erosive material, such as riprap or gravel.

d. All disturbed stream banks will be seeded or otherwise stabilized as soon as possible upon installation and again upon removal of construction.

e. The access road and temporary crossings will be removed within one year after authorization.

1606.0 Occupation and use of SFHA Where Floodways are not Identified

1. In SFHA or floodplains (including AE, AH, AO and Unnumbered A Zones) where no floodways have been identified and no base flood or 100-year frequency flood elevations have been established by FEMA, and draining more than a square mile, no development shall be permitted unless the cumulative effect of the proposals, when combined with all other existing and anticipated uses and structures, shall not significantly impede or increase the flow and passage of the floodwaters nor significantly increase the base flood or 100-year frequency flood elevation.

   A. No person, firm, corporation, or governmental body, not exempted by state law, shall commence any development in a SFHA or floodplain without first obtaining a Site Development Permit from the Village of Homer Glen. Failure to obtain a Site Development Permit is a violation of this Ordinance.

   B. Any person, firm, corporation or governmental body not exempted by state law that commences any development in the SFHA without first obtaining a Site Development Permit from the Village shall be required to obtain an after the fact Site Development Permit at a cost that is double the normal fee (refer to Section 1500.0).

   C. Application for a Site Development Permit shall be made on a form provided by the Village.

      i. The application shall be accompanied by drawings of the site, drawn to scale showing property line dimensions, existing grade elevations, and all changes in grade resulting from excavation or filling, sealed by a licensed engineer, architect or surveyor; the location and dimensions of all buildings and additions to buildings; and the elevations of the lowest floor (including basement) of all proposed buildings subject to the requirements of Section 1607.0 of this Ordinance.

      ii. The application for a Site Development Permit shall also include the following information:

         a. A detailed description of the proposed activity, its purpose, and intended use;

         b. Site location (including legal description) of the property, drawn to scale, on the designated floodway maps, indicating whether it is proposed to be in an incorporated or unincorporated area;

c. Anticipated dates of initiation and completion of activity;
d. Plans of the proposed activity shall be provided which include as a minimum:

I. A vicinity map showing the site of the activity, name of the waterway, boundary lines, names of roads in the vicinity of the site, graphic or numerical scale, and north arrow;
II. A plan view of the project and engineering study reach showing existing and proposed conditions including principal dimensions of the structure or work, elevations in mean sea level (1929 adjustment) datum or N.G.V.D., adjacent property lines and ownership, drainage and flood control easements, distance between proposed activity and navigation channel (when the proposed construction is in or near a commercially navigable body of water), floodplain limit, location and orientation of cross-sections, north arrow, and a graphical or numerical scale;
III. Cross-section views of the project perpendicular to the flow of floodwater and engineering study reach showing existing and proposed conditions including principal dimensions of the work as shown in the plan view, existing and proposed elevations, normal water elevation, 10-year frequency flood elevation, 100-year frequency flood elevation, and graphical or numerical scales (horizontal and vertical); and
IV. A soil erosion and sedimentation control plan for disturbed areas. This plan shall include a description of the sequence of grading activities and the temporary sediment and erosion control measures to be implemented to mitigate their effects. This plan shall also include a description of final stabilization and re-vegetation measures, and the identification of a responsible party to ensure post-construction maintenance.

iii. Engineering calculations and supporting data shall be submitted showing that the proposed work will meet the criteria of Section 1606.0-2.
iv. Any and all other federal, state, and local permits or approvals that may be required for this type of development.

D. Based on the best available existing data according to the Illinois State Water Survey's Floodplain Information Repository, the Village shall compare the elevation of the site to the base flood or 100-year frequency flood elevation.

i. Should no elevation information exist for the site, the developer's engineer shall calculate the elevation according to Section 1603.0-5.
ii. Any development located on land that can be shown to have been higher than the base flood elevation of the current Flood Insurance Rate Map Identification is not in the SFHA and, therefore, not subject to the requirements of this Ordinance.
iii. The Village shall maintain documentation of the existing ground elevation at

the development site and certification that this ground elevation existed prior to the date of the site's first Flood Insurance Rate Map identification.

E. The applicant shall be responsible for submitting to the Village copies of all other federal, state, and local permits, approvals or permit-not-required letters that may be required for this type of activity. The Village shall not issue the development permit unless all required federal, state, and local permits have been submitted.

2. Preventing Increased Damages

A. No development in the SFHA, where a floodway has not been determined shall create a damaging or potentially damaging increase in flood heights or velocity or threat to public health, safety and welfare, impair the natural hydrologic and hydraulic functions of the floodway or channel, or impair existing water quality or aquatic habitat. Construction impacts shall be minimized by appropriate mitigation methods as called for in this Ordinance.

B. Within all riverine SFHAs where the floodway has not been determined, the following standards shall apply:

i. The developer shall have a Registered Professional Engineer state in writing and show through supporting plans, calculations, and data that the project meets the engineering requirements of Section 1605.0-2-C-i through xii for the entire floodplain as calculated under the provisions of Section 1603.0-4 of this Ordinance.

a. As an alternative, the developer should have an engineering study performed to determine a floodway and submit that engineering study to IDNR/OWR for acceptance as a designated floodway.
b. Upon acceptance of the floodway by IDNR/OWR, the developer shall demonstrate that the project meets the requirements of Section 1605.0 for the designated floodway. The floodway shall be defined according to the definition in Section 202.0 of this Ordinance.

ii. A development permit shall not be issued unless the applicant first obtains a permit from IDNR/OWR.

iii. No permit from IDNR/OWR shall be required if IDNR/OWR has delegated permit responsibility per 92 Ill. Adm. Code Part 708 for designated floodways.

iv. Permits for Dams

a. Any work involving the construction, modification or removal of a dam as defined in Section 10.3-0 per 92 Ill. Adm. Code Part 702 (Rules for Construction of Dams) shall require the applicant to obtain an IDNR/OWR permit prior to the start of construction of a dam.
b. If the Village finds a dam that does not have an IDNR/OWR permit, the Village shall immediately notify the IDNR/OWR Schaumburg office.
c. If the Village finds a dam which is believed to be in unsafe condition,

the Village shall immediately notify the owner of the dam, the IDNR/OWR Schaumburg office, and the Illinois Emergency Management Agency (IEMA).

C. A Site Development Permit may be issued for the following activities without a Registered Professional Engineer's review or calculation of a base flood elevation and designated floodway. Such activities shall still meet the other requirements of this Ordinance:

i. Underground and overhead utilities that:

a. Do not result in any increase in existing ground elevations, or
b. Do not require the placement of above ground structures in the floodway, or
c. In the case of underground stream crossings, the top of the pipe or encasement is buried a minimum of three feet (3') below the existing streambed, and
d. Overhead utility lines shall be constructed above the estimated 100-year frequency flood elevation or attached above the low chord of an existing bridge (with the permission of the bridge owner). No supporting towers shall be placed in the watercourse and shall be designed so as to not catch debris.
e. Disturbance of streamside vegetation shall be kept to minimum during construction to prevent erosion and sedimentation.
f. A utility crossing carrying material which may cause water pollution as defined by the Environmental Protection Act 415 ILCS 5 (1992 State Bar Edition) shall be provided with shut-off valves on each side of the body of water to be crossed.
g. All Illinois Commerce Commission, National Electric Safety Codes, and federal requirements for clearance must be met.

ii. Storm and sanitary sewer relief outfalls that:

a. Do not extend riverward or lakeward of the existing adjacent natural bank slope, and
b. Do not result in an increase in ground elevation, and
c. Are designed so as not to cause stream erosion at the outfall location.

iii. Construction of shoreline and stream bank protection that:

a. Does not exceed one thousand feet (1,000') in length.
b. Materials are not placed higher than the existing top of bank.
c. Materials are placed so as not to reduce the cross-sectional area of the stream channel by more than ten percent (10%).
d. Stabilization utilizing native vegetation and gradual side slopes are the preferred mitigation methods for existing erosion problems. Where high channel velocities, sharp bends or wave action necessitate the use of

alternative stabilization measures, soil bioengineering techniques, natural rock or riprap are preferred materials. Artificial materials such as concrete, construction rubble, and gabions should be avoided unless there are no practicable alternatives.

iv. Temporary stream crossings in which:

a. The approach roads will be one half foot (½') or less above natural grade.
b. The crossing will allow stream flow to pass without backing up the water above the stream bank vegetation line or above any drainage tile or outfall invert.
c. The top of the roadway fill in the channel will be at least 2' below the top of the west bank. Any fill in the channel shall be non-erosive material, such as riprap or gravel.
d. All disturbed stream banks will be seeded or otherwise stabilized as soon as possible upon installation and again upon removal of construction.
e. The access road and temporary crossings will be removed within one year after authorization.

v. The construction of light poles, signposts and similar structures;
vi. The construction of sidewalks, driveways, athletic fields (excluding fences), patios and similar surfaces, which are built at grade;
vii. The construction of properly anchored, un-walled, open structures such as playground equipment, pavilions, and carports built at or below existing grade that would not obstruct the flow of flood waters;
viii. The placement of properly anchored buildings not exceeding seventy (70) square feet in size, nor ten (10) feet in any one dimension (e.g., animal shelters and tool sheds);
ix. The construction of additions to existing buildings which do not increase the first floor area by more than twenty percent (20%), which are located on the upstream or downstream side of the existing building, and which do extend beyond the sides of the existing building that are parallel to the flow of flood waters;
x. Minor maintenance dredging of a stream channel where:
a. The affected length of stream is less than one thousand feet (1,000').
b. The work is confined to reestablishing flows in natural stream channels, or
c. The cross-sectional area of the dredged channel conforms to that of the natural channel upstream and downstream of the site.

D. The flood-carrying capacity within any altered or relocated watercourse shall be maintained.

E. Compensatory Storage

i. Whenever any portion of a floodplain is authorized for use, the volume of space which will be occupied by the authorized fill or structure below the base flood or 100-year frequency flood elevation shall be compensated for and balanced by a hydraulically equivalent volume of excavation taken from below the base flood or 100-year frequency flood elevation.
ii. The excavation volume shall be at least equal to 1.50 times the volume of storage lost due to the fill or structure.
iii. In the case of streams and watercourses, such excavation shall be made opposite or adjacent to the areas so filled or occupied.
iv. All floodplain storage lost below the existing 10-year flood elevation shall be replaced below the proposed 10-year flood elevation. All floodplain storage lost above the existing 10-year flood elevation shall be replaced above the proposed 10year flood elevation. All such excavations shall be constructed to drain freely and openly to the watercourse.

1607.0 Permitting Requirements Applicable to all Floodplain Areas

In addition to the requirements found in Sections 1604.0, 1605.0, and 1606.0 for development in flood fringes, designated floodways, and SFHA or floodplains where no floodways have been identified (Zones A, AO, AH, AE, A1-A30, A99) the following requirements shall be met.

1. Public Health Standards

A. No developments in the SFHA shall include locating or storing chemicals, explosives, buoyant materials, animal wastes, fertilizers, flammable liquids, pollutants, or other hazardous or toxic materials below the flood protection elevation (FPE).
B. New and replacement water supply systems, wells, sanitary sewer lines and on-site waste disposal systems may be permitted providing all manholes or other above ground openings located below the FPE are watertight.

2. Carrying Capacity and Notification

A. For all projects involving channel modification, fill, or stream maintenance (including levees), the flood carrying capacity of the watercourse shall be maintained.
B. In addition, the Village shall notify adjacent communities in writing thirty (30) days prior to the issuance of a permit for the alteration or relocation of the watercourse.

3. Protecting Buildings

A. All buildings located within a 100-year floodplain also known as SFHA shall be protected from flood damage below the flood protection elevation. These building protection criteria may be met by one of the following methods in Sections B through F below and applied to the following situations:

i. Construction or placement of a new building;
ii. A structural alteration to an existing building that either increases the first floor area or the building's market value by more than fifty percent (50%);
iii. Installing manufactured home on a new site or a new manufactured home on an existing site. This building protection requirements does not apply to returning a mobile home to the same site it lawfully occupied before it was removed to avoid flood damage; and
iv. Installing a travel trailer on a site for more than one hundred and eighty (180) days.

B. A residential or non-residential building, when allowed, may be constructed on permanent land fill in accordance with the following:

i. The lowest floor (including basement) shall be at or above the flood protection elevation.
ii. Fill Requirements

a. The fill shall be placed in layers no greater than one (1) foot deep before compaction and should extend at least ten (10) feet beyond the foundation of the building before sloping below the flood protection elevation.
b. The top of the fill shall be above the flood protection elevation. However, the ten (10) foot minimum may be waived if a structural engineer certifies an alternative method to protect the building from damages due to hydrostatic pressures.
c. The fill shall be protected against erosion and scour.
d. The fill shall not adversely affect the flow or surface drainage from or onto neighboring properties.

C. A residential or non-residential building may be elevated in accordance with the following:

i. The building or improvements shall be elevated on crawl space, stilts, piles, walls, or other foundation that is permanently open to flood waters and not subject to damage by hydrostatic pressures of the base flood or 100-year frequency flood. The permanent openings shall be no more than one (1) foot above the existing grade, and consist of a minimum of two openings. The openings must have a total net area of not less than one (1) square inch for every one (1) square foot of enclosed area subject to flooding below the Base Flood Elevation.
ii. The foundation and supporting members shall be anchored and aligned in relation to flood flows and adjoining structures so as to minimize exposure to known hydrodynamic forces such as current, waves, ice and floating debris.
iii. All areas below the flood protection elevation shall be constructed of materials resistant to flood damage.

a. The lowest floor (including basement) and all electrical, heating,

ventilating, plumbing, and air conditioning equipment and utility meters shall be located at or above the flood protection elevation.

b. Water and sewer pipes, electric and telephone lines, submersible pumps, and other waterproofed service facilities may be located below the flood protection elevation.

iv. The areas below the flood protection elevation may only be used for the parking of vehicles, building access or storage in an area other than a basement.

v. Manufactured homes, and travel trailers to be installed on a site for more than one hundred and eighty (180) days, shall be elevated to or above the flood protection elevation; and, shall be anchored to resist flotation, collapse or lateral movement by being tied down in accordance with the Rules and Regulations for the Illinois Mobile Home Tie-Down Act issued pursuant to 77 Ill. Adm. Code Part 870. In addition, all manufactured homes shall meet the following elevation requirements:

a. In the case of manufactured homes placed or substantially improved (1) outside of a manufactured home park or subdivision, (2) in a new manufactured home park or subdivision, (3) in an expansion to an existing manufactured home park or subdivision, or (4) in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage from a flood, the top of the lowest floor shall be elevated to or above the flood protection elevation.

b. In the case of manufactured homes placed or substantially improved in an existing manufactured home park or subdivision, the manufactured home shall be elevated so that either the top of the lowest floor is above the base flood elevation or the chassis is at least thirty six (36) inches in height above grade and supported by reinforced piers or other foundations of equivalent strength, whichever is less.

vi. Recreational vehicles or travel trailers shall be required to meet the elevation and anchoring requirements of Subsection 1607.0-3-C-v above unless:

a. They are on site for fewer than one hundred and eighty (180) consecutive days; and

b. They are fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only be quick disconnect type utility and service devices, and has no permanently attached additions.

D. Only a non-residential building may be structurally dry flood proofed (in lieu of elevation) provided that:

i. A registered professional engineer shall certify that the building has been structurally dry flood proofed below the flood protection elevation, the structure and attendant utility facilities are watertight and capable of resisting

the effects of the base flood or 100-year frequency flood.

ii. The building design shall take into account flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces the effects of buoyancy, and impacts from debris or ice.

iii. Flood proofing measures shall be operable without human intervention and without an outside source of electricity (levees, berms, floodwalls and similar works are not considered flood proofing for the purpose of this subsection).

E. Existing buildings located within a designated floodway shall also meet the more restrictive Appropriate Use standards included in Section 1605.0. Non-conforming structures located in a designated floodway may remain in use and may only be enlarged, replaced or structurally altered in accordance with Section 1605.0-2.

1608.0 Other Development Requirements

The Village shall take into account flood hazards, to the extent that they are known in all official actions related to land management, use and development.

1. New structures, subdivisions, manufactured home parks, annexation agreements, and Planned Unit Developments (PUDs) within the SFHA shall be reviewed to assure that the proposed developments are consistent with the requirements of this Ordinance and the need to minimize flood damage.

   Plats or plans for new subdivisions, mobile home parks and Planned Unit Developments (PUDs) shall include a signed statement by a Registered Professional Engineer that the plat or plans account for changes in the drainage of surface waters in accordance with the Plat Act (765 ILCS 205/2).

2. Proposals for new subdivisions, manufactured home parks, travel trailer parks, planned unit developments (PUDs) and additions to manufactured home parks and additions to subdivisions shall include base flood or 100-year frequency flood elevation data and floodway delineations.

   A. Where this information is not available from an existing study filed with the Illinois State Water Survey, the applicant's engineer shall be responsible for calculating the base flood or 100-year frequency flood elevation per Section 1603.4 and the floodway delineation per the definition in Section 202.0.

   B. The applicant's engineer shall submit the data to IDNR/OWR for review and approval as best available regulatory data and then send it to the State Water Survey. The applicant's engineer shall also submit the data to FEMA for a Letter of Map Revision (LOMR).

3. Streets, blocks, lots, parks and other public grounds shall be located and laid out in such a manner as to preserve and utilize natural streams and channels. Private ownership of floodplain and floodway shall be discouraged.

4. The Village shall not approve any special use permit for a Planned Unit Development (PUD) unless such agreement or plat is in accordance with the provisions of this Ordinance.

1700.0 Repealer

All other Ordinances or portions of Ordinances previously passed or adopted by the Village of Homer Glen that conflict with or are inconsistent with the provisions of this Ordinance are hereby repealed.

1800.0 Separability

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

1900.0 Effective Date

This Ordinance shall be in full force and effect from and after its passage and approval as required by law.

APPENDIX A HIGH-QUALITY AQUATIC RESOURCES

The following are descriptions of high-quality aquatic resources:

1. Advanced Identification (ADID) sites: Aquatic sites that have been identified by the U. S. Army Corps of Engineers, Chicago District and U.S. Environmental Protection Agency
2. Bog: A low nutrient peatland, usually in a glacial depression, that is acidic in the surface stratum and often dominated at least in part by the genus Sphagnum.
3. Ephemeral pool: A seasonally inundated depression within a forested wetland or upland community, usually located on a moraine, glacial outwash plain, or in an area shallow to bedrock; also known locally as a "vernal pool." These areas may not be permanently vegetated.
4. Fen: A peatland, herbaceous (including calcareous floating mats) or wooded, with calcareous groundwater flow.
5. Forested wetland: A wetland dominated by native woody vegetation by at least one of the following species or genera: Carya spp., Cephalanthus occidentalis, Cornus alternifolia, Fraxinus nigra, Juglans cinerea, and Quercus spp.
6. Sedge meadow: A wetland dominated by at least one of the following genera: Carex, Calamagrostis, Cladium, Deschampsia, Eleocharis, Rhynchospora, Scleria, or Eriophorum.
7. Seep: A wetland, herbaceous or wooded, with saturated soil or inundation resulting from the diffuse flow of groundwater to the surface stratum.
8. Streams shown on the most recent USGS quadrangle map as a perennial (solid blue line) or intermittent (dashed blue line) that are not determined to be a Waters of the U. S. If a site specific Index of Biological Integrity (IBI) assessment is lower than 35, this stream reach shall not be considered a HQAR.
9. Streamside marsh: An Isolated Waters of the Village of Homer Glen wetland that is within a 10-year riverine floodplain and dominated by herbaceous species.
10. Wet prairie: A wetland dominated by native graminoid species with a diverse indigenous forb component that is seasonally saturated and/or temporarily inundated.
11. Wetlands supporting Federal or Illinois endangered or threatened species: For current state-listed species, reference Illinois Endangered Species Protection Board's "Checklist of Endangered and Threatened Animals and Plants of Illinois" and/or contact the Illinois Department of Natural Resources. For Federally-listed species, reference the U.S. Fish and Wildlife Service's "Endangered and Threatened Wildlife and Plants" list (latest edition) and/or contact the U.S. Fish and Wildlife Service.
12. Wetlands with a Floristic Quality Index of 20 or greater or a mean C-value of 3.5 or greater: Reference Plants of the Chicago Region (F. Swink and G. Wilhelm, 4th edition, Indianapolis: Indiana Academy of Science, 1994).
13. Wetlands that are within a designated Illinois Natural Areas Inventory Site (INAI).

Adopted this 10th day of February, 2009 pursuant to a roll call vote as follows:

	YES	NO	ABSENT	PRESENT
De Vivo	X			
Knaack	X			
Locacius	X			
Niemiec	X			
Sabo	X			
Ward	X			
Daley (Village President)	-			
TOTAL	6	0	0	-

APPROVED by the Village President on FEBRUARY 10, 2009.

_____
James P. Daley
Village President

ATTEST:

_____
Gale Skrobuton
Village Clerk