VILLAGE OF FOX LAKE

Subdivision Ordinance

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Article 1 Title and Purposes

101 Title

This Ordinance shall be known as and may be cited as "The Village of Fox Lake Subdivision Ordinance."

102 Purposes

In the subdivision and resubdivision of land, a developer is required to comply with certain procedures outlined in the Illinois Compiled Statutes. This Ordinance establishes additional procedures and requirements governing the platting of land in the Village, and is adopted for the following purposes:

A. To establish reasonable design standards and procedures for subdivision and resubdivision of land;
B. To provide for an orderly subdivision process and promote continuity with existing developments;
C. To encourage development which is compatible with the natural features of a particular site;
D. To establish guidelines for the dedication, use and continuing maintenance of common areas;
E. To establish a single document to serve as a guide in providing an adequate street system; a means of sewage disposal and other utilities; surface drainage and stormwater control; and other services related to the use of subdivided land; and
F. To protect and provide for the public health, safety and general welfare of the citizens of the Village.

Article 2 General Provisions

201 Authority

This Subdivision Ordinance regulating the subdivision of land implements and is intended to be complimentary to the Zoning Ordinance and the official Comprehensive Plan of the Village. It is intended to provide for the harmonious development of the Village and its environs; for the location and width of proposed streets within new subdivisions with other existing or planned streets; for the dedication and acceptance of land for public use; for the installation and construction of utilities, roadways and other improvements essential to service the subdivided lands; for the dedication and acceptance of land acquired for schools, parks, playgrounds and other public uses; for the preparation of subdivision plans and the procedure for the submittal, approval and recording of subdivision plats in and about the Village, and in accordance with the authority vested in the municipality under the provisions of the Illinois Compiled Statutes.

202 Jurisdiction

This Ordinance shall apply to any subdivision or dividing of any parcel of land made within the borders of the Village as well as to any subdivision or dividing of any parcel of land within 1.5 miles of the corporate limits of the Village. Except as otherwise provided in this Ordinance, all standards herein shall apply equally to subdivisions both in the Village and within its 1.5 mile planning jurisdiction provided said property is not located within the corporate limits of any other municipality.

Should the Village of Fox Lake enter into a boundary line agreement with any other municipality having a valid comprehensive plan pursuant to Chapter 24, Section 11-12-5, Illinois Revised Statures, 1977, then the terms and provisions of these regulations shall apply within such adjacent unincorporated areas as provided in any applicable boundary line agreement.

No land shall be subdivided within the jurisdiction of the municipality until (1) the subdivider or his agent shall submit a sketch plat of the parcel to the Plan Commission, (2) obtain approval of the sketch plat and preliminary and final approval of the plat itself by the Plan Commission; and (3) the approved plat is filed with the County (Recorder of Deeds) or registrar of titles.

All regulations and design standards pertaining to the subdivision of land shall also pertain to the development of PUD's and previously subdivided lands.

203 Repeal of Existing Ordinance

The existing Subdivision Ordinance of the Village, entitled Ordinance No. 97-4 "Subdivision Regulations", as amended, is hereby repealed. The adoption of this Ordinance shall not affect nor prevent any pending or future prosecution of; or action to abate, any existing violation of the rules and procedures covering plat and dedication in the Village, if the violation also violates this Ordinance.

204 Interpretation and Separability

204.1 Interpretation. When interpreting and applying the provisions of this Ordinance, the standards of this Ordinance shall be held to be the minimum requirements throughout the Village.

204.2 Conflicts of Law. Where this Ordinance is in conflict with restrictions or requirements that are imposed or required by other provisions of the law or rules, covenants or other agreements within the Village of Fox Lake, the more stringent provisions shall control. However, nothing herein shall interfere with or be construed to abrogate or annul any easements, covenants, deed restrictions or agreements between parties which impose restrictions greater than those imposed by this Ordinance.

204.3 Invalidity. If any section, provision or portion of this Ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Ordinance shall not be affected thereby.

205 Implementation and Enforcement

205.1 Authority to Review. The Village of Fox Lake Village Board grants the Village Engineer, the Village Attorney, the Building Commissioner, Chief of Police, Fire Chief, and other Village staff the power and authority to review and recommend approval or disapproval of plats for the subdivision of land within its jurisdiction.

205.2 Law Compliance. All laws of the State of Illinois are made a part hereof; the same as if fully set forth herein, and all officers and employees of the Village are directed to comply with the laws of the State of Illinois.

205.3 Plat Approval. No Plat of Subdivision shall be approved which does not comply with all of the provisions of this Ordinance.

205.4 Recording of Plat. The Recorder shall not record any subdivision plat within the Village or its 1.5 mile planning jurisdiction unless it has been approved by the Village Board and the Plan Commission.

205.5 Plat Violations. Whenever it shall come to the knowledge of the Recorder that any provisions of the State law governing plats have been violated, it shall be the Recorder's duty to notify the Village Attorney, who shall take appropriate action.

205.6 Ordinance Enforcement. It shall be the duty of the Village Engineer, Village Attorney, the Building Commissioner, and other Village staff to enforce this Ordinance; to bring to the attention of the Village Board any violations or lack of compliance with this Ordinance; and to take appropriate action in the case of violations.

205.7 Cost of Compliance. Unless otherwise provided, the costs of complying with any of the standards in this Ordinance shall be at the development's expense.

206 Violations and Penalties

206.1 Illegal to Transfer. No owner or agent of the owner of any land located in a proposed subdivision shall transfer, sell, lease or offer for sale or lease any such land before a Final Plat of such subdivision has been approved in accordance with the provisions of this Ordinance and recorded. Whoever shall sell or lease, or offer for sale or lease, any lot or block in any subdivision before complying with all of the requirements of these shall be subject to a fine of up to $500 for each lot so disposed or offered. Each day that sales or leasing, or offers to sell or lease, continue in violation of these regulations shall constitute a separate offense, subject to the penalty of this Subsection.

206.2 No Metes and Bounds. The subdivision of any lot or any parcel of land by the use of metes and bounds descriptions for the purpose of sale, transfer or lease, with the intent of evading these regulations, shall not be permitted. All such described subdivisions shall be subject to all of the requirements in this Ordinance.

207 Variations and Exceptions

The Plan Commission may recommend variations from these requirements in specific cases which, in its opinion, do not adversely affect the general plan or the spirit of this Ordinance. Such recommendations shall be evaluated at a public meeting and may be conducted simultaneously with review of preliminary or final plats. Such recommendations shall be communicated to the Village Board or the governing County authorities in writing with the reasons therefore. The Village Board or the County authorities may then approve variations from these requirements in specific cases which, in its opinion, do not affect the general plan or the spirit of this Ordinance.

208 Maintenance of Public Facilities

The Village agrees to accept and maintain the streets in the subdivision only when and if annexed to the Village and improved in accordance with this Ordinance, otherwise said roads or streets must be maintained by the Developer, Homeowner’s Association, Township or by the County. All streets must be in accordance with this Ordinance and an agreement with the Street Department must be in place.

Article 3 Definitions

301 General

For the purposes of uniform interpretation of this Ordinance, certain terms and phrases shall be deemed to have the meaning ascribed to them in this Section.

The words "shall" and "must" indicate mandatory items, while the word "may" indicates optional items.

302 Listing of Definitions

Adverse Impacts. Any deleterious impact on water resources or wetlands affecting their beneficial uses including recreation, aesthetics, aquatic habitat, quality, and quantity.

Alley. A dedicated and improved strip of land, not less than twenty (20) feet in width and not more than forty (40) feet, along the side of or in the read of properties, intended to provide supplementary public access to a lot.

AWWA. American Water Works Association.

Applicant. Any person, firm, or governmental agency who executes the necessary forms to procure official approval of a development permit to carry out construction of a development from the Village of Fox Lake.

Authority. The appropriate reviewing authority as set out in this Ordinance.

Base Flood Elevation. The elevation at all locations delineating the level of flooding resulting from the 100-year frequency flood event.

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

Cable Television (CATV) Company. A person, firm or corporation who has obtained a franchise from the appropriate unit of local government to provide television signals for subscriber use via permanently installed coaxial cable.

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 drainageway, which has a definite bed and bank or shoreline, in or into which surface or groundwater flows perennially or intermittently.

Channel Modification. Alteration of a channel by changing the physical dimensions or materials of its bed or banks. Channel modification includes damming, riprapping (or other armoring), widening, deepening, straightening, relocating, lining, and significant removal of bottom or woody rooted vegetation. Channel modification does not include the clearing of debris or removal of trash.

Chief of Police. Person approved by the Village Board as department head of the Police Department.

Building Commissioner. The person approved by the Village Board as the building official for the Village of Fox Lake.

Community Water or Sewer System. A system serving more than one dwelling unit, principal use or lot and owned and operated by a utility, homeowners association or similar entity.

Compensatory Storage. An artificially excavated, hydraulically equivalent volume of storage within the floodplain used to balance the loss of natural flood storage capacity when fill or structures are placed within the floodplain.

Conduit. Any channel, pipe, sewer or culvert, etc., used for the conveyance or movement of water, wastewater, electric, telephone, gas or other utilities, whether open or closed.

Congressional Survey Township. An area approximately 6 miles square identified by its unique township and range numbers with respect to a designated principal meridian and base line.

Conventional Private Sewage Disposal System. An individual, sewage system employing a septic tank and the soil treatment system, commonly known as seepage trenches, that are partially or wholly in original soil material.

County. Lake or McHenry County, Illinois

County Clerk. The elected or appointed County Clerk of Lake or McHenry County, Illinois in which a subdivision is located.

County Engineer (Superintendent of Highways). The appointed head of the Lake or McHenry County Highway Departments.

Critical Soil. Soil materials that have been disturbed and/or have natural limitations extensive enough to require alternative systems or are perhaps so limited as to preclude the practicality of on-site wastewater treatment.

Cul-de-sac. Cul-de-sac is a publicly dedicated, minor residential street with a single outlet which is permanently terminated by a vehicle turnaround which is nearly circular in shape and which meets the standards set out in Section 608 and 604 of this Ordinance.

Date of Completed Application. The date the applicant submits the application, or the date the applicant submits the last item of substantial supporting data, whichever date is later.

DECI. Designated Erosion Control Inspector, as required by the Lake County Stormwater Management Commission's Watershed Development Ordinance.

Design Requirements for Subdivision Streets. The Schedule of Minimum Design Requirements for Subdivision Streets in the Village of Fox Lake (Section 608 of this Ordinance, sometimes referred to in Article 6 as merely Design Requirements).

Detention Basin. A facility constructed or modified to provide for the temporary storage of stormwater runoff and the controlled release by gravity of this runoff at a prescribed rate during and after a flood or storm.

Detention Time. The mean residence time of stormwater in a detention basin.

Developer. The owner or entity proposing to develop the property.

Development. Any man-made change to real estate, including:

A. Preparation of a Plat of Subdivision;
B. Construction, reconstruction or placement of a building or any addition to a building;
C. Installation of a manufactured home on a site, preparing a site for a manufactured home, or installing a travel trailer on a site for more than 180 days;
D. Construction of streets, bridges, or similar projects;
E. Redevelopment of a site;
F. Filling, dredging, grading, clearing, excavating, paving, or other non-agricultural alterations of the ground surface;
G. Storage of materials or deposit of solid or liquid waste; and
H. Any other activity that might alter the magnitude, frequency, deviation, direction, or velocity of stormwater flows from a property.

Drainage Plan. A plan, including engineering drawings and supporting calculations, which describes the existing stormwater drainage system and environmental features, as well as the drainage system and environmental features which are proposed after development of a property.

Dry Basin. A detention basin designed to drain completely after temporary storage of stormwater flows and to normally be dry over the majority of its bottom area.

Erosion. The general process whereby earth is removed by flowing water or wave action.

Excess Stormwater Runoff. The volume and rate of flow of stormwater discharged from an urbanized drainage area which is or will be in excess of that volume and rate which pertained before urbanization.

Fee in Lieu. A cash contribution paid by a developer in lieu of providing facilities required of development under this Ordinance.

Final Plat. The official graphic depiction of a subdivision which is ultimately filed for the record in the Recorder's Office. It shows all lots, easements, streets and other dedicated areas. The Final Plat also indicates items such as building setback lines, restricted areas for septic systems and any ingress and egress restrictions.

Fire Department. The Fox Lake Fire Protection District.

Flood Fringe. That portion of the floodplain outside of the regulatory floodway.

Floodplain. That land adjacent to a body of water with ground surface elevations at or below the base flood or the 100-year frequency flood elevation. The floodplain is also known as the Special Flood Hazard Area (SFHA). See "Regulatory Floodway" for more information on floodplain limits and determination. The following BFEs are used for the lakes located in the Village of Fox Lake:

	Normal Water	100-year Flood		Normal Water	100-year Flood
Fox Lake	737.2	741.6	Pistakee Lake	737.1	741.1
Nippersink Lake	737.2	741.6	Duck Lake	737.2	741.6
Grass Lake	737.4	741.8			

Half Street. A street with less than a full pavement or right-of-way width.

Health Department. The Lake or McHenry County Department of Health.

Highway Department. The Lake or McHenry County Highway Department.

Highway Road Commissioner. The elected or appointed Highway Commissioner of the Township Road District.

Homeowners Association. An association of property owners, whether residential or nonresidential, formed to address the ownership and maintenance of facilities owned in common or jointly by persons who own lots in the subdivision.

Hydrograph. A graph showing for a given location on a stream or conduit, the flow-rate with respect to time.

IDNR. The Illinois Department Natural Resources.

IDOT. The Illinois Department of Transportation.

IEPA. The Illinois Environmental Protection Agency.

Infiltration. The passage or movement of water into the soil surfaces.

ISPE. The Illinois Society of Professional Engineers.

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

Mayor. The duly elected or appointed Mayor of the Village of Fox Lake.

Minor Drainage System. That portion of a drainage system designed for the convenience of the public. It consists of street gutters, storm sewers, small open channels, and swales.

Mitigation. Mitigation includes those measures necessary to minimize the negative effects which stormwater drainage and development activities might have on the public health, safety and welfare. Examples of mitigation include compensatory storage, soil erosion and sedimentation control, channel restoration, and wetlands.

Municipal Utility Easement. A municipal easement is an easement for a municipal utility including, but not limited to, water, sanitary sewer, storm sewer and stormwater.

Natural. Conditions resulting from physical, chemical and biological processes without intervention by man.

Natural Resource Conservation Service (NRCS). A division of the United States Department of Agriculture which provides technical assistance in soil-related matters to individuals, units of government, etc., through the local Natural Resource Conservation Service District office.

Noncritical Soil. Undisturbed soil materials, as determined by on-site comprehensive soil survey, that can support a conventional private sewage disposal system, where at least the lower portion of the soil absorption part of the system can be installed in original, uncompacted soils. Another term having the same meaning for purposes of this Ordinance can be "suitable soil."

100-Year Event. A rainfall, runoff; or flood event having a one percent chance of occurring in any given year. See "Floodplain" for additional information.

Open Space. Open space is an area lacking in any man-made structures and surfaces, other than those used for public park and recreational uses.

Ordinance. The Village of Fox Lake Subdivision Ordinance.

Owner. The owner of a piece of property (or the beneficiary if title is held in a trust) and his designated representative such as developers, engineers, surveyors and other agents.

Peak Flow. The maximum rate of flow of water at a given point in a channel or conduit.

Plan Commission. The Plan Commission of the Village of Fox Lake.

Plat Act. An act to revise the law in relation to plats, approved March 21, 1874, as amended (765 ILCS 205/0.01 et seq.).

Police Department. The Village of Fox Lake Police Department.

Political Township. A unit of local government organized under an act to revise the law in relation to township organization, approved March 4, 1874, as amended (60 ILCS 5/1-1 et seq.). It may or may not coincide with a Congressional Survey Township.

Positive Drainage. Provision for overland paths for all areas of a property including depressional areas that may also be drained by storm sewer.

Preliminary Plat. A graphic depiction of the proposed lot lines, streets and other engineering improvements of a proposed subdivision superimposed on a map of the existing topography. Where septic systems are to be used for

subsurface waste disposal, a Preliminary Plat will also indicate soil classifications and wetness categories used to determine suitability of various areas for the septic systems.

Property. A parcel of real estate.

Public Utility Easement. A public easement is an easement for a public utility including telephone, gas, cable, and electric. This is distinguished from a municipal utility easement.

Recorder. The elected or appointed County Recorder of Lake or McHenry County, Illinois.

Recorder's Act. An act to revise the law in relation to Recorders, approved March 9, 1874, as amended (55 ILCS 5/3-5001 et seq.).

Regional Superintendent of Schools. The elected head of the Lake or McHenry County Educational Services Region.

Registered Professional Engineer (Licensed Professional Engineer). An engineer who is licensed to practice Professional Engineering by the State of Illinois, or who is allowed to practice by the State of Illinois under a reciprocity agreement with another state (see 225 ILCS 655/1).

Registered Professional Land Surveyor (Licensed Professional Land Surveyor). A surveyor who is licensed to practice professional surveying by the State of Illinois (see 225 ILCS 330/4 [g]).

Regulatory Floodway. The channel, including on-stream lakes, and that portion of the floodplain adjacent to a stream or watercourse as designated by the U. S Department of Housing and Urban Development (HUD) which is needed to store and convey the existing and anticipated future 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 10 percent increase in velocities. The regulatory floodways are designated for Fox Lake in the following maps:

(a) Flood Boundary and Floodway Maps – Community Panel Nos. 17097C 0005H (effective November 16, 2006), 17097C 0010F (effective September 3, 1997), 17097C 0015H (effective November 16, 2006), 17097C 0019F (effective September 3, 1997), 17097C 0020F (effective September 3, 1997), and 17097C 0110H (effective September 7, 2000) of the National Flood Insurance Program, Federal Emergency Management Agency (FEMA), Flood Insurance Rate Maps (FIRM).

To locate the regulatory floodway boundary on any site, topographic elevations should be used where they are recited, otherwise, the regulatory floodway boundary should be scaled off the regulatory 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 regulatory floodway boundary, the Illinois Department of Natural Resources, Office of Water Resources should be contacted for the interpretation.

Resubdivision. The further division of lots or the relocation of lot lines of any lot or lots within a subdivision previously made and approved or recorded according to law.

Retention Basin. A facility designed to completely retain a specified amount of stormwater runoff without release except by means of evaporation, infiltration, emergency bypass or pumping.

Reviewing Authority. The person or board responsible for approving or recommending the approval of the development under this Ordinance, namely the Staff Review Committee or Village Board.

SMC. The Lake County Stormwater Management Commission, publisher of the Watershed Development Ordinance (WDO) to set forth minimum requirements for the stormwater management aspects of all development in Lake County, Illinois. For the purposes of the Village of Fox Lake, the entire Village limits (both in McHenry and Lake County) must abide by the regulations set forth in the WDO.

Sedimentation. The process that deposits soils, debris, and other materials either on other ground surfaces or in

bodies of water or stormwater drainage systems.

Septic System (Conventional). An individual, conventional on-site sewage system employing a septic tank and the soil treatment system commonly known as seepage trenches, that are partially or wholly in original soil material.

Sketch Plan. A graphic exhibit which shows basic resource features, proposed lot divisions, roadway layout and general drainage features of a proposed subdivision. The purpose of the Sketch Plan is to explore alternative subdivision arrangements prior to investing time and money on detailed drawings of an arrangement which may not be acceptable.

Soil Classifier. A certified member of the Illinois Soil Classifiers Association and/or a certified professional soil classifier member of ARCPACS who, by reason of his special knowledge of the physical, chemical and biological sciences applicable to soils, and of the methods and principles of soil classification as acquired by soils education and soil classification experience in the formation, morphology, description and mapping of soils, is qualified to practice soil classifying.

Staff Review Committee. A committee consisting of the Mayor, designees of the Mayor, the Chairperson of the Plan Commission, the Building Commissioner, the Chief of Police, the Fire Chief, the Streets Supervisor, and the Village Engineer and Village attorney as requested by the Mayor.

Standard Specifications. The Standard Specifications for Road and Bridge Construction adopted by the Illinois Department of Transportation (IDOT), as amended, latest edition and the Standard Specifications for Water & Sewer Main Construction in Illinois, latest edition.

State Plane Coordinates. The Illinois Coordinate System Act, 765 ILCS 225/1 et. seq.

States Attorney. The elected or appointed State's Attorney of Lake or McHenry County, Illinois.

Storm Sewer. A closed conduit for conveying collected stormwater.

Stormwater Drainage System. All means, natural or man-made, used for conducting stormwater to, through or from a drainage area to the point of final outlet from a property; The stormwater drainage system includes, but is not limited to, any of the following: conduits and appurtenance features, canals, channels, ditches, streams, culverts, streets, storm sewers, detention basins, swales and pumping stations.

Stormwater Runoff. The waters derived from melting snow or rain falling within a tributary drainage basin which are in excess of the infiltration capacity of the soils of that basin, which flow over the surface of the ground, or are collected in channels or conduits.

Street. The term “street” and “road” are used interchangeably and mean the same. Street classifications are set out in Section 603.

Street Frontage. Street frontage is the side of a lot abutting a public or dedicated street right-of-way to which it proposes to have direct ingress and egress.

Streets Supervisor. The person approved by the Village Board as the Streets Supervisor for Fox Lake.

Subdivision. A subdivision is the division of land into two or more parts for the purpose, whether immediate or future, of transfer of ownership or building development, including all public streets, alleys, ways for public service facilities, parks, playgrounds, school grounds, or other public grounds, and all the tracts, parcels, or blocks, and numbering of such lots, blocks, or parcels by progressive numbers, giving their precise dimensions.

Any multiple-family, business, or industrial district included in a zoning district amendment of the zoning ordinance of the Village of Fox Lake after the effective date of this ordinance, shall be considered as a Planned Development and shall be deemed a subdivision for the purpose of these regulations regardless of whether the lot is divided into parcels for separate sale or is developed on a lease basis and said subdivision shall be subject to the improvement

and design requirements of this ordinance and other requirements specified by the Plan Commission.

The following shall not be considered a subdivision and shall be exempt from the requirements of this code:

A. The sale or exchange of parcels of land between owners of adjoining and contiguous land;
B. The conveyance of parcels of land or interests therein for use as a right-of-way for railroads or other public utility facilities and other pipe lines which does not involve any new streets or easements of access;
C. The conveyance of land owned by a railroad or other public utility which does not involve any new streets or easements of access;
D. The conveyance of land for highway or other public purposes or grants or conveyances relating to the dedication of land for public use or instruments relating to the vacation of land impressed with a public use; and
E. Conveyances made to correct descriptions in prior conveyances.

Suitable Soil. Undisturbed soil materials as determined by an on-site comprehensive soil survey that can support a conventional private sewage disposal system, where at least the lower portion of the soil absorption part of the system can be installed in original, uncompacted soils.

Superintendent of Schools. The current Superintendent of Schools for the applicable school district.

Time of Concentration. The elapsed time for stormwater to flow from the most hydraulically remote point in a drainage basin to a particular point of interest in that watershed.

Tributary Watershed. All of the land surface area that contributes runoff to a given point.

2-Year Event. A runoff, rainfall, or flood event having a 50 percent chance of occurring in any given year.

Utility Company. A person, firm or corporation who owns, controls, operates or manages any equipment, plant or property furnishing telephone, cable television, electric, light, heat, power, water, sewerage, gas (by pipeline) or similar service for public use.

Village. The Village of Fox Lake, Lake or McHenry County, Illinois.

Village Attorney. The current Village Attorney of the Village of Fox Lake.

Village Clerk. The duly elected Clerk of the Village of Fox Lake; also sometimes referred to as "the Clerk".

Village Board. The Village Board of the Village of Fox Lake.

Village Engineer. The current Village Engineer of the Village or Engineer appointed for specific projects covered by this Ordinance who shall at all times act as an adviser to the Plan Commission and to the Village Board.

Village Staff Committee. A committee composed of selected Village administrative and technical staff including the Building Commissioner, Village Clerk, Chief of Police, Fire Chief, Streets Supervisor.

WDO. The Watershed Development Ordinance, put forth by the Lake County Stormwater Management Commission (SMC).

Wet Basin. A detention basin designed to maintain a permanent pool of water after the temporary storage of stormwater runoff.

Zoning Board of Appeals. The Zoning Board of Appeals for the Village of Fox Lake.

Zoning Ordinance. The Village of Fox Lake Zoning Ordinance.

Article 4 Subdivision Review Procedure

401 General Review Procedure

The following procedure applies to a subdivision plat review in the Village. Any plat, other than one for a residential subdivision of four lots or less shall be subject to a three step review procedure by the staff and Plan Commission as established by this Ordinance. A Plat of Vacation will require a one-step review (Section 407). A residential subdivision of four lots or less shall be subject to a two-step review process wherein the preliminary plat review is merged into the Final Plat review. The Plan Commission shall normally meet as needed to consider plats, drawings and reports. The Village Board must give final approval on all subdivision plats. The Village Clerk shall be responsible for coordinating the process and arranging meeting dates and times. Upon request for a building permit with the Village of Fox Lake, a proper application must be submitted (see Appendix E for forms, application, and guarantees). All fees must be in accordance with the most recent Village of Fox Lake Fee Schedule.

402 Building Permit and Inspection Fees

402.1 Permit Fees. All permit fees must be in accordance with the most recent Village of Fox Lake Fee Schedule.

402.2 Estimates of Construction Costs. Final construction costs will be based on the approved Final Plat, and must be approved by the Village of Fox Lake and the Village Engineer. This estimation of construction costs will be used for determining fees for construction inspection services and guarantee amounts, as outlined in Article 9.

For remodeling work, the estimate of the cost of construction shall be borne by the owner, builder, contractor, developer and the like, and shall be supplied to the building department prior to the issuance of the permit. Fees based on estimated costs of construction shall be paid in advance at time of building permit. The Building Commissioner shall have the final determination as to the total costs of remodeling. Prior to the issuance of an occupancy permit or completion certificate, the applicant shall provide a signed and notarized contractor's sworn statement of cost. Adjustments in permit fees, if any, shall be paid by the applicant prior to the issuance of an occupancy permit or completion certificate. The Building Commissioner shall have sixty (60) days from the date of final occupancy permit or completion certificate to determine whether or not the actual cost of construction is appropriate and if any further adjustment is necessary.

402.3 Outside Plan Review and Inspection Service. If, because of the nature and/or size of a project, the Building Commissioner, Streets Supervisor, Plan Commission or Village Board reasonably determined that an outside agency should be used to conduct plan reviews and inspections for the project, the Building Department may contract with such an outside agency for the performance of all or any part of such plan review and inspection services as are required for the project, with **all costs of such services to be borne by the owner, builder, or developer in full**. The permit applicant shall in such cases, comply with the fees set forth in the most recent Village of Fox Lake Fee Schedule.

402.4 Site Development Fees and Escrow Deposits. A minimum nonrefundable fee (referred to in this subsection hereafter as "fee") to cover the cost of technical review by full time professional staff, and partially or fully refundable escrow deposit (referred to in this subsection hereafter as "escrow") are established to cover the cost of consultants services, (including, but not necessarily limited to, attorneys and engineers), in connection with the construction of any site development, subdivision or watershed development located within the corporate limits of the Village of Fox Lake, in accordance with this Subdivision Ordinance and other related development regulations adopted by the Village of Fox Lake. The Village requires a fee as outlined in the most recent Village of Fox Lake Fee Schedule.

The nonrefundable fee will be applied to Village activities and expenses which are customary and reasonable for like site developments, including, but not limited to: staff review, site visits, meetings, telephone calls, and use of equipment and supplies. Village staff and consultants will be assigned to certain projects as deemed necessary in Section 402.3 above.

Funds from the escrow account will reimburse the village for "out of pocket" expenses (e.g., outside consultant review of plans and legal counsel), unusual tasks, extraordinary expenditures of staff time or village resources, and unforeseeable requirements. All debits to the escrow will be pertinent to the specific development.

Upon permit application, the Village will send a letter to the developer (owner, contractor, agent, representative or the like) before work commences, identifying the fee and the escrow amounts. Both monies must be submitted in full prior to site development. The Village Engineer shall be the final authority for the anticipated construction costs of all improvements or in his/her absence, the Building Commissioner.

At any time during construction, should the Village determine that the remaining escrow amount deposited by the developer may fail to cover actual or foreseeable Village expenses, the Village shall notify the developer. The notification letter will show the escrow balance, requested additional escrow amount, and justification. The developer shall, within seven (7) days, deposit such additional escrow funds with the village. Should the developer fail to deposit these sums within the seven (7) day notification period, the permit(s) will be suspended and all work on the improvement shall cease.

402.5 Inspection and Reinspection Fees. Regular, first time inspections as required by the Village are funded by part of the building permit fee.

Any inspection which fails shall be required to be reinspected. The permits coordinator is authorized to charge a reinspection fee which shall be paid prior to the scheduling of the reinspection. The fee shall be based upon the most recent Village of Fox Lake Fee Schedule.

Any special inspection requested that is not part of a permitted project (e.g., life safety inspection due to change of commercial/industrial use of an existing building), shall be accompanied by an inspection fee in accordance with the most recent Village of Fox Lake Fee Schedule.

402.6 Site Development Plan Review Fees. Application for a plan review shall be made by the owner of the property or his authorized agent to the Building Department on a form furnished for that purpose (see Appendix E). 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 all fees required in the most recent Village of Fox Lake Fee Schedule. 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.

403 Sketch Plan

403.1 Submittal and Calendaring. Prior to submitting a Preliminary Plat for approval, the developer shall submit to the Village twenty five (25) copies of a Sketch Plan, an electronic copy of Sketch Plan and all supporting data on CD, and post fees as required by the most recent Village of Fox Lake Fee Schedule. The Building Commissioner shall not accept a Sketch Plan for review unless the property is appropriately zoned for the intended use and density, or unless a petition to amend the Zoning Ordinance or map has been filed which, if adopted, would have the same effect.

The Building Commissioner shall calendar a meeting of the Staff Review Committee on the next available meeting agenda and notify the members. The Staff Review Committee shall consist of such members as set out in Article 3 of this Ordinance.

403.2 Information Required. The sketch plan shall contain that information which is necessary for the reviewing authority to complete its review. It is not necessary that the Sketch Plan be prepared by and sealed by a Registered Land Surveyor; provided, however, that the outside dimensions of the plat shall be based upon an accurate boundary survey prepare by a Registered Land Surveyor. Except where the authority specifically provides otherwise, that information shall contain at least the following information:

A. Identification
- Proposed name of development

- Scale, date and north arrow
- Vicinity map at a scale not less than 1"=1000' showing surroundings within one-half (1/2) mile
- Name and address of Developer and Engineer
- Boundaries

B. Nature of existing situation
- Wetlands as shown on the U.S. Fish and Wildlife maps
- Floodplain as shown on the FEMA maps (wooded areas as aerial)
- Location of water and sewer facilities closest to site
- Location of nearest park(s)
- Location of existing streets within one-half (1/2) mile of site
- Identification of hazards (underground storage tanks, electric utility lines) on or adjacent to site
- Existing easements on-site
- Existing zoning
- General soil types and locations in map form
- IDNR Endangered Species Consultation Report
- IHPA Correspondence
- Natural Resource Inventory Report, if zoning or annexation is required

C. Nature of proposed development
- Number of proposed lots
- Size of tract
- Minimum lot size proposed
- Approximate location of streets, water and sanitary sewer
- Indication of whether floodplain or wetlands will be modified
- Indication of whether park land and facilities will be provided
- Proposed zoning
- Location of stormwater management area's

403.3 Meeting. The developer shall meet with the Staff Review Committee and participate in evaluating the proposed Sketch Plan and alternatives to it. Among other things, the Sketch Plan shall consider the future development potential of the surrounding area, especially the extension of streets and utilities, and how this proposal should relate to it.

403.4 Village Staff Review Committee Report. After the meeting as mentioned in 403.3, the Building Commissioner shall provide the applicant with a written review of the Sketch Plan. Copies will be made and forwarded to the members of the Committee.

404 Preliminary Plat

404.1 Submittal, Calendaring and Notice. The developer shall submit twenty five (25) copies of a Preliminary Plat, an electronic copy of the Preliminary Plat along with all supporting data on CD, along with three (3) copies of the application form to the Village within one year of completion of review of the Sketch Plan by the Staff Review Committee.

The Preliminary Plat must not substantially deviate from the Sketch Plat previously reviewed by the Building Commissioner. The application must include the submission of a filing fee in accordance with the most recent Village of Fox Lake Fee Schedule.

If septic systems are to be used in the proposed subdivision, the developer shall submit a soils report with each copy of the Preliminary Plat. The Preliminary Plat must be received at least 28 days prior to scheduling of the Plan Commission meeting at which it is to be heard. The Preliminary Plat will be presented at a scale appropriate for

review and recordation. A scale of 1 inch equals 100 feet is preferred. In addition to the above, the developer will submit a copy of the plan that will fit on a single 11" x 17" sheet of paper.

The Building Commissioner shall calendar a meeting of the Plan Commission and notify the members. The Building Commissioner shall distribute a copy of the Preliminary Plat to the Mayor of the Village, the Village Board, each member of the Plan Commission, the Village Engineer, Village Attorney, and appropriate Village staff.

404.2 Information. The Preliminary Plat shall contain that information which is necessary for the reviewing authority to complete its review. A set of engineering plans is required, signed and sealed by a Professional Engineer in the state of Illinois. Except where the authority specifically provides otherwise, that information shall contain at least the following information:

A. Identification and description
- Proposed name of development
- Vicinity map at a scale not less than 1" = 1000' showing surroundings within one-half (1/2) mile
- Location by township, section, range
- Legal description
- Name and address of Developer and Engineer
- Scale (1"=100 feet preferred), date and north arrow
- Elevations (United States Geodetic Survey [NAVD88 Datum] shall be used)

B. Nature of existing conditions
- Boundary line of development, acreage of tract
- Location of property lines
- Names of subdivisions within 300 feet
- Locations and dimensions of streets which lie in, adjacent to, or near the development
- Location of water and sewer facilities together with a description of the same which lie in, adjacent to, or near development
- Location of railroad, utility and other easements or facilities which lie in, adjacent to, or near development
- Location of parks, recreation and open space owned by the public or by property owners associations which lie in, adjacent to, or near development
- Structures on the development site with an indication of whether they will remain, be changed in use, or will be removed
- Existing elevations at 1 or 2 foot intervals which lie in site and within 300 feet of it (based on NAVD88 Datum)
- Location of water courses
- Delineation of wetlands and floodplain together with studies explaining how the wetlands and floodplain were determined and evaluating the quality of the former. Include correspondence from ACOE on jurisdictional determination of wetlands.
- Identification of drainage basins which lie in, adjacent to, and near the development
- Identification of any historic resources which lie in, adjacent to, or near development
- Zoning on development tract and adjacent tracts
- Such additional information as required by the reviewing authority

C. Proposed development
- Layout of streets, water and sewer facilities together with relevant **support information**, including proposed street typical sections, water and sewer line sizes
- Location of proposed parks, recreation and open space; statement of intent regarding ownership of these areas or facilities
- Any proposed modifications to floodplain or wetlands
- Approximate location and size of stormwater detention areas together with **support information** describing how the sizes of the areas were determined; existing drainageways

with proposed conveyance systems for areas receiving runoff from more than 40 acres
- WDO Permit Application
- Location of lot lines, setback lines and identification of easements
- Information describing the number of lots, lot areas and widths for each lot Soils information as required by County Department of Health, where on-lot sewage disposal systems proposed
- Traffic impact analysis and other studies
- Fiscal impact analysis
- Any proposed change in zoning
- Phasing
- Construction access
- Appropriate certificates as required by this Ordinance

D. Sediment and Erosion Control
- In accordance with the requirements of Section 810

404.3 Village Engineer's Recommendations. The Village Engineer will submit their recommendations to the Building Commissioner at least ten (10) days prior to the Plan Commission meeting. The Building Commissioner will distribute copies of the Village Engineer's Recommendations to the other members of the Plan Commission, the Developer, the Engineer, the Village Attorney, Mayor of the Village, the Village Board, and Village staff.

404.4 Fire Chief and Police Chief Recommendations. The Chief of the Fire Department and the Chief of Police will be requested to review the Preliminary Plat and submit comments in writing at least ten (10) days prior to the Plan Commission meeting. The Building Commissioner will distribute copies to the members of the Plan Commission, the developer, the Village Attorney, Mayor of the Village, the Village Board, and Village staff.

404.5 Village Staff Review Committee Report. The Village Staff Review Committee will file a report with the Building Commissioner at least ten (10) days prior to the Plan Commission meeting. The Building Commissioner will distribute copies to the members of the Plan Commission, the developer, the Village Attorney, Mayor of the Village, the Village Board, and Village staff.

404.6 Owner's Presence. The owner or his designated representative is required to be present when the Plan Commission reviews the Preliminary Plat.

404.7 Meeting Minutes Distribution. After the Preliminary Plat has been evaluated at a scheduled Plan Commission meeting, minutes from that meeting shall be prepared by the Village. A copy of the minutes shall be sent to the owner or his technical representative, Village Engineer, Village Attorney, Plan members, Mayor and Village Board, Village Clerk and other parties requesting copies of the minutes.

404.8 Recommendation for Approval or Disapproval of Preliminary Plat by Plan Commission.

A. The Plan Commission shall recommend approval or disapproval of the application for Preliminary Plat within 90 days from the date of the application or the filing by the applicant of the last item of supporting data, whichever date is later, unless such time is extended by mutual consent. If the Preliminary Plat is disapproved, then within said 90 days, the Plan Commission shall furnish to the developer in writing a statement setting forth the reason for the disapproval and specifying with particularity the aspects in which the proposed Plat fails to conform to the ordinances and the official map. The Plan Commission may recommend or the Village Board may require such changes or revisions as are deemed necessary in the interest and needs of the community

B. In the event that the Plan Commission approves the Preliminary Plat, the developer may request that the Plat be submitted to the Village Board for its acceptance or rejection of the Plan Commission decision. The Village Clerk shall process the request as complete upon the submission by the developer of: 1.) 25 copies of a revised Plat addressing conditions placed on approval by the Plan Commission, if appropriate; 2.) a letter from each affected School District

indicating whether they request the dedication of a school site or a cash donation in lieu of land, and; 3.) payment of the subdivision review fee. The Building Commissioner shall calendar the review of the Plat at a meeting at least 7 days from the date of submission of a completed application and request. Where the Plat has been substantially revised, the Village Clerk shall increase the above time to 21 days. In the event of a substantial revision, the Village Engineer shall submit his recommendations within 7 days of the meeting. The Village Board shall accept or reject the Preliminary Plat within 30 days after its next regular stated meeting.

C. In the event that the Plan Commission denies the Preliminary Plat, the developer may appeal the decision to the Village Board. Where the developer fails to accept the conditions of approval of the Plan Commission, the review by the Village Board shall be in the nature of an appeal. The notice of appeal shall be effective upon: 1.) submittal of a letter from each affected School District indicating whether they request the dedication of a school site or a cash donation in lieu of land, and; 2.) payment of the subdivision review fee. In the event that the developer rejects any of the conditions of approval set out by the Plan Commission, he may elect to revise the submitted Drawings to adopt those conditions which are not being appealed. The Village Board shall approve or disapprove the Preliminary Plat within 30 days after its next regularly scheduled meeting. In the event of a conditional approval, the Board should require the developer to resubmit the Plat showing the changes required.

Note, in the event the Developer requests the Village Board to approve a Preliminary Plat that has not been approved by the Plan Commission or appeals any of the conditions the Plan Commission placed on approval of the Preliminary Plat, a vote of two-thirds (2/3) of the Mayor and Board of Trustees will be required for approval.

D. Approval of the Preliminary Plat shall expire one year from the date of acceptance or approval by the Village Board unless a proposed Final Plat has been submitted or unless the Village Board grants an extension. Where approval has expired, the entire process must begin anew.

405 Final Plat

405.1 Submittal, Calendaring and Notice. The Final Plat shall be submitted to the Village Clerk within 12 months after action by the Village Board in affirming the decision of the Plan Commission or approving the Preliminary Plat. Where the Preliminary Plat shows the development to be phased, then the Final Plat for each phase shall be submitted within one year of approval of the Final Plat for the previous phase unless the Village Board allows otherwise. The developer shall submit to the Building Commissioner twenty five (25) copies of the Final Plat, an electronic copy of the Final Plat along with all supporting data on CD, and six (6) copies of the Engineering Drawings and Reports prepared in accordance with Appendix A and post the required fees in accordance with the most recent Village of Fox Lake Fee Schedule. In addition to the above, the developer will submit a copy of the plan that will fit on a single 11" x 17" sheet of paper.

The Village Clerk shall identify the regular meeting of the Village Board at which the matter can be reviewed, and confer with the Chairperson of the Plan Commission to identify when the Plan Commission can review the matter. The meetings should be arranged so as to allow a reasonable time for the developer to make changes to the Drawings and for their distribution following resubmittal. The Clerk shall distribute copies of the above to the members of the Village Board, the members of the Plan Commission, the Village Attorney, the Village Engineer, and appropriate Village staff. Final Plats and required Engineering Drawings and Reports must be received at least 28 days prior to the Plan Commission meeting at which they are to be considered.

In the event the developer should elect to modify his Plat or Drawings following the Plan Commission review, the developer shall notify the Building Commissioner in writing of his intent and resubmit any new or revised Drawings and Reports within 10 days of said notice. The Building Commissioner shall establish a new date for review by the Village Board and notify the developer. With a modification to his Drawings, the developer shall submit to the Building Commissioner twenty five (25) copies of the modified Final Plat and six (6) copies of the Engineering Drawings and Reports.

The Developer will notify the following individuals and organizations of the date, time and place of the meeting when the Final Plat will be considered. He shall furthermore provide the Village Clerk and Village Attorney with an affidavit stating that each of the following individuals and organizations was notified by U.S. Mail and indicating the address to which each notice was sent:

A. Village Attorney;
B. Village Engineer;
C. Fire Protection District;
D. Homeowners Association (any which have indicated an interest in the review of the subdivision);
E. Plan Commission Members;
F. School District(s);
G. Township Road Commissioner (if annexation is being considered);
H. Township Supervisor (if annexation is being considered);
I. Utility Company Representatives;
    1. Cable Television,
    2. Electric,
    3. Gas,
    4. Telephone,
    5. Sewer and Water Utility(s);
J. U. S. Postmaster for the Village of Fox Lake;
K. Illinois Department of Natural Resources, Endangered Species Notification;
L. Illinois Department of Transportation (if the subdivision is adjacent to a state right-of-way and/or if a driveway and/or access permit is needed to enter toe into a state road);
M. Lake or McHenry County Department of Transportation (if a driveway and/or access permit is needed to enter any county road); and
N. Lake or McHenry County Department of Health (if it involves septics or wells).

405.2 Information. The Final Plat shall contain that information which is necessary for the reviewing authority to complete its review and conform to the current Illinois minimum standards for boundary surveys. A final set of engineering plans is required, signed and sealed by a Professional Engineer in the state of Illinois and the Final Plat will be signed and sealed by an Illinois Profession Land Surveyor. Every Final Plat will include those certificates necessary to demonstrate compliance with this ordinance and as required for recordation by the County in a form suitable to both the Village and the County. These certifications can be found in Appendix E of this document. The Final Plat shall be prepared at the same scale as the Preliminary Plat and shall include all of the information required for the Preliminary Plat including, except where the authority specifically provides otherwise:

A. Identification and description
- Proposed name of development
- Location by township, section, range
- Legal description
- Name and address of Developer, Engineer and certification by Professional Land Surveyor
- Scale 1" = 100'or larger preferred, date and north arrow

B. Property information
- Boundary of tract, property lines of lots, street right-of-way, dedicated areas and easements based on an accurate field survey achieving a positional accuracy of 0.07 feet
- Existing or proposed municipal, public, utility or other easements, including drainage, stormwater detention, road construction, and pedestrian
- Centerlines of streets with radii, internal angles, points and curvatures, tangent bearings and lengths of all arcs
- Names of all streets within and adjoining the plat
- Lots numbered with street addresses, building setback lines and lot widths with linear dimensions
- Accurate location of at least two permanent/concrete monuments and/or benchmarks constructed and placed as required by the Plat Act (765ILCS 105/0.0] et seq.)

- All districts, such as library, elementary school, junior high school, high school, fire protection, etc.
- Legal description for areas to be dedicated or reserved for public or common uses with nature of ownership and purposes of same indicated
- Restrictive or protective covenants, as necessary
- Appropriate certificates as required by this Ordinance
- State plane coordinates referenced to IL SPC East Zone NAD 83 (current adjustment) shown on two exterior/opposite corners.

C. Certificate required (see Appendix E)

- Certification by a licensed surveyor that the plat represents a survey made by him and that monuments and markers exist as located; that all dimensional and geodetic details are correct; and that he has complied with all of the requirements of this Ordinance regarding plats, noting exceptions, if any.
- Notarized certification by owner and, if required, any mortgage holder of record of the adoption of the plat and the dedication of streets and other public areas.
- Approval by signature of County, State, and other officials concerned with the specifications of utility installations.
- Certification by the Chairman of the Plan Commission that the Final Plat has been reviewed and approved by said Commission.
- Certification by the Village Clerk that all taxes and special assessments have been paid up to date.
- Certification by the County Clerk, or Village Collector, where applicable, that all taxes and special assessments have been paid up to date.
- Certification that the approval of the County Health Officer has been given for subdivisions where private wells or septic systems are proposed
- Certification that the approval of the Village Engineer has been given to all proposed or existing public improvements.
- In cases of plat or right-of-way vacations, written evidence as provided by statute, shall be shown on the plat.
- Certification of approval by the Mayor of the Village Board attested by the Village Clerk.
- Certification of acceptance by the Map Department of Lake or McHenry County, Illinois.
- Certification of evidence of payment of the last full year of real estate taxes and assessments.
- Other certifications as may be required by law.

405.3 Village Engineer's Recommendations. The Village Engineer will file a report with the Building Commissioner at least ten (10) days prior to the Plan Commission meeting. The Building Commissioner will distribute copies of the Village Engineer's Recommendations to the other members of the Commission, the developer, the Village Attorney, Mayor of the Village, the Village Board, and Village staff.

405.4 Village Staff Committee Report. The Village Staff Committee will file a report with the Building Commissioner at least ten (10) days prior to the Plan Commission meeting. The Building Commissioner will distribute copies of the report to the other members of the Plan Commission, the Developer, the Village Attorney, Mayor of the Village, the Village Board, and Village staff.

405.5 Review of Final Plat. The owner or his designated representative is required to be present when the Plan Commission reviews the Final Plat.

405.6 Meeting Minutes Distribution. After the Final Plat has been evaluated at a scheduled Plan Commission meeting, minutes from that meeting shall be prepared by the Village. A copy of the minutes shall be sent to the owner or his technical representative, Village Engineer, Village Attorney, Plan Commission members, Mayor and Village Board, Clerk and other parties requesting copies of the minutes.

405.7 Approval or Disapproval of the Final Plat.

A. The Final Plat shall be consistent with the Preliminary Plat and meet all applicable Village requirements.

B. The Plan Commission shall recommend to the Village Board that the Final Plat be approved or disapproved. Such a recommendation shall be made within a time period that will allow the Village Board to hear the application at a regular meeting occurring within 60 days from the date of the completed application. The parties may extend the period of review by mutual consent.

D. The Village Board shall hear the application for Final Plat approval within 60 days from the date of the filing of a completed application, unless such time is extended by mutual consent, and approve or disapprove the same. If the proposed Plat is approved, the Village shall file 8 copies of the Final Plat and the approved supporting documents to the following locations: 2 copies shall be forwarded to the Chief of the Fire Department and 2 copies to the Postmaster, 2 copies to the Village Engineer and 2 copies shall be retained in the office of the Building Commissioner. Additionally, an electronic copy of the plat will need to be submitted. If the proposed Plat is disapproved, the order or resolution shall state the reasons for the disapproval.

In the event that the developer should elect to make a substantial change to a Preliminary or Final Plat while these Plats are under review of the Plan Commission or the Village Board, the modification shall be filed at least 14 days prior to the meeting. Resubmittal of 15 copies of the modified plat will be required. If such time does not exist, the developer shall request that the meeting be continued or rescheduled.

406 Review by Village Board and Recording

406.1 Signature on Final Plat. After a Final Plat has been approved by the Village Board, it shall be in the custody of the Clerk, who shall obtain the signature of the Mayor and attest to that signature on the Plat.

406.2 Recording of Final Plat. When all signatures required on the Plat have been obtained, the Land Surveyor or his authorized agent shall obtain the Final Plat from the Clerk and post a performance bond. He shall then present it to the Recorder for recording. Note, the signed Final Plat will not be released to the developer until the appropriate Letter of Credit or Performance Bond for the proposed improvement have been posted with the Village.

406.3 Distribution of Copies of the Recorded Final Plat. After the developer has recorded the Final Plat, he shall distribute one copy of the same to the Building Commissioner and the Village Engineer. The Building Commissioner may refuse to issue a building permit for any lot in a subdivision until he has received a copy of Plat.

406.4 Identification of Flood Hazard Area. A Final Plat may not be presented for recording without indicating whether any part is located within a flood hazard area as identified by the Federal Emergency Management Agency.

406.5 Six Month Validity of Final Plat. A Final Plat which has not been recorded within six months after its approval by the Village Board shall have no validity and shall not thereafter be recorded.

406.6 Pre-construction Meeting. Prior to the start of construction on the project, or as deemed necessary by the Building Commissioner, a pre-construction meeting shall take place. Participants shall include the Developer or Owner, Design Engineer, Village Engineer, Construction Engineer, and Village of Fox Lake staff as necessary per the discretion of the Building Commissioner.

407 Plats of Vacation

Plats of Vacation shall be submitted and approved in accordance with Title 7, Chapter 1, Article C of the Village Code as amended from time to time.

408 Plats of Annexation

All plats of annexation must be in compliance with the Village of Fox Lake annexation requirements and

requirements of the Village Engineer and Village Attorney.

409 Modified procedure for small subdivisions

Subdivisions of tracts containing one (1) acre or less on record on the date of adoption of this ordinance, into four lots or less, or consolidation of lots totaling two acres or less, and where significant public improvements are not involved, may be exempted from the requirements of this Section for filing of preliminary plats, provided the applicant submits a final plat and application to the Building Commissioner for said subdivision. After said application has been reviewed by Village Staff, it shall be forwarded to the Village Engineer, who shall determine that no significant additional public improvements are required. Village Staff and the Village Engineer may recommend that various of the requirements for Final Plats be waived. Then the plat and application shall be forwarded to the Plan Commission, which shall process the application according to the procedure for final plats and forward said subdivision application and plat to the Village Board of Trustees for final approval.

Article 5 General Subdivision Platting Requirements and Procedures for Resubdivision, Dedication and Vacation

501 General Provisions – Surveying Aspects

501.1 General. The Final Plat shall include a correct survey of the property being subdivided or developed, including a legal description. A north arrow, a scale and all section and quarter section lines shall be indicated on the Plat. The lines and dimensions of all adjoining properties, and the names, lines and dimensions of all adjoining streets shall be shown. All dimensions, linear, curvilinear and angular, necessary to properly resurvey shall be shown, with linear dimensions in feet and decimals of a foot.

501.2 Lot Corner Monumentation. Every development shall provide monuments located and described on the Final Plat in the manner required by the Plat Act (Illinois Compiled Statutes, 765 ILCS 205).

501.3 Benchmarks.
Every development shall provide two benchmarks, referenced to the current vertical datum accepted by Lake County and the National Geodetic Survey (currently NAVD88), set on the external boundaries of the tract to be divided, and shall designate upon the Plat the points where they will be found. These monuments shall be set by the surveyor in a manner that they will not be moved by frost. In the event that the points fall within a street, the monuments must be placed in the right-of-way line of the street. All monuments and benchmarks must be included on the final plat, prior to approval and must be in accordance with Section 501.5. The benchmarks may be established on the required concrete monuments per 501.2 and 501.5.

501.4 State Plane Coordinates. All coordinates shall be based upon the Illinois State Plane Coordinate System East Zone – NAD83(current adjustment) and shall be noted on the plat at each concrete monument as required per 501.2.

501.5 Materials. Monuments shall be marked by galvanized or wrought iron pipe or iron or steel bars at least twenty-four (24) inches in length and not less than one-half (1/2) inch in diameter, two (2) of which must be constructed of concrete with minimum dimensions of four (4) inches by four (4) inches at top, six (6) inches by six (6) inches at bottom, and forty-eight (48) inches long with a brass plate securely fastened to the surface. The brass discs will be furnished by the Village of Fox Lake Building Department and must be inscribed with a number and elevation of the benchmark. Elevation shall be established with a closed level loop from a known Village, County or NGS benchmark.

501.6 Plat Media and Electronic Deliverable. Upon final approval all plats of subdivision shall be submitted to the Village on 22 inch by 34 inch mylar for recording purposes. The same plat shall also be submitted to the Village Engineer in electronic format on an electronic media which can be read by an IBM compatible computer using a Windows operating system in a .dwg (AutoCAD) format. Additionally, record drawings must be submitted once the development is complete showing actual locations of all underground sewers, utilities, and structures. These record drawing plans must be submitted in.dwg and ARCGIS .shp electronic format as well. All plans must be in State Plane Coordinates(per 501.4) for updating the existing Village mapping system.

502 Design Considerations

502.1 Lot Arrangement. The lot arrangement shall be such that there will be no foreseeable difficulties in securing building permits to build on any lot, except those marked "undevelopable" or "not proposed for development," in compliance with the Zoning Ordinance and the Lake or McHenry County Department of Health regulations, if applicable.

502.2 Lot Dimensions. Lot dimensions, areas and building setback lines within the Village shall conform to the requirements of the Zoning Ordinance. Lot dimensions outside the Village, but within the 1.5 mile planning jurisdiction, shall meet the requirements of the corresponding Village of Fox Lake Zoning District, as determined by

the Village of Fox Lake. The area of street right-of-way shall not be included in calculating the area of the lot to meet minimum lot area requirements of the zoning district. Corner lots shall have extra width sufficient to permit the establishment of front building lines on both the front and side lots adjoining the streets. Therefore, the minimum lot area and lot width of corner lots shall be increased by 20 percent. Additional width or length shall be provided for lots abutting a collector or arterial, a flood hazard area, wetlands, stream or other similar feature as determined by the Village of Fox Lake.

502.3 Side Lot Lines. Side lot lines shall be approximately at right angles to the street, or radial to curved street lines unless a variance to this rule will give a better street and lot plan. Lots with double frontage shall be avoided. All variations must be approved by the Village of Fox Lake and the Village Board.

502.4 Flood Hazard Area. If any portion of a lot falls within the boundaries of a Flood Hazard Area, as identified by the Watershed Development Ordinance or other duly adopted maps or ordinances, or if a portion of a lot is traversed by an intermittent stream and/or waterway, that portion of such lot shall be protected by a drainage easement and shall be excluded from the buildable area of that lot. When this situation results in the separation of the buildable area of a lot from the street to which it has access, provisions shall be made for the installation of an adequate drainage structure, and its construction shall be provided for as a condition of Plat approval.

502.5 Critical Soils. If any portion of a lot falls within the boundaries of critical soils as identified by the Soil Standards Manual for Waste Disposal Systems, that portion of such lot shall be designated as restricted for use of septic systems unless evidence can be produced to demonstrate that the soils can be managed by appropriate common engineering practices which would render the soils suitable. Soils removal and replacement and the use of curtain drains are not generally considered a suitable management practice.

502.6 Subdividing Land. In subdividing any land for residential purposes within the Village, and within the 1.5 mile planning jurisdiction, due regard shall be shown for all natural features, such as tree growth, water courses, historic sites and conditions, which, if preserved, will add attractiveness and value to the proposed development.

502.7 Reverse Frontage. Whenever a development proposes to lay out one or more lots that are adjacent to a collector or arterial street, those lots shall, whenever possible, have frontage on a local or minor street. In the event that such reverse frontage is not possible, the developer shall undertake other measures to reduce the number of entrances and exits onto the collector or arterial street, including but not limited to requiring shared driveways and limiting direct access to the street.

503 Blocks

503.1 General. Blocks must fit easily into the overall plan of the subdivision, and its design must show evidence and consideration of topography, natural constraints, adjacent uses and development, the transportation system, parks and recreation, and community facilities.

503.2 Block Length. The length of uninterrupted continuous streets or roads shall be based on the following:

A. Needs for convenient access and circulation of emergency vehicles and the general public with due regard to the safety of vehicular and pedestrian traffic;
B. Limitations and capabilities of topography, soils, drainage and other natural features; and
C. The density of the proposed development.

The following distances between intersection roads are generally recommended.

Lot Size In Development (Feet)	Maximum Distance Between Intersection Roads
5 acre	2,000
3 acre	2,500
2 acre	1,250
1 acre	1,250
Less than 1 acre	1,000

The following distances between intersecting streets are permitted up to eighteen hundred (1800) feet. Blocks over eight hundred (800) feet may require crosswalk easements. Crosswalk easements not less than ten (10) feet in width shall be provided where deemed necessary by the Village at the approximate centers of the blocks. Additional cross-walks in any instance to provide safe and convenient access to schools, parks, or other similar destinations may be recommended by the Plan Commission.

504 Easements

504.1 Easements. The following easements shall be provided where appropriate. Widths of such easements must be approved by the Village prior to dedication. Each easement shall be laid out so that proper continuity exists from lot to lot and from block to block.

A. **Utility Easements**. Easements shall be provided for utility services including but not limited to gas, telephone, cable, and electric.

B. **Municipal Easements**. Easements shall be provided for municipal or public services including water, sewer, and storm sewer.

C. **Drainage Easements**. When a subdivision is traversed by a waterway, intermittent stream or drainage way, there shall be provided a stormwater easement or drainage easement conforming substantially with the lines of same. Such easement shall be of sufficient size to protect said waterway, intermittent stream or drainage way, and to permit ingress and egress for maintenance.

D. **Street Construction and Maintenance Easements**. Street construction and maintenance easements shall be provided adjacent to dedicated streets whenever additional width is necessary to meet the maximum earth slope requirements contained in the Schedule of Minimum Design Requirements for Subdivision Streets in the Village of Fox Lake (Section 608). Street construction and maintenance easements shall be separate and distinct from utility easements and the two shall not be combined. See Section 903 for certification required on Final Plat to permit crossing of other easements.

E. **Greenway and Pedestrian Path Easement**. Where a development includes or proposes to include a greenway and/or pedestrian path easement, the developer shall, if the property is not dedicated to the Village, or a public or quasi-public entity which accepts the same, provide an easement to allow the Village and/or County to maintain the space in the event that it is not properly maintained and to charge the benefited properties.

F. **Landscape Berm Easement**. Where a development is required to provide reverse frontage lots with a landscape berm separating the residential lots from the street, the developer shall provide for the maintenance of the material.

504.2 Limitations on the Use of Easements.

A. No construction of structures, dams, embankments or channels (except as indicated on the Engineering Drawings), and no planting of trees, shrubbery or other flow-impeding vegetation, which hinders the flow of water or otherwise inhibits the intended purpose, shall be allowed within any drainage or stormwater retention or detention easements.

B. Municipal utility easements must be separate and distinct from public utility easements and the two shall not be combined.

C. A septic limitation line shall be shown in conjunction with each drainage and stormwater retention or detention easement demarcation line.

504.3 Maintenance of Easements.

A. Drainage and stormwater retention and detention easements shall be adequately maintained so as to provide for removal of accumulation of vegetation, silt, debris or other material which may interfere with the flow characteristics of drainage ways or the essential features of retention or detention facilities. The removal shall be undertaken at least annually.

B. Pedestrian way easements shall be maintained to permit their continued use.

C. Provisions shall be made through a homeowners association, deed restrictions, covenants or other acceptable means to maintain all easements in accordance with Sections 505.3A and 505.3B.

505 Procedure for Resubdivision

The procedure for resubdivision of land in the Village shall be the same as for initial platting.

506 Plat Corrections and Addenda

All Plat corrections and addenda shall be reviewed by the Village Engineer before being presented for recording.

507 Plan Consistency

507.1 Zoning Ordinance. Every development shall meet all applicable standards of the Village of Fox Lake Zoning Ordinance. Such standards are incorporated in this Ordinance by reference and shall have the same effect as if fully set out herein.

507.2 Building Permit. No building permit shall be issued by any governing official, Village or County, for the construction of any building, structure or improvement to the land of any lot created after this Ordinance becomes effective unless that lot was created pursuant to an approved Final Plat, or the lot existed prior to the effective date of this Ordinance.

507.3 Occupancy Permit. No occupancy permit shall be granted by any governing official, Village or County, for the use of any structure within the subdivision approved for platting or replatting until required utility facilities have been installed and made ready to service the property, and roadways providing access to the subject lot or lots have been constructed.

507.4 Other Ordinances. The standards from the Village of Fox Lake Zoning Ordinance will not be superseded by the contents of this Ordinance. Any contradictions shall be brought to the attention of the Village and the ruling as to which document will govern the regulation will be made.

Article 6 Requirements for Design and Construction of Streets and Related Facilities

601 General Requirements

The owner shall grade, drain, surface and otherwise improve the roadway of all streets shown on their Plat so as to provide reasonable access for vehicular traffic to each developable or buildable lot of the subdivision in accordance with the requirements of this Article.

602 Standard Specifications and Design Requirements

Wherever reference is made to Standard Specifications, it shall mean the Standard Specifications for Road and Bridge Construction, latest edition, by the Illinois Department of Transportation (IDOT), as amended. This includes the latest edition of IDOT supplemental specifications and recurring special provisions.

Whenever reference is made to traffic manual, it shall mean the IMUTCD, Illinois Manual of Uniform Traffic Control Devices for Streets and Highways.

Whenever reference is made to the IDOT Local Roads Manual, it shall mean Bureau of Local Roads and Streets Administrative Manual (latest edition).

Wherever reference is made to Design Requirements, it shall mean the Schedule of Minimum Design Requirements for Subdivision Streets in the Village of Fox Lake (Section 608 of this Article).

603 Classification of Streets

The Village Engineer shall classify each street shown on the Plat of Subdivision as to its functional use as follows

603.1 Arterial Street

These routes serve regional transportation needs for traffic entering and exiting the Village and between major activity centers within the Village. Refer to the Village's standard cross section details.

a. Generally provide a minimum of two travel lanes with a continuous striped median that accommodates left-turn lanes at intersections.

b. Access along arterial roadways is typically limited to intersections with other arterial or collector roadways; shared access and frontage road systems are strongly encouraged. The limited access points allow for higher travel speeds and serve long-distance traffic within the area.

c. The right-of-way width required for a Arterial Street is generally 100 feet.

603.2 Secondary Street.

These routes interconnect and supplement the arterial routes, accommodate moderate trip lengths, and service activity centers. Refer to the Village's standard cross section details.

a. Generally provide one lane in each direction with a center-striped median that accommodates left-turn lanes at intersections.

b. The right-of-way width required for a Secondary/Urban Street is 90 feet.

603.3 Collector Street

These roads connect smaller access streets and residences to the main roadway network (arterials and secondary streets). Refer to the Village's standard cross section details.

a. Generally provide for one travel lane in each direction; also provide a separate left-turn lane at intersections with collectors or arterials.

b. The minimum right-of-way width required for a Minor Collector is 66 feet; 80' or more may be required for a rural cross-section with ditches.

c. Subdivisions shall provide at least one well-planned Minor Collector Street per the Village's standard specifications for right-of-way and engineering standards in this Ordinance for each access to a major thoroughfare (Major Collector or Arterials).

d. Two-way traffic must be maintained at all times, even if on-street parking is permitted on both sides of the road.

603.4 Local Street

These roads serve to provide access to residential neighborhoods and commercial areas. Design of these streets define the neighborhoods and, as such, should be designed to be pedestrian friendly. Refer to the Village's standard cross-section details.

a. Generally provide for one travel lane in each direction.

b. The minimum right-of-way width required for a Local Street is 66 feet; additional right-of-way, and/or municipal easements may be required if a rural cross section is utilized.

c. Direct residential driveway access is generally permitted for Local Streets.

603.5 Business Access and Industrial Access Streets.

Streets providing access to commercial or industrial property shall be classified as "Business Access Streets" or "Industrial Access Streets", respectively.

604 Standards for Street Design

604.1 Topography and Layout. Grades of streets shall be related to the topography and conform, to extent practical, to original contours. The use of natural terrain is encouraged and natural resources should be preserved and maintained. Creative landscaping design for parkways, medians and open space is desired. Local and minor streets shall be curved, whenever possible, to avoid conformity of lot appearance. Straight sections of pavement 500 feet or longer are discouraged. Intersection alignments are desired and 90 degree intersections are preferred. The centerline of roadway pavement shall match the centerline of the road right-of-way. Under no circumstances shall 100-Year storm encroach into pavement of any public street.

604.2 Continuing Streets. To the extent practical and consistent with other standards in this Article, existing streets shall be continued into the development tract, interconnecting the proposed development to existing adjacent subdivisions

604.3 Access to Adjacent Property. Every development shall provide access to the adjacent development (in the nature of stub-outs to those developments) where the access is necessary or desirable to provide an adequate system of streets in the general area of which the development is a part. Without restricting the above principle, access shall be required for adjacent properties whenever the boundary of any side of a tract of land proposed for development exceeds 1,500 feet in length. However, access shall not be required on a side of a tract where physical

barriers would prevent a street from practically being continued, as where the boundary of the tract is a creek which could be crossed only with a bridge or a steep slope which could not be graded to an acceptable slope for the street intended. For purposes of applying this standard, sides of the tract shall be combined to constructively create a four-sided figure.

604.4 Street Jogs. No new street will intersect a collector or arterial street at a distance closer than 250 feet from the next parallel intersecting street. No new street will intersect a local or minor street at a distance closer than 250 feet from the next parallel intersecting street.

604.5 Cul-de-sacs. The maximum length, minimum radius, and right-of-way widths for a cul-de-sac shall be in accordance with Section 608. See cul-de-sac detail attached to this Article for location of municipal, utility, and snow plow easements as well as layout specifications.

604.6 Temporary Dead End Street. In the event that a street extends to the property line of a tract which is undeveloped, and where there is a potential for extending the street into that undeveloped parcel at such time as that parcel were developed, then the street may be temporarily terminated by a "T-turnaround" provided it is no longer than one lot in length and driveway access shall not be allowed to or from it. T-turnarounds must NOT be allowed in conjunction with a private driveway and must fully reside in the property in which the street lies with continuous ownership. All T-turnarounds must be paved. See attached detail to this Article for layout specifications.

604.7 Sight Distances. Sight distances shall be consistent with the IDOT Local Road Manual.

604.8 Reverse Curves. Reverse curves on arterials and collectors will be separated by a straight roadway section consistent with standards set out in the IDOT Local Road Manual.

Design speed for designing improvements shall be based on 5mph above the posted speed limit.

604.9 Return Radii at Intersections and Corner Lots. All minor residential street intersections shall have a minimum curb return radius of twenty-five feet (30'). All major residential and non-residential street intersections shall have a minimum curb return radius of forty feet (50'). The Village may increase the radii where it is justified by use or street classification.

604.10 Medians. The developer may elect to build streets, or portions thereof, with a landscaped median. Any median shall be at least 12 feet in width. Cross-sections shall be widened as necessary. All roads must be constructed to maximize the amount of green space appropriate and shall be dedicated on the plat and deed as an "Outlot."

604.11 Half Streets. Half streets are prohibited.

604.12 Alleys. Alleys are not allowed without specific permission having been granted by the Village Board. Lots cannot front on an alley. If granted, alleys shall not be less than twenty (20) feet in width and shall conform to road requirements for construction.

604.13 Private Streets. No private streets are allowed without prior permission from the Village. If private streets are implemented, they must be in accordance with all Village of Fox Lake standards for design and construction of streets. Village maintenance will not be provided along private streets.

604.14 Street Names. All streets shall be named, and in the case of branching streets, the line of departure from one street to another shall be shown. Each street shall have a unique name which will not duplicate any other in the same or adjoining township. The use of continuing streets with the same name differentiated only by compass direction or different name shall not be permitted. A loop street shall have only one street name for the entire loop. Street names are to be approved by the Village of Fox Lake. Street name signs to consist of 9" sign with 6" upper and lower case letters meeting current reflectivity standards.

Street name requests shall be submitted and reviewed by the Village Engineer, Street Supervisor, and local Fire District. Street name approvals shall be coordinated during the Preliminary Plat review process.

604.15 Existing Streets. If roads in existing subdivisions connect with roads dedicated to the public and are made to comply with the provisions of this Ordinance, they may be accepted and maintained by the Village in accordance with Section 6-325 of the *Illinois Highway Code*.

If roads in existing subdivisions connect with roads dedicated to the public and are made to comply with the provisions of this Ordinance, they may be accepted and maintained by the Village in accordance with *Section* 6-325 of the *Illinois Highway Code.* The Village Engineer shall be consulted before beginning construction on such roads in existing subdivisions. In addition, as a condition precedent to the issuance of a building permit for a lot, the applicant shall deposit with the Village a road bond issued by a surety licensed in the State of Illinois and approved by the Village in favor of the Village in the amount of $50,000.00. The road bond shall be utilized by the Village to reimburse it for any damage to Village roads, streets or other public improvements damaged by the applicant, the applicant's contractors, agents, employees or other parties retained in connection with the construction process on the relevant lot. Prior to the start of construction the developer shall provide to Village dated photos and video tape of the existing streets.

605 Specifications for Subdivision Street Construction

The following specifications shall govern subdivision street construction in the Village of Fox Lake and its 1.5 mile planning jurisdiction or to the limits of border agreements.

605.1 Excavation and Grading. Streets within the subdivision shall be excavated true to line and grade in accordance with applicable articles of Section 202 of the Standard Specifications. Whenever unsuitable material is encountered in the subgrade, it shall be removed and replaced with CA6 100% crushed or other acceptable granular material. The Village Engineer or Village staff shall observe and approve the subgrade prior to construction of the base course.

605.2 Base Courses. Base courses shall be constructed of a type, width and compacted thickness shown on the Design Requirements and in accordance with the following:

a. Bituminous Base Course shall be constructed in accordance with Section 355 of the Standard Specifications. Bituminous Base Course shall be required in all cases except those stated in 605.2B below.

b. Aggregate Base Course Type B shall be constructed in accordance with Section 311 of the Standard Specifications, and the material used shall meet the requirements of Subsection 1004 of the Standard Specifications gradation CA-6 Crushed Gravel. Aggregate Base course will only be allowed with prior approval from the Village of Fox Lake Streets Supervisor or Village Engineer.

605.3 Bituminous Surface Courses. Bituminous surfaces shall be constructed of a type, width and compacted thickness shown on the Design Requirements and in accordance with the following:

a. Bituminous Plant Mix Surface Course, Hot Mix Asphalt (HMA), Mix D, N50 (or current classification) shall be constructed in accordance with Section 406 of the Standard Specifications; latest revision.

b. Bituminous Binder Course, Hot Mix Asphalt (HMA), IL 19.0, N50 (or current classification) shall be constructed in accordance with Section 406 of the Standard Specifications; latest revision.

605.4 Bituminous Surface. Bituminous surface on a bituminous binder course shall not be constructed until the binder course has been completed and in place on the street for one winter season. This requirement may be waived by the Village Engineer or Village staff, and the bituminous surface course may be constructed under the following conditions:

a. The aggregate base is sufficiently compacted as demonstrated by methods required by the Village Engineer or Village staff.

b. The developer agrees to repair, to the satisfaction of the Village Engineer, any areas of the binder course which show evidence of distress or failure prior to construction of the surface course.

c. Core samples within the binder section are taken to ensure the appropriate binder and aggregate subbase thicknesses were achieved.

Additionally, immediately prior to placing the binder and surface courses, the aggregate base course shall be prepared in accordance with Section 358 of the Standard Specifications. The Village Engineer or Village staff shall observe and approve the base course prior to placement of the binder and surface courses. This may be accomplished by methods required by the Village Engineer.

Where "Rural Cross-Sections" are utilized, the bituminous surface course shall be edged with tapered aggregate shoulders, 2 feet in width (minimum), and will be reviewed by the Street Supervisor/Village Engineer and constructed in accordance with applicable articles of Section 481 of the Standard Specifications.

All pavement markings shall be thermoplastic and meet requirements of Section 780 of the Standard Specifications.

605.5 Concrete Pavement. Concrete pavement shall be constructed to a width and thickness shown on the Design Requirements and in accordance with applicable articles of Section 420 of the Standard Specifications.

605.6 Sidewalks. Concrete sidewalks 5 feet wide and 1 foot in from right-of-way shall be installed on both sides of every street with a minimum aggregate base of 6 inches of Type B 100 percent crushed, with minimum 4 inches of Portland cement concrete (minimum 6 inches of Portland cement concrete where vehicle crossing is permitted), with a minimum 6 bag mix and using a fiber mesh.

The Village Board may require that concrete sidewalks be provided elsewhere than as required above, where considered necessary to promote public safety and pedestrian access due to anticipated concentration of pedestrian traffic. Sidewalks shall have curb ramps or slope areas where sidewalks cross curbs as required and in accordance with Standard Specifications and the Americans with Disabilities Act.

605.7 Driveways. All driveways slopes shall be minimum of 1% and maximum of 8%. Driveways shall be located along property line farthest from the intersection. Driveway access is to be off the local streets only. Curb cuts on collectors, secondary, and arterial streets are restricted but may be allowed by approval of Village Engineer and Street Supervisor.

605.8 Curb and Gutter. Except where a proposed street would continue an existing street constructed with a rural cross-section, and the Village determines that the continuation of that section is appropriate, all streets shall be improved with combination concrete curb and gutter as shown on the Design Requirements, and it shall be constructed in accordance with Section 606 of the Standard Specifications. In the instance where a road cross-section is utilized, curb and gutter will be required on all roads with a 5% slope or greater and at radius return at all intersections and at the entrance to the developments.

605.9 Drainage. Streets with a “rural cross-section” will generally have an "open" drainage system consisting of roadside ditches and culverts, while streets with a "curb and gutter section" will generally have a "closed" drainage system consisting of storm sewer and curb inlets. All ditches, culverts and storm sewers shall be sized and inlet spacing determined on the basis of calculations required in Article 8 of this Ordinance or as hereinafter specified. All drainage structures shall be in place before surfacing material is installed.

a. Open Drainage System. Culverts shall be designed to carry the 10-year storm with no head available at the culvert inlet. Cross-road culverts shall have a minimum diameter of 18 inches or equivalent, with flared end sections, and shall run from ditch line to ditch line. Driveway culverts shall have a minimum diameter of 15 inches or equivalent, with flared end sections, and be of such length so as to adequately span the driveway. Culverts shall meet the requirements of Appendix G of this Ordinance and shall be installed in accordance with Section 542 of the Standard Specifications.

b. Closed Drainage System. Storm sewers shall have a minimum diameter of 12 inches, shall meet the requirements of Appendix G of this Ordinance, shall be RCP in right-of-way and RCP and/or PVC in grass non-structural areas, and shall be installed in accordance with Section 550 of the Standard Specifications.

Inlets, manholes and catch basins shall be constructed in accordance with Section 602 of the Standard Specifications. These drainage structures shall be of such diameter so as to adequately accommodate the number and configuration of pipes entering and leaving the structure. Frames and grates shall meet the requirements of Appendix G of this Ordinance. Note, all drainage infrastructure including, but not limited to, storm sewers, inlets, manholes, and catch basins shall be located within the public road right-of-way and/or dedicated drainage easements and shall not be located on private property.

605.10 Topsoil and Seeding. Prior to acceptance of any street, topsoil shall be placed on all unpaved areas within the right-of-way, in accordance with Article 211.04 of the Standard Specifications and in accordance with the provisions noted in the project specific Stormwater Pollution Prevention Plan. Prior to acceptance of any street, any disturbed area within the right-of-way shall be smoothed by dragging, and either sodded or planted with hydroseed in accordance with the recommendations of the USDA and at the discretion of the Village and Natural Resource Conservation District. The Village may elect to postpone street acceptance until permanent vegetative cover has been established with the public street right-of-way.

605.11 Signs. The developer shall furnish and erect all necessary signs, including street signs, as designated and approved by the Village Engineer, Police Department or Village staff. The developer will submit a signage plan to be included with the final engineering plans which fully address the above. All signs must comply with current IMUTCD Standards.

605.12 Snowplowing. The developer is responsible for plowing any street that the Village has not accepted into the street system. The developer is responsible for any damage that may occur as a result of such plowing.

605.13 Trench Backfill. Whenever the excavation is within 2 feet of existing, proposed or future street, parking areas, driveways, or other paved areas, the trench shall be backfilled with approved selected granular material, and compacted in 12" lifts. The top 12 inches of the backfill shall be filled with road gravel or crushed stone and maintained as a temporary surface for the normal use of the area.

Trench backfill shall consist of selected granular backfill Type CA-6 (100 percent crushed), and shall be compacted in place to 95 percent of maximum density at optimum moisture as determined by the Standard Proctor Test.

605.14 Completion Schedule and Street Acceptance. Streets may be accepted by the Village of Fox Lake once final surface has been placed on the streets as long as the project (or a designated phase of the project) has been completed in accordance with the plans, details, and specifications. All construction items, except the bituminous surface and seeding, shall be completed within one year after approval of the Final Plat unless said time is extended by the Village Board. The bituminous surface and seeding shall be completed within 18 months after approval of the Final Plat unless said time is extended by the Village Board. It shall be the obligation of the developer to request such an extension in a timely manner at least three months prior to expiration date, and all letters of credit must be extended through the period of any such extension.

606 Landscape Standards for Streets

a. Grass. All parkways within the right of way of the street shall have a minimum of six (6") inches of good, clean, clump-free topsoil nearly leveled to uniform grade from the top of the curb to the top of the sidewalk after settling. All parkways shall have a good, thick stand of grass utilizing sod or seed per IDOT Class 1A seeding mixture specifications, including fertilizing. Grass watering and mowing to a maximum height of five inches (5") will be the responsibility of the developer through the one year required maintenance period after acceptance by the Village.

b. Street Trees. Along each side of any newly created local, collector or arterial street, the developer shall either plant or retain sufficient trees so that between the paved portion of the street and a line running parallel to and 25 feet from the paved portion of the street, there is for every 40 feet of street frontage at least one Type A tree or two Type B trees-See Appendix F. If due to the presence of special topographical features, the location of driveways, or compliance with other standards in this Ordinance, the developer cannot reasonably plant a tree or trees within the distance set out above, he may comply with the intent of the above standard by adding the deficient plantings to street trees required elsewhere on the same street.

No tree shall be planted closer than thirty feet (30') of the right of way intersection. Trees shall have a minimum spacing of twenty feet (20') from light poles, street signs, and fire hydrants. Trees under wires are not to exceed twenty feet (20') in height at maturity. See Appendix F-Type A. No tree shall be planted closer than 50' in front of a stop or yield sign. For subdivision and local streets, street trees should be in the parkway. For arterial and collector streets, the trees should be in the parkway, in outlots adjacent to the roadway, or may be on the roadway side of berms. All trees and shrubs shall be mulched with a minimum of three-inch depth of shredded bark, wood chips, or other organic mulch.

The developer shall select trees that are appropriate for the location. Trees set out in Appendix F, subsection F-1 titled Recommended Street Trees and Prohibited Plants. In selecting trees that are not on the list, the developer shall consider (1) the general suitability for the climate and soil conditions of this area, especially its hardiness and growth rate, (2) the ease of maintenance and resistance to pests and diseases, (3) the tolerance of urban conditions, particularly road salt and air pollution, (4) the suitability of its branching and foliage, especially the potential for low branching that might interfere with use of the streets by motor vehicles, and (5) the availability from local nurseries. Type A street trees should be planted under overhead electric lines. Type A and B street trees shall have a minimum caliper at a height of 1 foot above the ground of at least 2.5 inches and 1.5 inches respectively. No trees shall be planted within any utility or municipal easement which prohibits planting, nor within areas needed for site distance.

Existing trees shall be protected and maintained, and new trees shall be planted and maintained in a manner consistent with standard horticultural and construction practices related to protecting trees in this area. Some guidelines are set out in Appendix F. Trees in the right-of-way that die or are severely damaged prior to the street being accepted for dedication by the Village or other governmental entity shall be replaced by the developer. Trees that are placed outside the right-of-way that die or are severely damaged shall be replaced by the property owner. A Type A tree is a larger deciduous tree; one that should have, when fully mature, a height of at least 45 feet. A Type. tree is a small deciduous tree; one that should have, when fully mature, a height of at least 20 feet.

c. Retention of Existing Trees. The developer shall retain to the maximum extent practical existing trees whose width is 12 inches and greater and significant clusters of trees with widths of 4 inches and greater.

d. Tree Survey. For the purpose of complying with the above requirements, the developer shall submit with his Tentative Plat a tree survey showing trees that meet the above requirements. Where the number of trees that would meet the above requirement is so extensive as to impose an unfair burden on the developer, the developer may indicate the wooded areas by showing the approximate perimeter of the trunks constituting such an area and listing the types and sizes of trees within that perimeter. In any event, the developer will clearly note any trees that meet the standards set out.in (B) above and that lie within 25 feet of any right-of-way or within any other easement.

Landscape Improvements required for Park Land Dedication

Grading: Except for natural areas designated by the Village for retention in a non-disturbed state, each dedicated park site shall be graded to drain at a minimum of two (2) percent for open areas and slopes on berms, when berms are required, shall not exceed 4:1 (3:1 or steeper shall be deemed unacceptable). Grading shall include, but not limited to: berms for separation, screening or aesthetics; placement of six (6) inches of topsoil and fine grading. Grading and berming shall be in accordance with plans approved by the Village.

Other Park Site Improvements: The Developer shall be required to provide other site developments for the land to be dedicated for park purposes, which site developments shall include, but not limited to, the following:

a. Seeding: Seed entire park site with a blend approved by the Village. Seeding shall include placement, watering as necessary and mowing until such time as a full stand of turf is established and accepted by the Village, but not less than one full growing season.

b. Developer shall install all public walks, curbs, pavement, sewers and utilities along all park site frontages as per Village subdivision regulations.

607 Electric, Gas, and Communication

607.1 Coordination. The developer shall keep all utility, electric, gas, and communication entities appraised of the progress on the subdivision, and coordinate his construction activities with theirs. If underground utility installation cannot be completed prior to final grading and seeding, it shall be the responsibility of the developer to restore the ditches and turf following installation of underground utilities. Utility companies shall not dig trenches across any streets after placement of the aggregate base course unless complete restoration, meeting the approval of the Village Engineer, is provided. Furthermore, all areas disturbed within existing subdivisions by placement of underground utility lines must be restored to original grade with appropriate topsoil and seed by the utility company.

607.2 Lines Underground.

a. New Development. All electric, gas, telephone, television, and other communication lines, both main and service connections servicing new developments, shall be provided by underground wiring/piping within easements or in special cases within dedicated public right-of-way as approved by Village Staff/Village Engineer and installed in accordance with the prevailing standards and practices of the utility or other companies providing such services. Conduits and/or cables shall be placed within the easements in dedicated public ways in a manner which will not conflict with other underground services. Direct burry of cables/pipes will not be allowed under sidewalks, driveways, roadways, between houses or adjacent to existing trees and shall be placed in 4" minimum PVC conduit. Village Engineer will review the service provider's plans prior to issuance of permit to verify locations of conduits. All transformer boxes shall be located so as not to be unsightly or hazardous to the public. Village would prefer transformers to be located in front or street side with landscaping. Two 4" minimum PVC conduits will be required at all roadway crossings. All utility infrastructure shall be extended to the right-of-way line. Additionally, all utilities shall be horizontally separated by 2.0' minimum.

b. Existing Streets and Service. Lots that abut existing easements or public rights-of-way, where overhead electric or telephone distribution supply lines and service connections have previously been installed, may be supplied with electric and telephone service from those overhead lines, but the service connections from the utilities' overhead lines shall be installed underground. In the case of existing overhead utilities, should a street widening, or an extension of service, or other such condition occur as a result of the subdivision and necessitate the replacement or relocation of such utilities, such replacement or relocation shall be underground.

607.3 Pole Placement. Whenever overhead lines are permitted, consistent with or as an exception to the above standards, the placement and alignment of poles shall be designed to lessen the visual impact of overhead lines. Alignments and pole locations shall be carefully routed to avoid locations along horizons; clearing swaths through wooded areas shall be avoided by selective cutting and a staggered alignment; trees shall be planted in open areas and at key locations to minimize the view of the poles and the alignments; and alignments shall follow rear lot lines and other alignments.

607.4 Street Lighting. Every development shall provide street lighting in accordance with a plan designed by the utility company or using the below guidelines promulgated by the *Illuminating Engineering Society o/North America*, as set out in the *IES Lighting Handbook-Application Handbook* (New York, IES, 1987).

Street Hierarchy	Commercial		Intermediate		Residential	
	Lux	FC	Lux	FC	Lux	FC
Major Streets	12	1.2	9	0.6	6	0.6
Collector Streets	8	0.8	6	0.6	4	0.4
Local Streets	6	0.6	5	0.5	3	0.3

Every street intersection shall have at least one streetlight placed in such a manner as to adequately light the intersection. Furthermore, a streetlight shall be located within 600 feet of every lot.

All street lighting shall be installed and maintained by the Commonwealth Edison Company using their standard fixtures and poles. Where there is a choice of poles, fixtures and size of luminaire, the Village shall make the final selection. Poles made of wood are not acceptable to the Village. See details for cut sheets of pole that are acceptable to the Village. All costs associated with the installation of the Commonwealth Edison Company street lighting equipment shall be paid by the developer. Any street lighting to be owned and maintained by the Village must meet current type and specification used by the Village.

All streetlights shall be operated on at dusk and off at dawn. Streetlights shall be controlled by a photo cell mounted on top of the luminaire. All luminaire shall be metal halide. As an alternate, the Village is open to allowing LED light fixtures as an alternative to metal halide. Use of LED fixtures will be acceptable in certain situations and must be approved by the Village Engineer, Building Commissioner, and Street Supervisor. The height and shielding of lighting standards shall provide proper lighting without hazard to drivers or nuisance to residents. The design of lighting standards shall be of a type appropriate to the municipality. Streetlight standards shall be installed at least 10 feet from the edge of pavement for a swale section, or 30 inches behind the back of curb for a curb and gutter section. All roadway illumination specifications are based on the "American National Standard Practice for Roadway Lighting," latest edition. Luminaries' mounting heights shall be 30 feet for Industrial, Commercial, and Major Business Districts and 25 feet for Residential areas.

Lighting for safety shall be provided along walkways, between buildings and in parking areas that have or could be expected to have significant night traffic. Spotlights, if used, shall be placed on standards pointing toward the building and positioned so as not to interfere with the use of adjacent properties. Light poles shall be located a minimum of 4 feet away from a water main valve box, buffalo box, or manhole.

607.5 Permits for Utility Services. Permits must be obtained from the Village of Fox Lake for the installation of communication, electric power, gas and other utility services, before any installation is started, and the Streets Supervisor, Village Engineer, and Building Commissioner are to be informed in writing of above. Installation of all utilities must fully comply with all utility ordinances of the Village and be placed in accordance with the approved Final Plat of Subdivision and Final Engineering Plans.

608 Schedule of Minimum Design Requirements for Subdivision Streets

Pavement Design and Construction: Pavement Design and Construction shall be to the following standards:

1. Pavement Thickness Design: The Village of Fox Lake requires specific pavement structures to account for the different loading levels expected for each classification of roadway or parking lot. Refer to the following chart for the standard typical pavement thicknesses for the various roadway and parking lot classifications that do not require a separate administrative approval from the Village Engineer.

2. Alternate Pavement Designs: The designer also has the option, with Village Engineer approval, to utilize an alternate pavement structure with a Structural Number that meets or exceeds the standard designs established by the Village Engineer. The following Pavement Design Chart is intended to show the minimum structural number allowable for a particular street classification if an alternate hot mix asphalt pavement design is utilized. A higher structural number may be required for those streets in manufacturing, business, and/or office areas.

Pavement Design Chart

Street Classification	Minimum Structural Number (HMA)
Arterial/Secondary	4.0
Collector	3.5
Local	3.0
Business & Industrial	4.0

3. Structural Coefficients: Structural Numbers for any alternate designs shall be calculated using the following structural coefficients:

Common Structural Coefficients

Structural Coefficient	Coefficient
Portland Cement Concrete	0.50
Hot Mix Asphalt Surface Course	0.40
Hot Mix Asphalt Binder Course	0.33
Bituminous Base Course	0.25
Aggregate Base Course (CA-6, Grade #9)	0.13

Structural coefficients for other materials not listed in this ordinance must be approved by the Village Engineer.

4. Asphalt Seams: Asphalt seams for bituminous base course, binder, and surface layers must be staggered by one foot.

5. Minimum Asphalt Thickness:

   a. Surface Course Thickness: The minimum thickness for hot mix asphalt surface course shall be at least 1½ inches compacted.
   b. Binder Lift Thickness: The minimum lift thickness for hot mix asphalt binder shall be at least 2¼ inches compacted.

6. Certification of Pavement Improvements: The Village shall require street cores to be taken and tested at random intervals before the final wearing surface is applied, to certify that construction has met Village requirements. If street core samples do not meet the required pavement design standards, an additional wearing course or other remedial action will be required.

7. Hot Mix Asphalt Ramping: The hot mix asphalt binder course shall be ramped up to meet the top of the gutter flag and the top of all utility structures, such as sanitary sewer manholes, storm sewer inlets, valve vaults, and similar improvements. The binder course shall be ground off around the utility structures and around the gutter flag prior to placement of the final surface course. Refer to the Village Standard Details.

8. Construction Season: All pavement materials can be installed from April 1 to November 1, weather permitting. Any work done after November 1 shall require authorization from the Village Engineer. This authorization will in no way void the contractor's and developer's required guarantee on the work done.

9. Unstable Ground: Whenever ground is encountered which, in the opinion of a soils engineer acceptable to the Village Engineer, is unstable either before preparation of detailed plans or during the construction phase of the proposed improvements, no paving for public or private streets shall be placed thereon until such unstable materials are removed in their entirety and replaced with satisfactory material which shall be adequately compacted, or the unstable material shall be adequately stabilized, all in accordance with recommendations rendered by such soils engineer and as approved by the Village Engineer.

The following minimum design requirements shall apply to subdivision streets in the Village.

Schedule of Minimum Design Requirements for Subdivision Streets Curb and Gutter Sections

Access	Arterial	Secondary	Collector	Local	Business & Industrial Access
Right-of-way	90’	80’	66’	66’	80’
Horizontal Alignment (Centerline Radius)	467’	467’	250’	250’	467’
Vertical Alignment (Max./Min.)	6% / 1%	8% / 1%	8% / 1%	8% / 1%	6% /1%
Pavement Width (Back to Back)	39’	39’	36’	29’	39’
Pavement Structure[4]	•8” BBC[3] Base, 4” HMA Surface (1 ½” surface, 2 ½” binder), 4” aggregate subbase Or •8” PCC with wire fabric and 8” subbase	•8” BBC[3] Base, 4” HMA Surface (1 ½” surface, 2 ½” binder), 4” aggregate subbase Or •8” PCC with wire fabric and 8” subbase	•6"BBC[3] Base, 4” HMA surface (1 1/2:” surface, 2 ½” binder) 4” aggregate subbase Or •12"aggregate base course, Type B (100% crushed), 5 ½” HMA surface (1 ½” surface, 4 ½” binder) Or •6"PCC with 8” subbase	•4"BBC[3] Base, 4” HMA surface (1 ½” surface, 2 ½” binder) 4” aggregate subbase Or •10” aggregate base course, Type B (100% crushed), 4” HMA surface (1 ½” surface, 2 ½” binder) Or •6"PCC with 4” subbase	•9"BBC[3] Base, 4” HMA surface (1½” binder,2½” surface) 4” aggregate subbase Or •10"PCC with wire fabric and 8”subbase
Curb & Gutter[1]	M-6.12; B-6.12	M-6.12; B-6.12	M-6.12; B-6.12	M-6.12; B-6.12	M-6.12; B-6.12
Sidewalk[2]	5’ wide	5’ wide	5’ wide	5’ wide	5’ wide
Cul-de sacs	Not Allowed	Not Allowed	Not Allowed	140’ diameter right-of-way, 100’ diameter pavement	Not Allowed
Parking	Not Allowed	Not Allowed	One side 8’ Min.	Not Allowed	Not Allowed

Notes:
[1]See Subsection 605.7 (swales are only allowed with Village approval).
[2]Off-street systems are NOT allowed in lieu of sidewalk
[3]BBC - Bituminous Base Course.
[4]Minimum pavement requirements are based on a subsoil Illinois Bearing Ratio (IBR) value of 3.0. The Village Engineer may reduce the requirements where soil tests show higher subsoil IBR values.

Schedule of Minimum Design Requirements for Subdivision Streets Rural Cross-Sections[1]

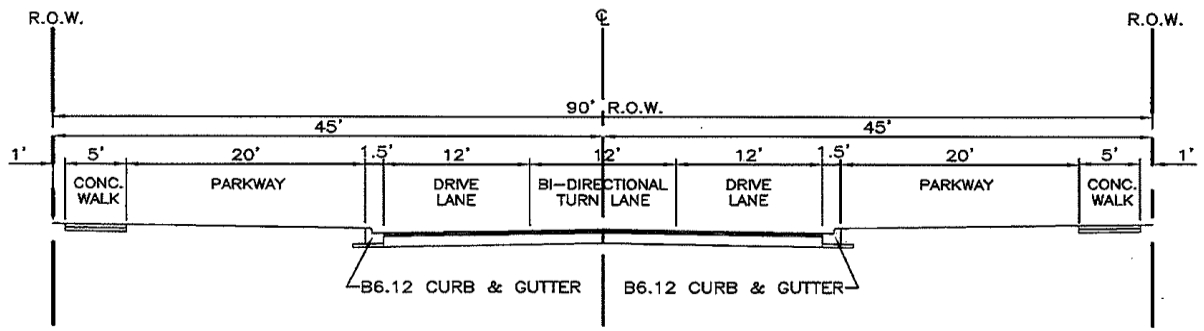
Access	Arterial	Secondary	Collector	Local	Business & Industrial Access
Right-of-way	100’	90’	70’	70’	90’
Horizontal Alignment (Centerline Radius)	467’	467’	250’	250’	467’
Vertical Alignment (Max./Min.)	6%/0.5%	8%/0.5%	8%/0.5%	8%/0.5%	6%/0.5%
Pavement Width (Edge to Edge)	36’	36’	24’	24’	33’
Pavement Structure[4] (Base course to be 2’ wider than pavement width)	•8” BBC[3] Base, 4” HMA Surface (1 ½” surface, 2 ½” binder), 4” aggregate subbase Or •8” PCC with wire fabric and 8” subbase	•8” BBC[3] Base, 4” HMA Surface (1 ½” surface, 2 ½” binder), 4” aggregate subbase Or •8” PCC with wire fabric and 8” subbase	•6"BBC[3] Base, 4” HMA surface (1 1/2:” surface, 2 ½” binder) 4” aggregate subbase Or •12"aggregate base course, Type B (100% crushed), 5 ½” HMA surface (1 ½” surface, 4 ½” binder) Or •6"PCC with 8” subbase	•4"BBC[3] Base, 4” HMA surface (1 ½” surface, 2 ½” binder) 4” aggregate subbase Or •10” aggregate base course, Type B (100% crushed), 4” HMA surface (1 ½” surface, 2 ½” binder) Or •6"PCC with 4” subbase	•9"BBC[3] Base, 4” HMA surface (1½” binder,2½” surface) 4” aggregate subbase Or •10"PCC with wire fabric and 8”subbase
Shoulder Width (Both Sides)	6’ Each	6’ Each	4’ Each	2’ Each	6’ Each
Sidewalk[2]	5’ wide	5’ wide	5’ wide	5’ wide	5’ wide
Cul-de sacs	Not Allowed	Not Allowed	Not Allowed	140’ diameter right-of-way, 100’ diameter pavement	Not Allowed
Parking	Not Allowed	Not Allowed	Not Allowed	Not Allowed	Not Allowed

Notes:
[1]See Section 605.7 (rural cross-sections are only allowed with Village approval).
Off-street systems are NOT allowed in lieu of sidewalk.
[3]BBC - Bituminous Base Course.
[4]Minimum pavement requirements are based on a subsoil Illinois Bearing Ratio (IBR) value of 3.0. The Village Engineer may reduce the requirements where soil tests show higher subsoil IBR values.

Parking
Perpendicular and angle parking along subdivision streets is normally prohibited. However, perpendicular and angle parking along subdivision streets may be considered if the features along the street cause the street to readily appear to be a street rather than a travel way through a parking lot. In addition, additional pavement width may be necessary between the travel lanes and the parking spaces to allow a car to back from its normal parked position, orient itself for entering the travel lanes and stop without either encroaching into the travel lanes or having the driver’s vision of oncoming traffic obscured by adjacent, parked vehicles. Street designs that anticipate the restriction of on-street parking shall only be recommended with the consent of the Village Engineer and staff and approved by the Village Board.

609 Occupancy Permit

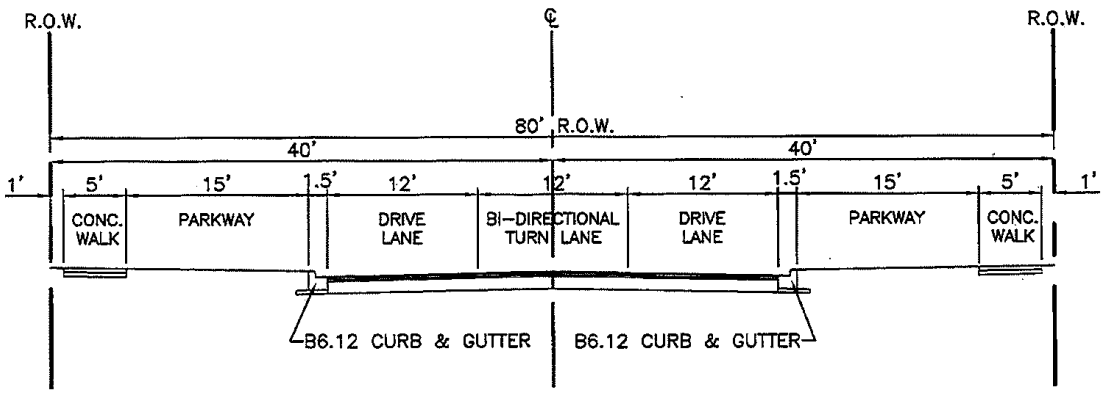
A Certificate of Occupancy for any building or structure shall not be issued unless all the requirements in this Article pertaining to design and construction of roads and roadside drainage facility have been complied with.



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL A, ARTERIAL – 39FT. BACK TO BACK
ARTERIAL – 90FT. ROW

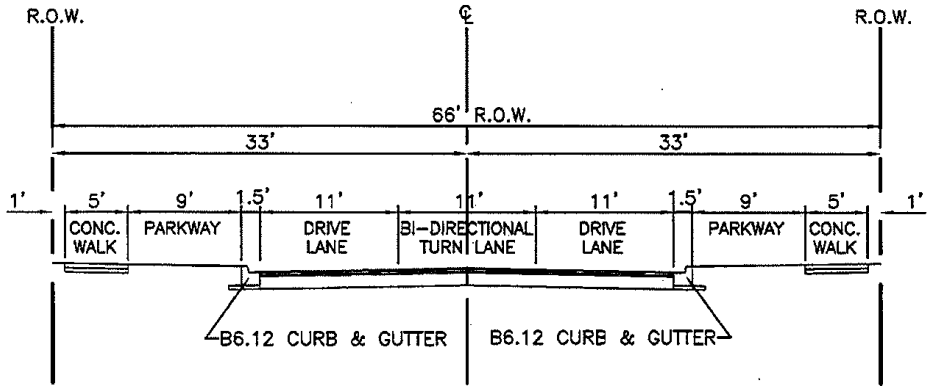
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL B, SECONDARY – 39FT. BACK TO BACK
SECONDARY – 80FT. ROW

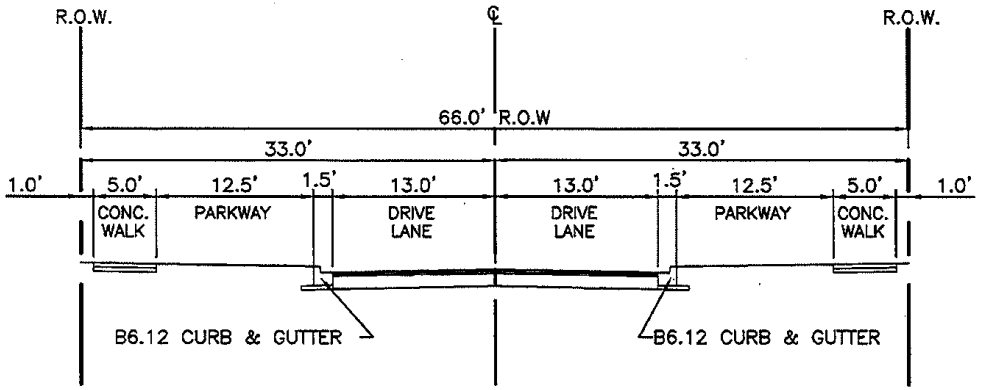
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL C, COLLECTOR – 36FT. BACK TO BACK
COLLECTOR – 66FT. ROW

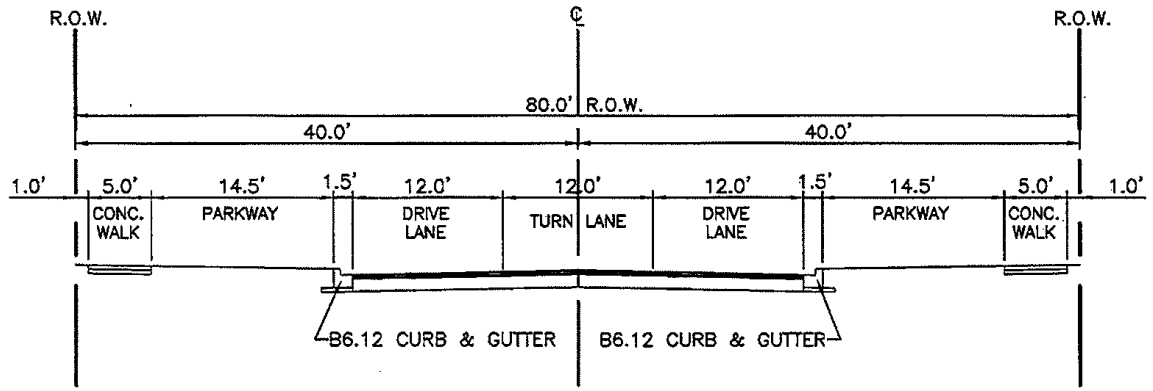
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL D, LOCAL – 29FT. BACK TO BACK
LOCAL – 66FT. ROW

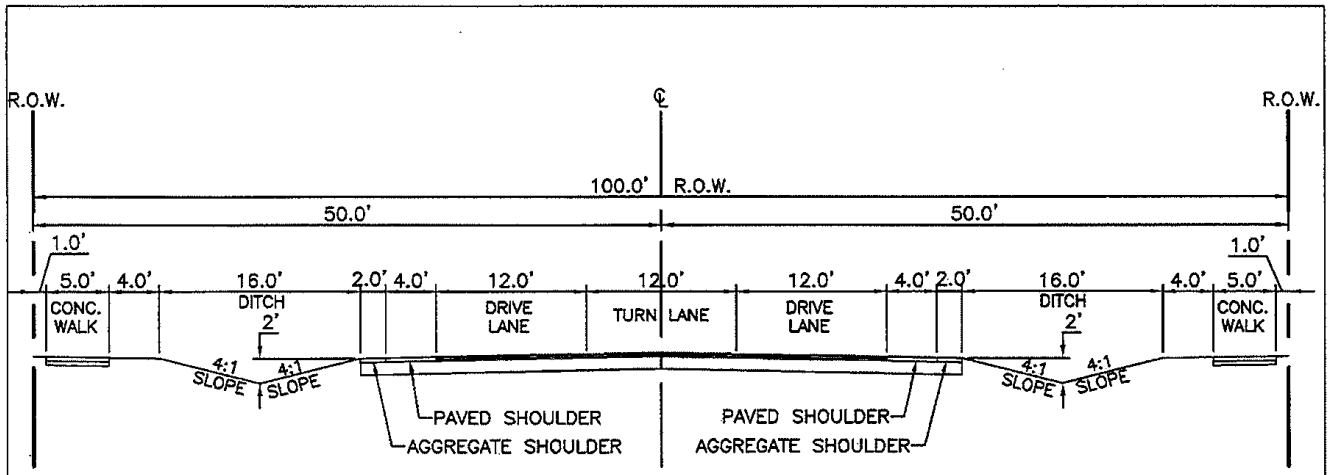
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL E, BUSINESS & INDUSTRIAL – 39FT. B–B
BUSINESS & INDUSTRIAL – 80FT. ROW

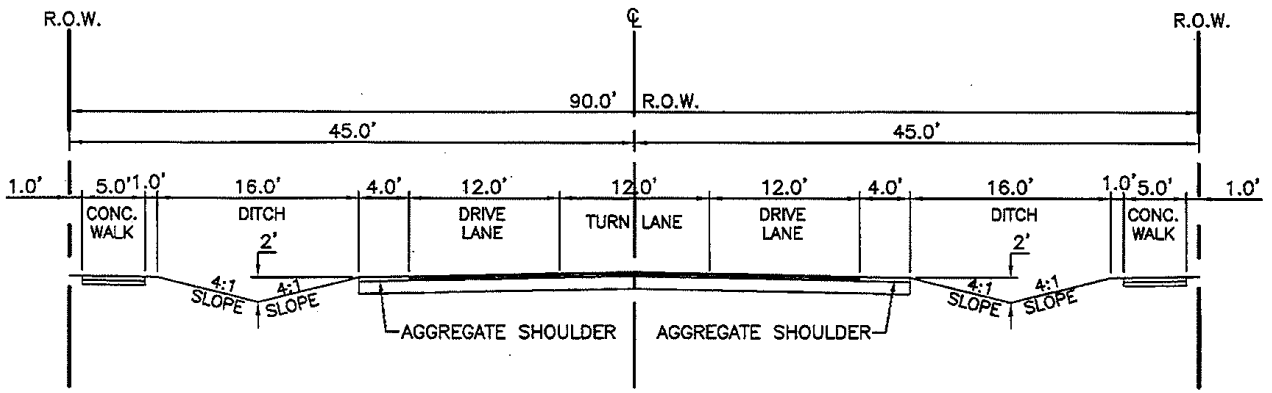
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL F, ARTERIAL – 36FT. W/ 6FT SHOULDER
ARTERIAL – 100FT. ROW

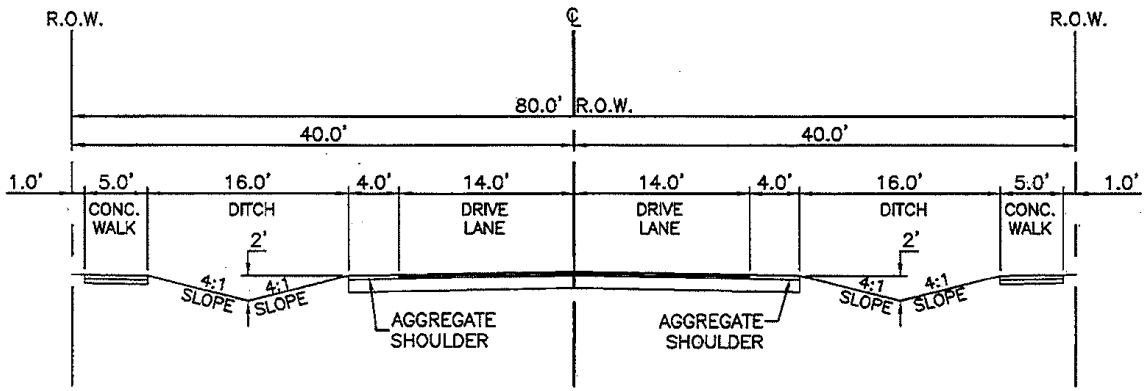
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL G, SECONDARY – 36FT. W/ 6FT. SHOULDER
SECONDARY – 90FT. ROW

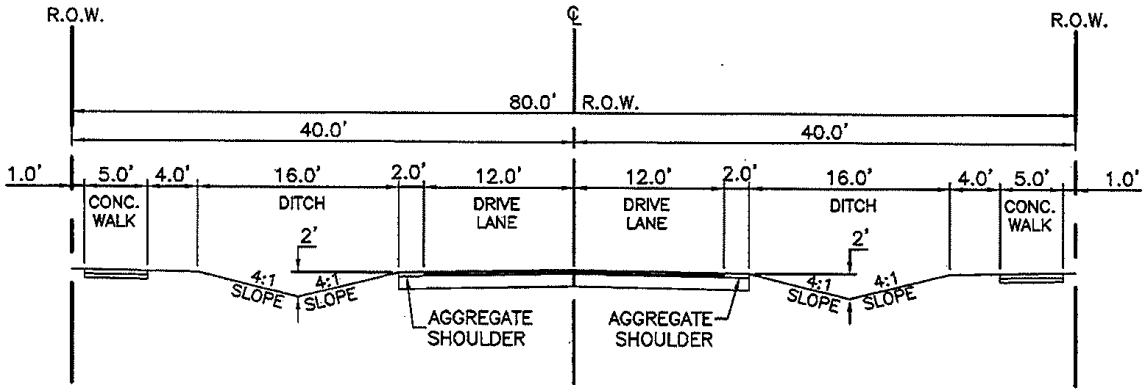
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL H, COLLECTOR – 24FT. W/ 4FT. SHOULDER
COLLECTOR – 80FT. ROW

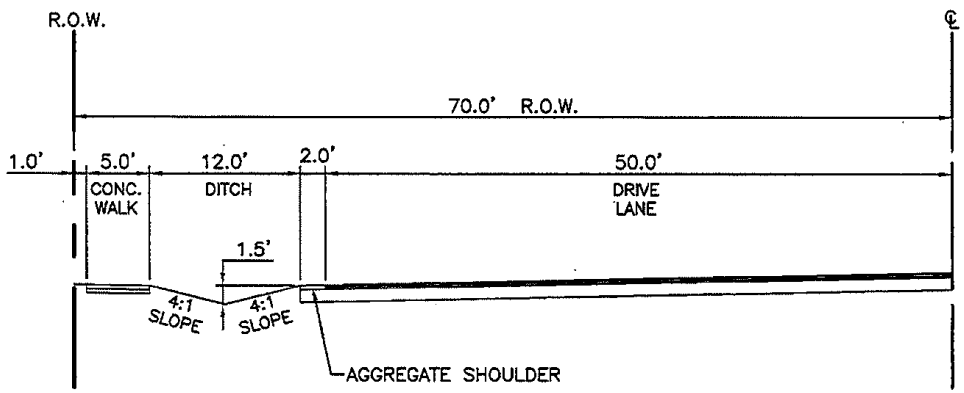
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL I, MINOR – 24FT. W/ 2FT. SHOULDER
MINOR – 80FT. ROW

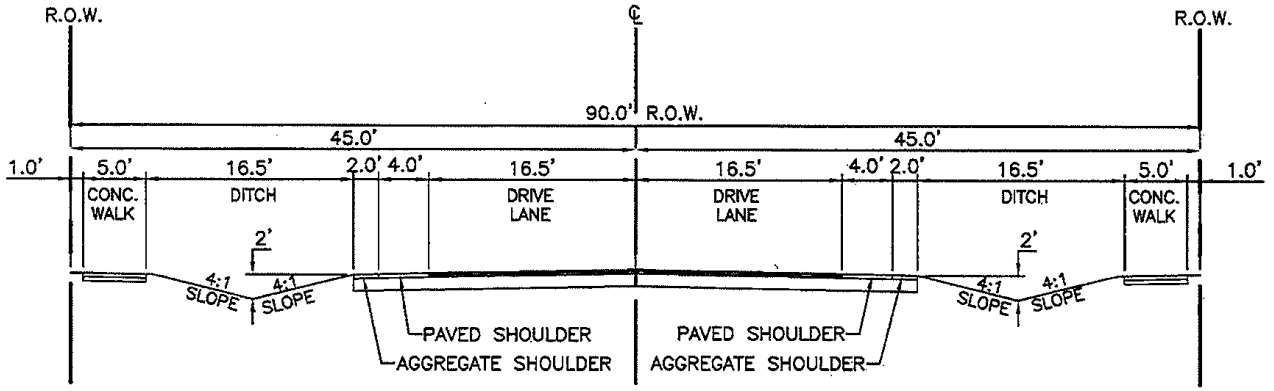
04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL J, CUL-DE-SAC – 100FT. PAVEMENT WIDTH
CUL-DE-SAC – 140FT. ROW

04/30



Village of Fox Lake	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL K, BUSINESS INDUSTRIAL – 33FT. W/ 6FT.
BUSINESS INDUSTRIAL – 90FT. ROW

04/30

Article 7 Water and Wastewater Systems

701 Water Supply

701.1 General. The standards and requirements found in the article are for materials and construction of water mains within the Village of Fox Lake, Illinois. Specification references made herein for manufactured materials such as pipe, hydrants, valves, and fittings refer to designations for American Water Works Association (AWWA) or to the American National Standard Institute (ANSI). Water distribution systems shall be constructed in accordance with "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition. The design of all water distribution system improvements proposed for construction as independent projects under the control of the Village shall meet these technical requirements and the Illinois EPA Requirements.

Community water sources will not be allowed within the 1.5 mile jurisdiction or the Village. Whenever a development is not required to connect to the Village water system, and does not propose to connect to the same, the developer shall provide service from individual wells in accordance with the Lake or McHenry County Department of Health regulations and consistent with the Comprehensive Plan. Any development that lies within the 1.5 mile planning jurisdiction, and which is not connected to Village water system, shall provide through restrictive covenants that property owners will connect to the system when Village water is available to any portion of the tract as it was constituted prior to its subdivision at their expense.

There shall be no intermingling of the municipal and individual well water supplies in the building's plumbing. Continued use of a well water supply is permitted for non-domestic benefit (sprinkling and irrigation, etc.) only if the potable Village water supply is completely physically disconnected from the non-Village supply. Only after this physical disconnection is verified by Village personnel will a water meter be placed into service.

All proposals for new public water systems or extensions to existing public water systems shall be approved, and a permit must be obtained prior to construction, by the following government entities:

Illinois Environmental Protection Agency (IEPA)
Lake or McHenry County, if applicable (utilities located within County right-of-way)

701.2 Capacity. The water supply and distribution system shall be adequate to handle the necessary flow based on complete development. The demand rates for all uses shall be considered in computing the total system demand. Water main shall be sized as determined by a hydraulic analysis based on anticipated flow demands and pressure requirements to maintain a normal working pressure in the distribution system of not less than 40 psi and a minimum residual pressure of 20 psi for fire protection. Where fire protection is provided, the system shall be capable of providing the required fire demand plus the required domestic demand (See Section 701.3 C.). The average daily residential and non-residential demand shall be computed in accordance with Title 35 of the Illinois Administrative Code.

Fire protection shall be furnished at the developer's expense for any development connected to the municipal water system.

701.3 System Design. The location of proposed connections to the existing water system shall be approved by the Village Engineer with due regard to the available capacity of the entire system. All connections shall be made under full water service pressure unless otherwise approved by the Village Engineer. Connections shall be accomplished without interruption of service unless approved by the Village Engineer. All connections should be coordinated with the Village for all water main shut-downs.

A. General. Except as provided below, system design and placement shall comply with the construction specifications set forth in the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition, as amended, referred to in this Article as the Standard Specifications for Water and Sewer.

All testing and disinfection shall be in accordance with current American Water Works Association

(AWWA) standards or such other standards as may be imposed by the Illinois Environmental Protection Agency (IEPA).

Extensions to the water distribution system shall form a complete network and be compatible with the existing water system network. Mains shall be extended to the property lines along public rights-of-way and at any location indicated by the Village Engineer.

Transmission mains within or adjacent to a development shall be sized and located as directed by the Village Engineer. Secondary mains shall be sized, looped, and spaced as required for fire flows.

Distribution mains shall form a grid to supply water to the local fire hydrants and service lines.

B. Specific.

- The water distribution system shall be designed to provide water meeting or exceeding the standards set out in Title 35 of the Illinois Administrative Code.

- In all cases, all water main extension shall be looped to avoid dead ends and shall extend across the entire frontage of the property to be served, unless specifically otherwise approved by the Village Engineer and the Water and Sewer Supervisor.

- The proposed water system extension shall be arranged so that, in the event of a break in any main, minimal service interruption will be caused and in no case will require closure of more than three (3) valves.

- Water mains shall have a minimum diameter of 8 inches.

- All pipe shall be laid to a minimum of five and one half (5 ½) feet measured from the existing or proposed ground surface (or subsequent excavation or fill) to the top of the pipe barrel. The mains shall be laid to grades shown on plans.

- Valves (open left) shall be located at all tees and crosses, and at not more than 500 foot intervals in commercial districts and at not more than 600 foot intervals in residential and industrial districts. Two valves shall be provided at every "T" intersection of water main. Three valves shall be provided at every "X" intersection of a water main.

- All valves shall be operated by or under the supervision of the Village Water and Sewer Department.

- High points along the water main must be minimized if possible. Placement of fire hydrants and/or air release valves at high points may be required as deemed necessary by the Village Engineer. All air release valves shall be placed in vaults.

- Valve vaults shall be provided for all butterfly valves. Gate valves located under streets and driveways shall be installed inside a valve vault, as specified in Appendix G. All other gate valves and fire hydrant auxiliary valves shall be installed with a valve box extended to the finished grade ground level, as shown in Appendix G.

- Notwithstanding anything to the contrary, the size, type and installation of any water main materials shall meet the specifications set out in the Village of Fox Lake Water Main and Sanitary Sewer Specifications List in Appendix G.

- No water main transmission lines will be permitted in the rear yards of any development. Special circumstances which may warrant placement of water main in a rear or side yard must receive prior approval from the Village Engineer and require a 20’ utility easement (10’ each side of the main).

- No water main casting (vaults, boxes, etc.) shall be located within residential driveways.

- When individual building fire protection is required by the Fire Chief or Building Code, a separate domestic line and fire protection line shall enter the building. The purpose is to continue uninterrupted fire protection flow even if the domestic water service is inoperable (i.e. shut off).

C. **Fire Protection.** If required by the Village Engineer or Fire Chief, the design engineer shall show, in a separate report to both the Village's Engineering Department and the Fire Prevention Bureau, that at various locations, selected by the Village Engineer, the proposed water main system will supply the required fire flows in excess of domestic consumption demands. A "C" factor of 100 for old water main pipe or 120 for new ductile iron pipe (cement lined) shall be assumed. Fire flow requirements are as shown in Appendix G.

No pump shall be installed without specific approval of the Fire Prevention Bureau. The Standards of the National Fire Protection Association have been adopted by reference in the Village Building and Fire Prevention Code. Proper backflow prevention devices are required in accordance with the Illinois Plumbing Code (77 Illinois Administrative Code 890.1510 and IEPA Technical Policy Statements 35 Illinois Administrative Code 653.801 et seq.).

D. **Water Services**. Water services shall use the size and materials set out in Appendix G. In the event the Village approves service using a larger size than provided therein, the connection shall be made by use of proper fittings to protect the main. Services greater than 2 inches shall be made of material required for water main and shall be tapped under pressure with a tapping sleeve. Multiple taps and the use of a branch gooseneck or "tree connections" are not allowed.

Customer water service lines shall be stubbed from the water main to the nearest private property lot line. Water services shall have at least five and one half (5 ½) feet, but no more than 6 feet, of cover. Every building on a lot served with water shall have its own separate water service with curb stop/curb box, and taps should be directly into the respective mains as shown in the Standard Detail. A separate domestic service line is required into a building equipped with sprinklers in addition to a fire protection service line as stated in Section 701.3 B above.

E. **Tapping Requirements**. New mains shall be directly tapped into the water main by way of pressurized tap and tapping sleeve using all cast iron fittings with the valve being located inside a manhole encompassing the entire valve, tap connections and main. The main will be tested by the developer and witnessed by either the Fire Department Inspector or Water and Sewer Supervisor.

F. **Permits**. No water system construction may begin without a valid public water supply construction permit issued by the IEPA. No water system improvement may be operated without a valid operating permit issued by the IEPA.

G. **Pipe Joints.** Sections of water main pipe shall be connected by means of push-on joints while all fittings must be equipped with mechanical joints, all in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.

EBAA Iron Mega-lug connections (or equal) as joint restraint and precast concrete block or poured concrete thrust blocks as secondary joint restraint are required at all valves, hydrants, tees and bends. Engineering drawings shall indicate the location of each concrete thrust block to be installed. Where undisturbed earth is not available or not likely to be available to back up pressure type concrete thrust blocks, the design engineer shall specify tie rods or retaining glands with or without anchor type concrete thrust blocks.

H. **Installation.** Water system construction shall in all respects be in accordance with the regulations of the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition.

No construction shall commence until copies of the approved permits are on file with the Village Engineer.

All pipe shall be handled in such a manner as will prevent damage to the pipe or coating. Damaged or defective material on the job site shall b rejected and replaced to the satisfaction of the Village Engineer. The methods of handling shall be corrected to prevent further damage when called to the attention of the Contractor.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned and relaid. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the Village Engineer to ensure absolute cleanliness inside the pipe. Threaded pipe ends shall be protected by couplings or other means until laid.

Long radius curves, either horizontal or vertical, may be laid with standard pipe by deflections at the joints. If the pipe is shown curved on the plans and no special fittings are shown, the Contractor can assume that the curves can be made by deflection of the joints with standard length of pipe. If shorter lengths are required, the plan will indicate maximum lengths that can be used.

Where field conditions require deflection of curves not anticipated by the plans, the Village Engineer will review the methods to be used.

Maximum deflections at pipe joints and laying radius for various pipe lengths are as found in AWWA C-600 for Installation of Ductile-Iron Water Main and Their Appurtenances and AWWA 900 for Installation of Polyvinyl Chloride Water Main and their Appetences.

I. Pipe Material. All public water mains shall be of polyvinyl chloride ductile iron in accordance with specifications noted in Appendix G and in the Standard Specifications for Water and Sewer Main construction in Illinois "Latest Edition".

701.4. Testing. The Contractor must notify the Village and Village Engineer at least forty-eight (48) hours in advance to arrange for appropriate pressure testing and water samplings. All water samples will be sent by the Village to a State of Illinois certified testing lab for coliform bacterial analysis. Samples will be taken at 24 and 48 hour intervals after chlorination. All water main pressure testing and disinfection procedures shall be in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition and as noted in Appendix G. All testing and chlorination must be witnessed by an appropriate representative of the Village of Fox Lake.

701.5 Water and Sewer Separation. All water mains shall maintain horizontal and vertical separations from any sewer lines, in accordance with the requirements of the Illinois Environmental Protection Agency. If the IEPA separations cannot be met, then adequate provisions for protection of the water supply must meet the requirements of the IEPA and Village.

701.6 Fire Hydrants. Hydrants shall be spaced to provide necessary fire flow. Hydrants shall be placed at all street intersections and at intervals of not more than 200 feet in commercial and industrial districts, and 300 feet in residential districts. Hydrants shall be located at the ends of line. In commercial areas, fire hydrants shall be a minimum of 25 feet from a building. Valves of full line size and a 10 foot section of pipe with a plug shall be provided at the end of all dead end lines that may be extended in the future with a hydrant installed in-line with the appropriate resources. Fire hydrants shall have a 6 feet bury with final landscaping grade being not more than 2 inches higher or lower of the bury line on each hydrant and the minimum distance from the landscaping grade to the center of the steamer nozzle being 18 inches and 24 inches maximum. Each hydrant shall be provided with no less than a 24 inch length of pipe between the hydrant and the valve, as shown in the Standard Detail.

Notwithstanding anything to the contrary, the size, type and installation of any hydrant shall meet the specifications set out in Appendix G.

702 Sanitary Sewers

702.1 General. Regardless of size, all developments within the corporate limits or under the control of the Village shall include provisions for the construction of or connection to sanitary sewerage facilities. At a minimum, proposed sanitary sewer construction shall include a system of sewers between a connection to an existing sewer system at an approved location and the boundary line of each individual parcel of property within or adjacent to the development. Where more than one building is located or planned on one parcel of property, the proposed construction shall include all sanitary sewer construction and appurtenances within the parcel. The design of all sanitary sewerage facilities shall also meet the technical requirements of these Standards and the other local sanitary districts and the Illinois EPA.

In determining whether Village sanitary sewer service is available, the Village will consider the costs of upgrading existing mains and constructing or replacing lift stations, and the extent to which any excessive costs can be recaptured within a reasonable period of time. Whenever a development is not required to connect to the Village sanitary sewer system, but proposes to comply with this Ordinance by service from a community sewer source, the system shall be designed consistent with this Article.

Whenever a development is not required to connect to the Village sewer system, and does not propose to connect to the same or provide service through a community sewer system, the developer shall provide an individual subsurface disposal system in accordance with the Lake or McHenry County Department of Health regulations.

The design plans submitted to the Village Engineer for approval shall include a map of the Ultimate Service Area. The Ultimate Service Area shall include the entire area proposed to be ultimately served by all or a portion of the proposed sanitary sewer. By decision of the Village, the Ultimate Service Area may be required to be extended beyond the limits of any development. The additional expense for such extension of the Ultimate Service Area beyond the limits of the development may result in provisions to recover such incremental cost through a recapture ordinance.

Adequate details shall be shown on the Ultimate Service Area map relative to future sewer sizes, elevations and topography to establish the adequacy of construction plans submitted for approval to serve possible future extensions beyond the Ultimate Service Area. Additionally, Population Equivalent (PE) calculations shall be provided for all immediate and future service areas for approval by the Village Engineer.

All proposals for new public sanitary sewer systems, or extensions to existing public sewer systems, or the use of community sanitary sewer system or individual subsurface disposal systems, shall be approved, and a permit must be obtained prior to construction, by the following government entities:

Illinois Environmental Protection Agency (IEPA)
Lake or McHenry County, if applicable (utilities located within County right-of-way)

702.2 Sanitary Design and Placement. The location of proposed connections to the existing sanitary sewer system shall be approved by the Village Engineer with due regard to the available capacity of the entire system.

A. General. The sanitary sewer system shall be adequate to handle the necessary flow based on complete development in accord with the standards set out in Title 35 of the Illinois Administrative Code.

- Sewer mains shall be designed in accordance with the “Standard Specifications for Water and Sewer Main Construction in Illinois,” latest edition.

- All public sanitary sewer extensions shall extend across the entire frontage of all abutting properties to be served unless otherwise recommended by the Village Engineer and/or approved by the Board of Trustees.

- The sewers shall be designed in such a way as to insure a minimum velocity of flow of 2

feet per second and a maximum velocity of flow of 8 feet per second. Sanitary sewer shall whenever practical be located in the center of the street.

- All sanitary sewage consisting of domestic and other water-borne wastes shall be collected and conveyed in a sanitary sewer pipe system to a point of discharge into an existing sanitary sewer system. No sanitary sewage shall be allowed to enter any storm sewer system or discharged onto the ground or into receiving streams without first being treated.

- Sewer mains shall be of adequate size to serve the entire development proposed and, except as otherwise approved by the Village Engineer, shall be installed in the street right-of-way, or in an easement adjacent thereto.

- Sewer mains shall not be installed within ten (10) feet of a building. The minimum sewer *main* size shall be eight (8) inch internal diameter and shall be installed with uniform invert slope and straight alignment between manholes. The minimum sewer *service* size shall be six (6) inch internal diameter installed at a minimum slope of 1.04% or one-eighth (1/8) inch per foot, or not less than ten (10) feet of four (4) inch internal diameter installed at a minimum slope of 2.08% or one-quarter (1/4) inch per foot.

- Average design flow for a sanitary sewer facility shall be 100 gpcpd (gallons per capita per day). The maximum design flow must be calculated based on peaking factors as obtained by Title 35 Part 370 Appendix D of the Illinois Administrative Code. The design engineer is to provide detailed design calculations for approval.

- All pipe shall be laid to a minimum depth of four (4) feet measured from the existing or proposed ground surface to the top of the pipe barrel unless specifically allowed otherwise, in special circumstances by the Village Engineer. Sewers placed less than 4 feet deep will be at the discretion of the Village Engineer and shall be appropriately insulated.

- Granular pipe bedding material or granular cradle shall be required on ALL sanitary sewers installed in the Village of Fox Lake as specified in Appendix G.

- No sanitary sewer mains will be permitted in the rear yards of any development. Special circumstances which may warrant placement of a sanitary main in a rear or side yard must receive prior approval from the Village Engineer and require a 20’ utility easement (10’ each side of the main).

- No sanitary sewer manhole casting shall be located within residential driveways.

B. **Sanitary Sewer Materials**. Notwithstanding anything to the contrary, sanitary sewer materials shall meet the standards set out in the Village of Fox Lake Water Main and Sanitary Sewer Specifications list located in Appendix G of this Ordinance.

C. **Sanitary Sewer Alignment**. The sanitary sewer manhole frames are to be located in the center of the street or within 3 feet of the back of curb. Where the sanitary sewer is located outside the pavement in the road right-of-way, manholes shall be located as close to the property lines as practical. Locations where this occurs must be approved by the Village Engineer and Water and Sewer Supervisor.

D. **Manholes**. Manholes shall be provided at the end of each line, at all changes in grade, direction, material or pipe size and be not more than 400 feet apart. Sewers shall be laid straight in both horizontal and vertical planes between manholes, unless otherwise approved by the Village Engineer. The invert elevations shall be adjusted to maintain a uniform energy gradient by

matching the 0.8 depth points of different diameters. Manholes and castings shall be as specified in Appendix G.

Drop manholes are required where there greater than 24 inches of elevations exists between the elevation of the invert pipe and the invert of the manhole. Drop manhole material and configuration shall be as specified in Appendix G.

Sampling manholes are required as set forth in the Fats, Oil and Grease Discharge Policy (7-3A-19). There shall be no flow into the sampling manhole except flow from the building or buildings for which the sampling manhole is intended. Manholes constructed on public sewer, or on sewers receiving other flows, are not considered sampling manholes. Sampling manholes shall be as specified in Appendix G.

The manhole cover shall have the words "Village of Fox Lake" and "Sanitary" permanently cast into the face of the cover.

E. **Lift Stations**. Whenever possible, sanitary sewerage gravity facilities shall be designed so as to avoid the necessity of providing lift stations. Lift station and force main designs shall be submitted for review and approval by the Streets Supervisor and the Village Engineer

Whenever a development proposes to use a lift station to serve part or all of the lots in the development, the lift station shall be designed to the satisfaction of the Village and offered to it for dedication. The Village may refuse to accept the dedication where it finds that the development will probably be served without the use of the lift station at some time during the planning period. The Village may require a lift station to be designed for capacity greater than that required by the developer, and if so, shall agree to a reasonable recapture agreement for the developer.

Each lift station shall be submersible with a natural gas standby generator. A stand-by internal combustion power source shall be provided for each lift station. Generators shall have a block heater and an automatic transfer switch and automatic exercise capability. Generators shall have an all-weather enclosure. Stations shall have a minimum of two pumps. The station shall also be equipped with a compatible telemetry alarm and communication system and connected to the Village's existing alarm panel, as directed by the Village Engineer and Streets Supervisor. Lift Station material and configuration shall be as specified in Appendix G.

If a developer will utilize an existing Village lift station, the Village may require as part of plat approval that the developer pay for necessary upgrades to the lift station due to the requirements of the development.

F. **Service Lines**. Sanitary sewer services shall be a minimum diameter of 6 inches and constructed with material as specified in Appendix G, at slopes stated above in Section 702.2 A. of this document. Services constructed as part of a new main sewer extension shall be connected to the main sewer using a wye. Eight inch diameter services or larger may be connected at a manhole when approved by the Water and Sewer Supervisor. Clean outs shall be required for all sanitary services located just outside of the building foundation and at all bends greater than 22.5 degrees and brought to the final grade of each location. A sampling manhole and grease interceptor may be required for specific commercial uses in accordance with the Village of Fox Lake Fats, Oil, and Grease Discharge Policy (7-3A-19).

G. **Installation.** Sewer system construction shall in all respects be in accordance with the regulations of the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition. No construction shall commence until copies of all approved permits are on file with the Village Engineer.

All types of pipe shall be handled in such a manner as will prevent damage to the pipe. Damaged or defective material on the job site shall be rejected and replaced to the satisfaction of the Village

Engineer. The methods of handling shall be corrected to prevent further damage when called to the attention of the Contractor.

Dirt or other foreign material shall be prevented from entering the pipe or pipe joint during handling or laying operations and any pipe or fitting that has been installed with dirt or foreign material in it shall be removed, cleaned, and re-laid. At times when pipe laying is not in progress, the open ends of the pipe shall be closed by a watertight plug or by other means approved by the Village Engineer to ensure absolute cleanliness inside the pipe. Additionally, the existing sanitary sewer shall be plugged until construction is complete.

The laying of pipe in finished trenches shall be installed to line and grade as specified on plans. The sewer line shall start at the outlet end with the spigot ends pointing in the direction of flow and shall proceed toward the inlet end with pipes abutting true to line and grade. The ends of the pipes shall be carefully cleaned before the pipes are lowered into the trenches. As each length of pipe is laid, the mouth of the pipe shall be properly protected to prevent the entrance of earth or bedding material. The pipe shall be fitted and matched so that when laid in the work they will form a sewer with a smooth, uniform invert.

All sewer pipe installations must be inspected by the Village. This means that no backfilling or closing of a sewer pipe trench can be accomplished until specific permission to do so has been given by authorized personnel representing the Village. Upon approval, backfilling or closing of trenches will be completed immediately.

Connection of new sewers to existing sewers, when encountered in construction, shall be made as ordered by the Village Engineer. Such connections shall be made within a manhole, except for individual house and drain connections. A band-seal coupling shall be used for connection of dissimilar materials.

When connections are made to sewers, special care must be taken that no part of the work is built under water. A flume or dam must be installed and bypass pumping maintained if necessary, to keep the new work dry until completed and concrete or mortar has properly cured.

Junctions, service stubs or extension of main sewer line for future sewer connections shall be plugged at the ends, or otherwise sealed off in a manner approved by the Village Engineer.

All jointing material shall be used in accordance with the recommendations of the manufacturer. Each pipe shall be pushed or pulled as tightly as possible to the section in place to insure tight joints.

Curvature of sanitary sewers is not allowed unless, in the opinion of the Village Engineer, special circumstances dictate otherwise. Pipe required to be laid on curved alignment shall be joined in straight alignment and then deflected, joint by joint. Special care shall be taken in clocking the pipe and in no case shall the degree of deflection exceed manufacturer's recommendations for the respective pipe size, material, and barrel length.

The contractor shall keep a "field record" of all sewer services/stub locations by measurement to the nearest downstream manhole. Such records shall be delivered to the Village Engineer prior to scheduling testing and acceptance of the sewer construction.

Sheeting and bracing may be placed in the trench. Sheeting and/or bracing shall be progressively removed as the backfill is placed in such a manner as to prevent the caving-in of the sides of the trench or excavation and to prevent damage to the work. Sheeting which is placed shall not be removed until the backfill has been placed and thoroughly compacted. While being pulled, all vacancies left by the sheeting shall be carefully filled with sand free from silt, rammed into place, puddled or otherwise firmly compacted. The contractor is responsible for the construction techniques, procedures and compliance with O.S.H.A. standards to insure a safe and proper

installation.

702.3 Testing. The contractor must notify the Village and Village Engineer at least forty-eight (48) hours in advance to arrange for appropriate testing prior to placing a sanitary sewer system into service. All sections of pipe must be televised at the expense of the developer. Approval must be obtained from the Village Engineer or Water and Sewer Supervisor, and a copy must be supplied to be kept on file.

A. Leakage Tests - Refer to Specifications for Water and Sewer Construction in Illinois for low pressure air test:

a. Prior to testing for leakage, flush and clean the sewers.
b. Seal pipe openings with airtight plugs and braces.
c. Whenever the sewer to be tested is submerged under groundwater, insert a pipe probe by boring or jetting into the backfill material adjacent to the center of the sewer to determine the groundwater hydrostatic pressure by forcing air to flow slowly through the probe pipe.
d. Add air to the plugged sewer sections under test until internal air pressure reaches 4.0 psi greater than any groundwater hydrostatic pressure.
e. Allow at least two minutes for air temperature to stabilize and adding air to maintain the initial test pressure.
f. Shut off the air supply after stabilizing the air temperature and record the time in seconds for the internal sewer pressure to drop from 3.5 psi to 2.5 psi greater than any groundwater hydrostatic pressure.
g. Allowable limits: Total rate of air loss not to exceed 0.0030 cubic feet of air per minute per square foot of internal pipe area.
h. If the air test fails to meet these requirements, locate and repair, or remove and replace the faulty sections of sewer in a manner approved by the Engineer, as necessary to meet the allowable limits upon re-testing.
i. Do not use acrylamid gel sealant to correct leakage

In addition, all sanitary sewers constructed of flexible pipe materials shall be deflection tested by pulling a "go – no go" mandrel through the pipe line from manhole to manhole. A "deflectometer" may also be used to check and record deflections.

B. Deflection Test for Flexible Thermoplastic Pipe

a. Test the deflection in the installed PVC and other flexible thermoplastic pipe.
b. Perform the test no sooner than 30 days after backfilling has been completed.
c. Perform the test by pulling a mandrel or rigid ball having a diameter equal to 95 percent of the inside diameter of the pipe through the pipe from manhole to manhole without using mechanical pulling devices.
d. Allowable deflection limits: 5.0 percent of the base inside diameter of the PVC pipe.
e. Wherever the deflection limitation is exceeded, uncover the pipe, carefully replace compacted embedment and backfill material, and re-test for deflection. After initial testing, should the deflected pipe fail to return to its original size (inside diameter), then the pipe shall be replaced.

C. Televising of Sewers

The Village Engineer may allow the required closed circuit televising (CCTV) test to meet the requirements for testing and inspection of sanitary sewers for acceptability.

All public sanitary sewer mains shall be internally videotaped by remote camera. Tapes shall be in color of DVD format (or other format acceptable to the Village) and submitted to the Village Streets Department for review and approval.

D. Manhole Vacuum Testing

All sanitary sewer manholes shall be vacuum tested immediately after installation and prior to backfilling, by the contractor, as per the standards established by Standard Specifications for Water & Sewer Construction in Illinois.

a. All lift holes should be plugged with an approved non-shrink grout, or rubber plug. No grout will be placed in the horizontal joints before testing.
b. All pipes entering the manhole shall be plugged, taking care to securely brace the plugs from being drawn into the manhole.
c. The manhole frame and adjusting rings shall be in place for the testing.
d. A vacuum of ten (10") inches of mercury shall be placed on the manhole and the time measured for the vacuum to drop to nine (9") inches of mercury. The vacuum shall not drop below nine (9") inches of mercury for the following time periods:
    i. 48" diameter manhole – sixty (60) seconds
    ii. 72" diameter manhole – ninety (90) seconds
e. If the test fails, the contractor shall seal all leaks and re-test until acceptable.
f. All necessary repairs or seals shall be done on the exterior of the manhole, not from the inside.

702.4 Water and Sewer Separation. All water mains shall maintain minimum horizontal and vertical separations from any sewer lines, in accordance with the requirements of the Illinois Environmental Protection Agency. If the IEPA separations cannot be met, then adequate provisions for protection of the water supply must meet the requirements of the IEPA and Village.

703 Oversizing Water and Sewer Facilities

The Village may require the developer to size water and sanitary sewer facilities to address future development consistent with the Comprehensive Plan, Master Plan or Ultimate Service Area. Where appropriate, this may be accommodated by a recapture agreement or borne by the Village if so accepted and authorized by the Board of Trustees.

704 Public Easements and Water and Sewer Facilities

All public water and sewer main extensions shall be located within the dedicated rights-of-way or easements. If located within an easement, the easement must extend 10 feet either side of the main. Underground utility work cannot commence until all existing public and private utilities are field located. Call J.U.L.I.E. at 1-800-892-0123 at least 72 hours in advance.

All necessary precautions shall be taken against damage to existing utilities. In the event of a break in an existing water main, gas main, sewer, or underground cable, the contractor shall immediately notify a responsible official from the organization operating the utility interrupted. The contractor or developer shall lend all possible assistance in restoring service and shall assume all costs, charges or claims connected with the interruption and repair of such services. In the case of damage to Village utilities, the repairs shall be immediately performed by the contractor, or the cost of such repair work will be billed to the contractor or developer on a time and material bases plus fringe, overhead and administrative costs.

Article 8 Stormwater Control

801 Purpose

The purpose of this Article is to diminish threats to public health, safety and welfare caused by the runoff of excessive stormwater from new development. Among the adverse impacts sought to be avoided are the inundation of damageable properties, the erosion and destabilization of downstream channels, and the pollution of valuable stream and lake resources. More specifically, these are intended to:

A. Assure that new development does not increase the drainage or flood hazards to others, or create unstable conditions susceptible to erosion;
B. Protect new buildings and major improvements to buildings from flood damage due to increased stormwater runoff;
C. Protect human life and health from the hazards of increased flooding on a watershed basis;
D. Lessen the burden on the taxpayer for flood control projects, repairs to flood-damaged public facilities and utilities, correction of channel erosion problems, and flood rescue and relief operations caused by increased stormwater runoff quantities from new development;
E. Protect, conserve, and promote the orderly development of land and water resources;
F. Preserve the natural hydrologic and hydraulic functions of watercourses and floodplains and to protect water quality and aquatic habitats; and
G. Preserve the natural characteristics of stream corridors in order to moderate flood and stormwater impacts, improve water quality, reduce soil erosion, protect aquatic and riparian habitat, provide recreational opportunities, provide aesthetic benefits, and enhance community and economic development.

All proposals for new public storm sewer systems or extensions shall be approved, and the following permits must be obtained, if applicable:

Watershed Development Ordinance (WDO) Permit (issued by the Enforcement Officer for the Village of Fox Lake)

802 Methods.

The following requirements are set forth in accordance with the Lake County Stormwater Management Commission's (SMC) Watershed Development Ordinance (WDO). All areas within the Village of Fox Lake, located in both Lake County and McHenry County must be in accordance with the regulation set forth in the Watershed Development Ordinance. The Watershed Development Ordinance shall govern in the event of any discrepancies and shall be brought to the attention of the Village Engineer. The Village of Fox Lake is a Certified Community by the SMC, as defined in the WDO; therefore, the Enforcement Officer has jurisdiction over enforcement, with the exception of wetland issues. All WDO permits must be submitted to the Enforcement Officer accordingly.

802.1 Design Methodologies. The design of the drainage system shall be developed according to the regulations set forth in the Watershed Development Ordinance as compiled by the Lake County Stormwater Management Commission, latest revision. Additionally, conveyance system design shall be in accordance with Section 804 of this Ordinance.

An approved WDO permit must be obtained by the developer and submitted to the Village Engineer prior to the start of construction, if applicable, according to the requirements set forth in Article IV-A of the Lake County WDO. The submitted engineering plans given to the Village must be deemed "approvable" prior to application for the WDO permit.

802.2 Performance Standards. All runoff calculations, release rate requirements, runoff volumes, and detention facilities requirements must follow Article IV – B.1. of the Lake County WDO, as stated in each section below.

802.3 Farm Tiles. All developments, regardless of size within the corporate limits or under the control of the Village, shall investigate the site for existing farm tile drainage systems. Any field tile systems cut during the

process of land development must be properly reconnected. All existing farm tile drainage systems shall be either connected into the development's proposed storm sewer system or left intact. Connection of existing agricultural drain tiles to new storm water management systems may be approved if proper allowance for flows from said tiles are incorporated in the new system design. Connecting farm tiles to sanitary sewers will not be permitted.

803 Retention/Detention Basin Design

803.1 Release Rates. All release rate requirements must be in accordance with Article IV – B.1.c. of the Lake County Watershed Development Ordinance

803.2 Water Quality. All water quality requirements must be in accordance with Article IV – B.1.h. of the Lake County Watershed Development Ordinance.

803.3 Storage Requirements. The developer shall base the maximum design storage in a detention or retention basin on the runoff from the 100-year, 24-hour event and reservoir routing. Storage requirements shall be computed in accordance with the Lake County Stormwater Management Commission's Watershed Development Ordinance.

803.4 Wet Basin Design. The developer shall design any proposed wet detention basin to remove stormwater pollutants, to be safe, to be aesthetically pleasing and, to extent feasible, to be usable for recreational use in accordance with the Lake County Stormwater Management Commission's Watershed Development Ordinance.

803.5 Dry Basin Design. The developer shall design any proposed dry detention basin to remove stormwater pollutants, to be safe, to be aesthetically pleasing and, to extent feasible, to be available for multiple uses in accordance with the Lake County Stormwater Management Commission's Watershed Development Ordinance.

803.6 Safety. A safety ledge shall be installed in accordance with the Lake County Stormwater Management Commission's Watershed Development Ordinance. Shorelines and banks for wet and dry ponds shall not have greater than a four to one (4:1 horizontal to vertical) slope. Velocities throughout the drainage system shall be controlled to safe levels taking into consideration rates and depths of flow.

803.7 Basin Outlet Design.

A. Inlet and Outlet Orientation. The developer shall locate detention outlets as far as feasible from detention inlets.

B. Minimum Detention Outlet Size. As stated in Article IV – B.1.e. of the Lake County Watershed Development Ordinance, single pipe outlets shall have a minimum inside diameter of 12 inches. If design release rates call for smaller outlet, a design that minimizes the possibility of clogging shall be used. Minimum outlet restrictor size shall be four (4) inches in diameter provided there is adequate downstream capacity. Detention volume and corresponding high water level required for a development shall be determined by using the appropriate release rates referenced in Section 803.1 of this Ordinance, regardless of a minimum outlet restrictor size.

C. Effect of Backwater on Outlet. In designing an outlet, the developer shall evaluate the effect of backwater on the outlet structure from the downstream drainage system.

D. Overflow Structures. An emergency overflow structure capable of passing the base flood inflow rate without damages to downstream structures or property must be provided. The top of the impounding structure shall be a minimum of one (1) foot above the design high water level within the emergency overflow structure.

803.8 Detention in Floodplains. Stormwater retention and detention facilities shall not be constructed in a Regulatory Floodplain unless approved by the Enforcement Officer for the Village of Fox Lake. If a retention or detention facility is constructed in a Regulatory Floodplain, the development must meet the requirements of Article IV – C. of the Lake County Watershed Development Ordinance.

803.9 Detention in Wetlands. All wetland regulations regarding detention must be in accordance with Article IV – E. of the Lake County Watershed Development Ordinance.

803.10 Detention in Parking Lots. The maximum stormwater ponding depth in any parking area shall not exceed 6 inches.

803.11 Fee in Lieu of Detention. Requirements for this section must be in accordance with Article IV – B.1.f. of the Lake County Watershed Development Ordinance.

803.12 Detention Adjacent to Waterways. When proposed developments are immediately adjacent to navigable lakes or rivers, the Village may waive the requirement of on-site stormwater detention. This waiver will be considered on a case by case basis, and in each instance, will need to be negotiated with Lake County SMC. Note, relief of stormwater detention does not absolve the project from meeting the stormwater quality requirements of this ordinance

804 Conveyance System Design

804.1 Drainage System Design and Evaluation. The developer should use the criteria in this Section to evaluate and design the drainage system. The underlying objective of the system is to provide capacity to pass the 10-year peak flow from all tributary areas in the minor drainage system and an overland flow path for flows in excess of design capacity in accordance with Article IV – B.1.g. of the Lake County Watershed Development Ordinance.

Except as provided below for pocketed areas, the conveyance system shall include an overland flow path that will pass the 100-year flow at a stage at least 1 foot below the lowest ground adjacent to any structure in the vicinity of the flow path. In the event that the developer designs the overland flow path to accept flows in excess of the minor drainage system capacity, he shall provide drainage easements to accommodate the flow. Street ponding flow depths shall not exceed 6' of encroachment into the travel lane. Pocketed areas for which it is not practical to provide an overland flow path shall either be treated as a detention basin with an easement for all areas under the 100-year high water level or the conveyance system for such areas shall be sized for the 100-year storm. Storm sewers shall be designed by calculating a hydraulic grade line that accounts for hydraulic losses at structures. The flow velocity shall be between 2 fps and 10 fps under design flow.

A. Storm Sewer, Stream Improvement and Open Channel Hydraulics.

1. Storm sewers, stream improvements and open channels shall be designed to provide adequate design flow capacity using Manning's formula:

$$Q = (A)\ \frac{1.486}{n}\ (R)^{2/3}\ (S)^{1/2}$$

Q = Flow
A = Cross-sectional area
R = Wetted perimeter
S = Slope

2. Roughness coefficients ("n") shall be as follows:

Concrete pipe - 0.013
Open channels, concrete or asphalt lining - 0.013
Open channels, sodded - 0.020
Improved stream - 0.025
Natural stream - 0.050

3. Minimum cleansing velocities shall be maintained and design mean velocity shall not exceed the following:

Storm sewers - ten (10) feet per second
Open channels, concrete or asphalt lining - fifteen (15) feet per second.
Open channels, sodded - ten (10) feet per second.

4. Storm sewer, including manholes, shall be constructed so that infiltration will not exceed four hundred (400) gallons per inch diameter of sewer per mile per twenty-four (24) hour day at any time for any section of the system.

5. Inlet grate capacities shall meet or exceed design flows. Double inlets shall be installed where flows warrant. Ponding on streets shall not exceed 1 foot in depth for a 100-year storm and be confined to the public right-of-way. Ponding in front yards is not allowed unless specifically approved by the Village Board and the ponding area is reserved by easement.

B. **Sewer Size.** Storm sewers serving inlets shall not be less than twelve (12) inches in diameter. Driveway culverts shall not be less than fifteen (15) inches. Roadway culverts shall not be less than eighteen (18) inches. Flared end sections shall be provided for all culvert pipes of 18-inch diameter and larger. Storm sewer house service lines shall not be less than eight (8) inches in diameter. Storm sewers of different inside diameters shall join only at structures. The invert elevations shall be adjusted to maintain a uniform energy gradient by matching the 0.8 depth points of the different diameters. The end of storm sewer service leads shall be marked with a 4" x 4" hardwood stake.

C. **Storm Sewer Depth/Size.** Storm sewers shall be constructed with a minimum depth of cover of three (3) feet so as to protect the pipe, and sized to provide an outfall for all stormwater from a 10 year rainfall event within the ultimate service area, both existing and ultimate service area, unless approved by the Village Engineer. Any sewer having less than one (1) foot of cover (from the top of the pipe to the bottom of the sub-grade) shall be installed using ductile iron pipe.

D. **Storm Sewer Manholes.** Manholes shall be provided at the end of each line, at all changes in grade, direction, material or pipe size and be not more than 400 feet apart. Sewers shall be laid straight in both horizontal and vertical planes between manholes, unless otherwise approved by the Village Engineer. The invert elevations shall be adjusted to maintain a uniform energy gradient by matching the 0.8 depth points of different diameters. Manholes and castings shall be as specified in Appendix G.

The solid manhole cover shall have the words “Village of Fox Lake” and “Storm” permanently cast into the face of the cover. Open lid /grates shall have “Dump No Waste - Drains to Waterway” message with fish image permanently cast into the face of the casting cover. Casting shall meet ASMT A48-83 Class 35B. All bearing surfaces to be machined. E. Jordon w/ Environmental Lettering / Symbols or equal.

E. **Storm Sewer Pipe.** Storm sewer pipe class shall be determined based upon the manufacturer's standards, trench depth, width, and backfill/cradle type. Storm sewer pipe bedding shall be to the spring line of CA-11 crushed aggregate and joints shall be as specified in Appendix G. Approved trench backfill shall be used under and within all pavements, curbs and sidewalks 1 to 1 slope from surface to trench bottom. Storm sewer pipe concrete cradle, arch, or fill encasement shall be constructed whenever dictated by trench or embankment conditions.

F. **Storm Sewer Pipe Alignment.** Storm sewer shall be laid using a laser beam and be straight in both horizontal and vertical planes between manholes, unless otherwise approved by the Village Engineer. Adequate separation from wells/water mains and water services shall be provided in accordance with state law.

The size calculations shall take into account the receiving sewer or channel capacity. Inlet time shall be assumed not to be greater than fifteen (15) minutes.

$$Q = C\ i\ A$$

Where: Q = Runoff flow, cubic feet per second (CFS)
C = Runoff coefficient, characteristic of tributary drainage area (dimensionless)
A = Tributary drainage area (acres)
i = Average rainfall intensity, (inches per hour) using Bulletin 70

Runoff Coefficient. The runoff coefficient used in design shall be the weighted average for the proposed tributary watershed. Within a development, the runoff coefficient shall be computed assuming ultimate development and a minimum future impervious area of fifty (50) percent of the design area. Where ultimate development plans are not available at the time of the design of the storm sewer system, a runoff coefficient will be selected by the Village Engineer, based on the zoning classification, knowledge of the specific development and the previous experience of the Village with similar developments. The area within the watershed, but outside the development, shall be computed for existing conditions if future development will be under Village control.

The runoff coefficient C is the ratio of runoff to rainfall and shall be assumed as follows:

- All impervious areas (paved or hard surfaced areas, including gravel, decks, patios, pools, ponds of all types and buildings), C shall equal 0.95 (water surface C = 1.0).

- All pervious areas such as lawn areas (all areas not classified as impervious), C shall equal 0.35.

G. Drainage Computations. The drainage area, in acres, used for design shall be the entire watershed service area tributary to the point in the drainage system under design. It shall include any tributary service area that may be outside the development. Design computations prepared by a registered/licensed professional engineer for the following facilities together with one drawing defining each drainage area shall be submitted to the Village Engineer for review.

1. On-site ditches, swales and storm sewers. Storm sewers shall be designed to flow full with a minimum velocity of two (2) feet per second and a maximum velocity of ten (10) feet per second. Minimum grade for a grass bottom ditch shall be 1.0 percent. For lesser ditch grade, the engineer shall submit design for paved invert or underdrain system as directed by the Village Engineer.

- All storm sewers may be sized by the Rational Method of runoff determination for service areas up to 50 acres on the basis of a ten (10) year storm event and shall be sized to adequately carry all tributary areas. For serving areas larger than 50 acres, storm sewers must be sized by an approved hydrograph producing method.

- Surface streams and open channels shall be designed using a twenty five (25) year storm event, contained within stream or channel banks, including at any culverts.

- Overland flow and overbank flow shall be designed for a one-hundred (100) year storm event, such that the storm flow can be conveyed to a stormwater basin or downstream system without endangering structures or roadways. The overland flow way shall be clearly identified on the design drawings. Additionally any areas of the overland flow route that extend beyond the public road right-of-way shall be encapsulated within a drainage easement.

2. Street drainage design. Surface drainage inlets shall be provided so that surface water is not carried across any street intersection, parking lot or depressed drives. Surface runoff shall not extend a distance of more than three hundred (300) feet along the surface of the ground. Inlets

shall discharge into storm sewers and shall not discharge into side lot or rear lot drainage ditches. Inlets/catch basins shall be provided at all low points. Rear yard inlets and catch basins having a minimum diameter of four (4) feet shall be provided where necessary to comply with these Standards. Encroachment specifications are as follows:

1. Sections with full shoulders (6 ft or more) - no encroachment. Width of spread is limited to the shoulder width.

2. Sections with permanent parking lane - no encroachment. Width of spread is limited to the parking lane.

3. Sections with one lane each direction - allow a maximum encroachment of 6 ft or that required to provide a minimum of 1-12' passable lane at the center, whichever is controlling.

4. Sections with two (2) or more lanes in each direction – allow a maximum encroachment of 6 ft or that required to provide a minimum of 3-12' passable lane at the center, whichever is controlling..

5. Sections with three (3) or more lanes in each direction and one (1) lane draining to the median - allow a maximum encroachment of 4 ft on the median side. Allow a maximum Encroachment of one half (1/2) traffic lane on the outside (right) lane.

The maximum depth of flow shall be limited to 0.35 ft, regardless of computed encroachment for the design storm event. Depth of overland flow through the intersections (allowed only for events greater than the minor drainage system design storm event), shall not exceed 4" at the centerline or that required to keep the overland flow within the right-of-way.

3. Vacant lot drainage design. Positive drainage and soil erosion control shall be established for each lot whether or not it is intended for immediate construction of a building.

4. Building drainage. The point of discharge of sump pumps shall be shown on the Development Plan for each building served having a basement or crawl space. Storm sewer service lines from that point shall be provided to the storm sewer system. Buildings shall be positioned on lots and the lots graded to drain away from the building to the lot line swales or ditches, which shall merge as quickly as possible and then discharge into a storm sewer. The route of flow of stormwater away from each building into swales, ditches and storm sewers, to where it leaves the site, shall be shown on the engineering plans.

H. **Design Flow.** Design flow used in sizing storm sewers and flow ways shall be the sum of the runoff determined as described above plus the release rate from any existing stormwater holding facilities tributary to the point under consideration.

I. **Materials**. Any pipe or culvert in the conveyance system shall be constructed of materials set out in Appendix G. Where materials are not specified, they shall be constructed of IDOT approved materials.

J. **Inlets**. Inlets shall not be more than 300 feet apart. Inlets placed at intersections shall not be placed any closer to the intersection than the curb radius return. They shall be placed in such a manner that drainage will not travel through the intersection. Catch basins shall not be provided for storm sewer inlets in curbs and gutters. Catch basin type inlets shall be provided for ditch and area drains where excessive silt can be expected to be carried with the stormwater runoff from unpaved areas.

All open grate inlet castings shall meet the specifications located in Appendix G. They must also have language imprinted on the casting of "Dump No Waste - Drains to Waterways" message

with fish image permanently cast into the face of the casting cover. Casting shall meet ASMT A48-83 Class 35B. All bearing surfaces to be machined. E. Jordon w/ Environmental Lettering / Symbols or equal.

804.2 Culvert Street and Driveway Crossings. Sizing of culvert crossing shall consider entrance and exit losses as well as tailwater conditions on the culvert. Culverts must also conform to the minimum sizes listed in Subsection B of Section 804. Reinforced concrete pipe with a minimum of four (4) inch crushed aggregate (CA-11) bedding is required. The culvert pipes must be adequately sized for the anticipated 25-year storm frequency stormwater flows and at a location and elevation approved by the Village Engineer.

804.3 Separate from Sanitary. The storm drainage system shall be separate from the sanitary system.

804.4 Testing. Prior to placing a storm sewer system into service, it shall be tested and inspected appropriately. The Streets Supervisor, at his discretion, may require an infiltration test or exfiltration test. Additionally, all sections shall be televised at the expense of the developer. Approval must be obtained from the Village Engineer or Streets Supervisor, and a copy must be supplied to be kept on file. The Village must be notified at least forty-eight (48) hours in advance of any testing.

804.5 Water and Sewer Separation. All water mains shall maintain minimum ten (10) feet horizontal and eighteen (18) inch vertical separations from any sewer lines, in accordance with the requirements of the Illinois Environmental Protection Agency. If the IEPA separations cannot be met, then adequate provisions for protection of the water supply must meet the requirements of the IEPA and Village.

805 Drainage into Wetlands

All development which is defined as impacting any wetland within an area defined as a Waters of the United States, Isolated Waters of Lake County, or any buffer areas adjoining these wetland areas, must comply with all regulations set forth in Article IV – E. of the Lake County Watershed Development Ordinance.

806 Maintenance

806.1 Maintenance Considerations. The developer shall design the stormwater drainage system to minimize and facilitate maintenance. The design will include an access way suitable for use by heavy equipment, and turfed side slopes suitable for use by lawn mowing equipment. The design of wet basins shall include a statement concerning the method intended for sediment removal and such features as necessary to allow for the removal, including but not limited to alternate outflows to allow the complete drainage of the pool.

806.2 Maintenance Responsibility. Maintenance of stormwater drainage facilities shall be the responsibility of the individual association or company by which the stormwater drainage facility is affiliated. If the need arises for the Village of Fox Lake to maintain such privately owned stormwater drainage facilities in order to provide adequate function to the facility, proper compensation will be provided to cover actual costs incurred by the Village.

807 Upstream Situations

807.1 Upstream Flows. The developer shall consider in his design stormwater runoff from areas tributary to the property.

807.2 Upstream Areas Not Meeting Ordinance Requirements. In the event that upstream areas tributary to the developer's property do not meet the storage and release rates allowed under this Article, the developer shall fully explore regionalized detention for the above areas. Such an exploration will include the computation of the storage volume needed for the proposed development and that needed for a combination of upstream area and the proposed development using the rates and methods set out in Section 802 above.

Once the necessary storage is computed, the Village may choose to pay for oversizing the developer's basin to accommodate regional flows. In that event, the developer's responsibility will be limited to the storage for his

property only. If the Village determines that the developer should construct a regional storage facility, the developer will implement the design produced consistent with the above standards. If the Village rejects regional storage, the developer shall bypass, to the extent practical, tributary area flows around his detention basin. If the developer must route upstream flows through his basin, the applicant must meet the provisions set forth in the Lake County Watershed Development Ordinance for on-stream detention.

807.3 Upstream Areas Meeting Ordinance Requirements. When upstream areas tributary to the development meet the storage and release rate requirements of this Article, the developer shall bypass the upstream flows around his detention basin or, if that is not practical, route the flow through the basin. Storage needed for the development shall be computed as set out in Subsection 808.2. However, if the Village decides to route the tributary area flow through the developer's basin, the stormwater releases in the final design shall be based on the combined total of the development plus tributary areas. At no time shall the runoff rate from the development exceed the allowable release rate.

808 Miscellaneous Stormwater

808.1 Infiltration Practices. Infiltration devices, including basins, drywells, trenches and porous pavement, shall be located on soils in hydrologic soils groups A or B as designated by the USDA Natural Resource Conservation District groundwater, they shall not be located within 75 feet of a water supply well or building foundation. The design of any infiltration basin shall incorporate a sedimentation basin for the settling of sediment to remove coarse sediment from stormwater flows. The bottom of the infiltration device shall be at least 4 feet above seasonally high groundwater and bedrock. Where applicable, IEPA requirements for Class 5 injection wells shall also be met. Infiltration rates shall be established through soil testing by a registered professional engineer.

808.2 Early Completion. Where the development includes storage areas for stormwater detention, the developer shall, unless otherwise approved by the Village, construct such areas in the first stage of his grading. In order to maintain the design capacity of the facilities, the developer shall remove any eroded sediment captured in these facilities.

809 Soil Erosion Control.

All Erosion Control Regulations shall be in accordance with the Lake County Watershed Development Ordinance compiled by the Stormwater Management Commission, Article IV – B.1.j. Additionally, the erosion and sediment control techniques must be in accordance with the Illinois Urban Manual. All erosion and sediment control measures will be reviewed and permitted under the Watershed Development Permit, as required in the Lake County Watershed Development Ordinance. Submittals of the erosion and sediment control plan must be included on the Engineering Plans submitted in accordance with Article 4 of this Ordinance, or as deemed necessary by the Enforcement Officer for the Village of Fox Lake.

809.1 Purpose. The Village Board declares that the purpose of this ordinance is to safeguard persons, protect property, prevent damage to the environment, and promote the public welfare by guiding, regulating and controlling 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 the Village. It is the intention of this ordinance that the delivery of sediment from sites affected by land disturbing activities be limited, as closely as practicable, to that which would have occurred if the land had been left in its natural undisturbed state.

809.2 Definitions. For the purposes of this Ordinance certain terms used herein are defined as set forth below:

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

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.

Clearing: Any activity which removes vegetative ground cover.

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

Excavation: Any act by which 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 therefrom.

Existing Grade: The vertical location of the existing ground surface prior to excavation or filling.

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 therefrom.

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

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

Natural Drainage: Channels formed in the existing surface topography of the earth prior to changes made by unnatural causes.

Parcel: All contiguous land in one ownership.

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.

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

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 constructing 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.

Stream: Any river, creek, brook, branch, flowage, ravine, or natural or man-made drainageway which has a definite bed and banks or shoreline, in or into which surface or groundwater flows, either perennially or intermittently. For purposes of this ordinance, a stream does not include very small headwater swales or ditches which generally would not be mapped on U.S.G.S. 7.5 minute quadrangle maps.

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

Vacant: Land on which there are no structures or only structures which are secondary to the use or maintenance of the land itself.

Village: The Village of Fox Lake, Lake and McHenry County, Illinois.

Wetlands: Areas that are inundated or saturated by surface water, or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. In the context of this ordinance, wetlands are intended to refer to areas which are subject to regulations of the U.S. Army Corps of Engineers or Lake County, as defined in the Watershed Development Ordinance published by the Stormwater Management Commission.

809.3 General Principles. It is the objective of this ordinance to control soil erosion and sedimentation caused by development activities, including clearing, grading, stripping, excavating, and filling of land, in the Village. Measures taken to control soil erosion and offsite sediment runoff should be adequate to assure that sediment is not transported from the site by a storm event of 10-year frequency or less. The following principles shall apply to all development activities within the Village **and** to the preparation of the submissions required under Section 811 of this ordinance:

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

- Natural vegetation should be retained and protected wherever possible. Areas immediately adjacent to natural watercourses, lakes, ponds, and wetlands should be left undisturbed wherever possible. Temporary crossings of watercourses, when permitted, must include appropriate stabilization measures.

- Special precautions shall be taken to prevent damages resultant from any necessary development activity within or adjacent to any stream, lake, pond, or wetlands. Preventative measures should reflect the sensitivity of these areas to erosion and sedimentation.

- The smallest practical area of land should be exposed for the shortest practical time during development and must be reflected in the construction sequencing plan to be submitted with the Erosion and Sediment Control Plan portion of the Final Plan submittal.

- Sediment basins or traps, filter barriers, diversions, and any other appropriate sediment or runoff control measures shall be installed prior to the clearing and grading and maintained to remove sediment from run-off waters from land undergoing development.

- The selection of erosion and sedimentation control measures should be based on assessment of the probable frequency of climatic and other events likely to contribute to erosion, and on evaluation of the risks, costs, and benefits involved.

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

- Provision shall be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development. Drainageways shall be designed so that their final gradients and the resultant velocities and rates of discharge will not create additional erosion onsite or downstream.

- Permanent vegetation and structures shall be installed and functional as soon as practical during development.

- Those areas being converted from agricultural purposes to other land uses shall be vegetated with an appropriate protective cover prior to development.

- All waste generated as a result of site development activity shall be properly disposed of and shall be prevented from being carried off the site by either wind or water.

- All construction sites shall provide measures to prevent sediment from being tracked onto public or private roadways.

809.4 Submissions. All development which meets the requirements set forth in Article IV – A.1.h. must include at least a WDO permit application covering erosion and sediment control techniques. Each application shall be accompanied by the information outlined in Article IV – B.2.b.(8) of the Lake County Watershed Development Ordinance as well as 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 measures (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.

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, 1995, as amended, prepared by the United States Department of Agriculture, the Natural Resources Conservation Service and the Illinois Environmental Protection Agency as well as the Lake County Watershed Development Ordinance as prepared by the Stormwater Management Commission.

Since the Village of Fox Lake is a Certified Community, the Enforcement Officer may waive specific requirements for the content of submissions upon finding that the information submitted is sufficient to show that the work will comply with the objectives and principles of this ordinance.

809.5 Bonds. The applicant is required to file with the Village a faithful performance bond or bonds, letter of credit, or other improvement security satisfactory to the Village Attorney in an amount deemed sufficient by the Village Board to cover all costs of improvements, landscaping, maintenance of improvements and landscaping, and soil erosion and sediment control measures for such period as specified by the Village, and engineering and inspection costs to cover the cost of failure or repair of improvements installed on the site.

809.6 Review and Approval. Each application for a Watershed Development Permit must be submitted to the Enforcement Officer of the Village of Fox Lake with appropriate engineering plans and supplemental information as outlined in Article 4 of this Ordinance. A Watershed Development Permit must be approved by the Enforcement Officer prior to any construction or issuance of a Fox Lake building permit for the development.

809.7 Appeals. Appeals regarding the Watershed Development Permit must be submitted to the Enforcement Officer for the Village of Fox Lake in accordance with Article V – B of the WDO. The applicant, or any person or agency which received notice of the filing of the application, may appeal any other Village issue to the Village Engineer, Building Commissioner, and the Village Board. Upon receipt of an appeal, the Village Board shall schedule and hold a public hearing, after giving 15 days notice thereof. The Village Board shall render a decision within thirty (30) days after the close of the hearing. Factors to be considered on review shall include, but need not be limited to, the effects of the proposed development activities on the surface water flow to tributary and downstream lands, any comprehensive watershed management plans, or the use of any retention facilities; possible saturation of fill and unsupported cuts by water, both natural and domestic; runoff surface waters that produce erosion and silting of drainageways; nature and type of soil or rock which when disturbed by the proposed development activities may create earth movement and produce slopes that cannot be landscaped; and excessive and unnecessary scarring of the natural landscape through grading or removal of vegetation.

809.8 Retention of Plans. Plans, specifications, and reports for all site developments shall be retained in original form or in electronic format by the Village.

810 Design and Operation Standards and Requirements

810.1 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 this Section 810.3.

810.2 Responsibility. 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 Board, (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.

810.3 Site Design Requirements

810.3.1 On-site sediment control measures, as specified by the following criteria, shall be constructed and functional prior to initiating clearing, grading, stripping, excavating or fill activities on the site. The Lake County Watershed Development Ordinance Article IV – B.1.j. shall be used as a guide for sediment and erosion control techniques, as well as the Enforcement Officer for the Village of Fox Lake. Additionally, the following guidelines may be used for techniques; however, they are in no way meant to supersede those outlined in the Watershed Development Ordinance.

810.3.2 Stormwater conveyance channels, including ditches, swales, and diversions, and the outlets of all channels and pipes shall be designed and constructed to withstand the expected flow velocity from the 10-year frequency storm without erosion. All constructed or modified channels shall be stabilized within 48 hours, consistent with the following standards:

- **A.** For grades up to 4 percent, seeding in combination with mulch, erosion blanket, or an equivalent control measure shall be applied. Sod or erosion blanket or mat shall be applied to the bottom of the channel.
- **B.** For grades of 4 to 8 percent, sod or an equivalent control measure shall be applied in the channel.
- **C.** For grades greater than 8 percent, rock, riprap, or an equivalent control measure shall be applied, or the grade shall be effectively reduced using drop structures.

810.3.3 Disturbed areas shall be stabilized with temporary or permanent measures as follows:

- **A.** Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases on a portion of the site is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
- **B.** Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of site by the 7th day after construction activity temporarily ceased.

810.3.4 Land disturbance activities in stream channels shall be avoided, where possible. If disturbance activities are unavoidable, the following requirements shall be met:

- **A.** Construction vehicles shall be kept out of the stream channel to the maximum extent practicable. Where construction crossings are necessary, temporary crossings shall be constructed of non-erosive material, such as riprap or gravel.
- **B.** The time and area of disturbance of stream channels shall be kept to a minimum. The stream channel, including bed and banks, shall be restabilized within 48 hours after channel disturbance is completed, interrupted, or stopped.
- **C.** Whenever channel relocation is necessary, the new channel shall be constructed in the dry and fully stabilized before flow is diverted.

810.3.5 Storm sewer inlets and culverts shall be protected by sediment traps or filter barriers meeting accepted design standards and specifications.

810.3.6 Soil storage piles containing more than 10 cubic yards of material shall not be located with a down slope drainage length of less than 25 feet to a roadway or drainage channel. Filter barriers, including filter fence, or equivalent, shall be installed immediately on the down slope side of the piles.

810.3.7 If dewatering devices are used, discharge locations shall be protected from erosion. All pumped discharges shall be routed through appropriately designed sediment traps or basins, or equivalent.

810.3.8 Each site shall have graveled (or equivalent) entrance roads, access drives, and parking areas of sufficient length and width to prevent sediment from being tracked onto public or private roadways. Any sediment reaching a public or private road shall be removed by shoveling or street cleaning (not flushing) before the end of each workday and transported to a controlled sediment disposal area

810.3.9 All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure effective performance of their intended function.

810.3.10 All temporary erosion and sediment control measures shall be disposed of within 30 days after final site stabilization is achieved with permanent soil stabilization measures. Trapped sediment and other disturbed soils resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation.

810.4 Handbooks Adopted by Reference. The standards and specifications contained in the Illinois Urban Manual: A Technical Manual Designed for Urban Ecosystem Protection and Enhancement, latest edition, as amended, prepared by the United States Department of Agriculture, the Natural Resources Conservation Service and the Illinois Environmental Protection Agency and adopted by the Lake County Stormwater Management Commission, and the Lake County Watershed Development Ordinance are hereby incorporated into this Section 811 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. In the event of conflict between provisions of said manual and of this ordinance, the Lake County Watershed Development Ordinance shall govern.

810.5 Maintenance of Control Measures. 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.

810.6 Inspection and Special Precautions. The Village shall make inspections as hereinafter required and shall either approve that portion of the work completed or shall notify the permittee wherein the work fails to comply with the site development or erosion and sedimentation control plan as approved. All inspection requirements for erosion control must be in compliance with Article VI of the Lake County Watershed Development Ordinance.

810.7 Designated Erosion Control Inspector (DECI). A designated erosion control inspector is required as set forth in Article VI – C. of the Lake County Watershed Development Ordinance. The name and contact information of the DECI must be submitted to the Enforcement Officer prior to any commencement of construction.

810.8 Amendment of Plans. Major amendments of the site development or erosion and sedimentation control plans shall be submitted to the Enforcement Officer and shall be processed and approved or disapproved in the same manner as the original plans. Field modifications of a minor nature may be authorized by the Enforcement Officer by written authorization to the permittee.

811 Enforcement. All enforcement inspections and access must be in accordance with Article VI of the Lake County Watershed Development Ordinance.

812 Variances and Appeals

Requests for variances from the provisions of the WDO shall be filed with Certified Enforcement Officer and shall be processed in accordance with Article V A of the WDO. Appeals from decisions of the Certified Enforcement Officer shall be filed with the Certified Enforcement Officer within thirty (30) days of the disputed act or actions and shall be heard by the Mayor and Board of Trustees promptly thereafter in accordance with Article V B of the WDO.

Article 9 Engineering Drawings and Guarantees

901 Purpose

This Article is intended to address the preparation of Engineering Drawings, the timing of infrastructure and guarantees.

902 Engineering Drawings

Prior to the Plan Commission approval of the Final Plat, the developer shall submit Engineering Drawings in accordance with Appendix A demonstrating that any proposed street, water or sewer line and related facility, stormwater drainage facility and/or other engineered facility complies with the standards in this Ordinance and with good engineering practices.

903 Construction Observation/Supervision

The developer shall incur all costs associated with construction supervision by a representative who shall be responsible for overseeing the project to assure that construction of the engineering improvements substantially complies with the approved plans and specifications. The Village of Fox Lake shall supply the developer with an estimate of the total number of hours and the name and contact information of the representative. As a rule of thumb, most estimates will be based on a percentage of the total improvement cost for the project, as referenced in Section 905. The Village reserves the right to increase this amount on an as-needed basis if they feel additional observation time is needed. All costs associated will be paid in full by the developer prior to beginning the construction phase of the project. Any additional costs shall be paid in full within 30 days of invoicing by the Village of Fox Lake. No improvements shall be started until the Final Plat has been approved by the Village, guarantees posted and the Plat recorded. Village representative will provide Developer with daily field reports along with weekly summary reports to include progress photos and meeting minutes.

A site manager, supplied by the developer, must be on-site at all times in which any utilities are being installed. The Village of Fox Lake will not be responsible for any damage to existing improvements in the area. Should damage occur, the developer is responsible for incurring all costs associated with a remedy in a timely manner.

904 Maintenance of Improvements

The developer shall be responsible for maintaining all improvements until they are accepted by the appropriate governmental entity. Maintenance shall include landscaping and snow plowing, to ensure ingress and egress to all lots that have been sold. Developer shall provide the Village with a 24/7 contact for emergency repair and maintenance.

905 Estimate of Costs (Engineer's Opinion of Probable Costs)

Prior to the Plan Commission approval of the Final Plat, the developer shall prepare an estimate of costs of any improvements proposed or otherwise related to the Final Plat, including off-site improvements. These improvements shall include any streets, water or sewer facilities, storm drainage facilities, park and recreation facilities; landscaping, and other facilities which will be dedicated or set aside for a public or quasi-public use. Such an estimate will be provided by a person or persons qualified to design the facilities and be approved by the Village Engineer. A signed and sealed estimate for street improvements, water, sewer, stormwater facilities, lighting, landscaping, erosion control, and signage shall be provided by a registered professional engineer.

906 Amount of Performance Guarantee

The developer shall provide a performance guarantee in a manner as set out below in an amount sufficient to address 125 percent of the estimate of costs. The purpose of the performance guarantee is to ensure the adequate completion of the improvements in a manner shown on the Final Plat and Engineering Drawings. In the event that some or all of the improvements will be covered by a performance guarantee to another government agency, no guarantee will be

required for such improvements. Any guarantee shall be in effect for eighteen months. Additional renewals may be allowed with the consent of the Village Board.

907 Partial Release

Upon substantial completion of part or all of the required improvements, as certified to by the developer's engineer, the developer may request in writing a release from those improvements. The Village Engineer and Village Staff shall observe the improvements of which such notice has been given and shall determine whether the improvements were completed in accordance with approved plans. The Village Board shall review the Village Engineer and Village Staff's recommendation and shall determine whether to allow the guarantee to be reduced by the amount in the estimate which is reflected by the successfully completed improvements.

908 Complete Release

Upon completion of all the improvements, the developer shall submit to the Village Engineer and Village staff an "record drawings" Plat and Engineering Drawings certified to by the developer's engineer. The Village Engineer shall review the same and determine whether the improvements are consistent with the Drawings. Additionally a Utility Acceptance Form must be complete prior to the complete acceptance of any subdivision (See Appendix D). The Village Board shall review the same and determine whether to accept or, in the case of facilities not dedicated to the public, approve the facilities. If the Village Board accepts or approves the improvements, the Village shall either allow the guarantee to be reduced to 10 percent of the guarantee amount, the remaining amount constituting a maintenance guarantee for a period of eighteen months, or allow a new maintenance bond for 10 percent of the guarantee amount for a period of two years (24 months). All construction items, except the bituminous surface and seeding, shall be completed within one year after approval of the Final Plat unless said time is extended by the Village Board. The bituminous surface and seeding shall be completed within 18 months after approval of the Final Plat unless said time is extended by the Village Board. It shall be the obligation of the developer to request such an extension in a timely manner at least three (3) months prior to expiration date, and all letters of credit must be extended through the period of any such extension.

909 Types of Guarantees

Performance and maintenance guarantees shall be provided by a variety of means including, but not limited to, the following:

A. **Letter of Credit**. The developer may provide an irrevocable Letter of Credit from a bank or other reputable institution.

B. **Performance/Payment Bond.** The developer may provide a performance bond for the total amount.

C. **Escrow Account**. The developer may deposit cash or their instruments readily convertible into cash at face value with the municipality.

910 Public Improvements Acceptance

Public improvements will not be accepted by the Board of Trustees until all construction detailed in the plans has been completed. No public improvements will be accepted by the Village for maintenance during the period of November 15 to April 30. It shall be the responsibility of the subdivider to consult with the Village Engineer before the work has begun to afford the Village Engineer an opportunity to observe the work as construction progresses. Prior to acceptance of the improvements, the following conditions shall be met by the subdivider:

1. Completion of the construction detailed on the approved engineering plans, as determined by the Village Engineer.

2. Completion of any punchlist items, as determined by the Village Engineer, with assistance from Streets Supervisor and/or Water-Sewer Superintendent. This includes repairing or replacing any defective

workmanship or materials and repairing any damage to public improvements caused by the developer, its agents, successors or assigns, or any subcontractor hired by these parties. Videotaping all sanitary sewers and storm sewers will be required, prior to the placement of the final road surface, as part of the punchlist.

3. Filing of electronic and Mylar format record drawings to the following Village authorities:
   a. Village Engineer: One electronic version of the record drawings on CD in AutoCAD format, one electronic version of the record drawings on CD in Adobe Acrobat PDF format, and four bond copies.

4. Testing of water main and sanitary sewers as outlined in Article 7 must be completed and all tested items have passed.

Upon completion of the above referenced requirements, the Village Engineer shall prepare a written recommendation to the Board of Trustees to accept the public improvements . Thereafter, the Village Board may accept the improvements upon receipt of a bill of sale identifying the cost of the improvements and a maintenance bond for a two (2) year period beginning upon acceptance, in the amount of ten percent (10%) of the total cost of improvements. Prior to the end of the two year (24 month) period, the Village Engineer and the Street and Water/Sewer Departments will review the condition of the public improvements. The Village Engineer will prepare a punchlist of any required repairs to be submitted to the subdivider. Videotaping all storm sewer will be a part of the punchlist. Upon resolution of the punchlist items, the Village Engineer will prepare a written recommendation for the final acceptance of the public improvements by the Board of Trustees. Prior to recommending final acceptance of the public improvements, the Village Engineer will review the record drawings to ensure that no additional
changes to the infrastructure have occurred as a result of any punchlist items. If changes are required to the record drawings, the subdivider shall be required to resubmit record drawings.

Appendix A
Engineering Report

A-1 General

All street and utility plans submitted in conjunction with a Final Plat shall include Engineering Drawings consistent with this Appendix.

A-2 Signature and Seal of Engineer Required

All street and utility plans shall be prepared by a registered professional engineer and bear his signature, seal, and date of license expiration.

A-3 Minimum Data Required

Plans must be complete in all respects and must include at least the following minimum data:

- Specifications (IDOT Standard Specifications and Illinois Standard Specifications for Water and Sewer Construction).
- Plan and profile (to suitable scale) of all roads to be improved.
- Cross-sections (to suitable scale) at 100 foot (minimum).
- Size, length, material type and invert elevation of all drainage structures. (Calculations must be furnished to justify all pipes 12 inches and larger.)
- Plan and profile (to suitable scale), cross-sections (if appropriate) and typical section of all off-site drainage within 300 feet and all on-site drainage in drainage easements.
- Typical road section or sections as appropriate.
- Details of all structures and special construction of any nature.
- Typical or specific details at road intersections, cul-de-sacs, "T" turn-arounds, etc.
- Street construction and maintenance easements, drainage easements and lot lines.
- All plans to the same topographic datum as the Preliminary Plat, and two permanent benchmarks.
- Street lighting as required by Subsection 607.4.
- Sidewalks as required by Subsection 605.6.
- Plan and profile of any water and sanitary sewer lines.
- Plan showing existing and proposed contours and storm sewer outfall structures related to detention basins.
- Erosion control plans meeting requirements of the Lake County WDO and the Illinois Urban Manual.
- Planting of street trees as required by subsection 606
- Auto Turn Exhibit depicting fire truck and semi-trailer truck turning movements
- Traffic Study
- Engineer’s Drainage Report
- Wetland Delineation (if applicable)
- Geotechnical Report

A-4 Cost Estimate

A complete and detailed estimate of cost, prepared and signed by a registered professional engineer, must accompany the plans.

A-5 Certificate of Insurance

A certificate of insurance shall be filed with the Village.

A-6 Preconstruction Requirements

A preconstruction conference with the representatives of the developer and the Village will be required before the

contractor proceeds with construction. The contractor will notify the Village Engineer and the Village of Fox Lake 48-hours in advance of any work being started.

A-7 Good Engineering Practice and Compliance with Ordinance Required

Review and approval of street and utility plans does not relieve the design engineer of the responsibility for an adequate design in accordance with good engineering practice and meeting the requirements of this Ordinance.

Appendix B
Dedication of Parks and Recreation, School, or Fees

As a condition of approval of a final plat of subdivision, or of a final plat of a planned unit development, each subdivider or developer will be required to dedicate land for park and recreational purposes and land for school sites, to serve the immediate and future needs of the residents of the development, or cash contribution in lieu of actual land dedication, or a combination of both at the option of the Village, in accordance with the following criteria and formula:

A. Criteria for Requiring Park and Recreation Land Dedication

A. Requirement and Population Ratio

The ultimate density of a proposed development shall bear directly upon the amount of land required for dedication. The total requirement shall be 6 acres of land per 1,000 of ultimate population in accordance with the following classifications:

Types of Recreation Area	Size Range	Minimum Acres per 1,000 People
Play Lot	Min. 8,000 sq. ft.	Not Applicable
School-Park (Neighborhood Play Ground)	Min. Park of 5 acres	1.5 Acres
Neighborhood Park	Min. 3 ½ acres	1.0 Acres
District-Wide Park or Play Field	Min. 4 acres up to 30 acres	1.5 Acres
Community-Wide Recreation Park	Min. 12 acres up to 30 acres	2 Acres
	TOTAL	6 acres of land per 1,000 people

B. Location

The Comprehensive Park and Recreation Plan and/or the "Standards by Types of Recreation and Park Areas" as adopted by the Village of Fox Lake shall be used as a guideline in locating sites. A park site adjoining all elementary school sites of not less than 5 acres shall be considered a requirement. A central location which will serve equally the entire development is most desirable. In large developments these sites can be located throughout the development according to established standards for park area distances.

C. Credit for Private Open Spaces and Recreation Areas

When subdividers or developers provide their own open space for recreation areas and facilities, it has the effect of reducing the demand for local public recreational services. Depending on the size of the development a portion of the park and recreation area in subdivisions or planned unit developments may at the option of the Village Board be provided in the form of "private" open space in lieu of dedicated "public" open space. The extent of same shall be determined by the Village Board, based upon the needs of the projected residents and in conformance to the total park and recreation land for the general area.

In general, a substitution of private open space for dedicated parks will imply a substantially higher degree of improvement and the installation of recreational facilities, including equipment by the developer as part of his obligation. Detailed plans of such areas, including specifications of facilities to be installed, must be approved by the Village, and before any credit is given for private recreation areas, the subdivider or developer must guarantee that these private recreation areas will be permanently maintained for such use by the execution of the appropriate legal documents. Private "swimming clubs" are included in this provision. When an adjustment for private recreation areas is warranted, it will be necessary to compute the total park land dedication that would have been required from the subdivision or planned unit development and then subtract the credit to be given.

B. Criteria for Requiring School Site Dedication:

A. Requirement and Population Ratio

The ultimate number of students to be generated by a subdivision or planned unit development shall bear directly upon the amount of land required to be dedicated for school sites. The land dedication requirements shall be determined by obtaining the ratio of: (a) estimated children to be served in each such school classification over the (b) maximum recommended number of students to be served in each such school classification as stated herein, and then applying such ratio to the (c) said minimum recommended number of acres for a school site of each such school classification as stated herein. The product thereof shall be the acres of land deemed needed to have sufficient land for school sites to serve the estimated increased children in each such school classification.

B. School Classifications and Size of School Site

School classifications and size of school sites shall be determined in accordance with the following criteria:

School Classification by Grades	Max. No. of Students for Each Such School Classification	Min. No. of Acres of Land for Each School Site of Such Classification
Elementary Schools, Grades- Kindergarten thru 5th (K-5)	600 Students	11 Acres
Jr. High Schools, Grades- 6th thru 8th (6-8)	900 Students	19 Acres
High Schools, Grades- 9th thru 12th (9-12)	2,300 Students	48 Acres

The Comprehensive School Plan and/or the standards adopted by the affected School District shall be used as a guideline in locating sites.

C. Criteria for Requiring a Contribution in Lieu of Park and School Sites

Where the development is small and the resulting site is too small to be practical or when the available land is inappropriate for park and recreational purposes or a school site, the Village shall require the subdivider or developer to pay a cash contribution in lieu of the land dedication required. The cash contribution in lieu of park and recreation land dedication shall be held in trust by the Village or other public body designated by the Village, solely for the acquisition of park and recreation land as hereinbefore classified, which will be available to serve the immediate or future needs of the residents of that subdivision or development or for the improvement of other existing local park and recreation land which already serves such needs. The cash contributions in lieu of school sites shall be held in trust by the Village, or other public body designated by the Village, solely for use in the acquisition of land for a school site to serve the immediate or future needs of children from that subdivision of development or for the improvement to any existing school site which already serves such needs but not for the construction of any school buildings or additions thereto. If any portion of a cash contribution in lieu of park and recreation land dedication, or cash contribution in lieu of school site is not expended for the purposes set forth herein within fifteen years from the date of receipt, it shall be refunded to the developer who made such contribution.

A. Fair Market Value

The cash contributions in lieu of land shall be based on the "fair market value" of the acres of land in the area improved as specified herein, that otherwise would have been dedicated as park and recreation and school sites. It has been determined that the present "fair market value" of such improved land in and surrounding the Village is $20,000.00 per acre and such figure shall be used in making any calculation herein unless the subdivider or developer files a written objection thereto. In the event of any such objection the developer shall submit an appraisal showing the "fair market value" of such improved land in the area of his development or other evidence thereof

and final determination of said "fair market value" per acre of such improved land shall be made by the Village Board based upon such information submitted by the subdivider or developer and from other sources which may be submitted to the Village Board by the Park District, School District, or others.

B. Criteria for Requiring Dedication and a Fee

There will be situations in subdivisions or planned unit developments when a combination of land dedication and a contribution in lieu of land are both necessary. These occasions will arise when:

(a) Only a portion of the land to be developed is proposed as the location for a park or school site. That portion of the land within the subdivision falling within the park or school location shall be dedicated as a site as aforesaid, and a cash contribution in lieu thereof shall be required for any additional land that would have been required to be dedicated.
(b) A major part of the local park or recreation site or school site has already been acquired and only a small portion of land is needed from the development to complete the site. The remaining portions shall be required by dedication, and a cash contribution in lieu thereof shall be required.
(c) Cash payments in lieu of land dedications shall be paid per dwelling unit at the time of issuance of building permits or prior to occupancy at the direction of the building inspector.

D. Density Formula:

The following table of population density is generally indicative of current and short range projected trends in family size for new construction and shall be used in calculating the amount of required dedication of acres of land or the cash contributions in lieu thereof unless a written objection is filed thereto by the subdivider or developer.

TABLE OF ESTIMATED ULTIMATE POPULATION PER DWELLING UNIT

	Children Per Unit					Adults Per Unit	Total Per Dwelling
Scope of Unit	Pre-School 0-4 Yrs.	Elementary Grades K-5 5-10 Yrs.	Junior High Grades 6-8 11-13 Yrs.	Total Grades K-8 5-13 Yrs.	High School Grades 9-12 14-17 Yrs.	18Yrs.+	Unit
Detached Single Family:							
2 Bedroom	0.125	0.120	0.026	0.146	0.018	1.700	1.989
3 Bedroom	0.308	0.381	0.174	0.555	0.146	1.978	2.987
4 Bedroom	0.472	0.513	0.314	0.827	0.313	2.195	3.807
5 Bedroom	0.402	0.620	0.420	1.040	0.327	2.650	4.419
Attached Single Family:							
1 Bedroom	0.000	0.000	0.000	0.000	0.000	1.050	1.050
2 Bedroom	0.051	0.075	0.011	0.086	0.021	1.741	1.899
3 Bedroom	0.217	0.212	0.022	0.234	0.051	1.775	2.277
4 Bedroom	0.333	0.316	0.166	0.482	0.180	2.333	3.328
Apartments:							
Efficiency	0.000	0.000	0.000	0.000	0.000	1.000	1.000
1 Bedroom	0.000	0.000	0.000	0.000	0.000	1.190	1.190
2 Bedroom	0.038	0.065	0.021	0.086	0.035	1.500	1.659
3 Bedroom	0.208	0.157	0.037	0.194	0.082	2.330	2.814

Note: There are only three significant categories provided in this chart. Because of the similarity of yields of all types of attached single-family dwelling units, only one category is provided. The same is true with apartments; thus, only one category. Because of the relatively short history of some new types of detached and attached single family units, individual evaluations may be necessary.

In the event a subdivider or developer files a written objection to the Table of Estimated Ultimate Population listed herein, he shall submit his own demographic study showing the estimated additional population from the subdivision or planned unit development and in that event final determination of

the density formula to be used in such calculations shall be made by the Village Board based upon such demographic information submitted by the subdivider or developer and from other sources which may be submitted to the Village Board by the Park Districts, School Districts, or others. It is recognized that population density, age distribution and local conditions change over the years, and the specific formula for the dedication of land, or the payment of fees in lieu thereof, as stated herein, is subject to periodic review and amendment if necessary.

E. Reservation of Additional Land:

Where the comprehensive plan or the standards of the Village call for a larger amount of park and recreational land or school sites in a particular subdivision or planned unit development than the developer is required to dedicate, the land needed beyond the developer's contribution shall be reserved for subsequent purchase by the Village or other public body designated by the Village, provided that such acquisition is made within one year from the date of approval of the final plat.

F. Combining with Adjoining Developments:

Where the subdivision or planned unit development is less than 40 acres, public open or a school site which is to be dedicated should, where possible, be combined with dedications from adjoining developments in order to produce usable recreation areas or school sites without hardship on a particular developer.

G. Topography and Grading:

The slope, topography and geology of the dedicated site as well as its surroundings must be suitable for its intended purposes. Grading on sites dedicated for park and recreational uses shall not differ greatly from surrounding land.

H. Improved Sites:

All sites shall be dedicated in a condition ready for full service of electrical, water, sewer and streets (including enclosed drainage and curb and gutter) as applicable to the location of the site, or acceptable provision made therefore. The sidewalks and trees normally included within the definition of "improved" sites may be deleted due to the delay time between dedication of any such school site and construction of school facilities thereon.

I. Miscellaneous:

The dedications of land or cash contributions in lieu thereof required by this Ordinance also be required as a condition to the annexation of any land to the Village and provisions therefore shall be incorporated in any pre-annexation agreement governing such land.

Alternative School Donation Procedure. In the event all school districts in which the property is located have entered into a written agreement with a land owner, subdivider or developer, relating to school land dedications or cash contributions according to a formula other than that prescribed herein, such written agreement will be deemed in compliance with the terms of this Ordinance upon filing a copy of such agreement with the Village Clerk.

902 Water and Sewer Acreage Fee

Upon approval of the Final Plat and prior to the recording and filing of the same, the developer shall pay to the Village a fee in accordance with the most recent Village of Fox Lake Fee Schedule, to cover the costs of additions or enlargements to the Village's water and sewer system. The Village Board may at its discretion modify the time when payments are due.

905.8 Acceptance of Fees. By accepting fees under this Ordinance, the receiving body, be it the Fox Lake

School Districts, Fox Lake Park District, or other agency, agrees to be bound by the terms of the agreement which the Village has relied on to collect the fee and agrees to indemnify and hold the Village entirely harmless from any claim of loss, damage, or injury, provided the Village shall notify the entity of any claim of loss and afford it the opportunity to participate as the defense of the claim.

Appendix C
Security Requirements

C-1 General

In order to ensure that the work will be completed, all engineering improvements which are proposed in conjunction with a new subdivision must be covered by letters of credit, cash or certificates of deposit with a federally insured bank of Savings and Loan Association with resources of at least $100 million. In addition, the same types of security will be required to ensure that the improvements in a new subdivision will be maintained for two years after they have been accepted by the Village. If a Letter of Credit is submitted as security, it must be in substantially the form that is set forth in this appendix and must be clean, non-declining and irrevocable, issued by a federally insured bank or Savings and Loan Association with resources of a least $100 million.

C-2 Amount of Security

The subdivider shall post good an sufficient security with the Village Clerk, copies of same to the Building and Zoning Department, in the penal sum of 125 percent of the engineer's estimate of cost to ensure completion of the work. Good and sufficient security shall include a certificate of deposit, cash, bond or Letter of Credit, as described in Article 9. Each security shall be accompanied by an agreement, executed by the subdivider, wherein the subdivider agrees to make and install the improvements in accordance with the plans and specifications accompanying the Final Plat and specifying completion date in accordance with this Subdivision Code. Security provided shall be good for a period of at least two construction seasons.

C-3 Release of Security

No portion of either the construction or maintenance security will be released as the work progresses, but the entire amount deposited must be retained until all work covered by the security is satisfactorily completed. However, as an option, the subdivider may post two good and sufficient securities in the manner prescribed in this appendix. One security shall be in the penal sum of 150 percent of all work except the bituminous surface, concrete surface and/or seeding. The other security shall be in the penal sum of 150 percent of the estimated cost of the bituminous surface, concrete surface and/or seeding.

Prior to the release of the Letter of Credit, cash or certificate of deposit, the engineer in charge of construction of such improvements shall be required to certify that all improvements have been completed in accordance with the approved Engineering Plans and specifications on file with the Village Engineer. Such certification shall cover all engineering aspects of the development including, but not limited to, roads, detention/retention, grading, filling and any topographic changes or adjustments proposed and approved by the Village Engineer. The Village also requires record drawings of the completed development prior to any approval of reductions in the Letter of Credit. Certification shall be.in writing and submitted to the Village Engineer prior to release of the cash, Letter of Credit, bond or certificate of deposit. The Village Engineer shall observe and confirm that all work has been completed.

After the acceptance of the subdivision improvements, the Village will authorize the refund of any residue remaining in the security except for 10 percent of the original deposit of the amount stipulated in the escrow agreement. The retained amount shall be used for maintenance of the improvements for a period of two years after the date of acceptance. Any remaining balance will be refunded upon application by the subdivider.

The following forms are acceptable for meeting the guarantees required by this Ordinance.

C-4 Form of Letter of Credit

IRREVOCABLE LETTER OF CREDIT

Date: _____

Irrevocable Letter of Credit No.:_____

Beneficiary	Applicant
Village of Fox Lake	(Party Requesting Letter of Credit)
66 Thillen Drive	
Fox Lake, IL 60020	(Address)
Attention: Village Clerk	

Amount
USD $(Amount_____

Expiration Date _____

The undersigned, ____(Bank)_____ of (City/State)_____, hereby issues to the Village of Fox Lake, Illinois (the "Village"), this irrevocable Letter of Credit in the initial amount of $_____, which amount is subject to reduction in accordance with the provisions hereof, and which amount, as in effect on the date hereof or as so reduced hereafter, is hereinafter referred to as the "Stated Amount." The undersigned represents and warrants that the undersigned has full power and authority to issue this Letter of Credit, and that all conditions precedent to the issuance of the Letter of Credit have been satisfied.

1. Draws. Credit may be drawn by the Village by means of presentation to the undersigned of the Village's sight draft substantially in the form of Annex 1.

Draws on said Letter of Credit must also be accompanied by the certificate of the Village substantially in the form of Annex 2 certifying either: (I) that said Letter of Credit is about to expire and has not been renewed; or (2) that work has not been completed in accordance with the plans, specifications and agreements (including any amendments thereof) for the following project (the "Project"):

_____(Description of Project)_____
_____

Draws in an amount less than the Stated Amount are permitted. There is no limit on the number of draws the Village may take under this Letter of Credit.

2. Reduction of Stated Amount. The Stated Amount may be reduced upon presentation by the Village of this Letter of Credit and of a certificate substantially in the form of Annex 3. Such certificate shall be appropriately completed, and shall be delivered to the undersigned at the address above along with the original Letter of Credit. Upon receipt of the certificate and the Letter of Credit, the undersigned shall immediately note the reduced amount on the face of the Letter of Credit, or cancel this Letter of Credit and simultaneously reissue a Letter of Credit identical to this Letter of Credit for the reduced Stated Amount.

3. Amendment of Project Description. The Project may be amended upon presentation by the Village of this Letter of Credit and of a certificate substantially in the form of Annex 4. Such certificate shall be appropriately completed, and shall be delivered to the undersigned at the address above along with the original Letter of Credit. Upon receipt of the certificate and the Letter of Credit, the undersigned shall immediately note the amendment to the Project description on the face of this Letter of Credit or cancel this Letter of Credit and simultaneously reissue a Letter of Credit identical to this Letter of Credit with the amended Project description.

4. Expiration. This irrevocable Letter of Credit shall expire on (Date/Year) provided, however, the undersigned shall notify the Village, by certified mail, return receipt requested, at least 35 days prior to said expiration date, that said Letter of Credit is about to expire. In no event shall this irrevocable Letter of Credit or the obligations contained herein expire except upon said prior written notice, it being expressly agreed by the undersigned that the above expiration date shall be extended and shall be required to comply with this notice provision. Notice shall be made to the Village of Fox Lake, 66 Thillen Drive, Fox Lake, IL 60020, Attention: Village Clerk.

The undersigned further agrees that this irrevocable Letter of Credit shall remain in full force and effect and pertain to any and all amendments or modifications which may be made from time to time to the plans, specifications and agreements for the project, with or without notice from the Village of such amendments or modifications.

5. Payment. (Name of Bank) hereby undertakes and engages that all demands made in conformity with this irrevocable Letter of Credit will be duly honored and payment shall be made in immediately available funds upon presentation. If, within 10 days of the date any demand (made in conformity with this irrevocable Letter of Credit) is presented, the undersigned fails to honor same, the undersigned agrees to pay all attorney's fees, Court costs and other expenses incurred by the Village in enforcing the terms of this Letter of Credit.

6. Governing Law. This Letter of Credit, and each provision hereof, shall be governed by and construed in accordance with the Uniform Customs and Practice for Documentary Credits (1983 Revision), International Chamber of Commerce, Publication No.500 (the "Uniform

Customs"). This Letter of Credit shall be deemed a contract made under the laws of the State of Illinois and shall, as to matters not governed by the Uniform Customs, be governed by and construed in accordance with such laws. The undersigned agrees that venue for any actions brought with respect to this Letter of Credit shall be in the Judicial Circuit of Lake or McHenry County, Illinois.

(Name of Bank)

By: _____ Attest:
Title: _____ Title: _____

Annex 1

Form of Sight Draft

$_____ _____, 20 ___

At Sight of this Draft

Pay to the order of Village of Fox Lake, Illinois, as beneficiary under the Irrevocable Letter of Credit referred to below, $_____ Dollars for value received.
Drawn under ___(Bank)__, Irrevocable Letter of Credit No. _____

To: _____(Bank)_____
_____(Address)_____
_____

Attention: _____ _____
Village of Fox Lake, Illinois

By:_____

Annex 2

Form of Certificate for Drawing

The undersigned, the Clerk of the Village of Fox Lake, Illinois (the "Village"), with full authority to bind the Village, as beneficiary (the "Beneficiary") under the Letter of Credit referred to below, hereby certifies, with reference to its Irrevocable Letter of Credit No. _____ issued by ____(Bank)_____ (the "Bank"), in favor of the Beneficiary (the "the Letter of Credit"), that:

(1) the Letter of Credit is about to expire and has not been renewed;

[or, in the alternative]

(2) work has not been completed in accordance with the plans, specifications and agreements (including any amendments thereof) for the following project:

(Description of Project)

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the _____ day of (month) , 20(year)

Village of Fox Lake, Illinois

By: _____
Village Clerk

Annex 3

Form of Certificate for Reduction of Stated Amount

The undersigned, the Clerk of the Village of Fox Lake, Illinois (the "Village"), with full authority to bind the Village, as beneficiary (the "Beneficiary") under the Letter of Credit referred to below, hereby certifies, with reference to its Irrevocable Letter of Credit No. _____ issued by _____ (the "Bank"), in favor of the Beneficiary (the "Letter of Credit"), that:

1. Pursuant to the Agreement entered into by and between the Village and _____(the "Company")_____, dated (month) , 20(year), the amount
available to be drawn under the Letter of Credit (the "Stated Amount"), is reduced by $_____ and effective on your receipt hereof, the Stated Amount shall be reduced to $_____ and such amount shall thereafter constitute the entire Stated Amount of
the Letter of Credit.

2. The undersigned hereby certifies (i) that he or she is authorized to sign this Certificate relating to the Letter of Credit on behalf of the Beneficiary, and (ii) that the Beneficiary has, with the written consent of the Company, reduced the Stated Amount of the Letter of Credit.

Capitalized terms used herein and not otherwise defined are used as defined in the Letter of Credit.

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the _____ day of (month) , 20(year)

Village of Fox Lake, Illinois

By: _____
Village Clerk

Annex 4

Form of Certificate for Amendment of Project Description

The undersigned, the Clerk of the Village of Fox Lake, Illinois (the "Village"), with full authority to bind the Village, as beneficiary (the "Beneficiary") under the Letter of Credit referred to below, hereby certifies, with reference to its Irrevocable Letter of Credit No. _____ issued by _____(Bank)_____ (the "Bank"), in favor of the Beneficiary (the "Letter of Credit"), that:

1. Pursuant to the Agreement entered into by and between the Village and _____(the "Company") _____, dated (month) , 20(year), the description of the project as contained in paragraph 1 of the Letter of Credit shall be amended upon the undersigned's receipt of this certificate and the original Letter of Credit. After giving effect to the amendment, the description of the Project shall be as follows:

_____(Description of Project)_____
_____
_____

and such Project description shall constitute the Project description for the Letter of Credit unless further amended.

2. The undersigned hereby certifies (i) that he or she is authorized to sign this Certificate relating to the Letter of Credit on behalf of the Beneficiary, and (ii) that the Beneficiary has, with the written consent of the Company, amended the Project description contained in the Letter of Credit.

Capitalized terms used herein and not otherwise defined are used as defined in the Letter of Credit.

IN WITNESS WHEREOF, the Beneficiary has executed and delivered this certificate as of the _____ day of (month) , 20(year)

Village of Fox Lake, Illinois

By: _____
Village Clerk

Appendix D
Subdivision Platting/Review Process, Applications, and Guarantees

D-1 Subdivision Review Process

A. Initial Contact – Meet with appropriate Village Planning personnel to discuss proposal of subdivision

B. Sketch Plan – Meet with Village Planning personnel to discuss limitations of site, expectations by the Village, subdivision design (site capacity, natural resources, access, drainage, water/wastewater treatment, etc.).

   a. Plat of Survey or Tax Map with existing structures and roads

   b. Sketch plan and natural resources mapping in accordance with Section 403

   c. All required non-refundable fees (see Village of Fox Lake Fee Schedule)

C. Preliminary Plat Review – Consideration of planning issues related to the site and surrounding areas. Preliminary evaluation of technical and engineering issues shall be addressed. Includes Preliminary Engineering review.

   a. Completed building permit application

   b. Preliminary plat and preliminary engineering in accordance with Section 404

D. Plan Commission Approval – Review of the proposed subdivision by the Plan Commission

E. Preliminary Plat Approval – Formal approval by the Plan Commission and Engineering is necessary to move to final planning stages

F. Final Plat Review and Approval – Includes final engineering plans, permits, and discussions on construction phases. Approval by the Plan Commission, Engineering, and the Village Board is also required prior to recording of the final plat. **All Letters of Credit/Performance Bond Guarantees must be secured by the Village in accordance with Article 9 of this Ordinance PRIOR to any final plat approval being issued.**

   a. Final engineering plans and reports in accordance with Section 405 and Appendix A.

G. All permits for the development must be received prior to the start of any construction.

D-2 Application for Sketch Plan, Preliminary/Final Plat, Site Plan Review

VILLAGE OF FOX LAKE
APPLICATION FORM – SKETCH PLAN REVIEW

Date:_____

Project Name:_____

Location:_____ Acreage:_____

Parcel Identification Number (PIN):_____

Current Land Use:_____

Current Zoning Classification:_____

Proposed Zoning Classification:_____

Comprehensive Plan Designation:_____

Proposed Number of Lots:_____

Applicant's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Engineer's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Owner's Name:_____

Address:_____

Phone:_____ Fax:_____

Relationship of Applicant to Owner:_____

Attach the following:

- Sketch Plan in accordance with Article 403, twenty-five (25) copies
- List of any known variations to the zoning or subdivision regulations.
- Other reports/information:_____
- Submit required number of plans and supporting information folded to 8.5x11 inches.
- Establish an escrow account in accordance with Article 402.4

VILLAGE OF FOX LAKE
APPLICATION FORM – PRELIMINARY PLAT REVIEW

Date:_____

Project Name:_____

Location:_____ Acreage:_____

Parcel Identification Number (PIN):_____

Current Zoning Classification:_____

Proposed Zoning Classification:_____

Proposed Number of Lots:_____

Date of Sketch Plan Review by Planning and Zoning Commission:_____

Date of Sketch Plan Review by Board of Trustees:_____

Applicant's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Engineer's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Owner's Name:_____

Address:_____

Phone:_____ Fax:_____

Relationship of Applicant to Owner:_____

Provide the following:

- Preliminary Plat in accordance with Article 404, twenty-five (25) copies
- Preliminary Engineering Plans and related documents (six copies only)
- List of any exceptions to the Subdivision Control Ordinance
- Copy of proposed covenants and restrictions
- Description of how non-road dedicated areas and stormwater control systems will be maintained
- Report on flood hazard and frequency
- Report regarding school district donations
- Report regarding park land donations
- Report from Illinois Historical Preservation Agency
- Report on presence of wetlands
- Report from Lake County Soil and Water Conservation District
- Report regarding sewer capacity
- Soils report on septic suitability (required only for subdivisions proposing septic systems)
- Landscape plan and tree preservation plan
- Report regarding land development schedule
- Traffic/Access Study, as determined by the Village Engineer
- Other Reports/Information:_____
- Pay review fee
- Reimbursement of Fees Agreement
- Proof of compliance with the Illinois Endangered Species Protection Act
- Submit required number of plans and supporting information folded to 8.5x11 inches.
- Establish an escrow account in accordance with Article 402.4

VILLAGE OF FOX LAKE
APPLICATION FORM – FINAL PLAT REVIEW

Date:_____

Project Name:_____

Location:_____ Acreage:_____

Parcel Identification Number (PIN):_____

Current Zoning Classification:_____

Proposed Zoning Classification:_____

Proposed Number of Lots:_____

Date of Tentative Plat Approval by Planning and Zoning Commission:_____

Date of Tentative Plat Approval by Board of Trustees:_____

Applicant's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Engineer's Name:_____

Address:_____

Phone:_____ Fax:_____

Email Address:_____

Owner's Name:_____

Address:_____

Phone:_____ Fax:_____

Relationship of Applicant to Owner:_____

Provide the following:

- Final Plat in accordance with Section 405, twenty-five (25) copies
- Final Engineering Plans (six copies only) and final cost estimate
- List of known exceptions to the Subdivision Control Ordinance
- Copy of approved covenants and restrictions
- Other Reports/Information:_____
- Pay review fee
- Submit required number of plans and supporting information folded to 8.5 x 11 inches.

D-3 Utility Acceptance Form

CHECKLIST FOR UTILITY ACCEPTANCE
Village of Fox Lake Building Department, 66 Thillen Drive, Fox Lake, IL 60020

Date: _____ Applicant Name: _____ Phone: _____

Project Name/Address: _____

WATER
The project mentioned above has met all requirements of the Village of Fox Lake Water Department, including installation and testing of the water main. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the water main into the Village system.

_____
Water Supervisor

Please briefly list the linear feet of water main to be accepted. If this section is not applicable, please explain.
_____
_____

SANITARY SEWER
The project mentioned above has met all requirements of the Village of Fox Lake Sewer Department, including installation and testing of the sanitary sewer mains. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the sanitary sewer mains into the Village system.

_____
Sewer Supervisor

Please briefly list the linear feet of sanitary and storm sewer main to be accepted. If this section is not applicable, please explain. _____
_____
_____

STORM SEWER
The project mentioned above has met all requirements of the Village of Fox Lake Streets Department, including installation and testing of the storm sewer mains. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the storm sewer mains into the Village system.

_____
Streets Supervisor

Please briefly list the linear feet of sanitary and storm sewer main to be accepted. If this section is not applicable, please explain. _____
_____
_____

STREETS

The project mentioned above has met all requirements of the Village of Fox Lake Streets Department, including construction of the streets. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the streets as completed to Village standards.

_____
Streets Supervisor

Please briefly list the street names to be accepted. If this section is not applicable, please explain. _____
_____
_____

MISCELLANEOUS BUILDING/LIGHTING

The project mentioned above has met all requirements of the Village of Fox Lake, including installation and operability of the lighting, building specifications, etc. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the subdivision as completed to Village standards.

_____
Building Commissioner

If this section is not applicable, please explain. _____
_____
_____

ENGINEER

The project mentioned above has met all requirements of the Village of Fox Lake, including installation of the subdivision plans as shown on the latest plan submittal. This is to include all site design, storm water management facilities, and Lake County Watershed Development Ordinance requirements. As of the _____ Day of _____, 20____, the Village of Fox Lake accepts the subdivision as completed to Village standards.

_____
Village Engineer

If this section is not applicable, please explain. _____
_____
_____

NOTE: THIS FORM MUST BE COMPLETED IN ITS ENTIRETY PRIOR TO FULL ACCEPTANCE OF THE SUBDIVISION BY THE VILLAGE OF FOX LAKE. PLEASE OBTAIN SIGNATURES AND RETURN TO THE BUILDING DEPARTMENT AS SHOWN ON THE FORM.

D-4 Reimbursement of Fees Guarantee

The following form of agreement is approved for purposes of meeting the requirements of this Appendix

VILLAGE OF FOX LAKE REIMBURSEMENT OF FEES AGREEMENT

Village of Fox Lake Account No. _____

OWNER:

Name of Property Owner: _____

Owner's Address: _____

_____

Telephone Number: _____ Days _____ Evenings

PETITIONER:

Name of Petitioner: _____

Petitioner's Address: _____

_____

Telephone Number: _____ Days _____ Evenings

LOCATION OF PROPERTY:

General Location: _____

_____

Total Acreage: _____ PIN: _____

Legal Description (attach as Exhibit A)

1. Deposit. In the event that it is necessary for the Village to obtain professional services, including, but not limited to, attorneys, engineers, planners, architects, surveyors, traffic or drainage experts, or other consultants, in connection with any Petitioner's request for the Village to consider or otherwise take action upon any annexation, zoning change, subdivision development, other improvement or development upon real property, then the Petitioner and Owner of the property shall be jointly and severally liable for the payment of such professional fees plus 5 percent to cover the Village's administrative expenses. At the time the Petitioner requests action from the Village he will be required to deposit a sum, in accordance with the Fox Lake Fee Schedule, with the Village as an initial deposit to be credited against fees and costs incurred for the above described services.

2. Invoices. The Village shall send a petitioner regular invoices for the fees and costs and the petitioner shall reimburse the Village within 30 days of said invoice. At all times the petitioner shall maintain a balance equal to his initial deposit with the Village.

3. Withdrawal of Petition. A petitioner who withdraws a petition for annexation into the Village may apply in writing to the Village Clerk for a refund of his initial deposit. The Village Board may, in its discretion, approve the refund application less any actual fees and costs which the Village has already incurred relative to the petition for annexation.

4. Professional Fees. Any professional fees incurred as a direct or indirect result of the petitioner, owner or their agent requesting a professional opinion or otherwise requesting relief or assistance from the Village, whether or not related to real property, shall be reimbursed in accordance with this Ordinance if, in the discretion of the Village, a professional opinion is desired.

5. Default. Upon the failure of the owner or petitioner to reimburse the Village in accordance with this Subsection, no action on any request made by the owner or petitioner will be undertaken by the Village Board, or by any other official, quasi-official or deliberative individual or body thereunder; and such request shall remain in abeyance until all outstanding fees are paid in full. Upon any failure to reimburse the Village in accordance with this Ordinance, the Village may, in its discretion, elect to place a lien against any real property associated with the petitioner's request. Interest in the amount of 1½ percent per month shall accrue on all sums outstanding for 30 days or more. Such lien shall be in an amount equal to the outstanding amount owed to the Village.

6. Assigning Authority. The Mayor and Village Board and the designated Village staff members are hereby authorized to assign requests for professional services to the Village staff or to consultants as the Mayor deems appropriate.

7. In House Staff. When any professional services contemplated by the Ordinance are rendered by the Village staff then in such case the party making the request shall reimburse the Village for its cost incurred in providing said professional services. Said reimbursement shall be at the rate of $30.00 per hour.

8. Remedies. The remedies available to the Village as set forth hereinabove are non-exclusive and nothing herein shall be construed to limit or waive the Village's right to proceed against any or all parties in a court of law of competent jurisdiction.

9. Agreement. At the time the petitioner requests action from the Village, he will be required to enter into an agreement, which is Exhibit A of this Ordinance, with the Village.

10. Refund. Any surplus funds in the account of the petitioner or owner shall be returned three months after approval by the Village Attorney and Village Engineer, upon written request by the petitioner or owner.

By signing this Agreement the petitioner and/or owner acknowledge that each of them has read the foregoing paragraphs and each of them fully understands and agrees to comply with the terms set forth herein. Further, by signing below, each signatory warrants that he/she/it possesses full authority to so sign.

The owner and/or petitioner agree that owner and petitioner shall be jointly and severally liable for payment of fees referred to in applicable sections of the ordinances of the Village of Fox Lake, and as referred to hereinabove.

Village of Fox Lake

_____ By: _____

Petitioner Mayor

_____ ATTEST:

Owner

_____

Date: _____ _____

Village Clerk

Appendix E
Plat Certificates, Tax Search and Other Miscellaneous Requirements

E-1 General Requirement

Every Final Plat will include those certificates necessary to demonstrate compliance with this ordinance and as required for recordation by the County in a form suitable to both the Village and the County.

All Plats of Subdivision shall be submitted to the Village on a 24" by 36" mylar for recording purposes. It shall also be submitted to the Village Engineer in electronic format on a CD-Rom which can be read by an IBM compatible computer in DWG (AutoCAD) format. All coordinates shall be based upon State Plane Coordinates and U.S.G.S. Datum and shall tie into at least two existing monuments and referenced. Specific electronic layers are required, and the Village Engineer should be contacted for more information before surveying and Plat preparation takes place.

Every final Plat shall include those certificates necessary to demonstrate compliance with the Subdivision Ordinance and as required for recordation by the County in a form suitable to both the Village and the County.

E-2 Required Certificates - Preliminary Plats

Planning and Zoning Commission Approval. The Preliminary Plat must be approved by the Planning and Zoning Commission. A certificate indicating such approval, to be signed by the Chairperson, shall be placed on the Plat. The following wording is required:

PLANNING AND ZONING COMMISSION APPROVAL

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

Preliminary Plat approved by the Planning and Zoning Commission of the Village of Fox Lake this _____ day of (month) 20(year).

_____(signature)_____
Chairperson

Village Engineer's Approval. All Preliminary Plats must be approved by the Village Engineer. A certificate indicating such approval shall be placed on the Preliminary Plat. The following wording is required:

VILLAGE ENGINEER'S APPROVAL

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

My signature, as Village Engineer for the Village of Fox Lake, indicates that, to the best of my knowledge, this Preliminary Plat meets all the requirements of Village Ordinances. Signed this _____ day of (month), 20(year).

_____(signature)_____
Village Engineer

Soil Classifier's Certification. The signature of the Soil Classifier who did the on-site investigation and prepared the soil map shall be affixed to both sheets of the Preliminary Plat. The following wording is required:

SOIL CLASSIFIER'S CERTIFICATE

I, (name) hereby certify that the soil mapping represented on Sheet __ was done by me in accordance with the Village of Fox Lake Subdivision Ordinance. I further certify that my qualifications to do that work comply with the requirements of Subsection 502.5 of the Village of Fox Lake Subdivision Ordinance. Signed this ____ day of (month), 20(year).

(signature)
Soils Classifier

Village Board's Approval. When a Preliminary Plat has been approved by the Village Board, the following statement will be placed on the Plat, dated and signed by the Mayor:

APPROVAL OF PRELIMINARY PLAT

This Preliminary Plat was approved by the Village Board of the Village of Fox Lake on this ____ day of (month), 20 (year).

By: _____
Village Mayor

NOTE: This approved Preliminary Plat must be submitted with the Final Plat on or before the _____ day of (month) 20 (year) . Failure to submit Final Plat by, on, or before the above date will void this approval of Preliminary Plat.

E-3 Required Certificates – Final Plat

Certificate Indicating Approval by Planning and Zoning Commission. The Final Plat must be approved by the Planning and Zoning Commission. A certificate indicating such approval, to be signed by the Chairperson, shall be placed on the Plat. The following wording is required:

APPROVAL BY THE PLANNING AND ZONING COMMISSION

Approved by the Planning and Zoning Commission of the Village of Fox Lake this _____ day of (month), 20(year).

(signature)
Chairperson

Developer Donation to School Districts. In accordance with Appendix B of the Fox Lake Subdivision Ordinance, a developer is required to make a land donation (or pay a fee in lieu thereof) to the School District in which the proposed subdivision is located. When payment or dedication of land is made to the School District, a document evidencing the donation shall be countersigned by the Regional Superintendent of Schools and recorded with the Recorder. A certificate referencing the signed agreement shall be placed on the Final Plat. The following wording is required:

SCHOOL DONATION

In accordance with Appendix B of the Fox Lake Subdivision Ordinance, a land donation (or payment of a fee in lieu of land thereof) has been made. A letter (or signed agreement) confirming this donation, signed by the Superintendent of Fox Lake School District _____, _____ High School District _____, _____School District _____, as appropriate, and acknowledged by the Regional Superintendent of Schools has been recorded as Document _____ in the Recorder's Office in Lake or McHenry County, Illinois.

_____

County Recorder

Owner's Certificate and Notary Certificate. A certificate shall be placed on the Final Plat indicating the ownership of the land being subdivided. A notary certificate shall be placed beneath the owner 5 certificate in witness of the owner's signature. The following general wording of these two certificates is required:

OWNER'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

This is to certify that the undersigned, _____(list names)_____ , is [are] the legal owner[s] of the land described on the Plat hereon drawn and shown hereon as subdivided; that he [they] has [have] caused said land to be surveyed, subdivided, staked and platted as shown hereon, for the purpose of having this Plat recorded as provided by law; and to the best of my [our] knowledge and belief the drainage of surface waters will not be changed by the construction of such subdivision or part thereof, or, that if such surface water drainage will be changed, reasonable provision has been made for the collection and diversion of such surface waters into public areas, or drains which the subdivider has a right to use, and that such surface waters will be planned for in accordance with generally accepted engineering practices so as to reduce the likelihood of damage to the adjoining property because of the construction of the subdivision.

In witness whereof I [we] have hereto set my [our] hand[s] and seal[s] this _____ day of (month), 20(year).

_____ (Seal)

_____ (Seal)

NOTARY'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

I, the undersigned, a Notary Public in and for the county and state aforesaid, do hereby certify that _____ of_____ _____ personally known to me to be the same person or persons whose name or names are subscribed to the foregoing instrument as, _____ respectively appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act of said company for the uses and purposes therein set forth and said secretary did also then and there acknowledge that he or she as custodian of the corporate seal of said company did affix the said corporate seal of said company to the said instrument as his or her own free voluntary act, and as the free and voluntary act of said company for the uses and purposes set forth.

Given under my hand and notarial seal, this _____ day of month 20(year).

(Seal) _____

Notary Public

Surveyor's Certificate. The surveyor who prepared the Final Plat shall place thereon a certificate with the following wording:

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

I, _____ an Illinois Registered Land Surveyor do hereby certify that I have surveyed and subdivided the following described property, and that the Plat hereon drawn is a correct representation thereof, all distances are shown in feet and decimal parts thereof.

(Insert Legal Description)

Containing total area, including R.O.W.'s: (in square feet and acres)

This is also to certify that upon completion of construction, concrete monuments, as shown, and iron pipes at all lot corners and points of change in alignment will be set, as required by the Plat Act (765 ILCS 205/0.01 et seq.). This is also to certify that the property, as described in the annexed Plat, lies within the corporate limits of the Village of Fox Lake, Illinois, which has adopted a comprehensive plan.

Given under my hand and seal at _____ Illinois this _____ day of (month) , 20(year)

Illinois Registered Professional Land Surveyor No. _____

Certificate Regarding Flood Hazard. In accordance with the Recorder's Act (55 ILCS 5/3-500] et seq.) the surveyor shall determine if any part of the proposed subdivision lies within a flood hazard area as identified by the Federal Emergency Management Agency. An appropriate certificate shall be placed on the Plat and signed by the surveyor. The following wording is required, depending on which situation exists.'

FLOOD HAZARD CERTIFICATE

I certify that none of the above described property is located in a flood hazard area as identified by the Federal Emergency Management Agency.

_____(signature)_____
Illinois Registered Land Surveyor

OR

I certify that none of the above described property as subdivided is located in a flood hazard area as identified by the Federal Emergency Management Agency except as indicated on FEMA Floodway Map, Lake or McHenry County, Illinois, Community Panel Number _____, effective date _____

Given under my hand and seal at _____ Illinois this _____ day of (month) , 20(year)

Illinois Registered Professional Land Surveyor No. _____

'Refer to Subsection 903.14 for wording of a special certificate which is required if the subdivision borders or includes any public waters.

Lake or McHenry County Department of Health Certificate. The Plat Act, as amended January 1, 1988, requires the local health department, if one exists, to sign a Plat with respect to sewage disposal systems if any lots will not be served by a public sewer system. The following wording is required:

DEPARTMENT OF HEALTH CERTIFICATE

No public sewer system exists to serve this subdivision. Septic system suitability has been determined for all platted lots in accordance with the pertinent sections of the Lake or McHenry County Subdivision Ordinance.

(signature)
Public Health Administrator

County Clerk's Certificate. The County Clerk shall make a tax search of the land being subdivided (see Section 904). A certificate is required on all Final Plats, indicating that any back taxes and the required tax search fee have been paid. The following wording is required:

COUNTY CLERK'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

1, _____ , County Clerk in Lake or McHenry County, Illinois do hereby certify that there are no delinquent general taxes, no unpaid current general taxes, no unpaid forfeited taxes, and no redeemable tax against any of the land included in the annexed Plat.

I further certify that I have received all statutory fees in connection with the annexed Plat.

Given under my hand and seal of the County at Lake or McHenry, Illinois, this _____ day of (month), 20__

(signature)
Lake or McHenry County Clerk

Village Engineer's Certificate A certificate shall be placed on the Final Plat to indicate the approval of the Village Engineer. The following wording shall be used:

VILLAGE ENGINEER'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

I certify that an irrevocably letter of credit or other approved instrument of surety for completion of this subdivision's public improvements has been deposited with my office on

Village Clerk

My signature, as Village Engineer for the Village of Fox Lake, indicates that, to the best of my knowledge, that this Plat meets all the requirements of the Ordinances of the Village of Fox Lake. Approved this _____ day of (month) , 20(year).

(signature)
Village Engineer

Village Board's Certificate. A certificate shall be provided to indicate approval of the Final Plat by the Village Board; Space for the signature of the Mayor and the Clerk shall be provided. The following wording is required:

VILLAGE BOARD'S APPROVAL

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

This Plat and dedications shown hereon are hereby approved by the Village of Fox Lake, Illinois, at a meeting held on the _____ day of (month) , 20(year).

_____
Village Mayor

Attest: _____
Village Clerk

Recorder's Certificate. A certificate shall be placed on the Final Plat to indicate the date and time of recording, and the book and page on which recorded. The following wording is required:

RECORDER'S CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

This instrument filed for record in the Recorder's office of Lake or McHenry County, Illinois, on this _____ day of (month) , 20(year), at ____ o'clock ___M. and recorded as Document Number _____.

_____
County Recorder

Easement Crossing Certificate. A certificate shall be placed on the Final Plat to allow easement crossings. The following wording is required:

EASEMENT CROSSING PROVISIONS

All easements indicated as road construction and maintenance easements adjacent to road right-of-ways on this Plat are reserved for and granted to the Village of Fox Lake, their successors and assigns, for road construction and maintenance including maintenance of drainage ditches and slopes. Said easements may be crossed perpendicularly by driveways and utilities and drainage or retention/detention casement with the consent of the grantor. Said grantor reserves the right to cut, trim, or remove trees, bushes and roots as may be reasonably required incident to the rights herein given, and the right to enter upon said property for all such purposes.

_____ Date: _____
Owner

Village Treasurer. A certificate shall be placed on the Final Plat indicating that there are no delinquent or unpaid obligations to the Village. The following general wording is required:

VILLAGE TREASURER'S CERTIFICATE

My signature, as Treasurer of the Village of Fox Lake, certifies that there are no delinquent or unpaid, current or forfeited special assessments or any deferred installment thereof that has been apportioned against the land included in this Plat of Subdivision.

_____ Date: _____
Village Treasurer

Road Certificate(s). If interior subdivision streets or roads access upon a county, township or state road, the following certificate(s) shall be included on the Final Plat:

ROAD CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

Approved this _____ day of (month) , 20(year), as to roadway access to (County/State/Township) Highway No. _____ also known as _____.

_____(signed)_____
County Engineer
and/or
Illinois Department of Transportation
and/or
Township Highway Commissioner

State of Illinois Certificate. In accordance with an Act in Relation to the Regulation of Rivers, Lakes and Streams (615 ILCS 5/7), if a subdivision borders upon or includes any public waters in which the State of Illinois has any property rights or property interests, it must have a boundary line indicated between the private interests and the public interests.

The proposed boundary line must be reviewed and approved by the Illinois Department of Transportation, Division of Water Resources for the special certificate that must be placed on the Final Plat to indicate that the boundary line has been approved.

STATE OF ILLINOIS CERTIFICATE

STATE OF ILLINOIS)
)SS
COUNTY OF LAKE OR MCHENRY)

Approved by the Department of Transportation of the State of Illinois insofar as this Subdivision Plat, showing lands bordering upon or including public waters of the State of Illinois, relates to the provisions of Section 7 of An Act in Relation to the Regulation of Rivers, Lakes, and Stream of the State of Illinois approved June 10, 1911, as amended, requiring review and approval by said Department as to the boundary line between private interests and public interests.

Dated at Springfield, Illinois, this _____ day of (month)20(year).

Approval recommended: _____

Director, Division of Water Resources

State of Illinois, by its Department of Transportation

By: _____
Secretary

Impact Fees. The following notice shall be placed on all Final Plats of Subdivision:

NOTICE

All of the property described herein and platted in lots, blocks and other parcels of units may be subject to the payment of an impact fee to the Village of Fox Lake, Illinois for park, school and library purposes at the time of application for building permit.

E-4 Tax Search

Before a Final Plat may be submitted to the Village Board, the owner shall make all payments of any and all taxes and special assessments levied against the property being platted by him. In vacating subdivisions previously platted, the petitioner shall submit evidence of the payment of all taxes and special assessments levied against the property in the same manner as is required for subdividing (see Subsection 903.7).

Appendix F
Street Tree Guidelines

F-1 Recommended Street Trees

TYPE A - SMALL TREES*	
Species	**Common Name**
Crataegus spp	Hawthorn (thornless)
Maulus 'Prairiefire'	Prairiefire Crabapple
Pyrus calleryana ' Aristocrat	Aristocrat Pear
TYPE B - LARGE TREES	
Acer x freemanii ' Autumn Blaze'	Autumn Blaze maple
Aesculus glabra	Ohio Buckeye
Catalpa speciosa	Catalpa
Cercidiphyllum japonicum	Katsuratree
Ginkgo biloba (male)	Ginkgo
Gleditsia triacanthos var. inermis 'Shademaster'	Shademaster Honeylocust
Gleditsia triacanthos var.inermis 'Skyline'	Skyline Honeylocust
Gymnocladus dioicus	Kentucky Coffeetree
Quercus alba	White Oak
Quercus bicolor	Swamp White Oak
Quercus macrocarpa	Bur Oak
Quercus muehlenbergii	Chinquapin Oak
Quercus rubra	Red Oak
Tilia Americana	American Linden (Basswood)
Tilia americana 'Redmond'	Redmond Linden
Tilia cordata 'Glenleven'	Glenleven Littleleaf Linden
Tilia cordata 'Greenspire'	Greenspire Littleleaf Linden

F-2 List of Prohibited Street Trees

Species	Common Name
Acer ginnala	Amur maple
Acer saccharinum	Silver maple
Acer negundo	Box Elder
Ailanthus altissima	Tree-of-heaven
Alnus glutinosa	European black alder
Betula species	Birch
Elaegnus angustifolia	Russian Olive
Juglans nigra	Black Walnut
Morus species	Mulberry
Phellodendron amurense (except male cultivars)	Amur corktree
Populus alba	White poplar
Populus deltoids	Cottonwood
Prunus mahaleb	Mahaleb cherry
Pyrus calleryana	Callery ornamental pear
Robinia pseudoacacia	Black locust
Ulmus pumila	Siberian elm

F-3 Guidelines for Protecting Existing Trees

To better ensure the survival of existing trees, the developer should follow standard horticultural and construction practices in the area for the protection of existing trees. The following guidelines are a minimum summary of those practices:

- Protect trees with fencing and armoring during the entire construction period. The fence should enclose an area with a 10 foot radius with the tree at the center.
- Avoid compacting the soil around existing trees with heavy equipment. Do not pile dirt or construction materials or waste beneath the crown of the tree.
- Keep fires and sources of extreme heat away from existing trees.
- Repair damaged roots and branches immediately. Exposed roots should be covered with topsoil. Severed limbs and roots should be painted. Whenever roots are destroyed, a proportional amount of branches should be pruned so the tree does not transpire more water than it takes in. Injured trees must be thoroughly watered during the next year.

F-4 Guidelines for Planting Trees

The best times for planting are early spring (March to mid-April) and early fall (late September through early October).

No trees shall be dug or loaded for shipment from the vendor nursery when the temperature is below 32 degrees Fahrenheit and when the depth of frost in the ground exceeds one inch. All trees, which upon delivery, exhibit evidence of being or having been wholly or partially frozen, shall be rejected.

Trees on which the buds have opened or which are in full or partial leaf may be rejected.

Any existing dead trees or root balls shall be removed. Trees shall be planted in accordance with the attached tree planting detail and as described below. The top of the root ball shall be two inches above finished grade. If additional compacted clay or stone is required in the bottom of the planting hole to achieve this grade, then it shall be supplied by the contractor. Wire baskets that cover no more than the lower 1/3 of the root ball are permitted. Larger wire baskets shall be removed or cut to that height.

Set balled and burlapped (B&B) stock on un-excavated bottom of tree pit plumb and in center of pit or trench. Till 18 inches around tree pit. When set, place additional topsoil backfill around base and sides of ball and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately 2/3 full, water thoroughly before placing remainder of backfill. Repeat watering until no more is absorbed. Water again after placing final layer of backfill. No treated burlap or nylon or polyethylene rot-proof wrapping material is permitted and must be removed. Tie and wrap material that is intended to rot.

In most instances, the backfill around the ball shall be the same soil as that which was removed from the hole; however, in cases where rocks, stones, etc. are encountered, topsoil shall be used. Any

excess soil, debris or trimmings shall be removed from the planting site immediately upon completion of planting.

Where necessary, trees shall be staked to ensure they will be straight.

The species identifying labels shall remain on the tree until species verification is completed by the Village. Other tags wires, plastic ties and wire baskets shall be removed from each tree.

Appendix G
Material Specifications

WATER MAIN SPECIFICATIONS LIST

Water Main Pipe	Pipe material shall be polyvinyl chloride or ductile iron conforming to the following: Ductile iron pipe, Class 52 or greater, and shall conform to AWWA Standard C-151 (ANSI 21.51) Pressure Class 250, cement mortar lined (AWWA Standard C-104) with internal and external bituminous coating. Ductile iron pipe shall be encased in polyethylene wrap. The polyethylene wrap shall meet the requirements of AWWA C-105 (ANSI A21.51) using Class C (black) polyethylene material with 8 mils minimum thickness. Installation shall be as specified in AWWA C105-77. Polyvinyl Chloride (PVC), with a pressure rating of 150 psi, SDR-18, meeting the requirements of AWWA C-900 or C-909. PVC pipe shall be installed with a Bare #6 AWG Locator Wire, or approved equal, and placed above the pipe within the limits of the bedding and extend through all structures. The material shall be approved by the Engineer prior to installation. Normal working pressure shall not exceed 150 psi. Pipe shall be furnished in nominal eighteen (18) foot laying lengths. All pipe shall be laid to a minimum of five and one half (5 ½) feet measured from the existing or proposed ground surface (or subsequent excavation or fill) to the top of the pipe barrel. The mains shall be laid to grades shown on plans.
Gate Valve	Gate valves are required on water main less than 16" in diameter. Valves shall be Clow or Mueller Company manufactured resilient wedge gate valves meeting the requirements of AWWA C-509 with O-ring stem seals and rated for a maximum working pressure of 250 psi. Gate valves shall be cast iron and furnished with mechanical joints meeting the requirements of AWWA Standard C-111. No alternates allowed.
Butterfly Valve	Butterfly valves are required on water main 16" in diameter and larger. Butterfly valves must be located in a precast valve vault. Valves shall be cast iron in accordance with AWWA Standard C-504, and as manufactured by Mueller Company Model No. B 3211-20. No alternates allowed.
Valve Vault	Precast reinforced concrete, 48-inch or 60-inch in diameter with concentric cone, meeting the requirements of ASTM C-478. Inlet and outlet pipe penetrations in the vault shall be leak tight with boot-type connectors. At the discretion of the Village Engineer, opening shall be filled with concrete brick and hydraulic cement. No more than three (3) precast concrete adjusting rings with twelve (12) inch maximum height adjustment shall be allowed. Valves eight-inch diameter or less shall be in a minimum four-foot diameter vault. Valves ten-inch diameter or greater shall be in a minimum five-foot diameter vault. Pressure connection taps/valves shall be in a minimum five-foot diameter vault.

	Each valve vault cone and barrel section joint shall also be externally sealed with a 9" wide (min.) sealing band of rubber and mastic. The band shall have an outer layer of rubber or polyethylene with an under layer of rubberized mastic (with a protective film), meeting the requirements of ASTM C-877, type II or type III.
Valve Vault Frame & Lid	Frame shall be East Jordan Iron Works, Inc. 1020, or approved equal. Cover shall be East Jordan Iron Works, Inc. 1020A heavy duty, or approved equal, with the words "VILLAGE OF FOX LAKE" and "WATER" cast into the lid.
Fire Hydrant Assembly	Fire hydrants shall be Super Centurion 200, Model A-423, breakaway type as manufactured by Mueller Co., ULFM Medallion Hydrant F2545 as manufactured by Clow Valve Company or approved equal, national standard operating nut, open counterclockwise, with 2 - 2 1/2" hose ports, 1 - 4 1/2" pumper port all with National Standard threads. All hydrants shall have a break-away type ground level flange conforming to the latest revision of AWWA Standard C-502. Valve boxes shall be as specified below under Valve Box. Hydrant leads shall be 6" diameter (AWWA C-151) ductile iron pipe, Class 52 or greater of the appropriate length and a minimum of 24 inches. The hydrant leads shall be connected to the mechanical joint fittings with EBAA Iron Sales, Inc. Series 1100 or 1100 PV retainer gland (as required), or equal. All hydrants shall be red in color. Auxiliary valves shall be 6" resilient wedge, epoxy coated, 200 psi working pressure (AWWA C-509) with flange shield attached to the fire hydrants. All hydrant appurtenances shall be installed with Mega-Lug Mechanical joint fittings and stainless steel bolts.
Valve Box	Valve boxes shall be Tyler 664S Domestic 3 piece, or equal, screw type, with cover and the word "WATER" cast into the covers. Valve boxes shall include a valve box stabilizer which shall be approved by the Engineer/Village of Fox Lake. Valve boxes shall be set straight and plumb. Valve adapters shall be Adaptor Inc. Gate Valve Adaptor, or approved equal. Valve adapters shall be provided on all auxiliary gate valves. Anchor couplings are required on all hydrant tees, valves, and hydrants.
Water Main Fittings	Ductile iron water main fittings shall be cement lined, compact mechanical joints, ductile cast iron, Pressure Class 250, and shall conform to AWWA C-153 with rubber gasket joints (AWWA C-111). (DIP) PVC joints shall meet ASTM D-3139. Pipe gaskets shall be elastomeric seals for joining PVC pipe meeting the requirements of ASTM F-477. (PVC) Stainless steel nuts and bolts shall be provided on all mechanical joints. EBAA Iron Mega-lug connections shall be provided as joint restraint and precast concrete block or poured concrete thrust blocks as secondary joint restraint on all fittings.
Water Services	Water services shall be a minimum of one (1) inch diameter Type K copper. The pipe shall be marked with the manufacturer's name or trade mark and a mark indicative of the type of pipe. Any water service connection larger than two (2)

inches shall comply with all specifications for water mains.

Services shall be wrapped with polyethylene wrap of type described in Water Main Pipe, for a distance of three (3) feet from the centerline of the main.

The water service line for each property shall be laid from the buffalo box (b-box) into the building, through a water meter and then into the plumbing system of the building. All plumbing shall conform, at a minimum, to the Illinois Plumbing Code.

A water service line is designed to deliver water from a water main to a single building, extended from the water main to the building, and includes corporation stop, curb stop and service box. Service lines shall be approximately at a right angle to the centerline of the right-of-way whenever possible. The preferred location for the service box is 1 foot outside of the public right of way and not located within any driveways or sidewalks/paths. The service line should be a continuous length of pipe and couplings are not allowed.

Corporation Stop

Corporation stops shall be Mueller Company Model No. H-15000, or approved equal.

The tap shall be made in the upper third of the main as close to a forty-five degree (45º) angle with the horizontal axis as is practical as shown in the Standard Detail. A tap into the top of the water main will not be permitted.

Water Service Saddle

Service saddles are required on all service connections. They shall be Rockwell Model 317, or approved equal, of the appropriate diameter to fit the water main, with epoxy coated cast iron bodies and double stainless steel straps.

Stainless steel nuts and bolts shall be provided on all water service saddles.

Tapping Sleeve

Tapping sleeves shall be Smith-Blair vinyl coated with stainless steel bolts and nuts, or approved equal. Seals shall be self-energizing rubber gaskets.

Curb Stop

Curb stops shall be Mueller Company Model No. H-15154, or approved equal.

Buffalo Box (b-box)

B-boxes shall be Mueller Company Model No. H-10302 with threaded, "Minneapolis" style top, (66" extended length) and a 1 ½" upper section.

The location of the b-box shall be sawcut in the curb as a "w," and the location field marked with a painted "blue" 4"x4" hardwood timber installed vertically. The b-box shall be located in the center of the lot frontage and located in the street right-of-way or street easement.

Water Meters

Purchased through the Village of Fox Lake.

Pipe Sleeves

Casing pipe shall be steel pipe conforming to ASTM A-139, Grade B welded, in accordance with AWWA C-206, with a minimum yield strength of 35,000 psi and a minimum wall thickness of 0.375 inches. For materials with lower yield strength, increase thickness an additional 1/16 inch.

Cascade casing spacers or equal shall be used following the manufacturer's installation requirements.

The annular space between the casing and the carrier shall be filled with trench backfill by pumping or jetting.

The ends of the casing pipe shall be sealed in accordance with the Standards Specifications, with a concrete bulk head.

Pipe Bedding

Bedding shall be provided for all pipes, except where concrete encasement, concrete cradles, boring or jacking are indicated. Bedding shall be a minimum thickness of 4-inches and consist of gravel, or crushed stone ¼ -inch to 1-inch in size. As a minimum, the bedding material shall conform to the requirements of the "Standard Specifications for Road and Bridge Construction", Illinois Department of Transportation. The gradations shall conform to CA6, CA7, CA11 or CA13 therein. Note that when PVC pipe is used, the bedding material shall extend to a minimum of 12" over the top of the pipe and consist of CA-11 or CA-13 crushed stone. Bedding shall be properly compacted. Wherever two or more pipes or conduits are placed in the same trench or excavated area, backfill the trench with granular bedding material to support the uppermost pipe or conduit.

Backfill

For conduits not requiring selected granular backfill, backfill shall be made with materials available from the trench excavation. The material shall be free from rocks and be carefully placed in 6-inch lifts and each layer shall be compacted.

For conduits requiring excavation as described in the "Standard Specifications for Road and Bridge Construction" beneath or within 2-feet horizontally of existing or proposed pavements, driveways, or sidewalks or in other areas which, in the opinion of the Village Engineer, are or may be subject to vehicular traffic loading, selected granular backfill shall be provided above the bottom of the trench and shall extend upward to the surface of the ground or pavement. Material for selected granular backfill shall consist of CA-7 Crushed Stone with a 12" thick CA-6 crushed stone "cap". The select granular backfill shall be mechanically compacted according to the Standard Specifications for Water and Sewer Main Construction in Illinois.

Water jetting shall not be allowed.

Pavement Crossing

Unless otherwise specifically approved by the Director of Public Works, all conduits crossing existing pavements shall be installed by tunneling, jacking, or auguring. The open cutting of a roadway will only be allowed when the tunneling, jacking, or auguring requirement presents a hardship on the conduit installation. Allowable hardships would include a conflict with another existing utility, adverse weather conditions, a need for expediency, or adverse ground and/or groundwater conditions. A monetary hardship for the developer will not be considered. In all instances, the safety of the public and the construction crews will be considered. When the carrier pipe is a conduit intended to operate under internal pressure, a casing pipe of adequate strength for all applied loads shall be used. The carrier pipe shall be centered and suspended within the casing pipe with poly blocks held in place with stainless steel bands as manufactured by Cascade, or approved equal. Installation requirements for the bands shall follow the manufacturer's recommendations. The nearest face of pits or other open excavations on each side of a traveled pavement shall be at least 10-feet from the edge of pavement, and secured against hazards.

When open cutting is allowed or other pavement opening required, they shall be backfilled prior to the end of the working day unless otherwise authorized by the Village. All excavations shall be backfilled with an IDOT approved mix #2 design of "Controlled Low Strength Material" (i.e. CLSM or Flowable Fill) dispensed from a redi-mix truck up to the sub-grade level. Said CLSM shall be fluid enough to fill all voids and undermines. Upon placement of the CLSM, the trench shall be properly protected with barricades and plated with appropriate steel plates to minimize traffic

disruption until the CLSM has sufficiently set up to allow for the remainder of the restoration. In inclement weather a temporary bituminous hot-mix asphalt patch of at least 2-inches in thickness shall be constructed after the steel plates have been removed. It is understood that such patching is only temporary and that permanent pavement repair will be required.

Sewer Crossings

Center one full length of water main pipe on sewers wherever water main crosses over or under a sanitary or storm sewer so that both water main joints will be as far from the sewer a possible.

Testing

The following procedures are to be strictly followed by all persons engaged in the pressure testing and/or disinfection of public water distribution mains and private water services 3-inches and larger in diameter. The requirements of these design standards and the requirements of the Illinois Environmental Protection Agency water permit shall be strictly enforced. The contractor is required to provide any and all equipment necessary to complete the pressure testing and/or disinfection of the water mains and services. Prior to any test, the contractor shall arrange with the Village Engineer to have the required tests witnessed, and shall give a minimum of two working days advance notice.

The contractor shall not operate any valves in the existing public water supply system. Requests for valve operations are to be made through the Village Engineer or Public Works Department. Requests for valve operations shall be made 48 hours prior to any scheduled operations or tests.

Pressure and Leakage Tests

The contractor shall perform a preliminary pressure/leakage test to ensure that all segments of the system meet the pressure/leakage rates as set forth herein. When the contractor has assured himself that the system will meet the required leakage rates, the contractors shall arrange (two working days in advance) witnessing of the pressure test with the Village Public Works Department. The tests shall be conducted as follows:

1. Hydrostatic Test:
    a. Where any section of a water line is provided with concrete thrust blocking for fittings, the hydrostatic tests shall not be made until at least 5 days after installation of the concrete thrust blocking.
    b. Disposal of wastewater from hydrostatic tests, and for disinfection, shall be approved in advance by the Village Engineer or Public Works Department.
    c. The new water mains and service lines including valves and hydrants shall be subjected to a hydrostatic pressure of 150 psi.
    d. The test pressure shall be held for a duration of two hours without pressure loss or further pressure application.
    e. Each valve shall be opened and closed several times during the test.
    f. Careful examination of exposed pipe, joints, fittings, and valves is required.
    g. Joints showing visible leakage shall be remade or replaced.
    h. Cracked pipe, defective pipe, and cracked or defective joints, fittings, and valves shall be replaced with sound material and the test repeated until results are satisfactory.

Disinfection

After all mains have been satisfactorily pressure tested and accepted by the Village Engineer or Public Works Department, the contractor shall proceed to disinfect the main in accordance with AWWA Standard C651. A chlorine concentration during disinfection shall be maintained at a minimum 50 mg/l available chlorine. The chlorinated water shall be retained in the main for a period of at least 24 hours. At

the end of the 24-hour period, the treated water shall contain no less than 25 mg/l chlorine throughout the main. The contractor will sample the chlorinated disinfecting solution to assure that these minimums are maintained.

After an applicable retention period, the heavily chlorinated water shall be flushed from the main until the chlorine concentration in the water leaving the main is not higher than that generally prevailing in the system. After final flushing, and as witnessed by the Village Public Works Department, the contractor shall obtain two samples of water from the main for bacteriological testing. For major water main installation, the number of samples may be increased as determined by the Village Public Works Department. A second series of samples shall be collected no less than 24-hours after the first set of samples has been collected. The individual sets of samples shall be bacteriologically tested to show the absence of coliform organisms.

If both sets of samples are satisfactory, the Village Public Works Department shall open all valves on the system. The contractor and the Village will be furnished with copies of the bacteriological report for their records. All testing and chlorination must be witnessed by an appropriate representative of the Village of Fox Lake. All water samples will be sent by the Village to a State of Illinois certified testing lab for coliform bacterial analysis.

Only Village Public Works staff is allowed to operate valves.

Water Main Protection

All water main, storm sewer and sanitary sewer construction shall meet the requirements of this section and the Illinois EPA Standard Specification for Water and Sewer Main Construction.

Horizontal Separation

1. Whenever possible, water main shall be laid at least 10-feet horizontally from any existing or proposed sewer.
2. Should local conditions prevail which would prevent a horizontal separation of 10-feet, a water main may be laid closer to or in the same trench as a storm or sanitary sewer, provided the main is laid on an undisturbed earth shelf located to one side of the sewer and at such an elevation that the bottom of the water main is at least 18-inches above the top of the sewer.

Vertical Separation

1. Whenever water mains must cross house sewers, storm drains, or sanitary sewers, the water main shall be laid at such an elevation that the bottom of the water main is 18-inches above the top of the drain or sewer. This vertical separation shall be maintained for that portion of the water main located within 10-feet horizontally of any sewer or drain crossed, said 10-feet to be measured from the outside edge of the water main to the outside edge of the drain or sewer. as the normal distance from the water main to the drain or sewer.
2. Where conditions exist that the minimum vertical separation set forth in (1) cannot be maintained, or it is necessary for the water main to pass under a sanitary sewer, then, within a distance of 10-feet either side of the outside edge of the water main, construct the sewer or drain of pressure pipe, conforming to the specification for water main materials. For storm sewer ASTM C361 pipe shall satisfy this requirement. The sewer or drain line shall be supported to prevent settling and breaking of the water main.
3. When a new sanitary sewer and a new water main are proposed to cross, the 18 inch vertical separation MUST be maintained.

Thrust Blocks

Blocking to prevent movement of mains under pressure at bends and fittings shall be Portland Cement Concrete (PCC), a minimum of 12-inches thick pre-cast blocks,

placed between solid ground and the fittings in such a manner that pipe fittings and joints will be accessible for repairs. All bends of 22 ½ degrees or greater, and all tees and plugs shall be thrust protected to prevent movement of the line under pressure. Thrust protection may also be attained by the use of a combination of mechanical retaining glands and threaded stainless steel rods. Wood blocks or shims will not be allowed for thrust blocking.

SANITARY SEWER SPECIFICATIONS LIST

Sanitary Sewer Pipe	Pipe material shall be polyvinyl chloride conforming to the following: Polyvinyl Chloride (PVC) SDR 26, or greater, and shall conform to ASTM D-3034 for sizes 4"-15" and ASTM F-679 for 18"-48" pipe, unless Ductile Iron Pipe (Class 52) is deemed necessary by the Village Engineer (i.e. water main protection). Sizes for ASTM F-679 are to be made from T-1 materials and correspond to pipe stiffness PS-115. PVC compounds shall meet the requirements of ASTM D-1748, cell class 12454-B. Pipe shall be furnished at maximum pipe lengths normally produced by the manufacturer.
Force Main	Pipe material shall be ductile iron or polyvinyl chloride conforming to the following: Ductile Iron Pipe, Class 52 or better, cement lined, with heavy duty (8 mil) polyethylene wrap and stainless steel nuts and bolts. Polyvinyl Chloride (PVC), with a pressure rating of 150 psi, SDR-21, meeting the requirements of AWWA C-900 or C-909 with ASTM D-3139 joints. Pipe gaskets shall be elastomeric seals for joining PVC pipe meeting the requirements of ASTM F-477. Bare #6 AWG Locator Wire, or approved equal, shall be placed above the pipe within the limits of the bedding and extend through all structures. The material shall be approved by the Engineer prior to installation.
Sanitary Manhole	Precast reinforced concrete, Type A, 48-inch for all sewer sizes of eight (8) inch through 24 inch or 60-inch diameter for all sewer sizes of 27 inch through 36 inch pipe diameter. Precast depth shall include an allowance for 4" and 8" adjusting rings, and adjustment to finish grade to match existing surface shall be included. No more than 8 inches of grade adjusting rings will be permitted. A Butyl seal between manhole sections is required. A one-tenth ($1/10^{th}$) of a foot difference in invert elevations should be used when a change of direction of flow is necessary within the manhole. In no case shall the invert of a pipe discharge more than six (6) inches above the poured concrete bench. Manhole steps on a maximum sixteen (16) inch centers shall be furnished with each manhole, securely anchored in place true to vertical alignment. Inlet and outlet pipe penetrations shall be leak tight with boot-type connectors.

Drop Manhole	Precast reinforced concrete, as specified above and shown in the Standard Detail. The minimum diameter of the drop pipe shall not be smaller than the diameter of the entering sewer by more than two nominal diameters (e.g. for 12", 15" and 18" entering sewer, the drop shall be 8", 10" and 12" respectively), provided that the minimum diameter of the drop pipe shall not be less than 8". If a smaller drop is desired, design calculations and configurations shall be submitted for review and approval by the Village Engineer. The drop pipe shall be encased in concrete. The flow channel through manholes shall be made to conform in shape and slope to that of the sewers. A bench shall be provided which shall have a minimum slope of two (2) inches per foot.
Sampling Manhole	Precast reinforced concrete, as specified above, and shall be 24-inch diameter. Precast depth shall include an allowance for 4" and 8" adjusting rings, and adjustment to finish grade to match existing surface shall be included. A Butyl seal between manhole sections is required.
Sanitary Manhole Frame & Lid	Frame shall be Neenah R-1775-B with a Solid Cover, or approved equal, with the words "VILLAGE OF FOX LAKE" and "SANITARY" cast into the lid. A flexible, exterior type, rubber Cretex manhole chimney seal, or equivalent shall be installed on the outside of the frame-chimney joint area for each manhole. Manhole lifting holes in precast manhole sections shall be plugged using rubber plugs supplied by the manhole supplier, non-shrink grout or other approved method. Non-shrink grout shall fill the entire void and shall be troweled at each face to provide smooth surfaces. Cement mortar shall not be used to plug lifting holes. Lids shall be self-sealing with concealed pickholes. Manholes located below the 100-year Base Flood Elevation (BFE) as determined on the corresponding FEMA FIRM panel, or as designated by the Village Engineer, shall include a sealing lock-type lid to prevent any water from entering.
Sanitary Manhole Chimney Seal	All sanitary manholes shall receive a flexible, exterior type, rubber, Adaptor, Inc. manhole chimney seal, or approved equal to be installed on the outside of the frame-chimney joint area for each manhole.
Sanitary Service Fittings	Pipe joints shall have an integral bell end with gasket seal and shall be in compliance with ASTM D-3212 or ASTM D-2855. Pipe shall have an integral wall bell and spigot joint. Services constructed as part of a new main sewer extension shall be connected to the main sewer using a wye. All gaskets shall be of a lock-in type meeting the requirements of ASTM F-477. All fittings, including bends, shall be of the same material as the proposed sanitary sewer main. Material joining the fitting to the pipe shall be free from cracks and shall adhere tightly to each joining surface.

Pipe Bedding	Bedding shall be provided for all pipes, except where concrete encasement, concrete cradles, boring or jacking are indicated. Bedding shall be a minimum thickness of 4-inches and consist of gravel, or crushed stone ¼ -inch to 1-inch in size. As a minimum, the bedding material shall conform to the requirements of the "Standard Specifications for Road and Bridge Construction", Illinois Department of Transportation. The gradations shall conform to CA6, CA7, CA11 or CA13 therein. Note that when PVC or ABS pipe is used, the bedding material shall extend to a minimum of 12" over the top of the pipe and consist of CA-11 or CA-13 crushed stone. Bedding shall be properly compacted. Wherever two or more pipes or conduits are placed in the same trench or excavated area, backfill the trench with granular bedding material to support the uppermost pipe or conduit. Where unsuitable material is encountered at the grade established, all such unsuitable soil shall be removed under the pipe and for the width of the trench, and shall be replaced with well compacted bedding material, to the satisfaction of the Construction Engineer named in the Permit. Where rock is encountered, it shall be removed below grade and replaced with a cushion of well compacted bedding material having a thickness under the pipe of not less than eight inches (8") for all types of pipe including ductile iron pipe.
Backfill	For conduits not requiring selected granular backfill, backfill shall be made with materials available from the trench excavation. The material shall be free from rocks and be carefully placed in 6-inch lifts and each layer shall be compacted. For conduits requiring excavation as described in the "Standard Specifications for Road and Bridge Construction" beneath or within 2-feet horizontally of existing or proposed pavements, driveways, or sidewalks or in other areas which, in the opinion of the Village Engineer, are or may be subject to vehicular traffic loading, selected granular backfill shall be provided above the bottom of the trench and shall extend upward to the surface of the ground or pavement. Material for selected granular backfill shall consist of CA-7 Crushed Stone with a 12" thick CA-6 crushed stone "cap". The select granular backfill shall be mechanically compacted according to the Standard Specifications for Water and Sewer Main Construction in Illinois.
Pipe Sleeves	Casing pipe shall be steel pipe conforming to ASTM A-139, Grade B welded, in accordance with AWWA C-206, with a minimum yield strength of 35,000 psi and a minimum wall thickness of 0.375 inches. For materials with lower yield strength, increase thickness an additional 1/16 inch. Cascade casing spacers or equal shall be used following the manufacturer's installation requirements.
Water Main Crossings	Center one full length of sewer pipe on water main wherever water main crosses over or under a sanitary sewer so that both water main joints will be as far from the sewer a possible.
Testing	Prior to placing a sanitary sewer system into service, it shall be tested and inspected appropriately. The Village Representative, at his discretion, may require an infiltration test or exfiltration test. Additionally, all sections shall be televised at the expense of the developer. Approval must be obtained from the Village Engineer or the Water and Sewer Supervisor, and a copy must be supplied to be kept on file. The Village must be notified at least 48 hours in advance of any testing.
Water and Sewer	All water mains shall maintain minimum ten (10) feet horizontal and eighteen (18)

Separation	inch vertical separations from any sewer lines, in accordance with the requirements of the Illinois Environmental Protection Agency. If the IEPA separations cannot be met, then adequate provisions for protection of the water supply must meet the requirements of the IEPA and Village.

STORM SEWER SPECIFICATIONS LIST

Storm Sewer Pipe	Pipe material shall be reinforced concrete, ductile iron, or polyvinyl chloride conforming to the following: Reinforced Concrete Pipe (RCP), Class III, and shall conform to ASTM C-76. Ductile iron pipe, Class 52 or greater, and shall conform to AWWA Standard C-151 (ANSI 21.51) Pressure Class 250, cement mortar lined (AWWA Standard C-104) with internal and external bituminous coating. Pipe must be encased in polyethylene wrap as stated in Water Main Specifications List. (VILLAGE ENGINEER APPROVAL REQ'D) Polyvinyl Chloride (PVC) SDR 26, or greater, and shall conform to ASTM D-3034 for sizes 4"-15". (VILLAGE ENGINEER APPROVAL REQ'D)
Storm Sewer Pipe Joints	ASTM C-443 (O-ring) or mastic joint sealer (RCP pipe) Water main fittings shall be cement lined, compact mechanical joints, ductile cast iron, Pressure Class 250, and shall conform to AWWA C-153 with rubber gasket joints (AWWA C-111). Stainless steel nuts and bolts shall be provided on all mechanical joints. Bituminous mastic sealer shall be used at all joints. (DIP pipe) Pipe joints shall have an integral bell end with gasket seal and shall be in compliance with ASTM D-3212 or ASTM D-2855. (PVC pipe)
Storm Sewer Manhole	Precast reinforced concrete, Type A, 48-inch or 60-inch diameter in accordance with the Standard Specifications for Water and Sewer and as shown in the Standard Detail. Larger diameter structures and/or cast-in-place Portland cement concrete structures may be required. Approval must be obtained by the Streets Supervisor and the Village Engineer. Precast depth shall include an allowance for 4" and 8" adjusting rings, and adjustment to finish grade to match existing surface shall be included. A Butyl seal between manhole sections is required. A one-tenth ($1/10^{th}$) of a foot difference in invert elevations should be used when a change of direction of flow is necessary within the manhole. In no case shall the invert of a pipe discharge more than six (6) inches above the poured concrete bench. Pre-poured concrete benches will not be allowed. Manhole steps on a maximum sixteen (16) inch centers shall be furnished with each manhole, securely anchored in place true to vertical alignment. Inlet and outlet pipe penetrations shall be leak tight with boot-type connectors.

Storm Sewer Manhole Frame & Lid	Frame shall be East Jordan Iron Works, Inc. 1020 or 1050Z, or approved equal. Inlet and open grate manhole castings must meet IDOT Standards and approved by the Village Engineer and Streets Supervisor. Each casting shall be imprinted with "Dump No Waste - Drains to Waterways" message with fish image permanently cast into the face of the casting cover. Casting shall meet ASMT A48-83 Class 35B. All bearing surfaces to be machined. E. Jordon w/ Environmental Lettering / Symbols or equal.
Pipe Bedding	Bedding, haunching and initial backfill to one (1) foot above the pipe for PVC pipe shall consist of CA-11 or CA-13 crushed stone. All backfill in non-paved areas shall be mechanically compacted from the bottom of the pipe upward to at least 90% standard proctor density. All backfill in paved areas or where the inner edge of the trench is within two (2) feet of the edge of the pavement, curb, gutter, stabilized shoulder or sidewalk, shall be in accordance with the "Standard Specifications for Water and Sewer Main Construction in Illinois," latest edition. Where unsuitable material is encountered at the grade established, all such unsuitable soil shall be removed under the pipe and for the width of the trench, and shall be replaced with well compacted bedding material, to the satisfaction of the Construction Engineer named in the Permit. Where rock is encountered, it shall be removed below grade and replaced with a cushion of well compacted bedding material having a thickness under the pipe of not less than eight inches (8") for all types of pipe including ductile iron pipe.
Headwalls	Storm pipes discharging to rivers or streams shall terminate at a precast reinforced concrete headwall with wing walls or with a precast concrete flared end section and rip-rap, as permitted by the Village Engineer, IDOT (Division of Water Resources) and/or the U.S. Army Corps of Engineers. All headwalls must be designed in accordance with the State Standard Specifications. Approved grating and/or screens with locking devices shall be installed on all end sections and headwalls unless waived by the Village Engineer.
Water Main Crossings	Center one full length of sewer pipe on water main wherever water main crosses over or under a storm sewer so that both water main joints will be as far from the sewer a possible.
Testing	Prior to placing a storm sewer system into service, it shall be tested and inspected appropriately. The Village Representative, at his discretion, may require an infiltration test or exfiltration test. Additionally, all sections shall be televised at the expense of the developer. Approval must be obtained from the Village Engineer or Streets Supervisor, and a copy must be supplied to be kept on file. The Village must be notified at least eight (8) hours in advance of any testing.
Water and Sewer Separation	All water mains shall maintain minimum ten (10) feet horizontal and eighteen (18) inch vertical separations from any sewer lines, in accordance with the requirements of the Illinois Environmental Protection Agency. If the IEPA separations cannot be met, then adequate provisions for protection of the water supply must meet the requirements of the IEPA and Village.
Standard Notes	Soil disturbance shall be conducted in such a manner as to minimize erosion. Soil

stabilization measures shall consider the time of year, site conditions and the use of temporary or permanent measures.

Soil erosion and sediment control features shall be constructed prior to the commencement of hydrologic disturbance of upland areas.

Disturbed areas shall be stabilized with temporary or permanent measures as follows:

A. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases on a portion of the site is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
B. Where construction activity will resume on a portion of the site within 14 days from when activities ceased, (e.g. the total time period that construction activity is temporarily ceased is less than 14 days) then stabilization measures do not have to be initiated on that portion of site by the 7th day after construction activity temporarily ceased.

Areas or embankments having slopes greater than or equal to 4H:1V, and approved by the Governing Agency, shall be stabilized with sod, mat, or blanket in combination with seeding.

Erosion control blanket shall be required on all interior detention basin side slopes between normal water level and high water level.

All storm sewers that are or will be functioning during construction shall be protected by an appropriate sediment control measure.

All temporary and permanent erosion control measures must be maintained and repaired as needed. The property owner shall be ultimately responsible for maintenance and repair.

A stabilized mat of aggregate underlain with filter cloth (or other appropriate measure) shall be located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley or parking area. Any sediment or soil reaching an improved public right-of-way, street, alley or parking area shall be removed by scraping or street cleaning as accumulations warrant and transported to a controlled sediment disposal area.

Soil stockpiles shall not be located in a flood prone area or a designated buffer protecting Waters of the United States or any isolated waters of Lake County.

If dewatering services are used, adjoining properties and discharge locations shall be protected from erosion. Discharges shall be routed through an effective sediment control measure (e.g. sediment trap, sediment basin, filter bag, or other appropriate measure).

The erosion control measures indicated on the plans are the minimum requirements. Additional measures may be required, as directed by the Engineer or Governing Agency.

Erosion Control Measures	All expected sediment and erosion control techniques must be shown on the erosion control plans submitted with each plan set for development. These techniques must include standard detail drawings in compliance with the Lake County Stormwater Management Commission's Watershed Development Ordinance as well as Section 7 of the Illinois Urban Manual.