

**THE UNIFORM SEWER USE LAW FOR THE CLINTON SEWER SERVICE AREA,
HAMILTON COLLEGE SEWER DISTRICT, TOWN OF KIRKLAND AND VILLAGE OF
CLINTON**

ARTICLE 1

SHORT TITLE AND PURPOSE

Section 101 - Short Title

For brevity and ease of communication, this Law may be cited as the Town of Kirkland Sewer Use Law.

Section 102 - General Purpose

The general purpose of this Law is the following:

To provide for efficient, economic, environmentally safe, and legal operation of the publicly owned treatment works within the Town of Kirkland.

Section 103 - Specific Purposes

The specific purposes of this Law are the following:

- (1) To prevent the introduction of substances into the publicly owned treatment works (hereinafter referred to as POTW) that will:
 - (a) interfere with the POTW in any way,
 - (b) pass through the POTW to the state's waters and cause contravention of standards for those waters or cause violation of the POTW's SPDES permit,
 - (c) increase the cost or otherwise hamper the disposal of POTW sludge and/or residuals,
 - (d) endanger municipal employees,
 - (e) cause air pollution, or groundwater pollution, directly or indirectly,
 - (f) cause, directly or indirectly, any public nuisance condition.
- (2) To prevent new sources of infiltration and inflow and, as much as possible, eliminate existing sources of infiltration and inflow.
- (3) To prohibit excessive volumes and/or inordinate rates of flow of sewage and wastes into the Town interceptor sewer system and all public sewer tributary thereto;
- (4) To prohibit the contribution of sewage, industrial wastes or other wastes of a flammable nature, or that cause in any way a poisonous or hazardous environment for POTW operations and maintenance personnel;
- (5) To prohibit the contribution of sewage, industrial wastes or other wastes that may cause operating or maintenance difficulties in the sewers, force mains, pumping stations, sewage regulators and other structures and appurtenances to the Town interceptor sewer system and public sewers tributary thereto;

- (6) To prohibit the contribution of sewage, industrial waste or other wastes that may cause operating difficulties at the POTW treatment plant(s) as they now exist or may be constructed, modified or improved in the future, or that may render sludge from said plant(s) unsuitable for treatment, processing, disposal or reclamation as the Town desires;
- (7) To improve the opportunity to recycle and reclaim wastewaters and sludges from the POTW;
- (8) To provide cooperation with the New York State Department of Environmental Conservation, USEPA and any other agencies that have requirements or jurisdiction for the protection of the physical, chemical and biological quality of watercourses within or bounding the Town;
- (9) To provide authority to impose pretreatment standards and requirements on all non-domestic users of the POTW.
- (10) To assure that new sewers and connections are properly constructed.
- (11) To provide for equitable distribution to all users of the POTW of all costs, associated with sewage transmission, treatment, and residuals disposal, and to provide for the collection of such costs.
- (12) To provide authority for the enforcement of these regulations

Section 104 - Replacement of Previous Sewer Use Law

The provisions in the existing Town of Kirkland Code, Chapter 95 of the Code of the Town of Kirkland entitled "Sewers", are hereby amended and restated and said provisions are replaced by the herein set forth Articles 1 through 15 inclusive.

ARTICLE 2

DEFINITIONS

Section 201 - Defined Terms

Unless otherwise stated in the section where the term is used in this Law, the meaning of terms used in this Law shall be as stated below. When not inconsistent with the context, the present tense shall include the future, and words used in the plural shall include the singular and vice versa. Furthermore, a masculine pronoun shall include the feminine. Shall is mandatory; may is permissive.

Abnormal Sewage - Sewage whose concentration of one or more characteristics of normal sewage exceeds the maximum concentrations of the characteristics of normal sewage. See normal sewage.

Act or "THE ACT" - The Federal Water Pollution Control Act, also known as the Clean Water Act, as amended, 33 D.S.C. 1251, et seq., as may be amended.

Administrator - The Regional Administrator of the U. S.

Environmental Protection Agency - (USEPA), Region 2.

Ammonia - The result obtained, using an approved laboratory procedure, to determine

the quantity of ammonia in a sample, expressed as milligrams of nitrogen per liter.

Applicant - That person who makes application for any permit. The applicant may be an owner, new or old, or his agent.

Approval Authority - The USEPA, or the New York State Department of Environmental Conservation (NYSDEC), in the event the NYSDEC is delegated approval authority responsibility by the USEPA.

Approved Laboratory Procedure - The procedures defined as , Standard Methods' in this article, or other procedures approved by the Superintendent, for flow measurement or determination of the concentration of pollutants or their surrogates in waters, wastewaters, and/or sludges.

ASTM, denoting American society for Testing and Materials - The latest edition of any ASTM specification, when stipulated in this Law.

Authorized Representative of the Industrial User - An authorized representative of the industrial user may be:

- (a) A principal executive officer of at least the level of vice-president, if the industrial user is a corporation;
- (b) A general partner or proprietor, if industrial user is a partnership or proprietorship, respectively;
- (c) A duly authorized representative of the individual designated above, if such representative is responsible for the overall operation of the facilities from which the indirect discharge originates.

Best Management Practices or BMP's – Schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to implement the prohibitions listed in 40 CFR 403.5(a)(1) and (b). BMP's include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw materials storage.

BOD, denoting Biochemical Oxygen Demand - The result obtained when using an approved laboratory procedure to determine the quantity of oxygen utilized in the aerobic biochemical oxidation of organic matter or in a sample, expressed in milligrams per liter.

Builder - Any person who undertakes to construct a building or any part of a building, either under contract or for resale.

Building Drain - That part of the lowest horizontal piping of a building drainage system which receives the discharge from soil, waste, and other drainage pipes inside the building walls, and conveys it to the building lateral, which begins five (5) feet outside the inner face of the building wall.

Clark Mills Interceptor Sewer System, or Town System – The trunk sewers, force mains, pumping stations, sewage regulators, sewage treatment plants, and other appurtenant structures owned and operated by the Town of Kirkland, New York.

Chlorine Demand - The result obtained when using an approved laboratory procedure to determine the difference between the amount of chlorine added to a sample and the amount of chlorine remaining in the sample at the end of a specified contact time at room temperature, expressed in milligrams per liter.

Clean Water Act, or Act – The Federal Water Pollution Control Act, 33 USC 1251, et

seq., as currently amended and as may be amended in the future.

Clinton Sewer Service Area - The Clinton Sewer Service Area includes the Village of Clinton, the Hamilton College Sewer District and the consolidated sewer district of Town of Kirkland, Oneida County, New York. The Clinton Sewer Service Area is designated in an inter-municipal agreement between Hamilton College Sewer District, the Village of Clinton and the Town of Kirkland dated October 8, 1975 and as shown on a map prepared by Stearns and Wheler, Civil and Sanitary Engineers dated June 24, 1976.

COD, Denoting Chemical Oxygen Demand - The result obtained when using an approved laboratory procedure to measure the oxygen requirement of that portion of matter, in a sample, that is susceptible to oxidation, by a specific chemical oxidant, expressed in milligrams per liter.

Color - The optical density at the visual wave length of maximum absorption, relative to distilled water. One hundred percent (100%) transmittance is equivalent to zero (0.0) optical density.

Composite Sample - The sample resulting from the combination of individual samples of wastewater taken at selected intervals, for a specified time period. The individual samples may have equal volumes or the individual volumes may be proportioned to the flow at the time of sampling.

Connection - Attachment of one user to a POTW sewer. (See Extension)

Connection Charge (Tap Fee) - The one time application fee to offset Town of Kirkland expenses to process an application for a connection of a building/street lateral to the public sewer. The fee also covers plan review, permit issuance, street repair cost, and inspection costs. The fee may be scaled to the amount of work involved, or to the size of the public sewer involved.

Control Authority - The term shall refer to "Approval Authority", or to the superintendent when the appropriate municipal board has an approved pretreatment program under the provisions of 40 CFR 403.11.

Control Manhole - A manhole accessible to the Control Authority in or upstream of the street lateral, such that samples collected from the manhole represent the discharge to the POTW.

Conventional Pollutant - A pollutant that the POTW treatment plant was designed to treat, defined in accordance with the Act.

Cooling Water - The water discharged from any system of condensation, air conditioning, refrigeration, or other sources. It shall contain no polluting substances which would produce COD or suspended solids in excess of five (5) milligrams per liter, or toxic substances, as limited elsewhere in this Law.

County - The County of Oneida, in which Hamilton College, the Village of Clinton and the Town of Kirkland are located.

Developer - Any person who subdivides land for the purpose of constructing, or causing to be constructed, buildings for which wastewater disposal facilities are required.

Direct Discharge - The contribution, introduction, spilling, leaking, pumping, pouring, emitting, emptying or dumping of treated or untreated wastewater directly to the waters of the State of New York.

Domestic Wastes - see Sewage, Domestic.

Dry Sewers - The sanitary sewer installed in anticipation of future connection to a POTW but which is not used, in the meantime, for transport of storm or sanitary sewage.

End of Pipe - For the purpose of determining compliance with limitations prescribed by Article 9, end of pipe shall mean the control manhole, provided the samples collected from the control manhole are representative of the discharge to the POTW.

End of Pipe Concentration - The concentration of a substance in a sample of wastewater at end of pipe.

End of Process Concentration Pretreatment Standard. - see National Categorical

Easement - An acquired legal right for the specific use of land owned by others.

EPA, USEPA, or U.S. Environmental Protection Agency - The agency of the federal government charged with the administration and enforcement of federal environmental laws, rules, and regulations. Also may be used as a designation for the Administrator or other duly authorized official of this Agency.

Equivalent Household Unit (EHU) - The unit used to arrive at the payment for debt service and operation and maintenance costs for the sewage treatment plants within the Town of Kirkland

dwelling category	equivalent household unit
single-family dwelling	1
multiple-family dwelling (each unit)	1
trailer	1
apartment building:	
1-bedroom (each unit)	1/4
2-bedroom (each unit)	1/2
3 or more bedrooms (each unit)	1
schools:	
each group of 15 pupils and/or staff	1
medical center:	
each office and/or examining room	1/3

commercial or industrial establishments:

each increment of consumed water entering 1

sewer system @ 250 gallons per day

churches 1

nursing homes:

each group of 5 residents 1

vacant lot along sewer route (per building lot) 1/4

Extension - Attachment of a sewer line, with more than one user, to an existing sewer line.

Fees in Lieu of Mitigation – Money paid into a fund by an applicant for new connections in order to use available Sewer Bank flow credits rather than funding and undertaking an I/I remediation project.

Floatable Oil - Oil, grease, or fat in a physical state such that it will separate by gravity from wastewater by treatment in a wastewater treatment facility.

Flow Credits – Gallons per day of flow capacity available for proposed new connections that are generated through I/I remediation projections/initiatives completed according to District-approved plans, within the sanitary sewer system.

Flow Rate - The quantity of liquid or waste that flows in a certain period of time.

Garbage - The solid wastes from the preparation, cooking, and dispensing of food, from the handling, storage, and sale of produce, and from the packaging and canning of food.

Grab Sample - A single sample of wastewater representing the physical, chemical, and biological characteristics of the wastewater at one point and time.

Hamilton College - is an educational institution incorporated on May 26, 1812 in the State of New York.

Hamilton College Sewer District - is a municipal sewer district established under and by Section 228 of the Education Law of the State of New York as amended, and is described on a map of the sewer district dated July 30, 1971.

ICS Form - The form used by the NYSDEC to survey industries to perform and update the Industrial Chemical Survey.

Indirect Discharge - The contribution, introduction, spilling, leaking, pumping, pouring, emitting, emptying or dumping of pollutant(s) or wastewater from any non-domestic source regulated under Section 307(b), (c) or (d) of the Act, (33 USC 1317), into the POTW, including scavenger wastes discharged into the system, with ultimate discharge into the waters of the State of New York.

Industrial - Meaning or pertaining to industry, manufacturing, commerce, trade, business, or institution, and is distinguished from domestic or residential.

Industrial Chemical Survey (ICS) - The survey of industries in New York State, initiated by the NYSDEC, to determine chemical usage and storage by those industries.

Industrial User - See User, Industrial

Industrial Wastes - The liquid or liquid-carried solid, liquid and/or gaseous wastes from industrial manufacturing processes, trade, service, utility, or business, as distinct from sanitary sewage.

Infiltration - Water, other than wastewater, that enters a sewer system (excluding building drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow. Infiltration is inadvertent, that is, not purposely designed or built into the sewer or drain.

Inflow - Water, other than wastewater, that enters a sewer system (including building drains) from sources such as, but not limited to, roof leaders, cellar drains, area drains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, foundation drains, swimming pools, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration. Inflow is purposely designed and/or built into the sewer or drain.

Inflow/Infiltration (I/I) – The total quantity of water from both infiltration and inflow, without distinguishing the source.

I/I Remediation – Specific projects and initiatives including system improvements, repairs, and upgrades that reduce I/I gallons conveyed by the sanitary sewer system. Routine maintenance is not an I/I remediation project or initiative.

I/I Remediation Fund – A fund where the “fees in lieu of mitigation” income generated from the sale of available flow credits reside and will be used to finance future I/I remediation projects and initiatives, or pay debt service on funds borrowed to undertake I/I remediation projects/initiatives.

Interference - A discharge which, alone or in conjunction with discharges by other sources,

- (a) inhibits or disrupts the POTW, processes or operations, or processes, use or disposal; and its treatment its sludge
- (b) therefore is a cause of a violation of any requirement of the Town of Kirkland POTW's SPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal by the POTW in accordance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations) :
 - i. Section 405 of the Clean Water Act,
 - ii. the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act - RCRA) , and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D or the SWDA) ,
 - iii. Clean Air Act,

iv. Toxic Substance Control Act, and

v. Marine Protection Research and Sanctuaries Act.

Lateral, Building - The sewer extension from the building drain to the Street Lateral or other place of wastewater disposal.

Lateral, Street - The sewer extension from the public sewer to the property line.

Monitoring Event – One, 24-hour composite sample of a user's discharge, or, in the case of a batch discharge, one grab sample.

Municipal Board - For all properties within the Clinton Sewer Service Area, the municipal board shall mean the advisory board of the Clinton Sewer Service Area. For all properties outside the Clinton Sewer Service Area, the municipal board shall be the Town Board of the Town of Kirkland.

National Categorical Pretreatment Standard, or Categorical Standard - Any regulation containing pollutant discharge limits promulgated by the EPA in accordance with Section 307 (B) and (C) of the Act (22 D.S.C. 1347), which applies to a specific category of industrial users. These standards apply at the end of the categorical process ('end of process').

National Pollutant Discharge Elimination System (NPDES) Permit - A permit issued pursuant to Section 402 of the Act (33 D.S.C. 1342).

National Prohibitive Discharge Standard, or Prohibitive Discharge Standard - Any regulation developed under the authority of Section 307 (B) of the Act, and 40 CFR, Section 403.5.

Natural Outlet - Any outlet, including storm sewers and combined sewer overflows, to State's Waters.

New Connection – Attachment of one or more new user(s) to a POTW sewer, the extension of which was approved post July, 2011, that is tributary to the Clark Mills sewer system and not approved prior to July, 2011.

New Owner - That individual or entity who purchased property within the Service Area of the Town of Kirkland after the effective date of this law.

New Source - Any source, the construction of which is commenced after the publication of the proposed regulation prescribing a Section 307 (C) (33 D.S.C 1317) Categorical Pretreatment Standard which will be applicable to such source, if such standard is thereafter promulgated.

New User - A discharger to the POTW who commences discharge after the effective date of this Law.

Normal Sewage - see Sewage, Normal.

Nuisance - The use or lack of use of the POTW in such a manner so as to endanger life or health, give offense to the senses, or obstruct or otherwise interfere with the reasonable use or maintenance of the POTW.

Offset Ratio – The ratio of required gallons of I/I removed from the sanitary sewer system to the additional gallons allowed for new connections. The ratio is affected by both the confidence in the volume of I/I removed as well as the desire to improve water quality.

Oil and Grease - The result obtained when using an approved laboratory procedure to determine the quantity of fats, wax, grease, and oil, in a sample, expressed in milligrams per liter.

Old Owner - That individual or entity who owns or owned a property, within the Service Area of the POTW, purchased prior to the effective date of this Law, who or inherited the property at any time and intends to sell the property, or has sold the property to a new owner, also the agent of the old owner.

Owner - Any individual, firm, company, association, society, person or group having title to real property which is serviced by any POTW within the Town of Kirkland.

Other Wastes - Garbage (shredded or unshredded), refuse, wood, egg shells, coffee grounds, sawdust, shavings, bark, sand, lime, ashes, and all other discarded matter not normally present in sewage or industrial wastes. Also, the discarded matter not normally present in sewage or industrial waste.

Pass Through - The discharge which exits the POTW within the Town of Kirkland into waters of the State in quantities, which, alone or in conjunction with Discharges from other sources, is a cause of a violation of any requirement of the POTW's SPDES permit (including an increase in the magnitude or duration of a violation) .

Permit - A temporary revocable written document allowing use of the POTW for specified wastes over a limited period of time, containing sampling locations and reporting frequencies, and requiring other actions as authorized by this Law.

Person - Any individual, public or private corporation, political subdivision, Federal, State, or local agency or entity, association, trust, estate or any other legal entity whatsoever.

pH - The logarithm (base 10) of the reciprocal of the weight of hydrogen ions, in gram moles per liter of solution. A pH value of 7.0, the pH scale midpoint, represents neutrality. Values above 7.0 represent alkaline conditions. Values below 7.0 represent acid conditions.

Phosphorus, total - See total phosphorus.

Pollutant - Any dredged soil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt or industrial, municipal or agricultural waste discharged into water, land and/or air.

Pollution -The man-made or man-induced alteration of the chemical, physical, biological, and/or radiological integrity of the State's waters, lands and/or airs resulting from the introduction of a pollutant into these media.

Pretreatment (Treatment) - The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater to a less harmful state prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be achieved by physical, chemical, or biological process, process changes, or by other means, except as prohibited by 40 CFR, Section 403.6 (D).

Pretreatment Requirements - Any substantive or procedural requirement related to pretreatment, other than a National Pretreatment Standard imposed on an industrial user.

Pretreatment Standard or National Pretreatment Standard - Any Categorical Standard or Prohibitive Discharge Standard.

Priority Pollutants - The most recently revised or updated list, developed by the EPA, in accordance with the Act.

Prohibitive Discharge Standard - see National Prohibitive Discharge Standard.

Properly Shredded Garbage - The wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, and with no particle having a dimension greater than one-half ($\frac{1}{2}$) inch in any dimension.

POTW Treatment Plant - That portion of the POTW designed to provide treatment to wastewater, and to treat sludge and residuals derived from such treatment.

Publicly Owned Treatment Works (POTW) - A treatment works, as defined by Section 212 of the Act, (33 U.S.C 1292), which is within village of Clinton, or the Clark Mills Sewer District within the Town of Kirkland. This definition includes any sewers and appurtenances that transport wastewater to the POTW treatment plant, but does not include pipes, sewers, or other conveyances not connected directly or indirectly to a facility providing treatment.

Receiving Waters - A natural water course or body of water (usually Waters of the State) into which treated or untreated sewage is discharged.

Roof Drain - A drain installed to receive water collecting on the surface of a roof for disposal.

Sanitary Inspector - The Sanitary Inspector is the individual nominated and appointed by the Town Board of the Town of Kirkland, his duly appointed constituted agent or representative, or his designee.

Septage - All liquids and solids in and removed from septic tanks, holding tanks, cesspools, or approved type of chemical toilets, including but not limited to those serving private residences, commercial establishments, institutions, and industries. Also sludge from small sewage treatment plants. Sept age shall not have been contaminated with substances of concern or priority pollutants.

Septic Tank - A private domestic sewage treatment system consisting of an underground tank (with suitable baffling), constructed in accordance with any and/or all local and State requirements.

Service Area of the POTW - The legally defined bounds of real property from which wastewater may be discharged into the POTW. The bounds shall be established, altered, changed, modified, reduced, enlarged, combined, or consolidated by action of the Town Board of the Town of Kirkland.

Sewage - A combination of the water-carried wastes from residences, business buildings, institutions, and industrial establishments, and such ground, surface, and storm water as may be inadvertently present. The admixture of sewage, as defined above, with industrial wastes and other wastes shall also be considered "sewage", within the meaning of this definition.

Sewage, Domestic (Domestic Wastes) - Liquid wastes from the non-commercial preparation, cooking, and handling of food, liquid wastes containing human excrement and similar matter from the sanitary conveniences in dwellings, commercial buildings,

industrial buildings, and institutions, or liquid wastes from clothes washing and/or floor/wall washing. Therefore, domestic sewage includes both black water and grey water. (See Sewage, Sanitary)

Sewage, Normal - Sewage, industrial wastes, or other wastes, which show, by analysis, the following characteristics:

- (a) B.O.D. (Five Day) - 2090 lbs. per million gallons (250 milligrams per liter), or less.
- (b) Suspended Solids - 2500 lbs. per million gallons (300 milligrams per liter), or less.
- (c) Phosphorus - 125 lbs. per million gallons (15 milligrams per liter), or less.
- (d) Ammonia - 250 lbs. per million gallons (30 milligrams per liter), or less.
- (e) Total Kjeldahl Nitrogen - 417 lbs. per million (50 milligrams per liter), or less.
- (f) Chlorine Demand - 209 lbs. per million gallons (25 milligrams per liter), or less.
- (g) Chemical Oxygen Demand - 2920 lbs. per million gallons (350 milligrams per liter), or less
- (h) Oil and Grease - 830 lbs. per million gallons (100 milligrams per liter), or less.

In spite of satisfying one or more of these characteristics, if the sewage also contains substances of concern, it may not be considered normal sewage.

Sewage, Sanitary - Liquid wastes from the sanitary conveniences of dwellings (including apartment houses and hotels), office buildings, factories, or institutions, and free from storm water, surface water, industrial, and other wastes. (See Domestic Wastes)

Sewage Treatment Plant (Water Pollution Control Plant) - see POTW Treatment Plant

Sewage, Unusual Strength or Character - Sewage which has characteristics greater than those of Normal Sewage and/or which contains Substances of Concern.

Sewage Works - All facilities for collecting pumping, treating and disposing of sewage.

Sewer - A pipe or conduit for conveying sewage. For the purposes of this Law, manholes, joints, fittings and appurtenances to the sewer shall be included in this definition.

Sewer Bank - A mechanism in which to track flow credit deposits, withdrawals, and transfers.

Sewer, Combined - A sewer designed to receive and transport both surface runoff, storm water, and sewage.

Sewer District - It shall mean any sewer district within the Town of Kirkland including, but not limited to the Hamilton College Sewer District, Consolidated Sewer District, Clark Mills Sewer District, Route 5 Sewer District, and any other sewer district established by the Town Board of the Town of Kirkland. All portions of a sewer system located in the Town of Kirkland must be located within a sewer district.

Sewer, Public - A sewer in which all abutting property owners have equal rights, and the use of which is controlled by any sewer district within the Town of Kirkland, including any sewer within the Clinton Sewer Service Area as defined by the inter- municipal agreement dated October 8, 1975.

Sewer Rents - A scale of annual charges established and imposed by the Town of Kirkland pursuant to this article for the use of a sewer system or any part or parts thereof set forth in Article 12 herein. Such charges may be based on either (a) the consumption of water on the premises connected with and served by the sewer systems or such part or parts thereof, (b) the number and kind of plumbing fixtures on the premises connected with and served by the sewer system or such part or parts thereof, (c) the number of persons served on the premises connected with and served by the sewer system or such part or parts thereof, (d) the volume and character of sewage, industrial waste and other wastes discharged into the sewer system or such part or parts thereof, or (e) upon any other equitable basis determined by the local legislative body, including but not limited to any combination of the foregoing.

Sewer, Sanitary - A sewer which carries sewage, and to which storm, surface, and groundwaters are not intentionally admitted.

Sewer, Storm (Storm Drain) - A sewer which carries storm and surface waters and drainage, but excludes sewage and industrial wastewaters, other than cooling waters and other unpolluted waters.

Sewerage System (also POTW) - All facilities for collecting, regulating, pumping, and transporting wastewater to and away from the POTW treatment plant including all sewer pipes and other appurtenances which are used or useful in whole or in part in connection with the collection, treatment or disposal of sewage, industrial waste and other wastes and which are owned, operated or maintained by sewer district in the Town of Kirkland, including sewage pumping stations and sewage treatment and disposal works and private on-site wastewater disposal systems, if any.

Part of the "sewer system" includes: all lateral sewers, or all branch sewers, or all interceptor sewers, or all truck sewers, and any sewage treatment and disposal works, and private on-site wastewater disposal systems, each part with necessary appurtenances including sewage pumping stations

Sewer Superintendent - The duly authorized or designated superintendent of the respective sewer district within the Town of Kirkland.

Sewerage Surcharge - The demand payment for the use of a public sewer and/or sewage treatment plant for the handling of any sewage, industrial wastes, or other wastes accepted for admission thereto in which the characteristics thereof exceed the maximum values of such characteristics in normal sewage. (See Volume Charge.)

Significant Industrial User - see User, Significant Industrial

Significant Non-Compliance (SNC) - A User is in significant non-compliance if its violation(s) meet(s) one or more of the following criteria:

- (a) Chronic violations of wastewater discharge limits, defined here as those, in sixty-six (66) percent or more of all of the measurements taken during a six-month period, which exceed (by any magnitude) the daily maximum limit or average limit for the same pollutant parameter;
- (b) Technical Review Criteria (TRC) violations, defined here as those, in which thirty-three (33) percent or more of all of the measurements for each pollutant parameter taken during a six-month period, which equal or exceed the product of the daily maximum limits multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, fats, oil and grease; TRC = 1.2 for all other pollutants);
- (c) Any other violation of a pretreatment effluent limit (daily maximum or long-term average) that the Superintendent determines has caused, alone or in

combination with other discharges, interference or pass through (including endangering the health of EW personnel or the general public) ;

- (d) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the Superintendent's exercise of its emergency authority under Article 11 of this Law;
- (e) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a local control mechanism or enforcement order for starting construction, completing construction, or attaining final compliance
- (f) Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, periodic self- monitoring reports, and reports on compliance with compliance schedules;
- (g) Failure to report accurately any non-compliance;
- (h) Any other violation which the Superintendent determines will adversely affect the implementation or operation of the local pretreatment program.

Slug – Any discharge of water, sewage or industrial waste or other waste of a non-routine, episodic nature, including, but not limited to, an accidental spill or a non-customary batch discharge.

Standard Industrial Classification (SIC) - A classification pursuant to the Standard Industrial Classification Manual issued by the Executive Office of the President, Office of Management and Budget, 1972, and subsequent revisions.

Standard Methods - Procedures contained in the latest edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association, procedures established by the Administrator, pursuant to Section 304 (G) of the Act and contained in 40 CFR, Part 136, and amendments thereto. (If 40 CFR, Part 136 does not include a sampling or analytical technique for the pollutant in question, then procedures set forth in EPA publication, "Sampling and Analysis Procedures for Screening of Industrial Effluents for Priority Pollutants" , April 1977, and amendments thereto, shall be used.), any other procedure approved by the Administrator, or any other procedure approved by the Superintendent, whichever is the most conservative.

State - State of New York.

State's Waters - See Waters of the State.

Storm Water - Any flow occurring during or following any form of natural precipitation; also the flow resulting therefrom.

Substances of Concern - Those compounds which the New York State Department of Environmental Conservation has determined may be harmful to man or the environment.

Sump Pump - A mechanism used for removing water from a sump or wet well.

Superintendent - That individual or corporation nominated or appointed by the appropriate municipal board as the Superintendent of the Sewer and Wastewater POTW, or his duly appointed constituted agent or representative or his designee. Such an individual shall be licensed to operate the POTW by the New York State D.E.C., and otherwise qualified to oversee water treatment and distribution and POTW operations. This definition shall also include his authorized deputy, agent, or representative.

Suspended Solids - The result obtained, using an approved laboratory procedure, to determine the dry weight of solids, in a sample, that either float on the surface of, or are in suspension, or are settleable, and can be removed from the sample by filtration,

expressed in milligrams per liter.

Total Kjeldahl Nitrogen (TKN) - The result obtained, using an approved laboratory procedure, to determine the quantity of ammonia in a sample and released during the acid digestion of organic nitrogen compounds, expressed as milligrams of nitrogen per liter.

Total Phosphorus - The result obtained, using an approved laboratory procedure, to determine the total quantity of orthophosphate, in a sample of wastewater, following the hydrolysis of phosphorus compounds, expressed as milligrams of phosphorus per liter of sample.

Town - The Town of Kirkland is a municipal corporation incorporated on April 13, 1827.

Town Board - The Town Board of the Town of Kirkland, or its duly appointed agent or representative, charged with the administration and overall supervision of the facilities and business of the sewer systems, sewer treatment plant and sewage works connected to any POTW within the Town of Kirkland (and outside the Village of Clinton).

Town Engineer - The person retained as town engineer for the Town of Kirkland or his duly authorized deputy, agent or representative or the Town Board.

Town Attorney - The person appointed by the Town Board as Town Attorney or a duly authorized attorney for the Town selected the Town Attorney, or the Town Board.

Toxic Substances - Any substance, whether gaseous, liquid, or solid, that when discharged to a public sewer in sufficient quantities may be hazardous to POTW operation and maintenance personnel, tend to interfere with any biological sewage treatment process, or to constitute a hazard to recreation in the receiving waters, due to the effluent from a sewage treatment plant or overflow point. Any pollutant or combination of pollutants listed as toxic in regulations promulgated by the EPA under provisions of CWA 307 (A), or other Acts.

User - Any person who contributes, causes, or permits the contribution of wastewater into the POTW.

User, Existing - A discharger to the POTW who is discharging on or before the effective date of this Law.

User, Industrial - A discharger to the POTW who discharges non-domestic wastewaters.

User, New - A discharger to the POTW who initiates discharge after the effective date of this Law.

User, Significant Industrial (SIU) - An industrial user of either the Village of Clinton or the Town of Kirkland POTW who is:

- (a) Subject to National Categorical Pretreatment Standards promulgated by the EPA,
- (b) Having substantial impact (as determined by the Superintendent), either singly or in combination with other industries, on the operation of the treatment works,
- (c) Using, on an annual basis, more than 10,000 lbs or 1,000 gallons of raw material containing priority pollutants and/or substances of concern and discharging a measurable quantity of these pollutants to the sewer system,
- (d) Discharging more than five percent (5%) of the flow or load of conventional pollutants received by the POTW treatment plant.

*Note: A user discharging a measurable quantity of a pollutant may be classified as non-significant if, at the influent to the POTW treatment plant, the pollutant is not detectable.

Village - The Village of Clinton is a municipal corporation incorporated on April 12, 1843.

Violation – Failure to meet the requirements of this Law and other applicable County, State and Federal pretreatment standards and requirements. Also, failure to adhere to any order, fine or penalty administered by the Commissioner, County, State or Approval Authority.

Volume Charge (User Charge) - The demand sewer use charge which is based, in part or wholly, on the volume of normal sewage discharged into the POTW (there may be surcharges, as provided for in Article 12). The volume charge shall be based on a specific cost per 100 cubic feet or per 1,000 gallons. The specific charge shall be subject to approval of the appropriate municipal board. The moneys so obtained shall be used for current operation and maintenance, for retirement of bonded indebtedness, and for funding of capital projects, of the POTW. The basis of volume charge calculations shall be made available to the public, on demand, as provided in Article 13. The volume charge shall be recalculated annually, as well as the surcharge rates.

Wastewater - The liquid and water-carried industrial or domestic wastewaters from dwellings, commercial establishments, industrial facilities, and institutions, together with any groundwater, surface water, and storm water that may be present, whether treated or untreated, which is contributed into or permitted to enter the POTW.

Wastewater Discharge Permit - A permit as set forth in Article 10 of this Law.

Wastewater, Unusual Strength or Character - see Sewage, Unusual Strength or Character.

Waters of the State (State's Waters) - All streams, lakes, ponds, marshes, water courses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, which are contained within, flow through, or border upon the State or any portion thereof.

Section 202 - Abbreviations

The following abbreviations shall have the designated meanings:

ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
BOD	Biochemical Oxygen Demand
CFR	Code of Federal Regulations
CPLR	Code of Public Law and Rules
COD	Chemical Oxygen Demand

EPA	Environmental Protection Agency
I/I	Inflow/Infiltration
L	Liter
Mg	Milligram
Mg/l	Milligrams per liter
NCPI	National Clay Pipe Institute
NPDES	National Pollutant Discharge Elimination System
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
P	Total Phosphorus
PSI	Pounds per Square Inch
POTW	Publicly Owned Treatment Works
PPM	Parts per Million, weight basis
SIC	Standard Industrial Classification
SPDES	State Pollutant Discharge Elimination System
STP	Sewage Treatment Plant
SWDA	Solid Waste Disposal Act, 42 U.S.C. 690 L, et seq.
U.S.C.	United State Code of Laws
USEPA	United State Environmental Protection Agency
TSS	Total Suspended Solids

Section 203 - Undefined Terms

Terms not defined in this article, or terms found to be ambiguous or improperly defined in this article, shall be defined by the Act, or Regulations, pursuant thereto.

Article 3

USE OF PUBLIC SEWERS REQUIRED

Section 301 – Limitation of Use

(a) The use of the Town sewers and public sewers tributary thereto shall be strictly limited and restricted, except as provided in Section 301(b) hereof, to receive and accept the discharge of sewage, industrial waste and other wastes generated on, or discharged from, real property lying within the bounds of the Town of Kirkland Sewer District(s) as established and altered, changed, modified, reduced, enlarged, combined and/or consolidated by action of the Kirkland Town Board.

(b) The discharge of sewage, industrial waste and other wastes generated on, or discharged from, real property lying outside the bounds of the Town of Kirkland Sewer District(s) into the Town sewers and public sewers tributary thereto shall be made only with expressed written consent of the Kirkland Town Board, as set forth in Section 311 of this Article.

(c) A municipality owning sewers within the bounds of the Town of Kirkland Sewer District(s) and using the Town sewers and public sewers tributary thereto shall:

- (1) submit a user inventory on an annual basis, and upon request of the Kirkland Town Board;
- (2) be subject to restrictions on the nature, quality and volume of the contributing municipality's wastewater in sewers tributary to and at the point where they discharge to the Town's interceptor sewers, as required by the Kirkland Town Board.
- (3) be subject to requirements for the monitoring of the contributing municipality's discharge, as required by the Kirkland Town Board; and
- (4) provide the Kirkland Town Board, its employees and agents access to the facilities of users located within the contributing municipality's jurisdictional boundaries for the purpose of inspection, samples and any other duties deemed necessary by the Kirkland Town Board.

Section 302 – Basis of Sewer Use Requirement

(a) All requirements, directives and orders calling for the mandatory use of the Town interceptor sewers or public sewers tributary thereto for the proper discharge of sewage, industrial wastes and other wastes compatible with this Law, shall be established and given by the local municipality having jurisdiction. If the respective municipality fails to enforce this Law, or the Town, in its sole discretion, decides to unilaterally undertake enforcement at any time, the Town shall have full authority to ensure compliance with this Law.

Section 303 - Waste Disposal Unlawful

It shall be unlawful for any person to place, deposit, or permit to be deposited, in any unsanitary manner, on public or private property, within any sewer district within the Town of Kirkland, including but not limited to the Village of Clinton, Town of Kirkland and Hamilton College, or in any area under the jurisdiction of the appropriate municipal boards, any human or animal excrement, garbage, or objectionable waste. Also, no person shall discharge domestic sewage onto the surface of the ground or discharge it in a way that permits it to come to the surface of the ground.

Section 304 - Connecting Private Sewage system to Storm Sewer Unlawful

No person shall connect a private sewage system so that sewage flows into a storm sewer or into a drain intended exclusively for storm water.

Section 305 - Discharge of Sewage into Well Prohibited

No person shall discharge sewage into a well.

Section 306 - Wastewater Discharge Unlawful

It shall be unlawful to discharge to any natural outlet, within the Town of Kirkland, or in any area under the jurisdiction of the said municipality, any wastewater or other polluted waters, except where suitable treatment has been provided in accordance with subsequent provisions of this Law.

Section 307 - Building Permit Allowed Only When Approved Wastewater Disposal Available

No property owner, builder, or developer shall be issued a building permit for a new dwelling or structure requiring sanitary facilities unless a suitable and approved method of wastewater disposal, conforming to this Law, is available. All housing construction or building development which takes place after this Law is enacted shall provide for an approved system of sanitary sewers.

Section 308 - Private Wastewater Disposal Unlawful

Except as hereinafter provided, it shall be unlawful to construct or maintain any privy, privy vault, cesspool, septic tank, or other facility intended or used for disposal of wastewater.

Section 309 - Connection to Public Sewer Required

The owner(s) of all houses, buildings, or properties used for human occupancy, employment, recreation, or other purposes, situated within the Town of Kirkland, and abutting on any street, alley, or right-of-way in which there is now located or may, in the future, be located a public sewer, is hereby required, at the owner's expense to install suitable sanitary facilities therein, and to connect such facilities directly with the proper public sewer, in accordance with the provisions of this law, within ninety (90) days after official notice to do so, provided that said public sewer is within one hundred (100) feet (30.5 meters) of the property line.

Section 310 - Limitation on Use of Public Sewers

The use of any public sewers within the Town of Kirkland shall be strictly limited and restricted, except as provided in Section 309, to receive and accept the discharge of sewage and other wastes, including industrial wastes generated on or discharged from real property within the bounds of the Service Area of the POTW.

Section 311 - Wastewater from Outside the POTW Service Area - Inter-municipal Agreements

The Town Board of the Town of Kirkland, on the recommendation of the Superintendent of the applicable POTW, together with the consent of any other appropriate municipal board, shall have the authority to enter into agreements to accept sewage and other wastes, including industrial wastes, generated by or discharged from persons outside the service area of the POTW.

If the person is a municipality, that municipality shall have enacted a Sewer Use Law as restrictive on the discharge of sewage and other wastes as the restrictions contained in this Law.

If the person is not a municipality the discharge shall be made only with the expressed written consent of the Superintendent (the issuance of a permit) setting forth the terms and conditions of such a discharge.

Section 312 - Moratorium

At the recommendation of the Town Superintendent, who determines that:

- (1) one or more segments of the POTW is exceeding its hydraulic capacity at any time
- (2) any specific purpose of this Law is being violated

The Town Board of the Town of Kirkland shall have the authority to limit or deny any new connections to the Clark Mills Treatment Plant (POTW) until the conditions leading to the moratorium are corrected. Such correction may be by:

- (1) construction of new facilities
- (2) enlarging existing facilities
- (3) correction of inflow and infiltration
- (4) cleaning and repairing of existing facilities
- (5) implementation of an offset plan

Section 313 - Basis of Sewer Use Requirement

All requirements, directives, and orders calling for mandatory use of the sewers, within the Service Area of the POTW, for the proper discharge of sewage and other wastes, including industrial wastes, shall be established and given by the appropriate municipal board, NYSDEC, USEPA, and/or other such State or Federal agencies, which have enforcement powers.

Article 4

PRIVATE WASTEWATER DISPOSAL

Section 401 - Public Sewer Unavailable - Private Wastewater Disposal Required

Where a public sewer is not available, under the provisions of Section 304, the building lateral shall be connected to a private wastewater disposal system complying with the provisions of the Rules and Regulations of the NYSDOH, to be

enforced by the Superintendent and/or the Oneida County Health Department.

Section 402 - Connection of Two Buildings to the Same Septic Tank Prohibited

No two separate permanent buildings where the intended use for either is for a distinct and separate business or a dwelling place for a private family or families shall be connected to the same individual septic tank and tile absorption field.

Section 403 - Construction Permit Application

A completed application form, containing results of percolation tests, computations, and a plot plan, including the design and cross-section of the wastewater disposal system, in relation to lot lines, adjacent and on-site well or water supply, and buildings, shall be submitted to the appropriate municipal board. A fee, established by Article 12, shall accompany the application. The wastewater disposal system shall be designed by a professional engineer, licensed surveyor, or architect, and shall be in accordance with the NYSDOH - "Standards for Waste Treatment Works", or NYSDEC "Standards for Commercial and Institutional Facilities", as appropriate.

Section 404 - Construction Permit

A written construction permit shall be obtained from the Superintendent before construction commencement. The Superintendent, or his designated representative, shall be permitted to inspect the construction work at any stage, without prior notice.

Section 405 - Preventing Nuisances - Rehabilitation Required

When the liquid or liquid-borne effluent from a private wastewater disposal system enters any watercourse, ditch, storm sewer, or water supply system, located within the Town of Kirkland, in such a manner, volume, and concentration so as to create a hazardous, offensive, or objectionable condition, in the opinion of the Superintendent, the Oneida County Health Department, or the NYSDOH, the owner of the premises upon which such wastewater disposal system is located, upon receiving written notice from the Superintendent, to do so, shall, within ninety (90) days, after receipt of such notice, repair, rebuild, or relocate such wastewater disposal system for the purpose of eliminating such hazardous, offensive, or objectionable conditions. The repair, rebuilding, or relocation of the system shall be accomplished in accordance with the rules and regulations of the NYSDOH and the Oneida County Health Department, at the owner's expense.

Section 406 - Sanitary Operation Required

The owner shall operate and maintain the private wastewater disposal system in a satisfactory manner at all times, at the owner's expense.

Section 407 - Septage Removal

Where a private wastewater disposal system utilizes a cesspool or a septic tank, septage shall be removed from the cesspool or septic tank, by a licensed hauler of trucked and hauled wastes, at three year intervals or more frequently.

Section 408 - Direct Connection to New Public Sewers Required

At such time that a public sewer becomes available to a property, a direct connection shall be made to the public sewer, in compliance with this Law, and any cesspool, septic tank, and similar wastewater disposal facilities shall be cleaned of septage, by a licensed septage hauler, and finally either filled with clean sand, bank-run gravel, or dirt, or removed and properly disposed. When the connection is made to the public sewer, the connection to the private wastewater disposal facility shall be

broken and both ends of the break shall be plugged, as appropriate. Alternatively, the septic tank effluent may be piped or pumped to the sewer; the owner shall provide an easement to the septic tank for septage removal.

Section 409 - Additional Requirements

No statement in this Article shall be construed to prevent, or interfere with, any additional requirements that may be deemed necessary by the Superintendent, to protect public health and public welfare.

Article 5

NEW SEWERS or SEWER EXTENSIONS

Section 501 - Proper Design

New sanitary sewers and all extensions to sanitary sewers owned and operated within the Town of Kirkland shall be designed, by a professional licensed to practice sewer design in the State, in accordance with the Recommended Standards for Sewage Works, as adopted by the Great Lakes - Upper Mississippi River Board of State Sanitary Engineers ("Ten State Standards"), and in strict conformance with all requirements of the NYSDEC. Plans and specifications shall be submitted to, and written approval shall be obtained from the Superintendent, the Oneida County Health Department, and the NYSDEC, before initiating any construction. The design shall anticipate and allow for flows from all possible future extensions or developments within the immediate drainage area.

Section 502 A - New Sewers Subject to Approval, Fees, Inspection, Testing, and Reporting

When a property owner, builder, or developer proposes to construct sanitary sewers or extensions to sanitary sewers in an area proposed for subdivision, the plans, specifications, and method of installation shall be subject to the approval of the Sanitary Inspector, and the Oneida County Health Department, in accordance with Section 501. Said property owner, builder, or developer shall pay for the entire installation, including a proportionate share of the treatment plant, intercepting or trunk sewers, pumping stations, force mains, and all other Town of Kirkland expenses incidental thereto. Each street lateral shall be installed and inspected pursuant to Article 6, and inspection fees shall be paid by the applicant prior to initiating construction. Design and installation of sewers shall be as specified in Section 503, and in conformance with Paragraphs 3 through 6 of ASTM Specification C-12. The installation of the sewer shall be subject to periodic inspection by the Sanitary Inspector, without prior notice. The Sanitary Inspector shall determine whether the work is proceeding in accordance with the approved plans and specifications, and whether the completed work will conform with the approved plans and specifications. The sewer, as constructed, must pass the infiltration test (or the exfiltration test, with prior approval), required in Section 505, before any building lateral is connected thereto. The Sanitary Inspector shall be notified 30 days in advance of the start of any construction actions so that such inspection frequencies and procedures as may be necessary or required, may be established. No new sanitary sewers will be accepted by the appropriate municipal board until such construction inspections have been made so as to assure the appropriate municipal board of compliance with this Law and any amendments or additions thereto. The Sanitary Inspector has the authority to require such excavation as necessary to inspect any installed facilities if the facilities were covered or otherwise backfilled before they were inspected so as to permit inspection of the construction. The Sanitary Inspector shall report all findings of inspections and tests to the appropriate municipal board.

Section 502 B - Plans, Specification, and Pipe Test Results Required

Plans, specifications, and methods of installation shall conform to the requirements of this Article. Components and materials of wastewater facilities not covered in this Law, such as pumping stations, lift stations, or force mains shall be designed in accordance with Section 501, and shall be clearly shown and detailed on the plans and specifications submitted for approval. Force main details are covered in Section 506. When requested, the applicant shall submit, to the Sanitary Inspector and to the Oneida County Health Department, all design calculations and other pertinent data to supplement review of the plans and specifications. Results of manufacturer's tests on each lot of pipe delivered to the job site shall also be furnished, upon request.

Section 503 A - Sewer Pipe

(1) Sewer pipe material shall be:

(a) Reinforced Concrete Pipe

(Note that non-reinforced concrete pipe shall not be used.)

Portland cement shall conform to ASTM C-150 Type II.

The pipe and specials shall conform to ASTM Specification C-76.

The reinforcing wire cage shall conform to ASTM Specification A 15, A 82, or A 185, as appropriate.

Entrained air shall be 5.0% to 9.0% by ASTM C- 890

Water absorption and three-edge bearing tests shall conform to ASTM Specification C-497. Gaskets shall conform to Sections 3.3 and 3.4 of AWWA Specification C-302.

(b) Cast Iron Pipe - Extra Heavy

Pipe, fittings, and specials shall conform to the requirements of ASTM Specification A-74 or ANSI A-21.11.

Gaskets shall conform to ASTM Specification C- 564.

(c) Polyvinyl Chloride (PVC) Pipe - Heavy Wall

Pipe shall be made from Class 12454-B materials or better in accordance with ANSI/ASTM Specification D-1784

Pipe and accessories shall conform to the requirements of the following, with a minimum pipe stiffness of 46 PSI at a maximum deflection of five percent (5%)

ANSI/ASTM	D 3034	(4" – 15")
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ASTM	F 679 Type I	(18" – 27"
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(d) Ductile Iron Pipe

Pipe, fittings, and specials shall be manufactured in accordance with ASTM Specification A-746. Pipe shall have a minimum thickness of Class 50. Fittings shall conform to ANSI Specification A-21.11 and have a minimum pressure class rating of 150 PSI.

All pipe and fittings shall be cement mortar lined in accordance with ANSI Specification A- 21.4 at twice the specified thickness,

and have an internal and external bituminous seal coating.

Closure pieces shall be jointed by means of a mechanical coupling of the cast sleeve type.

(e) Vitrified Clay Pipe - Extra strength

(Note that standard strength vitrified clay pipe shall not be used.)

Pipe shall conform to the current requirements of NCPI Specification ER 3300-67 and meet the requirements of ASTM Specification C 700.

(f) Acrylonitrile-Butadiene-Styrene (ABS) Pipe

Pipe and fittings shall conform to the requirements of ASTM Specification D 2661.

(g) Other pipe materials

Other pipe materials require prior written approval of the Sanitary Inspector before being installed.

- (2) The minimum internal pipe diameter shall be 8 inches.
- (3) Joints for the selected pipe shall be designed and manufactured such that "a" ring gaskets of the "snap-on" type are used.
- (4) Gaskets shall be continuous, solid, natural or synthetic rubber, and shall provide a positive compression seal in the assembled joint, such that the requirements of Section 505 are met.
- (5) Joint preparation and assembly shall be in accordance with the manufacturer's recommendations.
- (6) Wye branch fittings shall be installed, for connection of street laterals, in accordance with Section 606.

Section 503 B - Safety and Load Factors

Selection of pipe class shall be predicated on the following criteria:

Safety factor	-	1.5
Load factor	-	1.7
Weight of soil	-	120 lbs/cu. Ft.
Wheel loading	-	16,000 lbs.

Utilizing the foregoing information, design shall be made as outlined in Chapter IX of the Water pollution Control Federation Manual of Practice No.9, latest edition, "Design and Construction of Sanitary and Storm Sewers", and the pipe shall have sufficient structural strength to support all loads to be placed on the pipe, with a safety factor as specified above.

PVC pipe shall not be encased in concrete due to their different coefficients

of linear thermal expansion.

Section 503 C - Sewer Pipe Installation

- (1) Local utilities shall be contacted to verify construction plans and to make arrangements to disconnect all utility services, where required to undertake the construction work. The utility services shall later be reconnected. The work shall be scheduled so that there is minimum inconvenience to local residents. Residents shall be provided proper and timely notice regarding disconnection of utilities.
- (2) The construction right-of-way shall be cleared only to the extent needed for construction. Clearing consists of removal of trees which interfere with construction, removal of underbrush, logs, and stumps, and other organic matter, removal of refuse, garbage, and trash, removal of ice and snow, and removal of telephone and power poles, and posts. Any tree which will not hinder construction shall not be removed, and shall be protected from damage by any construction equipment. Debris shall not be burned, but hauled for disposal in an approved manner.
- (3) The public shall be protected from personal and property damage as a result of the construction work.
- (4) Traffic shall be maintained at all times in accordance with applicable highway permits. Where no highway permits are required, at least $\frac{1}{2}$ of a street shall be kept open for traffic flow.
- (5) Erosion control shall be performed throughout the project to minimize the erosion of soils onto lands or into waters adjacent to or affected by the work. Erosion control can be effected by limiting the amount of clearing and grubbing prior to trenching, proper scheduling of the pipe installation work, minimizing time of open trench, prompt grading and seeding, and filtration of drainage.
- (6) The trench shall be excavated only wide enough for proper installation of the sewer pipe, manhole, and appurtenances. Allowances may be made for sheeting, de-watering, and other similar actions to complete the work. Roads, sidewalks, and curbs shall be cut, by sawing, before trench excavation is initiated.
- (7) Under ordinary conditions, excavation shall be by open cut from the ground surface. However, tunneling or boring under structures other than buildings may be permitted. Such structures include crosswalks, curbs, gutters, pavements, trees, driveways, and railroad tracks.
- (8) Open trenches shall be protected at all hours of the day with barricades, as required.
- (9) Trenches shall not be open for more than 30 feet in advance of pipe installation nor left unfilled for more than 30 feet in the rear of the installed pipe, when the work is in progress, without permission of the Sanitary Inspector. When work is not in progress, including over night, weekends, and holidays, the trench shall be backfilled to ground surface.
- (10) The trench shall be excavated approximately six (6) inches deeper than the final pipe grade. When unsuitable soils are encountered, these shall be excavated and replaced with select materials.