

EGG HARBOR TOWNSHIP MUNICIPAL UTILITIES AUTHORITY

RULES & REGULATIONS

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PREAMBLE

The Egg Harbor Township Municipal Utilities Authority (Authority) was created by the Township of Egg Harbor (Township), under the provisions of NJSA 40:14B-1 et seq. The purpose of the Authority is to implement the Municipal Utilities Authorities Law for the Township in order to foster and promote the public health and to abate the menace of pollution through the elimination of untreated waste to the ground water.

The Authority provides a sanitary sewer system for the collection and transmission of sewage from the residents and businesses of the Township, and a few isolated properties in other neighboring communities, to the interceptors and pumping stations of the Atlantic County Utilities Authority (ACUA). The ACUA provides for the treatment of the waste pursuant to an agreement between the Authority and the ACUA.

The Commissioners of the Egg Harbor Township Municipal Utilities Authority, (Commissioners) recognize that an equitable set of standards and policies are essential to insure the safe and orderly connection to and operation of the sanitary sewerage system. Therefore, the Commissioners have adopted these Rules and Regulations in an effort to ensure the health and safety of the citizens of the Township as well as provide its customers with an efficient and properly maintained sewer system.

The Rules & Regulations provide a framework for the orderly operation of the business of the Authority and allow persons dealing with the Authority to know what they can expect from the Authority in their dealings, and to know what is and will be expected of them when seeking sanitary sewerage service and upon becoming a customer of the Authority.

The Commissioners reserve the right to amend and supplement these Rules & Regulations from time to time when they determine that such changes are necessary to guarantee the safe and efficient operation of the system. These changes may be proposed by the Commissioners or by the Authority's staff and professional consultants. Any such change will be adopted by the Authority and codified as an Addendum to the Rules & Regulations. The Authority shall, annually, or as often as it shall deem necessary, revise the Rules & Regulations to incorporate all such changes.

The Authority adopts and incorporates as a part of its Rules & Regulations the current editions of controlling standards, including, but not limited to, Occupational Safety & Health Administration (OSHA), The American Society of Testing Materials (ASTM), The American Water Works Association (AWWA), The American National Standards Institute (ANSI), and the New Jersey Department of Environmental Protection (NJDEP.) Any changes to these standards adopted by the controlling agency shall automatically be made part of these Rules & Regulations.

The Authority reserves the right to deviate from these Rules & Regulations when it determines that such variance is in the Authority's best interest. The Authority shall not be restricted or limited in the exercise of its lawful powers.

These Rules & Regulations, rates and the engineering standards contained herein are intended to be complementary to each other and a requirement occurring in one is as binding as though occurring in all. Should any discrepancy or misunderstanding arise, or a situation occur, which is not specifically covered by these documents, the Authority or its agents shall interpret the intention of the documents. This interpretation shall be final and binding on the applicant. The Authority shall make the interpretation of any section, or of differences between sections, and that interpretation shall be binding and controlling in its application.

The principal office of the Authority to conduct business and its mailing address is:

Egg Harbor Township Municipal Utilities Authority
3515 Bargaintown Road
Egg Harbor Township, New Jersey 08234

The office of the Authority will be open for the purpose of the transaction of regular business between the hours of 8:30 AM and 4:30 PM, prevailing time, each weekday, Monday through Friday, except holidays.

The Authority holds its regular monthly meetings on the dates and times adopted at the annual reorganization meeting held in February each year. The Authority operates on a fiscal year beginning September 1st through August 31st of the subsequent year.

The Rules & Regulations are separated into Sections that deal with each of the major segments of the Authority's business.

SECTION I DEFINITIONS

Unless the context specifically and clearly indicates otherwise, the meaning of terms used in these Rules & Regulations shall be as follows:

APPLICANT – shall mean the party who submits an application to the Authority. The applicant must be the property owner or a party with a vested interest in the property.

APPLICANT’S REPRESENTATIVE – shall mean a person authorized to appear, bind and act on behalf of the applicant in connection with an application submitted to the Authority.

ATLANTIC COUNTY UTILITIES AUTHORITY (ACUA) – shall mean the duly constituted board created by the County of Atlantic and charged with the operation of the county’s treatment plant and regional interceptors.

ATLANTIC COUNTY UTILITIES AUTHORITY TREATMENT PLANT – shall mean the sewerage treatment plant, located in Atlantic City and operated by the Atlantic County Utilities Authority, which receives all sewer flow from Egg Harbor Township.

AUTHORITY – shall mean the Egg Harbor Township Municipal Utilities Authority.

AUTHORITY ENGINEER – shall mean a duly appointed professional engineer employed by the Egg Harbor Township Municipal Utilities Authority.

BASIN PLAN – shall mean the plan duly adopted by the Egg Harbor Township Municipal Utilities Authority which displays general areas of sewer flow along with a narrative of how public sewer is conveyed through Egg Harbor Township.

BOARD OF COMMISSIONERS – shall mean the member board duly appointed by the Egg Harbor Township Governing Body and consisting of a Chairman, Vice-Chairman, Treasurer, Secretary, Commissioner and an Alternate Commissioner.

B.O.D. – (Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter or in satisfying the oxygen demand of other materials present during incubation for a given time and at a specified temperature. It shall be reported as the amount of oxygen, expressed in milligrams per liter used in a period of five (5) days at twenty (20) degrees C.

BUILDING SEWER – shall mean the pipe and connecting fixtures conveying sewage from the internal plumbing system of any improved property to the Authority’s Sewer Cleanout.

CHLORINE DEMAND – shall mean the amount of chlorine which will be reduced or consumed in the process of oxidizing impurities and shall be the difference between the amount of chlorine added to wastewater and the amount of residual chlorine remaining at the end of a twenty (20) minute contact period. (expressed in milligrams per liter)

CLEANOUT – shall mean a piece of pipe extending vertically to the ground level from the junction of the sewer lateral and the building sewer. It is the demarcation between the Authority's system and the customer's privately installed, owned and maintained building sewer. The cleanout closest to the sewer main is a part of the Authority's system.

C.O.D. – (Chemical Oxygen Demand) shall mean the amount of oxygen required for the complete chemical oxidation of organics and oxidizable organics in a liquid.

COLLECTION SYSTEM – the Authority's sewerage system used for the conveyance of wastewater through the Township of Egg Harbor to the Atlantic County Utilities Authority (ACUA) connection points.

COMMERCIAL ESTABLISHMENT – any establishment engaged in a business activity or commerce in general, exclusive of industrial establishments.

COMBINED WASTE – shall mean a wastewater that contains surface or storm water.

CONFINED SPACE – A space that has limited or restricted means of entry or exit and is not designed for continuous occupancy pursuant to applicable OSHA regulations.

CONNECTION PERMIT – shall mean the permit issued by the Authority which allows the applicant to convey flow into the public sewer system.

CONSULTING ENGINEER – Licensed engineer in good standing in the state of New Jersey and is appointed by the Board of Commissioners annually.

COOLING WATER – shall mean the water discharged from any system of condensation, air conditioning, cooling, refrigeration, or other sources. It shall contain no polluting substances that would produce BOD, SS, or Toxic Substances.

COUNTY SEWER SYSTEM – shall mean all intercepting sewers, regional pumping stations, force mains, wastewater treatment plants, and appurtenances thereto owned and operated by the ACUA.

CUSTOMER – shall mean any person or party, who or which is the recipient of services from the Authority.

DEVELOPER – shall mean the legal or beneficial owner or owners of a lot or any land on which any new structures are proposed or where the expansion of an existing use is proposed. Developer includes the holder of an option or contract to purchase, or other person having an enforceable proprietary interest in such land.

DOMESTIC or SANITARY WASTE – is the normal waterborne wastes from a residential or commercial establishment, including the wastes from kitchens, bathrooms, water closets, lavatories and laundries or other facilities normally associated with personal uses, as distinct from industrial wastes.

DWELLING UNIT – each single-family, residential, habitation including each single unit in a multi-family structure including apartments, townhouses and condominiums; or each mobile home either situated in a licensed mobile home park or on an individual lot. A dwelling unit exists whether it is occupied or not.

EASEMENT – shall mean the right afforded to the Authority, or another party, to make limited use of a customer's or owner's real property.

EFFLUENT – shall mean wastewater after some degree of treatment, flowing out of any treatment device or facilities.

EQUIVALENT DWELLING UNIT (EDU) – shall be based on eighty thousand (80,000) gallons of sewage flow per year.

FAT, OIL AND GREASE (FOG) – A semi-solid, viscous liquid organic polar compound derived from animal and/or plant sources that contain multiple carbon chain triglyceride molecules. These substances are detectable and measurable using analytical test procedures established in 40 Code of Federal Regulations, as may be amended.

FEE SCHEDULE – shall mean the schedule duly adopted by the Authority that displays various fees for extending, constructing, or connection to the public sewer system.

FINAL PERMIT – shall mean a permit issued by the Authority which authorizes construction of the sewer facilities.

FISCAL YEAR – shall be the period beginning September 1st of one year and ending on August 31st of the ensuing year.

FORCE MAIN – shall mean a pipeline carrying sewage flow under pressure.

GRAVITY LINE – shall mean a sewer line through which wastewater flows by gravity.

GREASE OR OIL – shall mean any material that is extractable from an acidified sample of a waste by hexane or other designated solvent.

GREASE INTERCEPTOR – An outside, underground, multi-compartment tank that serves one or more fixtures and is remotely located. Such grease interceptors include, but are not limited to tanks that capture wastewater from dishwashers, floor drains, pot and pan sinks and trenches. The purpose of a grease interceptor is to remove fats, oils and greases (“FOG”) from the wastewater prior to discharging into the sanitary sewer system. It should allow for adequate separation by means of gravity flotation and settlement, using no moving parts or additives to the effluent stream interceptor, and retain the trapped grease for easy removal from the interceptor.

GREASE TRAP – A device designed to retain grease from one to a maximum of four fixtures. A grease trap is not appropriate for use on heated water or in-line to a waste disposal unit. A grease trap is a small, indoor device located under the sink or in the floor. The Authority requires that the capacity of the trap be no less than one hundred (100) pounds grease retention with a flow rate of fifty (50) gallons per minute.

GRINDER PUMP – is a customer owned and maintained sewerage pump that is used to connect an improved property to the Authority’s system when a gravity connection cannot be made.

IMPROVED PROPERTY – shall mean any property upon which there is erected a structure intended for continuous or periodic habitation, occupancy or use by human beings or animals and from which structure Sanitary Sewage and/or Industrial Wastes shall be or may be discharged.

INDUSTRIAL USER – shall mean any non-governmental or non-residential user of the Authority's sewer system identified in the North American Industry Classification System, as amended and supplemented.

INDUSTRIAL WASTE – shall mean any liquid, gaseous or solid substances or a combination thereof resulting from any process of industry or manufacturing or from the development or recovery of any natural resource that is discharged into the sewer system as distinct from domestic waste.

INFILTRATION – shall mean water entering the Authority's sewer system from the ground, through such means as, but not limited to, defective piping, pipe joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

INFLOW – shall mean water discharged into the Authority's sewer system from such sources as, but not limited to, roof leaders, cellars, yard and area drains, foundation drains, cooling water discharges, drains from springs and swampy areas, manhole covers, cross connections from storm sewers and combined sewers, catch basins, storm waters, surface run-off, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

INFLUENT – shall mean wastewater, raw or partly treated, flowing into any wastewater treatment device or facility.

INSPECTOR – shall mean an individual employed by or on behalf of the Authority to oversee construction related and maintenance activities.

LATERAL – shall mean that part of the sewer system consisting of a sewer line and a cleanout, extending from the sewer main in the street or easement to a point behind the curb line or edge of easement where a cleanout shall be located.

LIVING UNIT – shall mean each single-family private, residential dwelling, each dwelling unit in a double house or in a row of connecting houses, or each dwelling unit in an apartment house or other multi-family dwelling.

NJDEP – shall mean the New Jersey Department of Environmental Protection.

NOT FOR PROFIT – is an entity formed under the New Jersey Nonprofit Corporation Act (NJS 15A-1 et seq.) or similar legislation of another state, an unincorporated association or other organization that has obtained Federal and New Jersey tax exempt status and has registered with the Charities Registration Section of the Department of Community Affairs if required by the “New Jersey Charitable Registration and Investigation Act”.

NON-LIVING UNIT – shall mean each unit, other than a Living Unit, that is connected to the sewer system and which is any one or more of the following: Each separately owned, occupied, leased, or managed business or professional office, commercial or industrial establishment, which in each case is directly or indirectly connected to the sewer system and from which sanitary sewage or industrial waste is or may be discharged into the sewer system.

O.S.H.A. – shall mean the Occupational Safety and Health Administration.

OWNER – shall mean any person vested with ownership, legal or equitable, sole or partial, of any property located in the sewered area and containing one or more Living or Non-Living Units.

pH – shall mean the logarithm of the reciprocal of hydrogen ions in grams per liter of solution, and indicates the degree of acidity or alkalinity of a substance.

PPM – shall mean parts per million.

PERSON – shall mean any individual, partnership, company, association, society, corporation, or other group or entity.

PRIORITY LIST – shall mean a list prepared annually by the Authority Engineer which depicts the areas of the Township in which there is no sanitary sewer. This list is used to determine where sewer is needed most along with the financial feasibility of sewerage that area.

PUMPING STATION – shall mean a facility in which wastewater is conveyed from a lower hydraulic elevation to a higher hydraulic elevation by use of mechanical or pneumatic devices.

REASONABLE ACCESS – shall mean that the improved property is situated so that the building sewer can function as a gravity system (minimum slope of 1/8 inch per foot).

REGULATORY AGENCY – shall mean agencies, such as, but not limited to, the Atlantic County Utilities Authority, the New Jersey Department of Environmental Protection, the United States Environmental Protection Agency, The New Jersey Pinelands Commission and the U.S. Corps of Engineers which have authority over the operation of and/or discharges from the Authority's sewer system.

SAND-OIL SEPARATOR – Whenever the discharge of a fixture or drain may contain solids or semi-solids heavier than water that would be harmful to the drainage system or cause a stoppage within the system, the discharge shall be through a sand/oil interceptor. Sand-Oil interceptors are required whenever the Authority deems it necessary to protect the public sanitary sewer system.

SANITARY SEWAGE – shall mean wash water, culinary wastes and liquid waste containing only human excreta and similar matter, flowing in or from a building sewer originating in a dwelling, business building, factory or institution. For the purposes of these Rules & Regulations, sanitary waste shall be characterized as containing not less than 250 mg/1 BOD and/or 250 mg/1 Total SS.

SERVICE BASINS – are discreet geographic areas of the Township whose boundaries are determined by the Authority Engineer that are used for planning purposes. Each service basin may contain one planned location for a pumping station that will collect all sewage by means of gravity sewer lines and convey it toward the county connection points for treatment by the ACUA.

SEWER or SANITARY SEWER – shall mean any pipe or conduit consisting in part of the sewer system used or useable for sewage collection purposes.

SEWER EXTENSION – shall mean the extension of any existing sewer system to provide service to an existing or proposed single dwelling, commercial use or development. It shall include all construction of sewers that are connected to the Sewer system by means of a force main and pumping station. Sewer extension may include gravity sewers, pumping stations, force mains, and appurtenances

utilized for the purpose of connecting or discharging into the existing sewer system. The installation of a lateral does not constitute a "Sewer Extension."

SEWER SYSTEM – shall mean all facilities as of any particular time, for collection, pumping and disposing of sanitary sewage or industrial waste, situated in the sewer area and/or operated by the Authority.

SEWERED AREA – shall mean that portion of the Township in which there is or shall be a sewage collection system constructed by the Authority or others, and that part of the area adjacent to the Township in which there shall be sewers constructed that connect to the collection system of the Township. The sewer area will conform to the Wastewater Management Plan (WMP) as amended for Egg Harbor Township.

"S.S." – (Suspended Solids) shall mean the laboratory determination of the dry weight expressed in milligrams per liter of solids that either float on the surface, are in suspension or are settleable and can be removed from wastewater by filtering through a Gooch crucible.

SHREDDED GARBAGE – shall mean garbage shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle having a dimension greater than one half inch (1/2) in any direction.

TREATMENT SURCHARGE – shall mean that amount charged to the Authority by the Atlantic County Utilities Authority (ACUA), to reflect actual treatment costs incurred by the ACUA. It is the difference between the estimated cost of treatment of sewage incurred by the ACUA for the previous calendar year and the actual costs determined by ACUA at the conclusion of the calendar year and billed by ACUA to the Authority for which the Authority is responsible to ACUA.

TOWNSHIP – shall mean the Township of Egg Harbor in the County of Atlantic, State of New Jersey.

TOXIC SUBSTANCES – shall mean any substance whether gaseous, liquid or solid, which when discharged to the sewer system in sufficient quantities may tend to interfere with any treatment process, constitute a hazard to recreation in the receiving waters of the effluent from the wastewater treatment plant, pose a hazard to people working in the sewer system, or constitute a hazard to fish or animal life.

UNSHREDDABLE GARBAGE – shall mean solid waste from the preparation, cooking and dispensing of food or food products and from the handling, storing, and sale of produce.

USER – shall mean any person discharging or permitting the discharge of wastewater to the sewer system.

WASTEWATER – shall mean the water carrying domestic, human or animal wastes from residences, building, industrial establishments or other places, together with such groundwater infiltration, industrial and commercial wastes as may be present.

WASTEWATER MANAGEMENT PLAN (WMP or 208 PLAN) – shall mean the plan that shows the sewer service areas within the Township that has been adopted by the NJDEP.

SECTION II GENERAL PROVISIONS

The Authority's purpose is to achieve its mission of providing public sanitary sewerage facilities to all improved properties within the areas of the Township designated as being in the Sewer Service Area as defined by the Authority's Basin Plan. The Authority has designed and adopted its Basin Plan to promote the orderly development of the Township's Master Plan. The Authority will from time to time extend its facilities at its expense in order to provide sanitary sewerage service to the residents of the Township. The Authority uses a Priority List to determine where to extend sewer lines at Authority expense and the order in which non-sewered areas will be provided service.

The Authority will not expend its funds to promote development or encourage the expansion of housing within the Township. The Authority's policy is to permit extensions of its system by developers when approved by the Commissioners and only when the applicant pays for all costs of the expansion. No facilities for distribution, collection or disposal of sewerage shall be constructed unless the Authority shall give its consent and issue a construction permit.

A. Determination of Availability

All persons (Applicants) desiring to connect to the Authority's sewer system shall make application to the Authority using the procedures outlined in Section III.

B. Connections to Existing Lines

The Authority Engineer will determine if there is an existing lateral that is available for the applicant's use. When no lateral exists, a new lateral may be installed at the applicant's expense. The procedures for connection to existing sanitary sewer mains are outlined in Section III.

C. Extensions of Sewerage Facilities by Others

Sewer lines may be extended by others at their expense with the approval of the Authority using the applications and procedures outlined in Section III. All sanitary sewer mains, force mains and related equipment installed under the provisions of these Rules & Regulations shall become the property of the Authority except in certain unique circumstances as determined by the Commissioners. The Authority shall have the right to use any completed portion of the system, during construction, without waiving its right to further testing and inspection or to order correction of any defects.

D. Building Sewer

All connections from the Authority's cleanout to an improved property that generates sewerage flow shall be installed by the property owner and maintained in good order. The applicant is responsible to comply with all regulations governing the design and installation of the building sewer and to obtain all necessary permits. All building sewers shall be installed in conformance with the Township Building Code, as well as be installed within the property boundaries and/or Township Right of Way. All connections to the sewer cleanout must be inspected by the Township Plumbing Inspector prior to backfilling the trench. In no instance shall the Authority be responsible for any breaks, leaks or blockages in the building sewer from the Authority's cleanout to the structure. The owner, occupant or other responsible person must arrange for all repairs to the

building sewer. Once connected, the customer is responsible for keeping the cleanout and cast iron inspection frame, if present, accessible at all times.

E. Mandatory Connection to the Sewer System

The Egg Harbor Township Sewer Connection Ordinance, Chapter 191 of the Code of the Township of Egg Harbor, requires all improved properties be connected to the sewer system when it is available and is hereby incorporated as a part of these Rules & Regulations. The owner of any property located along any sewer line in the Township on which a house, building or structure exists for use by habitation or commercial or industrial use, shall be required by these Rules & Regulations to connect into the sewer line within thirty (30) days after written notice that sewer service is available. The Authority shall take all appropriate action, including legal action to compel or complete such installation and connection and have the cost and expense thereof assessed against the property as a lien. The Authority will notify all affected property owners, in writing, when newly installed sanitary sewer connections become operational.

Upon written request by the owner, properties may be exempted from connecting to the sanitary sewer due to unreasonable access, including, but not limited to the following:

1. Inability to connect by gravity
2. Excessive trees or obstructions in the path of the proposed building sewer
3. Extreme circumstances requiring unusual or prohibitively expensive construction
4. Extreme distance of the property from the cleanout.

All requests for exemption will be reviewed by the Authority Clerk and Authority Engineer, however each request will be reviewed independently and formal action will be taken by the Board of Commissioners. Although the reasons above may be cause for an exemption, they do not automatically exempt properties and all situations will be reviewed on an individual basis.

Accounts exempted from connecting to sanitary sewer are not barred from connecting in the future. If a property owner chooses to connect after an exemption has been granted, the property owner must file a Connection Application. The property owner will be advised of the conditions of the lateral and if any repairs are to be made. Once the lateral is deemed operable, the property owner must obtain the Connection Permit, pay the Connection Fee at the current rate, as well as pay the Lateral Inspection Fee. Additionally, the cast iron inspection frame must be installed on the cleanout if it is not already present. The applicant must also obtain all required Township permits. (Connection Fees and Lateral Inspection Fees are more fully enumerated in Section IX)

F. Security of the System

Whenever any party causes or has caused any damage to the sewer system or facilities of the Authority, the party or parties causing such damage shall immediately notify the Authority of such damage. The Authority shall have the right to suspend future work on the project, revoke or suspend Authority permits and repair such damage or have such

damage repaired, and shall have the further right to recover the full cost and expense of such repairs, including, but not limited to, the charges for work performed by Authority employees and contractors for labor, materials, supplies and equipment used for such repairs from the party or parties causing such damage. The Authority acting through its Clerk and in conjunction with the Authority Engineer and Solicitor shall have the right to suspend all work relating to the sewer system or facilities and revoke all applicable Permits relating to the sewer system pending the repair of such damage and recovery of the Authority's costs and expenses relating to the damage and repair.

G. Discontinuation of Service

The Authority reserves the right to discontinue service to any customer who fails to conform to these Rules & Regulations, is a threat to the public health, safety and welfare, or fails to conform to the terms and conditions of their agreement with the Authority when such failure causes damage or potential damage to the Authority's system or its employees. The Authority shall determine the cost of such damage and bill the customer accordingly. If such bill is not paid within ten (10) calendar days from the date of the bill, legal action may be taken to enforce collection; or the Authority may resort to termination of the connection after giving twenty-four (24) hours notice.

H. Easements

All public sewers are to be constructed in a public right of way whenever possible. The use of easements for the extension of sanitary sewer lines is discouraged unless no reasonable alternative exists. The Authority will not assist the applicant in obtaining easements for any development. The easements must be obtained by the developer at the developer's expense. If the Authority Commissioners agree that an easement is the only reasonable means to provide sewer service necessary for a particular project then, as a requirement of final application acceptance, the following conditions must be met.

1. The applicant shall acknowledge its responsibility for all costs associated with obtaining the easement and complying with the requirements below, including the fees of the Authority's professionals. The applicant shall deposit sufficient escrow funds to pay the costs for work incurred by the Authority's professionals.
2. The Authority Solicitor, based on information provided by the applicant, shall prepare the easement document and the applicant and the affected property owners must accept the easement terms.
3. Easements shall be a minimum of twenty (20) feet wide. If the depth of the sewer line exceeds ten (10) feet the easement must be a minimum of thirty feet (30) wide.
4. The current property owner and any party having rights to the property such as a contract purchaser must grant the easement to the Egg Harbor Township Municipal Utilities Authority and to the applicant performing the sewer installation. The applicant must establish the property owners' willingness to grant the easement at the time of final application.
5. The Authority Solicitor and Authority Engineer must review and approve all easement details prior to application for final Authority approval.

6. The applicant must provide proof of property ownership and/or authorization to grant easement by preliminary title report in a form acceptable to the Authority Solicitor designating all titleholders, foreclosable interests, and prior encumbrances affecting the property on which the easement is sought.
7. If the Authority grants final approval of the application, such approval shall be specifically conditioned upon the applicant providing the Authority with a title insurance policy for the right of easement from an insurance company acceptable to the Authority's solicitor. Such insurance policy shall be for a minimum of \$100,000.00 or such other amount as determined by the Authority and shall insure that the easement is a valid, properly executed, acknowledged legal right that is non-foreclosable or extinguishable by a lien holder or record titleholder. In the event the applicant cannot secure the required insurance within forty-five (45) days from the grant of final approval, the final approval shall be voided.
8. The applicant shall be required to pay all costs associated with the title report, title insurance, recording fees, consideration for the easement right, the Authority's professional review fees including engineering and attorney review, and the Authority's solicitor's attendance at final closing and issuance of insurance for the easement.
9. The Authority shall accept the easement at the time of closing. All costs and fees shall be paid by the developer prior to or at the time of the Authority's acceptance of the easement and its submission for final recording.
10. The easement must contain a restriction indicating that no surface improvements including, but not limited to, building, sheds, decks, fences, trees, landscape improvements, etc., will be permitted in the easement area.

SECTION III APPLICATION PROCESS

Applications for connection to the sewer system, change of use, and extension of sewer facilities must be filed using forms provided by the Authority. These applications allow the Authority to determine sewer needs, availability of service, and the effect of the proposed connection, change or extension of the system and allow for the inspection and acceptance of the completed work. This section outlines the sequence of applications, supporting data and time frames involved in connection, change of use, and extension applications.

The Authority will grant approvals for connection to its system, and extensions of its system, to applicants who submit the necessary applications and fees and whose applications are reviewed and approved by the properly authorized persons.

The Authority's Engineer is authorized to approve applications for connection of individual residential or commercial units to existing lines of the system and Change of Use applications. These applications must meet all requirements for completeness and conformance to the requirements of the Rules & Regulations.

The Authority, acting through its Board of Commissioners shall be the approving authority for all sewer extension applications that require approval from the NJDEP except for an extension for an individual single family dwelling or commercial entity which may be approved by the Authority Engineer.

General Application Procedures

All applications shall be submitted on the appropriate and most current forms and shall conform to all of the requirements of the application and approved checklists.

A. Connection Applications

Applicants desiring to connect a single family home or business to the existing sewer system shall file an Application for Connection to the Existing Sewer System with the Authority. A completed application shall consist of all paperwork as requested on the Application Checklist as well as the appropriate fees. The Authority Engineer will determine if there is an existing lateral that is available for the applicant's use.

1. When an existing lateral is found, the Authority may have its Engineer, inspector or contractor verify that the lateral is in usable condition. Upon confirmation that the lateral is suitable for use, the applicant will be notified that a connection is available for use. If the lateral is damaged, it must be repaired prior to the issuance of a TCO or CO.
2. When no lateral exists or the existing lateral is damaged or unusable, a new lateral may be installed, if feasible, or the lateral may need to be repaired. Repairs to existing laterals or new lateral connections to existing sanitary sewer mains, if approved by the Authority Engineer, will be performed by the Authority contractor or a Pre-Qualified Contractor (see Section V, Pre-Qualified Contractors) at the expense of the applicant, including tapping, pipe, fittings and related materials, labor, inspections, permit fees and restoration of the streets.

property that is different from the flow that was authorized by the original application for connection. An additional connection fee may be assessed as part of the approval process for an incremental increase in sanitary sewer usage. Improvements such as grease traps may also be required depending on the type and intensity of the proposed use.

2. Change of Use applications will be reviewed within thirty (30) working days of receipt of a complete application.

C. Extension Applications

It is the intent of the Authority's application and review procedure to retain low operating costs while providing efficient service to current and future customers. The costs for proposed facilities to provide service to the applicant will not be borne by the current customers. The proposed facilities shall be constructed to minimize operation and maintenance costs and to assure that the facilities proposed will not only service the immediate area but also be designed to eventually accommodate the total service basin of the Authority.

Applications must be filed for any proposed extension of the sewer system. Preliminary Extension Applications are filed to determine if the extension is feasible and meets with the Authority's requirements. Final Extension Applications are submitted to provide the specific details of the proposed extension. The Authority Engineer and the Authority Clerk shall review all such applications to insure conformity to the requirements for extension of the system and submit a report to the Board of Commissioners on the application detailing the basis of the application. Preliminary and Final Applications shall be presented to the Commissioners for formal action after review and recommendation by the Authority Engineer and the Authority Clerk.

When the Preliminary or Final Application has been deemed complete, the applicant will be required to submit nine (9) copies of the completed application and all attachments on the specified size paper within sixty (60) days. Completed applications submitted by the 20th day of the current month will be heard at the next available meeting. If the nine (9) copies of the application are not received within sixty (60) days after the Authority Engineer deems it complete, the applicant will be required to submit a new Preliminary or Final Application and the review process will begin again. Applications deemed complete will be distributed to the Commissioners, with all review memorandums, during the first week of the month during which the application will be heard. Formal action must be taken on each application, by the Authority, acting through its Board of Commissioners.

D. Application Review Procedures

1. Preliminary Extension Application Review Procedures

The Authority Engineer's review of proposed facilities will not only investigate an application on its ability to provide service to the applicant's project, but also to verify that the system, as proposed, will assure the systematic construction of a unified sewerage collection system that will meet the Authority's needs for the

entire sewer service area in conjunction with the intent of the Basin Plan, the Priority List which is updated and adopted annually, and the health safety and welfare of the existing residents. When plans for future development necessitate the increasing of size of facilities, the Authority will require the developer to size any gravity line, force main or pumping station as the Authority deems necessary.

The applicant may also be required to design and construct a proposed facility in a manner other than that which is most economical for the individual applicant in order to meet the Authority's requirements for an efficient system. In general, the Authority will make no reimbursement for increasing of size of facilities or revisions to alignment or increased depth of facilities to be installed if, in the Authority's opinion, it is reasonable for the proper integration of the extension and proper functioning of the sewer collection system.

If the Authority determines that these changes cannot be accomplished at a reasonable cost to the applicant, then the Authority may allow a recapture of only the additional or incremental costs of construction of the facilities upgrade beyond that necessary to service their project exclusively. Any costs incurred by the Authority for negotiations or preparation of Recapture Agreements shall be paid by the applicant. This would include but not be limited to professional fees paid by the Authority and reasonable administrative fees. Recapture Agreements are more fully enumerated in Section IV.

Applicant should note that the Authority has a preference of gravity mains versus pumping stations and force mains, the use of Right of Ways in lieu of easements and a maximum depth of gravity mains within the existing Township Right of Ways of fifteen (15) feet. In addition, the Authority review of Preliminary Applications for sewer extension will address five primary components:

- a. **Capacity** – The facilities proposed by the project and all downstream facilities must have capacity to service the proposed project. Downstream capacity as used in this section means that sufficient capacity exists within the system to accept the additional flow and there is a path from the applicant's project to the ACUA Regional Connection Point that is either in place or that the Authority holds the permits for the construction of facilities necessary for the flow from the applicant's project to reach the Regional Connection Point. All upgrades required to ensure sufficient downstream capacity will be the applicant's responsibility.
- b. **Feasibility** – The Authority Engineer must deem the project as feasible based on the information provided by the applicant. The Authority Engineer will consider the feasibility of constructing the proposed facilities based on topographical considerations and the Authority's ability to maintain the system, and the ability to limit additional pumping stations or eliminate existing Authority pumping stations.
- c. **Improved Properties within Two Hundred (200) Feet** – The applicant will be required to submit a written discussion concerning all possible sewer connections to all improved properties within two hundred (200) feet of the project site as part of the Preliminary Application. A conceptual plan shall be included for providing sewer service to all

improved properties that are located within two hundred (200) feet of the applicant's property, as well as those improved properties located along all proposed gravity sewer lines. A determination regarding the servicing of properties within two hundred (200) feet will be made at the time of final approval.

- d. **Easements – Although the use of easements is discouraged, an easement may be deemed necessary.** Descriptions of all easements proposed by the project must be submitted in conjunction with preliminary approval.
- e. **Administrative Issues –** The application materials and all information submitted in conjunction with the application must be completed in their entirety and deemed complete by the Authority Engineer and Authority Clerk.

2. **Preliminary Extension Application – Authority Action**

Application packages will be presented to the Commissioners for approval when all preliminary checklist documents have been reviewed and deemed complete. The application must be consistent with all Authority rules and regulations in regards to the use of gravity sewer lines, improved properties in proximity to the project, easements, etc. The Authority Engineer and the Authority Clerk shall review all such applications to insure conformity to the requirements, for extension of the system and submit a report to the Board of Commissioners on the application detailing the basis of the application. The Authority Engineer must also verify that capacity is immediately available or that plans and provisions to construct any upgrades have been provided by the applicant.

All applicants for Preliminary Approval being considered by the Authority must be present or represented at the meetings where the applications are considered. If the applicant is unable to be present, then the applicant is required to designate a person(s) authorized to speak and bind the applicant during the review process and hearings. This designated person could be an attorney licensed to practice law in the State of New Jersey at the time of the meeting. A Designation of Representation form must be completed by the applicant and must be provided to the Authority at least two (2) days prior to the meeting during which the application will be heard.

The Authority Commissioners will make the decision to approve, table or deny the application after considering the criteria set forth above, the Authority Engineer report, and all facts and circumstances relating to the application including the health, safety and welfare of the residents of Egg Harbor Township. The Commissioners may grant Preliminary Approval for an extension application when they determine that the application meets all of the requirements set forth in the Authority Engineer's report and is in the best interest of the Authority's ultimate Basin Plan. The action by the Authority shall be memorialized by Resolution.

3. Final Extension Application Review Procedures

The final application package will consist of all information provided with the preliminary application package along with detailed engineering plans showing all proposed improvements. In addition, the applicant must provide a cost estimate detailing the costs associated with providing sewer service to all improved properties within two hundred (200) feet, a demonstration that the property owner is willing to grant an easement should one be required, and an acknowledgement that upgrades to downstream facilities will be completed should they be required. All downstream facility upgrades will be identified by the Authority Engineer in conjunction with the final application review.

The final application must be submitted prior to the expiration of the preliminary approval.

The Authority Engineer will review all information submitted with the final application. The Authority Engineer must also verify that capacity is available, that all permits and approvals by agencies having jurisdiction have been granted and that all easements have been submitted. Final Extension Applications will be presented to the Commissioners when the Authority Engineer determines that the final application checklist documents have been reviewed and deemed complete, the proposed project is feasible based on the information provided by the applicant and the application is consistent with all Authority policies in regards to the use of gravity sewer lines, improved properties in proximity to the project and the use of easements.

All Final Extension Applications must utilize the state plane coordinate system (NAD83) and the National Geodetic Vertical Datum (NGVD 29) for the horizontal / vertical datum, respectively.

4. Final Extension Application – Authority Action

All applicants for Final Approval being considered by the Authority must be represented at the meetings where the applications are considered.

If the applicant is unable to be present, then the applicant is required to designate a person(s) authorized to speak and bind the applicant during the review process and hearings. This designated person could be an attorney licensed to practice law in the state of New Jersey at the time of the meeting. A Designation of Representation form must be completed by the applicant and must be provided to the Authority at least two (2) days prior to the meeting during which the application will be heard.

The Commissioners shall determine the approval or denial of all applications brought before them based on their evaluation of the application, supporting documents, advice of the Authority's Clerk, Engineer and Attorney and their evaluation of the effect of the proposed project on the health and safety of the residents, the project's conformance with the Authority's Basin Plan, and the

efficient and proper operation of the system. The Commissioners will memorialize all actions by Resolution. All actions taken by the Authority are final, subject to the applicants' rights to seek reconsideration as set forth below. All approvals are conditioned upon receiving the necessary permits and endorsements from all governmental entities having jurisdiction such as the ACUA, NJDEP, US Army Corp of Engineers, Township, County and State. The Authority Engineer will be responsible for obtaining all such regulatory permits on behalf of the Authority but paid for by the applicant.

5. Time Frames for Authority Review and Approvals

The Authority Clerk and Authority Engineer will review all applications for completeness.

- a.** Preliminary and Final Extension Applications will be reviewed for completeness within sixty (60) working days. An application will be deemed incomplete if all submission requirements are not met. The applicant will have sixty (60) working days to resubmit revisions/corrections. (If revisions are not submitted within sixty (60) working days, the applicant is required to submit a new application, including new application fees) Revisions will be reviewed within forty five (45) working days of receipt. Resubmitted applications will be deemed complete or incomplete by the Authority Clerk and Authority Engineer within this forty five (45) working day period.
- b.** Preliminary Approvals issued by the Authority are granted for a period of one (1) year. If the project has not moved to the next phase of the approval process within the one-year period, the approvals shall be rescinded and the applicant will have to reapply unless the Authority grants an extension of the approval. An applicant desiring an extension of preliminary approval must apply and be approved in writing before the application expires. Extensions of approvals may be granted at the discretion of the Board of Commissioners taking into consideration the specific circumstances of the project.
- c.** Final Approvals issued by the Authority shall be limited to a maximum of two (2) years. If a project has not started, the Authority may revoke the approval. The two (2) year period will be counted from the date of approval by the NJDEP. In general, extensions to final approvals will not be granted. Should the Authority consider extending the approval due to extraordinary circumstances, the applicant will be required to pay all NJDEP fees along with a 1% administrative fee based on the NJDEP Construction Costs.
- d.** The Authority may table an application for any reason deemed appropriate by the Authority or at the request of the applicant. All tabled applications must be re-heard within six (6) months to keep the Preliminary or Final Application active. If the application is not reheard within the six (6) month time period the application must be resubmitted, including all application, review and escrow fees.

- e. An Applicant that disagrees with the Authority's actions as set forth in this Resolution or in connection with an application shall have the right to seek reconsideration of the Authority's action. Reconsideration must be sought by submitting written notice of the request for reconsideration to the Authority Clerk within thirty (30) days of the Authority action together with a detailed report stating what actions are challenged and setting forth the applicant's basis for disagreeing with the Authority's actions. All facts, plans, information, statements and reports of professionals supporting the request must be submitted to the Authority at the time the request is made. The Authority will act upon such reconsideration requests within sixty (60) days of receipt of the Applicant's request for reconsideration and report. The applicant's failure to request reconsideration within the thirty (30) days set forth above shall constitute an acceptance of the Authority's action.

6. Atlantic County Utilities Authority Review

The Authority will forward the approved application to the ACUA once final approval has been granted, all application materials have been approved, and the appropriate fees have been submitted by the applicant. The Authority will submit all documents to the ACUA for approval. In order to maintain consistency and prevent any confusion, the Authority will only seek approval for downstream facilities for the initial developer that submits the design for Authority final approval. Duplicate submissions to the ACUA for the same downstream facilities will not be processed. All submissions and permits will be in the name of the Authority, not the applicant.

7. NJDEP Review

The Authority will forward the approved application to the NJDEP after the ACUA grants its approval. All application materials and fees must be submitted to the Authority prior to submission. The Authority will only seek approval for downstream facilities for the initial developer that submits the design for Authority final approval. Duplicate submissions to the NJDEP for the same downstream facilities will not be processed. All submissions and permits will be in the name of the Authority, not the applicant.

SECTION IV

TECHNICAL STANDARDS FOR APPLICATIONS

- A.** All construction plans shall be designed in accordance with the Residential Site Improvement Standards, New Jersey Administrative Code, NJDEP regulations, New Jersey Pinelands Comprehensive Management Plan guidelines and these Rules & Regulations.
- B.** Plans shall contain a Title Block with all information pertinent to the drawing. The name of the Licensed Professional Engineer in charge of the work must be shown and the engineer's raised seal shall be affixed.
- C.** Plans shall include a key map from the tax map to show the relationship between this property and the Authority's facilities. The key maps shall be at a scale of 1"=600'. The limits of the project must be indicated and the development should be clearly depicted.
- D.** Both plan and profile views must be submitted.
- E.** Drawings shall be submitted on sheets measuring 24"x36". One (1) set of the engineering plans and all reports shall be submitted. Plans shall show clearly the location of all existing and proposed sewer lines. All pertinent general information such as streams, bridges, north arrows, etc., which might impact the facilities are required.
- F.** Drawings shall be at a scale of not less than 1"=50'. If required for clarity additional plans must be submitted to view the entire project and proposed connections to the Authority's system on a single sheet. If in the Authority Engineer's opinion details of areas of concern are required, additional plans at larger scale may be required.
- G.** All existing and proposed street names must be shown on the plans. The limits of all rights-of-way must be clearly shown on the plans. Privately owned streets shall be marked as such.
- H.** All existing and proposed easements must be shown. A meets and bounds description must be provided in conjunction with the application for preliminary approval.
- I.** The limits of all paved surfaces must be shown. A pavement section shall be included for each street affected. The applicant shall be required to contact the appropriate agencies for all public rights-of-way and determine the requirements for street openings and required restoration.
- J.** The size and material of all existing facilities must be shown. Size of all proposed facilities must be shown. Materials shall be assumed to conform with the requirements of the Authority unless specifically indicated otherwise.
- K.** Construction plans are intended to give the contractor constructing the facilities all information required for that construction. This information must be clearly indicated on

the plans so that the contractor in no case must scale distances to determine the location of facilities to be installed.

- L.** The plans must clearly indicate the horizontal alignment of the proposed sewer facilities and their relationship with any and all existing or proposed improvements. This will include but not be limited to the distance from centerline, curb line, buildings or other structures that are near the proposed facilities. All existing or proposed utilities that cross the sewer lines must be indicated.
- M.** Plans must include the location of all existing or proposed utilities within twenty-five (25) feet of the proposed sewer facilities. Overhead power lines must be shown when there is any need to comply with local or federal requirements.
- N.** All elevations must be based on NGVD 1929 Datum. The location and elevation of the nearest benchmark must be indicated in the General Notes for each sheet. The Engineer must establish adequate benchmarks for the area to assist the contractor in verifying grades. All utilities that cross the proposed facilities must be shown on the profile and their elevation given. Any facility whose depth is not known should be clearly indicated and a note added indicating, "The Contractor shall expose prior to construction and verify the elevation of these facilities."
- O.** The profile of the sanitary sewer lines must indicate length of pipe, size, material and slope of the line. Manholes must be clearly numbered and all invert information must be given for each manhole. Elevation of the existing grade must be indicated to the nearest 0.01 foot. Sewer inverts must be shown to the nearest 0.01 foot. The minimum cover for sanitary sewer shall be three (3) feet unless specific provisions are made for structural and thermal protection of the facilities.
- P.** Horizontal Separation of Utilities - A ten (10) foot horizontal separation shall be maintained between all water and sewer facilities wherever possible. All facilities shall be kept at least five (5) feet from the curb line or edge of pavement when installed parallel to the curb. Sanitary sewer mains shall be a minimum of ten (10) feet from the right-of-way line. Facilities shall not be installed under the curb, gutter or sidewalk without specific approval of the Authority, except when crossing perpendicular to these facilities.
- Q.** Vertical Separation of Utilities – At crossings all utilities should have a vertical separation of at least eighteen (18) inches. If the eighteen (18) inch separation is impossible to maintain then the utilities will be protected in accordance to the following schedule:
 - 1.** Sanitary sewer under water main, twelve (12) to eighteen (18) inches.
 - a.** Sanitary sewer must be PVC/concrete encased, ten (10) feet each side of crossing.
 - 2.** Sanitary sewer under water main, six (6) to twelve (12) inches.
 - a.** Sanitary sewer must be, DIP.

- 3.** Sanitary sewer over water main, six (6) to twelve (12) inches.
 - a.** Sanitary sewer/concrete cradle, five (5) feet each side.
- 4.** Sanitary Sewer under storm sewer, twelve (12) to eighteen (18) inches.
 - a.** Storm sewer/with concrete cradle, ten (10) feet each side.
 - b.** Sanitary sewer/concrete encased, ten (10) feet each side of sanitary sewer DIP from manhole to manhole.
- 5.** Sanitary Sewer under storm sewer, six (6) to twelve (12) inches.
 - a.** Storm sewer/with concrete cradle, ten (10) feet each side of sanitary sewer.
 - b.** Sanitary sewer, DIP from manhole to manhole.

SECTION V PRE-QUALIFIED CONTRACTORS

The Authority pre-qualifies prospective contractors for the installation of sanitary sewer laterals and/or other sewer related work at the request of the property owner or on behalf of the Authority. The pre-qualification period will run from April 1st through March 31st. A contractor may seek to be placed on the list of pre-qualified contractors at any time during that time period, however, the list expires on March 31st, regardless of when approved.

At an applicant's request, the Authority will make available the current list of pre-qualified contractors.

A. Contractor Qualification

1. A contractor must re-qualify every year. At any time over the course of the pre-qualification period, a contractor may submit a completed pre-qualification package to the Authority in order to be included on the Authority approved list. Any contractor applying to be pre-qualified shall not commence with any work until the submitted information is reviewed and approved by the Authority and formal notification of the Authority's decision is forwarded to the contractor.
2. A contractor must be pre-qualified prior to being eligible to perform a connection or work on the Authority system for any project. A contractor may request to be qualified for a specific lateral installation or annually for all lateral installations. All annual pre-qualifications will expire on March 31st, regardless of when they were pre-qualified. Contractors must re-apply for pre-qualification annually.

B. Type of Work

1. Removal and installation of laterals and cleanouts
2. Excavation and backfilling
3. Temporary and final hot mix asphalt paving for restoration of roadways disturbed by the lateral installation
4. Restoration of other surfaces disturbed by the lateral installation (e.g. lawns, sidewalks and driveways)
5. Removal and disposal of materials
6. Dewatering (if and when required)
7. Traffic control
8. Mobilization
9. Testing (ex: air, mandrel, video)

C. Essential Requirements and Information to be Submitted:

1. Certificate of Surety: The contractor must submit a notarized statement from a surety company whose name appears on the current list of the Treasury Department of the United States as acceptable as a surety on federal contracts stating the contractor's bonding capacity. If the contractor wishes to be considered for an annual pre-qualification the bond capacity must be equal to or

greater than \$1,000,000. If the contractor wishes to be considered for a single project, a bond in the amount of \$100,000 must be provided to the Authority prior to the commencement of work.

2. Corporate Ownership: The contractor must submit a statement of corporate ownership pursuant to Section 1 of P.L. 1977, c. 33 (C.52:25-24.2).
3. Subcontractors: The contractor must submit a listing of subcontractors that may be used pursuant to Section 16 of P.L. 1971, c. 198 (C.40A:11-16).
4. Business Registration: The contractor must submit a copy of the business registration certificate for the contractor and any subcontractors pursuant to Section 1 of P.L. 2001, c. 134 (C.52:32-44).
5. Insurance: The contractor must provide proof of liability insurance policy with a limit of at least \$1,000,000 per occurrence and \$2,000,000 aggregate.
6. Statement of Responsibility: The contractor must have satisfactorily completed a minimum of five (5) projects including the type of work described in Section V (A) within the last five (5) years. The work must have been completed in a satisfactory and workmanlike manner and on schedule. The contractor shall provide information related to each project on the Statement of Responsibility and Experience Form in the Contractor's Pre-qualification Statement.
7. Equipment Certification: The contractor must have the required machinery immediately available in order to complete the work as described in Section V (A).
8. Affidavit: The contractor must certify that itself, its parent company or subsidiary and/or any owner, stockholder, officer, partner or employee of the contractor is not listed on the State of New Jersey Treasurer's List of Debarred, Suspended or Disqualified Bidders and that all statements contained in the application for the Contractor's Pre-qualification are true and accurate.
9. Personnel Experience: The contractor project manager and superintendent must have a minimum of ten (10) years experience on projects comparable to the work described in Section V (A).

If the contractor is not able to comply with the above mentioned requirements, then the contractor shall submit additional information as determined by the Authority to demonstrate that the contractor has the ability to satisfactorily perform the work required by the contract.

D. Submission Information

1. The contractor shall submit four (4) copies of the required pre-qualification information.
2. The Authority reserves the right to disregard incomplete submissions.
3. Contractors must submit for pre-qualification on an annual basis, including those who may have been pre-qualified in a previous term. The annual qualification period shall run from April 1st to March 31st on a yearly basis. Submission of an application for consideration for pre-qualification can be submitted at any time during the annual period, but must be renewed every year prior to March 31st.
4. The contractor shall provide all other information requested in the Authority's Contractor's Pre-qualification Statement.

E. Notification of Pre-qualification

1. Notification as to whether a contractor has or has not been pre-qualified will be made within thirty (30) days after the receipt of a complete and responsive application. Notification will be made via certified mail only to the address provided on the contractor's Pre-qualification Statement Forms.

F. Protest of Decision

1. All procedures for a request of reconsideration shall be made in accordance with NJSA 40A:11-31 and as follows: Any prospective contractor who is dissatisfied with a decision may upon receipt of notice thereof, request in writing a hearing of the matter before the Authority Commissioners. The request shall be filed with the Authority Engineer and the Authority Clerk. The hearing shall be scheduled to take place during the earliest scheduled monthly Authority meeting.
2. The Authority Commissioners shall hold a hearing at which the prospective contractor shall be entitled to be heard and to submit additional information.
3. The Authority Commissioners shall review the responsibility of all prospective contractors who have filed statements or answers, considering both the statement, answers and any additional information given at the hearing, and shall certify to the contracting unit concerned, its decision as to the original classifications or reclassifications, if any. The decisions shall be made by a majority vote.

G. Contractor Responsibilities

1. Respond to and negotiate with the property owner for sewer work when contacted. The authority will not be involved in requesting, obtaining or negotiation of pricing between the contractors and the sewer applicant.
2. The contractor is not permitted to commence work until:
 - i. A Township and/or County road opening permit has been issued
 - ii. Copies of all permits and markout request must be submitted to the MUA
 - iii. Arrange construction schedule with MUA Engineer
3. Failure to comply with these requirements may disqualify the contractor from future work.
4. The MUA must accept the work performed prior the applicant being issued a Connection Permit.

SECTION VI DESIGN CRITERIA FOR SEWER SERVICE

A. Gravity Sewer Mains

1. Sanitary sewer mains shall be a minimum size of eight (8) inches and shall be designed in accordance with all requirements of federal, state and local agencies. Gravity sewer mains shall be designed with a minimum hydraulic slope that meets NJDEP standards with a mean velocity of not less than two (2) feet per second and not more than ten (10) feet per second when flowing full or half full based on a manning roughness as listed in Table 7.1 in N.J.A.C. 5:21-7.1.
2. If possible, the sanitary sewer will be generally designed to remain in the center of the Right-of-Way. The sewer shall be kept a minimum of five (5) feet from the curb.
3. Sewers shall be maintained a distance of fifteen (15) feet from all buildings where the utilities are parallel to the building and at least ten (10) feet from the closest point on the building. In no case shall the utility be closer to the foundation than the difference in elevation between top of the footing and the invert of the utility plus five (5) feet.
4. Sewer facilities shall not be installed between two buildings less than thirty (30) feet apart. The applicant must show all improvements in areas of this nature to include sidewalks, decks, raised planter beds, etc. The applicant must indicate how this area will be restricted from the construction of any surface improvements in the future.

B. Force Mains

1. Sanitary sewer mains shall be a minimum size of eight (8) inches and shall be designed in accordance with all requirements of federal, state and local agencies. Force mains shall be designed with a minimum hydraulic slope that meets NJDEP standards with a mean velocity of not less than two (2) feet per second and not more than ten (10) feet per second when flowing full or half full based on a manning roughness as listed in Table 7.1 in N.J.A.C. 5:21-7.1.
2. Sanitary sewer force mains shall be located within the public right-of-way or an approved and fully executed easement.
3. Pipe runs shall be straight and true with a minimum number of horizontal or vertical bends.
4. Force mains may not be located in a common trench with gravity mains. Force mains shall be offset from the gravity line by a minimum of ten (10) feet horizontally.
5. All force mains shall have a minimum of four (4) feet of cover.
6. Properly designed air release valves shall be provided on the high points of the force main.

C. Manholes

1. Manholes shall be spaced a maximum of four hundred (400) feet apart for sewers eighteen (18) inches and less. Manholes shall be provided at any change in pipe size, vertical or horizontal alignment or wherever a lateral greater than six (6) inches connects to the Authority's system.
2. Manholes shall be installed at the end of each sewer line, at all changes in grades, size or alignment, and at all intersections. Adequate provisions shall be made for ventilation. Maximum absorption shall be nine (9) percent in accordance with ASTM C478, Method A.
3. All manhole locations must be accessible by vehicles for maintenance. If a manhole must be located outside of an improved roadway an all weather surface drive must be provided, within a recorded easement, to allow the Authority access to the manhole. The access roadway should be at least ten (10) feet wide and curves should be designed for a radius of thirty (30) feet (AASHTO-SU) design vehicle. Long or curving access roads will require an area for the truck to turn around.
4. If calculations indicate that any portion of the frame and cover will be inundated during a Ten-Year storm, the frame and cover must be water tight in accordance with the Technical Specifications for Watertight Frames and Covers conforming to ASTM C923.
5. In general, the connection of a sewer lateral to a manhole will not be permitted. No lateral should be connected to the main line within five (5) feet from a manhole.
6. Manholes for sixteen (16) inch and smaller pipe shall have a forty-eight (48) inch inside diameter. For pipe larger than sixteen (16) inches, manholes shall have a sixty (60) inch inside diameter. Where a second sanitary sewer line enters a manhole, the invert on the second sewer line shall enter the manhole at least 0.1' higher than the invert of the main sewer line and shall enter the line of flow of the main sewer line with as near a full sweep 90° bend as possible. In no case shall a second line be allowed to intersect with this main line at an angle less than 90° with the outlet portion of the main line. If alignment and slope allow, the sewer line shall be laid through the manhole. A drop of 0.1' will be required from invert to outlet where the sewer main cannot be laid through the manhole. All manholes are to have a formed concrete bench.

D. Sewer Laterals

1. Sewer laterals shall be a minimum of six (6) inches in diameter with a separate lateral being provided for each structure/improved property. Details as to slope, type of cleanout, location of cleanout, etc., shall be shown on the plan and conform to the typical details drawing prepared by the Authority Engineer.
2. All cleanouts must be fitted with a cast iron inspection frame (Neenah Cat# 1975A or approved equal). All sewer cleanouts must be located in the public right of way unless the Authority or its professionals specifically authorize a deviation in advance of construction.

3. No sewer cleanout shall be located in an area subjected to vehicular traffic or located in a sidewalk, driveway apron or paved roadway. Where curbs and sidewalks are present, the cleanout shall be located in the park strip between the curb and sidewalk. In the event the Authority becomes aware of a sewer cleanout that is located in a place not permitted by this section, The Authority Engineer will inspect such cleanouts to determine the degree of non-compliance and the circumstances surrounding the cleanout placement. On a case by case basis, the Authority Engineer will use its discretion to determine if the cleanout should be left in place, left in place and repaired, or relocated. The Authority Engineer shall consider the condition of the cleanout, risks posed by its non-compliance, ease of relocation and budgetary issues associated with repair, relocation or other corrective measures. If the Authority Engineer determines that the cleanout placement was intentionally in violation of this section, The Authority may seek reimbursement of its reasonable costs incurred from the party(s) responsible for the improper cleanout placement.
4. The cleanout within the public right-of-way serves as the delineation point between the Authority's system and the customer's privately installed, owned and maintained building sewer. In the event no cleanout exists within the public right-of-way, the delineation point between the Authority's system and the customer's private system shall be the customer's property line.
5. The Authority's ownership notwithstanding, the customer is required to maintain the cleanout in good condition and keep it clear of obstructions. No cleanouts shall be buried or otherwise situated below grade.
6. No trees shall be planted within ten (10) feet of the sewer lateral.

E. Separate Laterals Required

Each residential living unit or commercial non-living unit shall have a separate lateral for its connection to the Authority's system. In some situations, an existing or proposed residential or commercial structure may not have reasonable access to the public sewer system. The Authority, at its option, may allow two units to connect to a single lateral. The following conditions must be present or occur if this method of connection is to be permitted.

1. If the subject property is located near a large body of water such as a lake or major stream where the use of a septic system would be the only alternative for sanitary sewerage service.
2. If the subject property is commercial and located in an area where it is not feasible to extend a second sanitary sewer line or have a second appropriate cleanout installed.
3. All affected property owners shall execute a written agreement establishing the use of a common lateral. This agreement to use a common lateral for connection to the sewer system shall run with the land and may not be terminated without agreement by all affected property owners and the Authority.
4. A written document is to be executed by the property owners and the Authority placing the maintenance responsibility of this installation with the property owners, not the Authority.

5. In the Agreement between the affected property owners, the Authority must be granted a perpetual right of access to the properties involved for the sole purpose of access to protect the health, safety and welfare of local residents and the environment.
6. Neither the Authority nor the Township of Egg Harbor shall have any responsibility or obligation to maintain, repair or service the private laterals.
7. The Authority shall have the exclusive discretion to determine who shall be granted access to connect to the private lateral.

F. Extension of Sewer Lines that Pass Vacant Ground

1. The Authority will not provide a lateral for vacant property when constructing sewer lines on Authority funded projects. The Authority will attempt to notify owners of vacant property affected by the project. The property owner can submit a Connection Application and pay to have a lateral installed.
2. Private developers will not be required to install sewer laterals to vacant properties without adequate compensation to the contractor performing the sewer installation. A property owner may request to have a lateral installed on vacant property by filing a Connection Application. The Authority Engineer will determine the feasibility of the request. Should the request be feasible, the Authority Engineer will request pricing from the developer's contractor. Should the property owner decide to have the lateral installed, the owner shall deposit with the Authority Clerk a certified check made payable to the contractor for the cost of the lateral installation. The owner will be required to sign a Lateral Installation Estimate. The Authority Engineer shall authorize the contractor to perform the work and release the check to the contractor once he deems that the work is complete and acceptable.

G. Extension of Sewer Lines that Pass Improved Property

1. During the construction of sanitary sewer lines by the Authority, each improved property, within the boundaries of the project, will be provided with one (1) sewer lateral. The property owner may submit a Connection Application to request additional laterals be installed at the property. The Authority Engineer will determine the feasibility of the request. (Refer to Connection Applications, Section III for details)
2. During the construction of sanitary sewer lines by a developer, all improved property along all proposed gravity sewer lines will be provided with one (1) sewer lateral. Each improved property within two hundred (200) feet of the project may be provided with one (1) sewer lateral. The cost of one (1) sewer lateral per property will be the responsibility of the developer. Additional laterals may be installed at the request of the property owner by filing a Connection Application to request the additional lateral. The Authority Engineer will determine the feasibility of the request. Should the request be feasible, the

Authority Engineer will request pricing from the developer's contractor. Should the property owner decide to have the lateral installed, the owner shall deposit with the Authority Clerk a certified check made payable to the contractor for the cost of the lateral installation. The owner will be required to sign a Lateral Installation Contract. The Authority Engineer shall authorize the contractor to perform the work and release the check to the contractor once he deems that the work is complete and acceptable.

H. Pumping Stations

When a pumping station is required to be constructed to provide for the connection of a sewer extension to the sewer system, this facility shall be designed in conformance with these and all other applicable regulatory standards:

1. General Information

- a.** The Authority Engineer for the Authority shall approve all submitted designs.
- b.** When a pumping station is required to be constructed in association with a developer's proposal to extend the sanitary sewer system, the facility shall be designed in conformance with the requirements outlined within this document.
- c.** Sewage pumping station and force main design shall meet applicable design criteria as provided by the NJDEP in the "Rules and Regulations for the Preparation and Submission of Plans for Sewer Systems".
- d.** Design plans, along with supporting sewage flow and hydraulic calculations, shall be submitted to the Authority. All design information submitted must be signed and sealed by a professional engineer licensed in the State of New Jersey.
- e.** All pumping station components shall be located outside of the travel lane and shoulder of roadways.
- f.** The minimum easement size for all pumping stations shall be one hundred (100) feet by one hundred (100) feet.
- g.** Clear access for a service vehicle to park out of the roadway to perform pump removal and station maintenance must be provided. Pumping station location shall not be subject to flooding.

2. Pumps and Wet Well

- a.** Wet well capacity shall be designed to accommodate the ultimate capacity of the influent sewer for the designated sewage basin. Sufficient depth shall be provided for the pump operating range to ensure there is a minimum of one (1) foot of freeboard below the influent invert.
- b.** Two (2) submersible pumps, each designed to handle peak flows equivalent to 2.5 times the average daily flow for a ten (10) year period hence shall be provided. A third pump, of identical design performance, shall be provided to the Authority as a spare unit.

- c. One complete set of manufacturer's recommended spare parts for each pump shall be provided. Any special tools required to do equipment maintenance must be provided.
- d. The floor of the wet well shall be sloped at least forty-five (45) degrees toward pump suction to prevent solids accumulation.
- e. The interior of the wet well shall be provided with a PVC liner (Ameron PVC T-Lock Liner or approved equal).
- f. The wet well influent line shall be equipped with a stainless steel bar screen (Halliday Series B4B or approved equal) or stainless steel influent baffle.
- g. Approved submersible pumps from only the following manufacturers may be utilized: Barnes, Flygt, Cornell, or Vaughan. The pumps shall be operated in the manufacturer's preferred operating range. This range shall be indicated on the selected pump curve. Pumps shall operate under positive suction head. Pumps shall be equipped with three phase 480-volt electric motors unless otherwise permitted.
- h. The minimum acceptable pump operating range shall provide for a ten (10) minute detention time at the daily average flow condition. A minimum depth of three (3) feet shall be provided to ensure that both pumps remain submerged during normal operation. The design engineer shall demonstrate that the pump system will not exceed the maximum rated motor starts per hour.
- i. Pump motors shall be housed in either air or oil-filled watertight casings. Air-filled motors shall have insulated windings and be moisture resistant. Oil-filled motors shall have properly designed insulation and temperature sensors.
- j. An intrinsically-safe control module and relay shall be supplied for each pump.
- k. Electric motors shall be located where they are protected from flooding. Electric motors and electrical power equipment should not be installed in subsurface chambers. Where installation in such a location is necessary, the motors and equipment shall be of the explosion-proof and damp-proof type. All electrical equipment and work shall comply with Fire Underwriters' regulations for the location involved and with the National Electric Code.
- l. The pump discharge lines shall be class 53 cement lined ductile iron pipe.
- m. A non-sparking stainless steel pipe guide rail pump removal system is required. A cable guide pump removal system will not be considered. Stainless steel intermediate guide rail supports shall be provided at a minimum of twelve (12) feet apart unless otherwise recommended by the manufacturer.
- n. The pump removal system shall be a stainless steel chain suspended from a stainless steel hook located in the opening hatch. The chain shall be attached to the pump with a stainless steel shackle. There must be separate chains for each pump.
- o. Wet well hatches shall be U. S. F. Fabrication or approved equal.

- p. All vault penetrations shall be precast in place. All vault penetrations shall be sealed with Kor-N-Seal flexible rubber gaskets or approved equal.
- q. A six (6) inch aluminum vent pipe shall be provided and extended from the side of the wet well wall. Vent pipe to be P & K Pole Products, Inc Model 64 1/28/PB-1 or approved equal. All aluminum in contact with concrete shall receive a heavy coating of bitumastic paint.
- r. All concrete wet well joints shall be sealed with double layer of 2" Butyl sealant.
- s. The wet well exterior shall be coated with two (2) coats of bitumastic coating.
- t. All hardware and other basic mechanical parts (not including piping and valves) internal to the wet well and valve vault shall be 316 stainless steel, including float hangers, anchor bolts, cable grip systems etc.

3. Valve Vault

- a. All valves shall be provided in an enclosed detached valve vault.
- b. Valve vault hatches shall be U. S. F. Fabrication or approved equal.
- c. Two (2) swing check valves shall be provided, one for each discharge line. Check valves shall be Golden Anderson or equal ball check valves.
- d. Two (2) isolation valves shall be provided, one for each discharge line. Isolation valves shall be DeZurik or equal plug valves. Gate valves, if approved, must be of the non-rising stem type.
- e. Two (2) pressure gages shall be provided, one for each discharge line.
- f. One (1) bypass connection with a gate valve shall be provided. Hose fitting to be included.
- g. Operating wrenches shall be provided for all valves.
- h. Pipe supports shall be concrete piers.
- i. Parallel to the pipeline all flanges to be at least one (1) foot from vault walls. All flanges are to be minimum eighteen (18) inches from the floor of the vault. All valve bodies or flanges shall be situated so they are not less than eighteen (18) inches from the vault walls.
- j. The valve vault shall drain to the pump station wet well. The piping shall be PVC schedule 80. The floor of the valve vault shall be sloped sufficiently to provide drainage to the drain pipe.
- k. A four (4) inch PVC schedule 80 vent pipe shall be provided through the valve vault lid.
- l. The minimum inside height of the vault shall be five (5) feet.
- m. All vault penetrations shall be precast in place. All vault penetrations shall be sealed with Kor-N-Seal flexible rubber gaskets or approved equal.
- n. All concrete wet well joints shall be sealed with single layer of 1 1/2" Butyl sealant.
- o. The valve vault exterior shall be coated with two coats of bitumastic coating.
- p. All hardware and other basic mechanical parts (not including piping and valves) internal to the wet well and valve vault shall be 316 stainless steel, including float hangers, anchor bolts, cable grip systems etc.

4. Force Main Design

- a. All force mains shall be designed to produce a velocity not less than two (2) feet / second and not to exceed eight (8) feet / second at normal pumping rates.
- b. Force mains shall be constructed of ductile iron pipe or bell and spigot PVC C-900 pipe.
- c. Properly designed air release valves shall be required on the high points of the force main. When required, air release valves shall be Crispin Sewage Air Release Valve.

5. Basic Electrical

- a. All electrical enclosures, shall be stainless steel with a painted coating.
- b. All conduit exiting the wet well or valve vault shall be PVC coated (both inside and outside) galvanized rigid steel conduit.
- c. Minimum conduit size shall be one (1) inch.
- d. No conduit shall be more than one half (1/2) full of conductor(s).
- e. Separate electrical conduits shall be installed for each pump. A separate conduit shall be supplied for the level control floats. A separate conduit shall be supplied for the level transducer. The level transducer conduit shall run directly to the control panel. All other conduits shall exit the wet well and run directly to an explosion proof enclosure.
- f. The explosion proof enclosure shall be attached to the top of the wet well lid. An air gap shall be provided from the conduit extending out of the wet well and prior to the conduit entering the explosion proof enclosure.
- g. Intrinsically safe wiring shall be located just below the control panel.
- h. All wires entering and exiting the enclosure shall land on terminal blocks.
- i. All hardware, unistrut, anchor bolts etc. shall be 316 stainless steel.

6. Control & Monitoring System

- a. The pump control system shall be manufactured by USEMCO, Inc. or approved equal. All control and motor panels shall be wall mounted unless otherwise required by the manufacturer.
- b. Automatic monitoring alarms, operating independently of the station power, shall be installed to give warning of high water, low water, normal power failure and pump failure. Remote alarm system to be provided shall be Mission Model M-110 Series.
- c. The following components are required to be included:
 - i. An Automatic Duplex Pump Control Center, mounted in a Nema 12 enclosure.
 - ii. The Control Center shall be equipped for the required power supply depending upon the pump equipment selected and the electrical service required to accommodate the pumping criteria.
 - iii. One (1) main panel circuit breaker shall be provided.
 - iv. Individual breaker-disconnects for each pump.
 - v. One (1) U.L. approved intrinsically-safe control module and relay for each pump.

- vi. All pumps designed to be operated at a constant speed shall be provided the DCC Duplex Pump Controller Model DPC II.
- vii. All pumps designed to be operated at a variable speed shall be provided a variable speed controller manufactured by USEMCO Sentry and variable speed drive manufactured by Benshaw.
- viii. Automatic electric pump alternator and pilot relays.
- ix. One (1) green pump-running light for each pump.
- x. One (1) special hand-off-automatic select switch mounted on the inner door for each pump.
- xi. Test switches for each liquid level circuit.
- xii. Two (2) mechanically interlocked non-automatic trip circuit breakers to be used as a transfer switch.
- xiii. Two (2) elapsed time meters, one for each pump, wired to indicate actual pump running time.
- xiv. A duplex convenience outlet supplying 15 amps at 115 volts.
- xv. Lightning arresters to protect motors and control equipment from lightning induced line surge. Lightning arrestor shall be installed on the exterior of the control building.
- xvi. Phase failure relays (where required).
- xvii. Condensation heaters to keep moisture from condensing in the control panel.
- xviii. All necessary circuit breakers.
- xix. One (1) complete set of shop and as-built drawings for all pumping station components.
- d. An empty three-quarter (3/4) inch PVC conduit shall be installed from the closest telephone pole to the Pump Control Center panel.
- e. A primary wet well level detection system shall be provided. The primary system shall consist of a submersible wetwell level sensing transducer. The transducer unit shall be a WIKA Model LS-10 or approved equal. An anti-clog attachment must be included and shall be a WIKA LevelGuard.
- f. A back-up wet well level detection system shall be provided. The back-up system shall consist of five mercury floats which shall monitor, High Water Level, Lag Pump On, Lead Pump On, All Pumps Off, Lower Water Level.

7. Control Building & Miscellaneous Equipment

- a. A concrete block building shall be provided to house the stand-by generator unit and all control and drive panels associated with the operation of the pump station. Approximate size of the building shall be a minimum twenty two (22) feet long by fifteen (15) feet wide.
- b. A six foot (6) high chain link fencing enclosure must be provided. The enclosure shall include the Control Building, Wet Well and Valve Vault.
- c. Adequate fresh-water facilities shall be provided to permit wash down and cleaning operations at all pumping stations. No connections between fresh-water and sewage pumps or pipes shall be permitted. The water

supply shall be properly protected by an approved backflow prevention device acceptable to the NJDEP.

- d. Taps supplying non-potable water shall be clearly labeled “Unfit for Drinking”.
- e. A portable adjustable stainless steel hoist which has an integral base that is mounted to the top slab shall be provided. The hoist shall be manufactured by Thern or approved equal.
- f. One overhead eight (8) feet by seven (7) feet garage style type door shall be provided. Overhead door to be of fiberglass construction.
- g. One personnel entry door thirty six (36) inches wide shall be provided. Personnel entry door shall be a hollow steel door with a steel frame.
- h. The control building shall include the provision of a gypsum board ceiling. The ceiling shall be taped and given three (3) coats of spackle and painted. All interior walls shall also be painted.
- i. Control building shall include an exhaust fan with thermostat. Duct work and louvers shall be included where necessary.
- j. Four (4) banks of fluorescent lighting shall be provided within the interior of the control building.
- k. A blower radiant heater shall be provided within the interior of the control building.

8. Emergency Generator and Transfer Switch

- a. All pumping stations are required to be equipped with a permanent stand-by engine generator and automatic transfer switch, Cummins Onan or approved equal, sized to maintain complete operational capability during any failure of the primary power source. Stations shall be equipped as follows:
 - i. Diesel-powered generators are acceptable unless there is reasonable access to a natural gas main.
 - ii. Sized to run both pumps at the same time; one pump may delay start.
 - iii. An engine stop-start control system mounted on the generating set.
 - iv. Fuel tank sized to provide forty-eight (48) hours of operation under full load. The fuel tank provided shall be a double walled unit. The fuel tank shall also be equipped with a low fuel alarm.
 - v. The oil and coolant drains shall be extended beyond the generator framework and shall be equipped with a ball valve.
 - vi. Low coolant level shut down switch.
 - vii. Coolant heating system.
 - viii. Batteries and charging system.
 - ix. Five (5) year warranty period.

I. Grinder Pumps

A grinder pump is a customer owned and maintained sewerage pump that is used to connect an improved property to the Authority’s system when a gravity connection cannot be made. The Authority will not approve the use of grinder pumps for sewage

discharge to its system if there is a reasonable alternative option available to provide sewer service with a gravity connection. When no suitable gravity sewer option is available, the Authority will allow the use of grinder pumps with the following conditions:

1. New Construction

- a. The Authority must receive notice that the applicant intends to use a grinder pump.
- b. The applicant shall acknowledge that the Authority is not responsible for the purchase, installation, maintenance or repair of the grinder pump.

2. Existing Structures

- a. In the event that sanitary sewer is extended past an improved property, the Authority will supply the initial grinder pump provided the property owner connects to the sanitary sewer within the required time frame as required by Township Ordinance. If said property is not connected within the required time frame, and/or approved extension of time, the Authority will not provide the necessary grinder pump.
 - b. The property owner must sign a release which states that they understand that the only way their home can be connected to the sanitary sewer is by using the individual grinder pump. In addition, the Authority will provide the initial pump, container and controls. However, the Authority will not install the pump nor be responsible for the maintenance of any pumps or equipment which will be located on the private property nor will the Authority be financially responsible for the replacement of the pump or any other components after the initial installation.
- 3.** The connection of the grinder pump shall be made in a manner acceptable to the Authority Engineer and the Township's Plumbing Inspector.
- 4.** A representative of the Authority shall witness and/or inspect the work for the connection to the sewer system.

J. Materials for Sewer Construction

All materials included in this Specification shall conform to the latest editions of applicable ASTM, AWWA, ASA and ANSI Standards. Pipe classes indicated shall be considered minimums.

The planning, design, construction, installation and modification of any treatment works or sanitary system shall be in accordance with the applicable NJDEP rules implementing the New Jersey Water Pollution Control Act and the New Jersey Water Quality Planning Act and for items not covered by NJDEP rules, with ASCE Manual on Engineering Practice No. 37, and with the Pinelands Comprehensive Management Plan.

It shall be the responsibility of the Design Engineer to design the sewer system in accordance with the latest appropriate design standards and for the actual site conditions. The design will be reviewed by the Authority Engineer as part of the drawing review process.

1. Gravity Sewer Pipe

a. Polyvinyl Chloride (PVC) Sewer Pipe

All PVC pipe furnished under this Specification shall be manufactured in strict accordance with ASTM D3034 & D2321 with a minimum wall thickness designation of SDR 35 for four (4) inch through fifteen (15) inch diameter pipe. PVC pipe installed at a depth greater than ten (10) feet shall be SDR-26. Eighteen (18) inch and larger diameter pipe shall meet the requirements of ASTM F679 or UNI-BELL UNI-B-9. PVC pipe shall have bell and spigot ends and “o” ring rubber gasketed joints.

The plastic material from which the pipe and fittings are extruded shall be impact types of PVC, unplasticized, having high mechanical strength and maximum chemical resistance conforming to Type 1, Grade 1 of the specification for rigid polyvinyl chloride compounds, ASTM D1784.

Pipe shall be free from defects, such as bubbles or other imperfections, in accordance with accepted commercial practice. Test results demonstrating that the pipe meets ASTM D2444 for impact and ASTM D2321 for deflection and pipe stiffness, shall be provided when requested by the Authority.

Joints shall conform to ASTM D3212. Rubber ring gaskets shall conform to ASTM F477. The gasket shall be the sole element depended upon to make the joint watertight. Nominal laying lengths shall vary according to the manufacturer but in general only full lengths shall be used except for fittings and closure pieces. Fittings shall have the same structural qualities as the adjoining pipe.

b. Ductile Iron Pipe (DIP)

This specification shall cover all sizes of ductile iron pipe thirty six (36) inch diameter and smaller.

All ductile iron pipe furnished under this Specification shall be manufactured in strict accordance with ANSI/AWWA C151/A21.51, shall be unlined and shall conform to the following additional requirements:

- i.** Push-on joint single gasket or mechanical joint single gasket conforming to the requirements of ASA A21.11.
- ii.** Pipe shall be furnished with a minimum thickness class of Class 52 except Class 50 shall be permitted for residential improvements in accordance with the N.J. Residential Site Improvement Standards.
- iii.** Pipe shall have a nominal laying length of eighteen (18) or twenty (20) feet.
- iv.** Iron used in the manufacture of pipe shall have 6-/42/10 iron strength.
- v.** The surface finish of all pipe and fittings shall conform to the following:

- (a) Interior - Pipe and fittings shall have a polyethylene lining. This lining shall have a thickness of 40 mils (0.040 inch) nominal, 35 mils (0.035 inch) minimum. The lining shall be a blend of high-density and low-density polyethylene powders complying with ANSI/AWWA C104/A21.5 and ASTM D1248 compounded with an inert filler and carbon black to provide resistance to ultraviolet rays during storage above ground. Prior to preheating, 75% or more of the high temperature oxide film must be removed through proper preparation of pipe interior surface. Fitting shall be sandblasted. Pipe and fittings shall be uniformly preheated to a temperature adequate to provide uniform fusing of the polyethylene powders and proper bonding to the pipe and fittings. The lining shall be subjected to pass a 400 volt wet sponge, or equivalent, spark test. A sample cut from a production pipe shall pass the 4-hour boil adhesion test as described in ASTM C-541. Pipe and fittings shall be U.S. Pipe's Polylined pipe and fittings or equal.
 - (b) Exterior - Pipe and fittings shall have manufacturer's standard coal tar epoxy.
 - vi. Fittings shall be cast or ductile iron and shall conform to ASA A21.10. Joints for ductile iron fittings shall be mechanical joint conforming to ASA A21.11.
- c. **Reinforced Concrete Pipe (RCP)**
 This Specification shall cover all sizes of reinforced concrete pipe twenty four (24) inches in diameter and larger. All reinforced concrete pipe furnished under this specification shall be manufactured in strict accordance with ASTM C76, Class III, with a wall thickness not less than wall B. For depths less than three (3) feet, measured from the top of the pipe, installed under traffic areas, Class V pipe shall be required.
 - i. Joints shall be bell and spigot type and shall conform to Section 7 of ASTM C361 except as modified herein.
 - ii. Gaskets shall have a circular cross section and shall be confined in a groove in the pipe spigot. Pipe with collars in lieu of integral bells will not be acceptable.
 - iii. Each concrete pipe joint shall be designed to withstand, without cracking, the gasket compression plus a differential load across the joint equal to 4000 pounds per foot of internal diameter. Joint design details, including calculations, shall be submitted for review.
 - iv. Gaskets shall conform to ASTM C361, Section 6.9.1. Polymer shall be neoprene or other synthetic rubber.
 - v. Except for fittings and closure pieces, pipe shall have nominal laying lengths not less than 7 feet 6 inches.

d. Steel Casing Pipe (AWWA C200)

Smooth wall casing shall be of welded steel construction and shall be new material with a minimum yield point of 35,000 psi. The minimum thickness shall be in accordance with requirements of the regulatory agency, but shall in no case be less than the sizes indicated in the following Table. The casing pipe shall be cleaned and coated both inside and outside with coal tar epoxy paint meeting Specification C-200(A) or SSPC Paint 16. The casing pipe in its final position shall be straight and true in alignment and grade, and there shall be no space between the earth and casing.

<u>Casing Size</u>	<u>Min. Casing Thickness</u>	
	<u>With 1:4 Grout</u>	<u>Without Grout</u>
a. 8" - 24"	3/8" - .375	" - .5
b. 26" - 34"	" - .5	5/8" - .625
c. 36" & Larger	5/8" - .625	3/4" - .75

e. Fittings

Fittings shall be furnished and installed at the locations and of type and size as shown on the approved plans. All fittings shall have the same structural qualities and coatings as the adjoining type.

- i.** In general, PVC fittings shall be used for all PVC pipe and shall conform to ASTM D3034 & D2321 with a wall thickness designation of SDR 35, SDR 26 or C 900 where applicable.
- ii.** In general, ductile iron fittings shall be used for all ductile iron sanitary sewer mains. The fittings shall conform to SA A21.10 and have a polyethylene lining. Joints shall conform to ASA A21.11.
- iii.** Reinforced Concrete Pipe Fittings shall have the same structural qualities as the adjoining pipe except as modified herein for bends.

f. Sewer Laterals

- i.** Sewer laterals shall be constructed of either Polyvinyl chloride (PVC) or Ductile Iron. Sewer Laterals shall be a minimum of six (6) inches in diameter with a separate lateral being provided for each living unit, non-living unit or dwelling. Details as to slope, type of clean out, location of clean out, etc., shall be shown on the typical details drawing in the Appendix.
- ii.** Polyvinyl Chloride Pipe (PVC) shall conform to ASTM Designation D3034 (SDR 35) and UNI-BELL Specification UNI-B-4-77-A latest edition. The pipe and fitting materials shall conform to ASTM Specification D-1784.
- iii.** Joints shall be of the rubber gasket type and shall comply in all respects with the physical requirements specified in ASTM F-477, D1869, C361 or C443. The lubricant used for assembly shall have no detrimental effect on the gasket or pipe.

- iv. The pipe diameter, wall thickness, fitting dimensions and structural properties of the pipe shall comply in all respects with UNI-BELL Specification UNI-B-4-77-A.
- v. Ductile Iron Pipe and fittings shall adhere to AWWA Specification C151 and 113 for ductile iron pipe centrifugally cast in sand-line molds. Joints for the ductile iron pipe centrifugally cast in AWWA Specifications C111 and shall be the push-on joint type. The class of pipe shall be dependent upon field conditions and the loads the pipe is subject to.
- vi. Whenever corrosive soils are encountered, polyethylene wrapping shall be installed around all cast or ductile iron pipe if so indicated on the plans or if directed by the Authority's Engineer or from the Authority. Polyethylene wrapping shall be in accordance with AWWA C105 and shall have a minimum 8 mil thickness.
- vii. A two (2) wide 10 mil thickness of polyethylene pressure-sensitive tape shall be used to close seams or hold overlaps. Rips, punctures, or other damage to polyethylene wrapped pipe shall be repaired to the satisfaction of the Engineer.
- viii. All fittings, plugs, adapters, wye tees, wyes or other fittings must be the same material as the pipe unless alternate materials are approved by the Authority's Engineer. "Fernco" fittings are not accepted and shall not be used under any circumstance.
- ix. All pipe and fittings shall be clearly marked on the outside surface with trade name, pipe size and class designation.
- x. All laterals shall be constructed as shown in the Appendix.
- xi. That portion of the building sewer installed and maintained by the customer from the cleanout to the improved property shall be installed in accordance with the Township Plumbing Code and shall be inspected and approved by the Township Construction Official prior to backfilling the trench. Any construction not approved shall be immediately removed and reconstructed in an approved manner.

2. Manholes

- a. Manholes shall be installed as directed by the Authority Engineer. Manholes must be pre-cast manholes. Design details must be submitted to and approved by the Engineer prior to start of construction. Precast manholes shall be circular tongue and groove type constructed in accordance with ASTM C478. Joints shall be sealed with a continuous ring gasket that is free from pits or imperfections in accordance with ASTM Specification C361.
- b. Unless otherwise specified, all concrete shall contain Type II cement and shall have a minimum 28-day compressive strength of 4000 psi.
- c. The exterior of the manhole shall receive two coats of coal tar epoxy C-200(a) or SSPC-Pout 16 totaling 18 mils. The joints shall be parged and

then receive the same coal tar epoxy coating for all joints to an elevation 4 feet above the ground water level.

- d.** Manholes in general shall not receive an interior coating except that any manhole that has a drop connection, discharge of a force main of any size or a difference in pipe inverts greater than six inches (6) shall have a vinyl liner installed.
- e.** All pipe-to-manhole connections shall be sealed using a ribbed Kor-N-Seal 1 Assembly gasket as manufactured by National Pollution Control Systems, Inc. or approved equal. Pouring the concrete manhole base directly around the plastic pipe will not be accepted.
- f.** The channel of all manholes shall be epoxy coated with two (2) coats - 10 mil total of SIKAGARD 62 or approved equal.
- g.** Benches shall receive two (2) coats - 10 mil coating of SIKAGARD 62 at the same time as the channel. After benches and channel are dry (8-10 hours), the contractor shall give the benches a third coat of 4 mil thickness and spread coarse sand into the surface of the bench. Extreme care will be taken not to allow any of the granular material or additional coating from falling into the channel. All benches shall be sloped to drain to the waterways.
- h.** A Manhole Marker Post shall be installed at the direction of the Authority Engineer whenever a manhole is located outside of a traveled street or walkway. The size and type of marker shall be specified by the engineer.
- i.** Steps shall be polyethelene or approved equal and shall be cast into the manhole wall at the same time the manhole section is cast. Steps shall be positioned to allow eighteen (18) inches minimum to twenty four (24) inches maximum spacing from the surface to the first step and twelve (12) inch spacing thereafter.
- j.** Drop connections will be required if invert differential is two (2) feet or greater. Drop connections will not be permitted in the invert differential is less than two (2) feet. External Drop Manhole Connections will be made in strict compliance with the specifications shown on the detail. Drop pipe shall extend 8/10th of the diameter of the influent pipe. Drop pipe to be bevel cut to fit under influent pipe. Drop pipe to be held by stainless steel straps. Straps are to be bolted to the manhole walls with stainless steel bolts and washers. Bolts must be removable. Drop pipe shall be rubber gasketed not solvent welded.
- k.** Internal drop connections made to existing sanitary sewer manholes will require the removal and replacement of the manhole invert unless the bench can be removed or repaired on the side of the drop connection to the satisfaction of the Authority's Engineer. All inverts of existing manholes will require SIKAGARD 62 coating and internal walls will require 18 mil coal tar epoxy coating. Connection to the existing manhole shall be made by coring and sealed by Kor-N-Seal 1 Assembly as manufactured by National Pollution Control Systems Inc. or approved equal.
- l.** A standard frame and cover shall conform to ASTM A48, Class 30 and shall be suitable for H-20 loading and shall be twenty four (24) inch

diameter Model 1202B as manufactured by the Campbell Foundry or approved equal. Covers to be provided with non-penetrating pick holes. Covers shall have the letters EHTMUA cast in the cover in letters two (2) inches high. All frames and covers shall receive two coats of asphaltum varnish. Where required to be watertight, the frame and cover shall be Model 1502 or approved equal with a neoprene gasket as manufactured by the Campbell Foundry. Bolt down frames and covers where required shall be as specified by the Authority's engineer.

- m. Locking devices, Campbell Foundry Co. Model No. 1487, shall be provided on frames and covers on all manholes located in easements. Locking type covers shall also be provided with a single recessed lifting handle. A key shall be supplied with each locking type manhole cover.

3. Force Mains

All force mains shall be constructed of ductile iron pipe or PVC pipe. DIP shall conform to the standards contained in Section VI. PVC pipe shall adhere to AWWA Specification C900. The class or pressure rating of the force main shall be designed to withstand vehicular and trench loading in addition to internal operating pressures.

4. Pumping Stations

Two copies of all shop drawings shall be submitted to the Authority. These shop drawings shall cover the pumps, motors, control and alarm systems, and include complete wiring schematics of all equipment.

K. As-Built Requirements

1. Horizontal / Vertical Datum

- a. The horizontal datum to be used on all as-builts shall be the State Plane Coordinate System. (NAD 83)
- b. The vertical datum to be used on all as-builts shall be the National Geodetic Vertical Datum. (NGVD 29)
- c. The submitted as-builts must depict an on-site vertical benchmark and provide information regarding the determination of the benchmark's elevation.

2. Requirements for As-Built Plans

- a. All as-builts must indicate all rim elevations, invert elevations, slopes of lines, lengths of runs, types of pipe, locations of lines and all other improvements in proximity to the sewer line.
- b. All as-builts must provide stationing information along all improved and existing roadways, including the stationing and length of all lateral connections, and horizontal location of all sanitary cleanouts.
- c. All plans must be signed and sealed by a licensed professional engineer or professional land surveyor.

- d. All as-built submissions must provide a comprehensive list of the total length of sanitary sewer mains installed.

3. Submission Requirements

- a. Four (4) paper copies must be submitted. (24" X 36")
- b. Two (2) disks in .dwg format in AutoCAD Release 14 or higher must be submitted on 3.5" floppy disk or CD-ROM. (*Drawings submitted in READ ONLY format will not be accepted.*)
- c. All as-built plans and digital files must be submitted to the Authority Engineer and deemed acceptable before Connection Permits will be issued by the Authority. A cover letter must be provided stating the date of submission and listing all materials included with the contact person(s) responsible for the as-built submission. (*The Authority Engineer reserves the right to field verify the accuracy of any and all sanitary sewer as-built submissions at the cost of the developer.*)

SECTION VII SEWER LINE CONSTRUCTION REQUIREMENTS

A. Items Required Prior to Construction of Sewer Lines

1. EHTMUA Construction Permit

The Permit to Construct and Operate Treatment Works is issued by the NJDEP to the Authority in the Authority's name. Although the applicant is frequently copied on that permit, the applicant is not authorized to proceed with construction. After the state issues the Permit to Construct & Operate Treatment Works, the Authority will review all criteria surrounding the project and if all conditions have been met, the Authority will issue its Construction Permit authorizing work and establishing the sequencing of all work (i.e. completing off-site improvements prior to on-site improvements) on its permit. The Authority Engineer, Authority Clerk and the Developer must sign the EHTMUA Construction Permit. Until such time as a developer receives the EHTMUA Construction Permit, no construction of sewer lines is to be initiated. The NJDEP Construct and Operate Permit must be valid in order for the EHTMUA Construction Permit to be issued. The EHTMUA Construction Permit will not be issued until:

- a.** Shop drawings have been reviewed and approved by the engineer.
- b.** Evidence is submitted that all required Road Opening Permits have been issued by the Township, County and State.
- c.** A plan for dewatering operations is provided.
- d.** All Recapture Fees have been paid.
- e.** All downstream facilities have capacity to handle the proposed flow, have been upgraded to handle the proposed flow or been sufficiently funded to complete all improvements at the discretion of the Authority.
- f.** A pre-construction meeting has been held with the Township Engineer.
- g.** A pre-construction meeting has been held with the Authority Engineer and Authority Clerk. The applicants will be required to provide all documentation requested by the Engineer prior to beginning work. Township Police, Fire and School officials, all utility companies and County or State representatives, as required, may also be invited to attend.

2. Performance Guarantees

In certain situations when authorized by the Commissioners, the Authority may require performance and / or maintenance guarantees in order to protect the Authority from failure of the applicant to complete the project satisfactorily. When required by the Authority, the procedures for posting performance / maintenance guarantees shall follow the provisions of the applicable law. When the extension of sewerage facilities is associated with a subdivision or site plan submitted to the Planning Board, the Performance / Maintenance Guarantees may be included in the Performance / Maintenance Guarantees filed, with the approval of the Authority, with the Clerk of Egg Harbor Township for the project. Projects not guaranteed as part of the Township's Planning Board process may require a performance bond or surety document in a form approved by the Authority for an amount of one hundred twenty (120%) percent of the estimated construction cost

as calculated by the Authority Engineer. All guarantees must remain in effect until the sewer system and related appurtenances are installed, tested and accepted by the Authority. Performance Guarantees are subject to periodic review and modification as a result of any changes or modifications to the approved plans.

3. Insurance Requirements

Prior to the start of any work, the developer responsible for the construction of facilities authorized by a permit issued in the name of the Authority shall provide proof of liability and workers compensation insurance satisfactory to the Authority. The insurance shall contain a clause that indemnifies and holds harmless the Authority, the Authority Engineer, the Township, their agents and employees from all loss or damage that may occur either directly or indirectly as a result of such construction including attorney's fees and all costs in connection with the defense of the claims.

The minimum amounts of insurance to be carried by the contractor shall be:

- a.** Workman's Compensation and Employer Liability Insurance for all persons employed in connection with the work with limits of not less than:
 - i.** \$500,000.00 per person and
 - ii.** \$1,000,000.00 per accident per claim.
 - iii.** If work is sublet then the prime contractor shall require each subcontractor to provide similar coverage for the subcontractor's employees.
- b.** Public Personal Injury and Property Damage Liability Insurance including contingent liability and contractual liability of not less than
 - i.** \$500,000.00 per person per occurrence.
 - ii.** \$1,000,000.00 for two or more persons in one occurrence.
 - iii.** \$500,000.00 for property damage in any one accident.
 - iv.** \$1,000,000.00 in aggregate for property damage.

Property damage insurance shall be extended to include damage to underground wires, pipes, ducts, conduits, structures, etc. and damage due to explosion or collapse. The insurance company shall issue a certificate stating that they will notify the Authority ten (10) days in advance of the cancellation date. The policies shall remain in full force and effect until all work has been completed and accepted by the Authority Engineer.

All policies shall contain the following clause on all insurance forms: "The contractor agrees to indemnify and save and hold harmless the Egg Harbor Township MUA, the Authority Engineer, and their employees, officers and agents from all claims related to labor or materials furnished for the work or in performing the work, as to the injuries or any damages to any person or corporation received or sustained as the result of the act of the contractor or the contractor's employees in doing the work or in consequence of any improper materials, implements or labor used therein or resulting from omissions or neglect of the contractor and/or the contractor's employees."

4. Construction of Sewer Extension

The Authority may authorize the applicant to construct new sewer extensions through contracts that are awarded by the applicant. The Authority shall only authorize such extensions when the contractor who will perform the work is approved by the Authority's Engineer. All work performed by contractors must comply with all applicable regulations and standards such as OSHA, Confined Space, Overhead Power Line Clearance, etc.

Applicants are not permitted to repair or construct upgrades to Authority gravity lines or force mains. All repairs and upgrades to existing MUA infrastructure necessary for a particular development must be completed by the Authority through publicly bid contracts but paid for by the developer.

5. Pumping Station Upgrades

When sewer extensions require the expansion or upgrade of an existing pumping station the Authority will accomplish all required work using its contractors or through competitive bids awarded by the Authority. The cost of all pumping station upgrades will be funded by the applicant including, but not limited to, labor, materials, engineering, inspection, permits and fees. No work will be authorized until the funds are available to the Authority through the Developers Account or other account opened specifically for the project.

B. Inspections During Construction

The Authority reserves the right to inspect all work performed on sewer lines, pumping stations and associated appurtenances that are built under the permits issued in the Authority's name and will be accepted into the Authority's system. The Authority will charge all applicants reasonable fees for the inspection of the facilities.

C. As-Builts

No sewer extensions or lines shall be accepted for inclusion in the Authority's system until as-built drawings are submitted to the Authority Engineer and approved. The as-built plan submission must meet the requirements outlined in Section VI.

D. Acceptance of Facilities

On those projects where the Authority has required performance guarantees, after all facilities shown on the approved plans have been installed, videoed, tested and inspected, the as-builts approved, and all restoration associated with the facilities has been completed, the applicant may request a release of the performance guarantee and / or acceptance of the facilities. The Authority will direct the Authority Engineer to review the project to verify that all conditions required for the release have been met. Release of the performance guarantee will be the means of acceptance of ownership of the facilities by the Authority unless specifically indicated otherwise. The Authority Commissioners will release the performance guarantees and accept ownership of the system.

On those projects where the performance guarantees have been posted in conjunction with the Planning Board process, acceptance of the system will occur once all facilities

have been installed, tested and inspected, the as-builts approved and the first Certificate of Occupancy for the project has been issued.

E. Maintenance Guarantees

If a Maintenance Guarantee is required, they will be administered and released in accordance with applicable laws. For those projects where the Authority will require maintenance guarantees, the applicant shall provide the Authority with a maintenance guarantee for fifteen percent (15%) of the performance guarantee whether or not a performance guarantee was initially required. All maintenance guarantees will be in a form approved by the Authority. The term of the maintenance guarantee shall be two years from the date of issue and shall contain a provision that requires the bonding agent to notify the Authority by certified mail ninety days (90) in advance of any expiration of the guarantee.

F. Release of Maintenance Guarantee

If a Maintenance Guarantee is required, they will be administered and released in accordance with applicable laws. The applicant may apply for release of the maintenance guarantee two (2) years after the facilities have been accepted for ownership. It is the intent of this review to determine that all facilities are operating properly and that all restoration of roadways and rights-of-way is acceptable and any other conditions required for the release have been met. The Authority will release the maintenance guarantees by Resolution.

G. Connection Permits

A Connection Permit is required prior to any connection into the sewer line. The Authority will not issue Connection Permits to the applicant until:

1. All proposed sanitary sewer gravity and force main construction is completed.
2. The construction or upgrade of all pumping station facilities, if applicable, is completed and the pumps and all appurtenances are certified to be operational.
3. All newly constructed sanitary sewer gravity lines and force mains pass a deflection test, an air and / or water test.
4. As-built information has been submitted and found satisfactory by the Authority Engineer.
5. Video inspections, if required by the engineer, have been completed and submitted in a form acceptable to the engineer. All videos must be provided in standard VHS and digital formats.
6. At the engineer's discretion, the air and deflection test may have to be completed again after the stabilized base course paving has been completed and/or before the first Certificate of Occupancy.

H. Limitations of Approval

These Rules & Regulations together with any approval, permit or certification issued by the Authority shall in no circumstances be assumed or construed to supplant any rule, regulation, or approval of any Local, State or Federal Agency. It shall be solely the applicant's responsibility to ascertain which permits, approvals and reviews are required

for their project by any governing agency and obtain those permits. Failure of the Authority or its agents to verify that required permits are in place prior to the commencement of construction shall in no way relieve the applicant of the responsibility to obtain said permits.

I. Revocation of Approval or Permit

In order to protect the health, safety and welfare of both existing and future Township residents, the Authority, acting through its designated Clerk and in conjunction with the Authority Engineer and Solicitor, reserves the right to administratively revoke, modify or suspend any approval or permit in whole or in part for any of the following reasons:

1. Violation of any term or condition of the approval or these Rules and Regulations.
2. Misrepresentation or failure to disclose any relevant facts as part of the application.
3. Change in State or Federal standards.
4. Modification of the plans following preliminary or final approval without the Authority's approval.
5. Modification of conditions adjacent to or near the proposed facilities
6. Even though plans may have received construction approval from the Authority, if it is subsequently determined that the facilities will cause the Authority to suffer difficulty in operation or maintenance or increased maintenance costs, the Authority reserves the right to require the applicant to modify the plans to alleviate the problem. This requirement is not specifically limited to the plan review and may occur if the problems are uncovered during the construction of the project.
7. Failure to meet conditions stipulated in the Preliminary or Final Approval Resolution.
8. Undertaking sewer related work or connections to the Authority system without a valid EHTMUA Construction Permit
9. Failing to maintain adequate provisions for the safety of the sewer construction and/or improvements required in conjunction with the EHTMUA Construction Permit.
10. Damage to the EHTMUA sewer system or facilities.

J. Additional Construction Requirements

1. All work shall be performed in accordance with accepted workmanship practices and these Rules & Regulations. Installation of all new facilities in the Authority's service area shall be inspected and approved by an Inspector who is authorized by and working for the Authority or the Authority Engineer. Any work not accepted by the Inspector shall be redone until compliance with these Rules & Regulations is achieved. The Inspector shall not supervise nor set out work nor give line and grade stakes, nor shall he undertake any of the responsibilities of the Contractor, Subcontractors, or Contractor's Superintendent.
2. The Inspector shall ensure that the provisions of these Rules & Regulations are carefully followed, especially with regard to the quality of workmanship and

materials. The applicants design engineer and contractor shall resolve problems to the satisfaction of the Authority Engineer.

3. The Inspector shall have access to all work areas and the Contractor shall arrange for the Inspector to be present during testing as well as any other phases of construction as the Inspector may deem necessary. Any work done in the absence of the Inspector, and buried in violation of the Engineer's or Inspector's orders that it be left visible for inspection, shall be excavated for thorough inspection if so ordered by the Inspector. Any such excavation shall be at the expense of the Contractor.
4. The contractor is responsible to provide a safety officer on the job at all times and it shall be the contractor's responsibility to make sure all work is performed in accordance with all applicable OSHA Regulations. The contractor shall provide the Authority with a list of responsible persons and emergency contact numbers. If the Engineer or the Engineer's representative feels that the site is unsafe, he can make recommendations to the Contractor to remedy the situation. If the situation is not rectified, the Authority Engineer or the Engineer's representative will close the job site until all safety concerns are resolved to the Engineer's satisfaction.
5. The Authority reserves the right to halt construction of any sewer construction if at any time the materials, methods or construction procedures employed are not acceptable to the Authority.
6. All state, county and local regulations that are applicable shall be followed. The developer or contractor shall procure all licenses, permits and approvals required for the construction of a sewer extension. The Contractor is solely responsible for arranging for the location of all utilities as mandated by the NJ Underground Utility Act.
7. The Contractor is responsible for maintenance of traffic at all times. All permits must be in place and all traffic control devices required for the project must be in place prior to the commencement of construction. The applicant is responsible to see that a Traffic Control Plan has been approved by the Township's Traffic Control Officer and is implemented for the project. If required, flagmen and/or uniformed Traffic Control Officer(s) will be maintained at the site. All costs associated with traffic maintenance shall be borne by the applicant.
8. Excavation for the installation of sewer lines, fittings and appurtenances shall be excavated to the depth and limits necessary for proper installation as shown on the approved drawings or as otherwise approved by the Authority Engineer. Except as otherwise approved by the Authority Engineer, the maximum length of trench open at any time shall be four hundred (400) feet or the distance necessary to accommodate the amount of pipe installed in a single day, whichever is less.
9. Excavation and trenching shall be true to line so that the overall trench width from the bottom of the trench to twelve (12) inches above the top of the pipe shall not be less than twenty-four (24) inches nor more than twelve (12) inches wider than the largest outside diameter of the pipe (outside diameter of bell on bell and spigot pipe) to be laid therein, exclusive of branches. Where the trench width is wider than the maximum set forth above, the pipe shall be bedded as shown on the detail in the Appendix.

10. The Contractor may use motorized trench digging machinery however, hand methods for excavation shall be employed in locations where directed by the Authority Engineer or the Inspector.
11. All excavations shall be performed, protected and supported as required for safety. As a minimum standard, the Contractor will abide by the operation rules, orders and regulations prescribed by the Occupational Safety and Health Administration. All excavations shall be properly supported in the manner as required by state laws, municipal ordinances and as may be necessary to protect life, materials and property if conditions dictate. All excavations must be backfilled each night unless specifically authorized by the governmental entity having final jurisdiction over the affected roadway. No steel plating over excavations may be used overnight.
12. Excavations shall be so sheeted, shored and braced that the ground alongside the excavation will not slide or settle. The sheeting, shoring and bracing shall be so arranged as not to place any stress on portions of the completed work until the general construction thereof has proceeded far enough to provide ample strength.
13. Care shall be exercised in the removal of sheeting, shoring and bracing to prevent the caving or collapsing of the excavation faces, which are being supported.
14. No bracing, shoring or sheeting shall be placed below the bottom of the pipe structure unless approved by the Authority Engineer. Shoring, sheeting and bracing of any kind shall be withdrawn as the backfilling proceeds, except that the Authority Engineer may require such bracing to be left in place if it has been placed below the bottom of any structure or pipe, or if he deems it necessary in order to protect adjacent structures, utilities or properties.
15. The contractor shall bear the full responsibility to comply with all work related rules, laws and regulations to insure the health safety and welfare of their employees.
16. The contractor shall control grading in a manner to prevent water from running into excavations. Obstruction of surface drainage shall be avoided and means shall be provided whereby storm water will remain uninterrupted in existing gutters. Surface drains shall remain operational or the Contractor shall provide temporary drains.
17. Barriers shall be placed at each end of all excavations and at such places as may be necessary along excavations to warn all pedestrian and vehicular traffic of such excavations. Lights shall also be placed along excavations from sunset each day to sunrise of the next day until such excavation is entirely stabilized and able to accept any anticipated traffic loads. All traffic regulatory devices shall be approved by the agency responsible for the roadway in question.
18. The Contractor shall provide and maintain at all times during construction, ample means and devices with which to promptly remove and properly dispose of all water from any source entering the excavations or other parts of the work. Dewatering shall be accomplished by methods that will insure dry excavation and preservation of the bottoms of excavations. Said methods may include deep wells, well points, sump pumps, suitable rock or gravel placed below the required bedding for drainage and pumping purposes, temporary pipelines and other means, all subject to the approval of the Authority Engineer.

19. The applicant is responsible for obtaining all permits and payment of all costs and fees associated with the dewatering procedure. Care must be taken during the construction process not to allow the water from entering into any work that has previously been completed.
20. Dewatering for the installation of sewer lines shall commence when ground water is first encountered, and shall be continuous thereafter until the structure to be built or the pipe to be installed therein, is completed to the extent that no damage from hydrostatic pressure, flotation, inundation or other cause will result. At no point in time will installation of pipe be allowed in a situation where the pipe is in contact in any way with ground water. If during the installation of the facilities the Contractor allows water to enter the pipe being laid the Authority may require that all pipe installed be removed and cleaned prior to being reinstalled to assure the interior of the pipe is clean and free of silt or other debris.
21. The Contractor shall dispose of the water from the work in a suitable manner without damage to adjacent property or to new construction. Any damage, which might occur, must be restored within three (3) days of the occurrence to the satisfaction of the Authority, the Authority Engineer and any other parties concerned.
22. Bedding procedures shall be accomplished in accordance with the details specified below. If excessively wet, soft, spongy, unstable or similarly unsuitable material is encountered at the grade upon which the bedding material is to be placed, the unsuitable material shall be removed to a depth as determined in the field by the Authority Engineer, and the sub grade shall be brought to a level six (6) inches below the pipe with such material as the Authority Engineer may order installed to provide a firm foundation.
23. Pipe shall be installed in accordance with the manufacturer's recommendations and these Rules & Regulations.
24. All facilities shall be accurately surveyed and staked by a firm familiar with this type of work. The contractor shall supply the Authority Engineer with the cut sheets for the facilities to be installed. If the contractor fails to produce cut sheets or, in the Authority Engineer's opinion, the lines have not been adequately staked, or the stakes have been destroyed, the Authority Engineer may direct the contractor to cease the operation until such time as the contractor can prove to the Engineer that the facilities are being installed to the proper alignment and grade as shown on the approved plans.
25. Whenever obstructions not shown on the approved plans are encountered during the progress of the work and interfere to such an extent that an alteration in the plans is required, the design engineer shall be the only individual with authority to change the plans and order a deviation from any line and/or grade. The design engineer shall be responsible for maintaining the intent of the approved plans. The Authority Engineer must approve all changes. Any deviation from the plans found unacceptable by the Authority or the Authority's Engineer shall be revised at the developer's expense. All deviations to the approved plans shall be brought to the attention of the Authority's Engineer as soon as possible. The Authority Engineer may require the construction to halt until he can discuss the modifications with the design engineer or other professionals to determine a

course of action to correct the problem. The Authority and the Authority's Engineer shall be held harmless for any costs associated with the delay or postponement of construction.

26. All sewer mains shall be laid to the required lines and grades as shown on the approved plans and in such a manner as to form a close concentric joint with the adjoining pipe. No offsets of the line are permitted.
27. Installation of curvilinear sewers or sewers with breaks in grade other than at manholes is strictly forbidden.
28. The contractor shall allow for sufficient time for the Authority Engineer to inspect all pipe and fittings for cracks and other defects before installation. Spigot ends shall be examined with particular care as this area is the most vulnerable to damage from handling. The contractor shall lay defective pipe or fittings aside for inspection by the Inspector, who will prescribe corrective repairs or rejection. Materials rejected shall be marked and removed from the job site.
29. The Authority Engineer reserves the right to reject any and all pipe sections that may contain visual imperfections or imperfections of any type that may be considered by the Authority Engineer as detrimental to the operation and life of the pipe whether or not the pipe is certified or may pass any testing procedure.
30. The interior of all pipe and fittings shall be kept thoroughly clean before installation and shall be kept clean until the work has been accepted. All joint contact surfaces shall be kept clean until the joint is completed. Every precaution shall be taken to prevent foreign material from entering the pipe during installation.
31. At all times when pipe laying is not in progress, the open end of the pipe shall be closed with a tight fitting cap or plug to prevent the entrance of foreign matter into the pipe. These provisions shall apply if construction is temporarily halted, as well as overnight.
32. Proper tools and equipment satisfactory to the Authority Engineer shall be provided and used by the contractor for the safe and convenient performance of the work. Materials shall be carefully lowered into the trench one piece at a time. This shall be done in such a manner as to prevent damage to the material, protective coatings and linings. Under no circumstance shall any materials be dropped into the trench.
33. If damage occurs to any material during handling, or if it is discovered the materials have been dropped into the trench, the contractor shall mark the material as defective and remove that material from the site by the end of the work day.
34. The cutting of pipe for inserting fittings or other appurtenances shall be done in a neat and workmanlike manner without damage to the structural integrity of the pipe, coating or the lining so as to leave a smooth end at right angles to the axis of the pipe. The Authority Engineer shall approve all tools used in cutting pipe. If the project involves asbestos pipes or any other asbestos material, the contractor is responsible for the health, safety and welfare of all employees as well as be aware of all state and federal laws concerned when working with asbestos material.
35. Pipe shall be laid with the bell or coupling ends facing in the direction of laying unless otherwise specified by the engineer. The pipe manufacturer's instructions and recommendations for proper jointing operations shall be followed. All joint

- surfaces shall be lubricated with an approved lubricating solution immediately before the joint is completed.
36. All trenches shall be backfilled after the sewer lines, fittings and appurtenances have been installed, inspected and approved by the Authority Engineer. The backfill shall be compacted in not more than twelve (12) inch lifts by vibrating, tamping, or a combination thereof, to seventy (70) percent relative density for sand material as determined by ASTM D2049, or to ninety five (95) percent of maximum density for cohesive soils as determined by ASTM D698. The use of hoes, graders or other wheeled machinery to compact the trench by “wheel rolling” is expressly forbidden.
 37. It is expected that the trench excavation will provide suitable backfill material. Wet, soft or frozen material, asphalt chunks or other deleterious substances shall not be used for backfill. If the excavated material is not suitable for backfill, suitable material shall be hauled in and utilized, and the rejected material hauled away and disposed of properly. All backfill material shall be subject to the approval of the Authority Engineer.
 38. Compaction tests, taken by a certified testing laboratory may be required at locations designated by the Authority Engineer. Copies of test results will be forwarded to the Authority Engineer. In all cases where the tests indicate compaction less than that required in these specifications, additional compaction and tests will be required until these specifications are met. Final acceptance of the lines by the Authority will be contingent upon satisfactory compaction results.
 39. The temporary and final restoration of any excavation performed in a public right-of-way shall be completed in a manner specified by the permits issued from the state, county or township.
 40. The permanent restoration of landscaped areas shall be completed within one week of backfilling the trench. The Authority Engineer shall approve the seeding schedule.
 41. No facilities shall be tested for final acceptance until all restoration is completed over the facilities. This will include all grading and seeding, landscaping and pavement restoration. No facilities shall be tested for final acceptance until all other underground utilities have been installed to include gas, electric, irrigation, cable and telephone. The contractor must request the tests to be witnessed by the Authority Engineer at least 72 hours in advance.
 42. All testing shall be performed in the presence of the Authority Engineer or designated representative. All PVC sewer pipe shall be checked for excessive deflection after backfilling is complete and prior to acceptance of the installation. All PVC sewers shall be tested by pulling a mandrel through the pipe, or by other methods acceptable to the Authority’s Engineer. Pipe with diametric deflection exceeding five (5) percent of the inside diameter shall be uncovered, the bedding and backfill replaced to prevent excessive deflection, and the pipe retested. Unless specific approval is given the deflection test should not be performed until thirty (30) days after the backfilling and compaction of the trench.
 43. All sewer lines shall also be subjected to a pressure test. The Authority Engineer will establish the parameters for testing based on the uni-bell “recommended practice for low pressure air testing” but in general, for gravity sewer lines the test

shall consist of pressurizing the system with air to five (5) psi. The line shall hold the pressure for five (5) minutes duration with no more than one-half (1/2) pound drop in pressure. Force mains shall be hydrostatically tested by pressurizing with water to one hundred fifty (150) psi. The pressure shall hold in the range of one hundred forty (140) to one hundred fifty (150) psi for two (2) hours.

44. The sewer construction site shall be maintained free and clear of debris at all times. The contractor must store material and deposit excavated material in a manner that will not obstruct the work nor endanger the workmen, obstruct vehicular or pedestrian traffic or access to any structure. The site should be graded smooth and left in a neat and presentable condition each evening so as not to cause a hazard.
45. Prior to trenching operations, the contractor shall notify the owner(s) in writing whose existing above ground or underground utilities are within ten (10) feet of trenching operations. Should any such utility be damaged in the trenching operations, the contractor shall immediately notify the owner of the utility, and unless authorized in writing by the owner of the utility, the contractor shall not attempt to make repairs. Duplicate copies of any written authorization given to the contractor to make repairs shall be filed with the Authority's Engineer and shall be so worded as to save harmless the Authority or the Authority Engineer or the owner of the utility of any responsibility whatsoever relative to the sufficiency of the repairs.
46. In the event that during construction it is determined that any underground utility conduit, including sewers, water mains, gas mains and drainage structures, and any above ground utility facilities are required to be relocated, the contractor shall notify the utility owner(s) well in advance of the approach to such utility so that arrangements with the owner(s) of the affected utility can be completed without delay to the work.
47. The contractor is also responsible for gathering and maintaining field as-built information and pertinent drawings to include verification of all distances, all changes to the alignment and all important notes. Final acceptance of the lines by the Authority will be contingent upon the receipt of said as-built information to include certification of the as-built plans by the contractor. The as-built plans must meet all requirements of the Authority Engineer. If the Authority or the Authority's Engineer requests copies of the as-built drawings during the progress of the project the contractor must be able to supply as-built information within ten (10) days of the request for that information.
48. The Authority will hold the contractor responsible for the proper functioning of the lines for a minimum of two (2) years from the date of acceptance of the lines. The contractor shall remedy any malfunction found during this period of guarantee to the satisfaction of the Authority.

SECTION VIII WASTEWATER DISCHARGE

A. Prohibited Connections

The discharge of any surface or subsurface water directly or indirectly to the sanitary sewer system is prohibited. Under no circumstances will any of the following be connected to the sanitary sewers, either directly or indirectly:

1. Combined wastes.
2. Foundation under-drains.
3. Sump Pumps.
4. Floor drain, area drain or yard drain, or drain from swimming pools.
5. Rain leaders or downspouts.
6. Air conditioning equipment or cooling water, except condensate which will be permitted under conditions approved by the Authority.
7. Storm water inlets or catch basins.
8. Drains from pieces of equipment or manufacturing process, except when specifically authorized under the provisions of these Rules & Regulations.

B. Enforcement of Prohibited Connections

If a property has a prohibited connection to the sanitary sewer system, the property owner may be subject to charges for the additional sewer flow and prosecution under Chapter 191 of the Egg Harbor Township Code.

C. Prohibited Wastes

No person shall discharge directly or indirectly into the sewer system any wastewater whose characteristics do not conform to the concentration limits prescribed herein, or to discharge into the sewer system any toxic substances or any other objectionable material or substance as specified under these Rules & Regulations, except upon written approval by the Authority and upon such terms and conditions as may be established by the Authority in the acceptance of the wastewater.

No person shall discharge or permit to be discharged into the sewer system any Industrial Waste which would impair, impede, affect, interfere with or endanger the sewer system, or any part thereof, or the functioning of the processes of the Atlantic County Utilities Authority Treatment Plant. No permit shall be issued for a connection, nor shall any connection be made to the sewer system for the purpose of discharging Industrial Waste therein until the Authority shall have first determined that such industrial waste to be discharged into the sewer system is or has been rendered, by pretreatment or otherwise, reasonably harmless and would not impair, impede, affect, interfere with or endanger the sewer system or any part thereof or the functioning of the processes of the Atlantic County Utilities Authority Treatment Plant. Both the Authority and the ACUA must issue written permission to discharge industrial waste into the sewer system. Such permit shall be in addition to any other permits required for connection to the sewer system.

Wastes containing the following substances or possessing the characteristics listed below, will not be accepted:

1. Any vapors or steam.
2. Any fluids with temperature in excess of 110° Fahrenheit.
3. Any fluid wastes which contain in excess of 40 Mg/L of fat, oil or grease, either vegetable, mineral or other substances which may solidify or become viscous at temperatures between 32° F and 150° F (0° C and 65° C).
4. Any volatile, explosive, or flammable substances such as benzene, gasoline, naphtha, fuel oil or similar substances.
5. Any solids or viscous matter which may cause any interference with the flow of wastes; such as ashes, cinders, concrete, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, hair or similar substances. Equipment or trucks carrying such materials shall not be washed and this water discharged into the system.
6. Any fluid wastes having a pH value less than 6.0 or in excess of 9.0 or possessing other properties capable of causing damage or hazard to sewers, structures, treatment processes, equipment or operating personnel.
7. Any wastes containing toxic or poisonous substances in sufficient concentration to interfere with the sewage treatment process, to cause injury to animals or persons, or to create an unacceptable condition in receiving streams.
8. Any noxious or malodorous gas or substance which, either singly or by interaction with other wastes, shall be capable of creating a public nuisance or hazard to life or are or may be sufficient to prevent entry into any sewer for its maintenance and repair.
9. Any radioactive substances.
10. Any wastes containing components which exceed limits set forth by the county, state or federal regulatory agencies.
11. Any wastewater that contains hydrogen sulfide in sufficient quantity to cause damage or excessive odor within the wastewater treatment system.
12. Unusual BOD, COD or chlorine requirements in such quantities as to constitute an unacceptable load on the wastewater treatment works. Any waters or wastes with a five-day bio-chemical oxygen demand (BOD) in excess of 300 ppm by weight.
13. Unusual concentrations of inert suspended solids (such as, but not limited to, Fuller's earth, lime slurries and lime residues) or of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).
14. Excessive discoloration (such as, but not limited to, dye solutions, pigments, or other colored substances and vegetable tanning solutions) which cannot be removed by the wastewater treatment plant and will interfere with effluent color or turbidity measurements.
15. No person shall dispose of wastes from septic tanks, cesspools, holding tanks or chemical toilets such as in boats, campers or trailers, or septic waste haulers tank trunks, or other such sources of sanitary waste into the Sewer system.

D. Grease Traps, Interceptors and other Pretreatment Devices

1. Introduction

When required, traps / interceptors shall be provided when in the judgment of the Authority Engineer for the Authority or their designee, they are necessary for the proper handling of liquid wastes containing grease or solids which may be harmful to, cause obstruction to, or interfere with the operation of the public sanitary sewer system.

All drains from the kitchen, food preparation, and dishwashing areas shall be connected to a grease trap / interceptor. Fixtures to be connected include, but are not limited to, scullery sinks, pot and pan sinks, dishwashing machines (with a heating temperature of less than 140 degrees), soup kettles, and floor drains located in areas where grease containing materials may exist. A grease interceptor is an external unit, different than a grease trap, which is a small indoor device, applicable with the approval of the Authority.

No grey water, with the exception of hand sinks in the kitchen area, toilets, urinals, and similar fixtures shall enter through the trap / interceptor. All designated kitchen waste shall enter the trap / interceptor through the inlet pipe only.

Installation of a trap / interceptor may not be required for facilities that do not cook the food that is served, and/or do not wash equipment or utensils associated with preparation or service of cooked or baked foods.

2. Applicability

Review for the determination on the installation of a grease trap / interceptor is required for all of the following situations:

- a.** New Commercial Construction.
- b.** Interior remodeling to accommodate expansion or operational modifications.
- c.** Changes of occupancy.
- d.** Any facility which may be experiencing difficulty achieving compliance with maintenance and/or wastewater discharge limitations.

3. Approval

Grease Traps and Grease Interceptors shall be installed in accordance with the Uniform Plumbing Code and these Rules & Regulations. The size, type and location of each trap / interceptor shall be approved and inspected by the Township Plumbing Inspector, the Authority Engineer and the Authority Inspector.

Except where otherwise specifically permitted, no wastes other than those requiring separation shall be discharged into any trap / interceptor. One set of plans, including complete mechanical / plumbing plans and riser diagrams shall be submitted to the Egg Harbor Township Municipal Utilities Authority for approval prior to construction. Such plans shall include type, location of the trap /

interceptor, calculation of the size and the location of the tie-in connection to the main line for each trap / interceptor. All submitted plans and calculation information must be signed and sealed by a Professional Engineer licensed in the State of New Jersey.

4. Design and Installation Requirements

All construction and inspection activities must be completed in accordance with the Uniform Plumbing Code and the Authority Rules & Regulations. Additionally, the following design specifications must be incorporated into the grease interceptor design. A typical detail of an acceptable grease interceptor design is illustrated in Exhibit L.

- a.** A grease interceptor is required for all food service establishments.
- b.** All interceptors for grease and heavy solids shall be so designed and located as to be readily accessible for cleaning and inspection.
- c.** Grease interceptors shall have a minimum of two (2) compartments with a minimum of three (3) inch diameter fittings designed for grease retention. The fittings shall be installed in the following manner: A 90 degree long sweep or sanitary tee shall be installed at the inlet, a sanitary tee on the inlet side of the interceptor baffle, and a sanitary tee installed at the outlet. (See Exhibit L)
- d.** There shall be a minimum of two (2) manhole covers to provide access for cleaning and inspection of all fixtures and compartments of the interceptor. A minimum of one (1) access per ten (10) linear feet of interceptor length must be provided with an additional access being required for each additional ten (10) feet in length. Manhole frames and covers shall be gas-tight in construction, having a minimum opening dimension of twenty-four (24) inches.
- e.** “Two-way” cleanouts shall be installed in the drainage piping inlet and outlet side of each grease interceptor. (See Exhibit L)
- f.** The grease interceptor shall be located at least twenty-five (25) feet from the last fixture connected to the grease line within the building.
- g.** Grease and oil interceptors shall be constructed of impervious materials, capable of withstanding abrupt and extreme changes in temperatures. They shall be watertight and substantially constructed.
- h.** Grease traps / interceptors shall be clearly illustrated and drawn to scale on all utility plans. Applicants are required to provide sanitary riser diagram and a floor plumbing-mechanical plan.
- i.** A copy of the plumbing plan showing the location and number of fixtures including, but not limited to:
 - i.** 3 compartment pot sink
 - ii.** 2 compartment pot sink
 - iii.** 1 compartment pot sink
 - iv.** Utensil soak sink
 - v.** Pre-rinse sink
 - vi.** Tilt brazing pan to floor trough

- vii. Tilt kettle to floor trough
- viii. Steamer floor sink or trough
- ix. Wash-down hood floor sink or hub drain
- x. Mop sink or stall adjacent to kitchen area
- xi. Dishwasher machine
- xii. Can wash station
- xiii. Chinese range / Wok Stove
- xiv. Chef's table sink
- xv. Floor troughs or floor sinks having grease laden waste discharged to them
- xvi. Floor drains around grease producing fixtures; fryer, griddle, broiler, oven, dishwasher, mop sink, can wash station, pre-rinse, cook top stove.

Notable Exceptions: Drains that receive “clear waste” only, such as from ice machines, condensate from coils and drink stations, may be plumbed to the sanitary system without passing through the grease interceptor with the condition that the receiving drain is a “hub” type, a minimum of two (2) inches above finished floor.

- j. Only grease or oil wastes shall be routed through the trap / interceptor.
- k. **No grease interceptor shall have any enzyme, bacteria and / or other similar chemicals or agents introduced, nor shall they use automatic or manual solvent dispensers without the written approval of the Authority's Engineer.**
- l. All grease interceptors are to be installed with an Effluent Sampling Well, which shall be located downstream of the interceptor outlet cleanout. Sample wells will have a minimum ten (10) inch diameter access cover and a minimum six (6) inch drop from inlet to outlet piping through the sampling well.
- m. The maximum fat, oil and grease “FOG” effluent limit shall not exceed 150 mg/l.
- n. More than one grease trap / interceptor may be used in any operation to accommodate the anticipated loading.

Additional Notes for Commercial Services

In areas subject to traffic, the interceptor shall be designed to have adequate reinforcement and cover (including piping), meeting NJDOT traffic loading specifications. Grease interceptors located in traffic areas will require a concrete driving surface over piping with structural backfill around piping.

Interceptors shall be designed so that they shall not become air bound if a closed cover is used. The tank and the discharge line shall each be vented, and the vents shall not be tied together less than forty-two (42) inches above the tank lid elevation.

For “shell only” construction, provisions must be made for the installation of traps / interceptors to serve any future tenant fit ups where food products may be used. Developers of shopping centers and strip buildings are encouraged by the Authority to install two dedicated sanitary sewer lines. Stub outs shall be provided to direct the kitchen waste of future food service facilities into an outside grease interceptor, and then return the effluent from the grease interceptor back into the building sanitary sewer lateral.

5. Sizing Criteria

The sizing methods described herein are intended as guidance in determining the grease trap / interceptor sizes that will afford the Authority’s sanitary sewer system a maximum degree of protection against grease and other obstructing materials. All submitted sizing calculations shall be reviewed by the Authority Engineer for approval. Minimum acceptable grease interceptor sizing shall be accomplished as follows:

- a.** Size according to the Drainage Fixture Unit criteria found in “Exhibit M”. The sizing of all grease interceptors shall be determined from the summation of the Fixture-Unit Values for all of the contributing connections and multiplied by a flow rate of three (3) gallons per minute. The total flow is then multiplied by a twelve (12) minute retention time for businesses without a garbage disposal unit, or a seventeen (17) minute retention time for businesses with a garbage disposal unit. Rounding to the next nearest sized interceptor shall provide the minimum grease interceptor required
- b.** The minimum acceptable volume of a grease interceptor shall not be less than **five hundred (500) gallons**
- c.** The maximum individual size shall be three-thousand (3,000) gallons, a series of interceptors may be necessary for larger grease interceptor capacities greater than three-thousand (3,000) gallons based on cleaning and maintenance requirements.

6. Location

All interceptors shall be readily accessible for inspection, servicing, and maintenance and be in proper working condition. Planting restrictions are for trees only unless specifically noted, no landscaping shall be permitted within a fifteen (15) foot radius from the center of the access manholes, a sixteen (16) foot wide access route to all manholes located in landscaped areas must be provided. The use of ladders or the removal of bulky equipment in order to inspect or service interceptors shall constitute a violation of accessibility. Where feasible, all interceptors shall be located outside of the facility served. Interceptors may not be installed in any part of a building where food is handled. Location of all interceptors shall be approved by the Authority, and shall be shown on the approved service utility plan connected to the outfall line.

7. Customer (Applicant) Responsibilities

Maintenance of grease interceptors and grease traps shall be the sole responsibility of the owner or operator to ensure proper operation in preventing any obstruction, interference or damage to the collection system. Any existing commercial or industrial customer, as defined above, operating without a grease interceptor receptacle of any type, will be required by the Authority to install a suitable device when the wastewater flowing from the facility contains sufficient quantities of grease or oil to adversely affect the operation of the public sanitary sewer system.

Hazardous wastes, such as acids, strong cleaners, pesticides, herbicides, paint, solvents or gasoline shall not be disposed of where they would go through grease interceptors or traps.

The use of any enzymes, chemicals, or bacteria as a substitute for grease traps or grease interceptor maintenance is prohibited. Only mechanical cleaning is acceptable. The addition of emulsifiers into grease removal devices is strictly prohibited. Decanting or discharging of removed waste back into the trap or interceptor from which the waste was removed or any appurtenance of the wastewater collection system is strictly prohibited.

Maintenance records shall be maintained for at least three (3) years at the site location at all times and must be available at the request of the Authority Engineer and / or Authority Inspector. Dates for all cleaning and maintenance, type and quantity of material removed from the grease interceptor and the disposal location are to be provided. The Authority Inspectors have the right to perform unannounced inspections.

Solids and grease collected from the grease interceptor must be disposed of in a manner that complies with all applicable County, State and Federal regulations.

Grease Interceptors shall be maintained by the regularly scheduled removal of the accumulated grease and solids, approximately on a three (3) to six (6) month interval, however, some establishments may require cleanings more often. All grease interceptors shall be pumped entirely at 25% total volume of accumulated solids and grease waste. No partial pumping or skimming shall be allowed. The side, bottom and baffles shall be scraped to remove all solids.

After cleaning, the interceptor shall be filled with fresh water only provided by normal facility discharge from permanently installed fixtures.

8. Grease Traps

Interior grease traps shall be allowed only when there are minimal fixtures being used for food preparation. No more than four (4) separate fixtures shall be connected to or discharged into any one grease trap. The following are examples

of those facilities that may request a variance to install a grease trap in lieu of a grease interceptor:

Delicatessens, sandwich shops, coffee shops, pizza take out facilities (only pizza being served) and ice cream parlors. These facilities must have limited preparation of pre-cooked meals / food, minimal cooking, food preparation and where minimal cleanup from food service would take place.

Approval for the use of an indoor grease trap may only be permitted at the discretion of the Authority Engineer.

In all cases, the **minimum** grease trap required by the Egg Harbor Township Municipal Utilities Authority must be a device rated at fifty (50) gallons per minute flow with a 100-pound grease capacity. Garbage disposals or dishwashers shall not be discharged to a grease trap, thus a grease interceptor will be required where these facilities exist. Mop sinks are not required to be connected to grease traps. A flow restriction valve shall be installed upstream of the grease trap and be constructed in such a fashion that it remains accessible for service, is properly vented and must remain in place at all times.

The minimum cleaning frequency for any indoor grease trap shall be completed on at least a 30-day cycle where the device is fully pumped. No partial pumping shall be allowed. The sides, bottom and baffles shall be scraped to remove all solids. After cleaning, the trap shall be filled with fresh water only provided by normal facility discharge from permanently installed fixtures. On-floor internal grease traps are not permitted by the Egg Harbor Township Municipal Utilities Authority

9. Sand-Oil Interceptor

Sand-Oil Interceptors shall be installed in accordance with the Uniform Plumbing Code and these Rules & Regulations. Metals such as copper, lead, molybdenum, and zinc, and oil and grease are among the pollutants commonly found in vehicle service wastewater. Interceptors, as described in these standards, shall be installed in but not limited to, the following “covered” locations: car washes, motor vehicle, boat or airplane storage yards, gasoline and diesel service stations, repair garages, cooling towers or any other similar facility which may introduce sand and oil into the sewer system.

Location

- a.** Sand-oil Interceptors shall be Sand-Oil Interceptors shall be so installed and connected that they shall be at all times accessible for inspection, cleaning and removal of the intercepted waste.
- b.** Sand-Oil Interceptors shall be placed as close as practical to the fixture served.

- c. Sand-Oil Interceptors shall be located on the outside of buildings unless otherwise specifically approved in writing from the Egg Harbor Township Municipal Utilities Authority.
- d. Sand-Oil Interceptors shall be located as to be accessible for service without the use of ladders or the removal of bulky equipment.
- e. Location of all Sand-Oil Interceptors and their outfall locations shall be shown on the approved construction or utility plans.
- f. Each Sand-Oil Interceptor shall serve only one business establishment. Multiple business connections to a single sand-oil interceptor are not permitted.

Sizing Criteria for Sand-Oil Interceptors

The minimum sized Sand-Oil Interceptor permitted by the Authority shall be five-hundred (500) gallons of total liquid capacity. The maximum individual interceptor size shall be two thousand five hundred (2,500) gallons, a series of interceptors may be necessary for larger sand-oil interceptor capacities greater than two thousand five hundred (2,500) gallons, based on cleaning and maintenance requirements.

Sand-Oil interceptors shall be sized according to the following formula:

$$[(\text{Square footage area of the facility} / \text{Facility factor}) \times 7.48] \times 2 = \text{Volume of Interceptor}$$

Facility Factors

One (1) cu. ft of interceptor capacity equals:

- 15 sq. feet of floor space at: Truck washes, heavy equipment wash
- 50 sq. feet of floor space at: Automatic car wash
- 75 sq. feet of floor space at: Car wash (hand held spray)
- 100 sq. feet of floor space at: Machine-automotive workshop/work area/car dealership
- 250 sq. feet of floor space at: Paint spray booths
- 300 sq. feet of floor space at: Printers

Machine-automotive workshops/work and storage areas

This includes but not limited to: motor vehicle, boat or airplane storage yards / garages, gasoline and diesel service stations, repair garage, storage warehouse, internal parking bay(s).

- Maximum floor area of 3,000 sq. ft = 500 gallon interceptor
- Floor area of 3,001 to 6,000 sq. ft = 1,000 gallon interceptor
- Floor area greater than 6,001 sq. ft – sizing with approval of the Authority

Note: Parking garages shall not require a sand-oil separator unless vehicle servicing, repairing, washing or gasoline dispensing occurs. Areas in commercial garages utilized

only for storage of automobiles are not required to be drained through a sand-oil separator.

Car Wash

Standard / basic car-wash facilities either single bay or auto bay configuration shall be connected from an internal catch basin / drain to a Sand-Oil Interceptor and then connection to the public sanitary sewer system. Sand-Oil Interceptors shall be located on the outside of buildings unless otherwise specifically approved in writing by the Authority. Location of all Sand-Oil interceptors and its outfall location shall be shown on the approved construction or utility service plans approved by the Authority.

This includes, but not limited to: manual, auto and recycled car wash facilities.

Maximum wash floor area of 1,500 sq. ft = 500 gallon interceptor

Wash floor area of 1,501 to 3,000 sq. ft = 1,000 gallon interceptor

Floor area greater than 3,000 sq. ft – sizing with approval of the Authority

10. Lint Interceptor for Laundromats

Commercial / institutional laundries, laundromats and dry-cleaners shall be equipped with an interceptor in order to reduce the quantity of lint, silt, dissolved and suspended solids, as well as detergents from entering the collection system. A lint interceptor is commonly referred to as a “lint trap”, typically located outside of the building and buried below grade. The system must be of adequate size and design to allow for cool-down of wastewater so that separation can be more readily achieved. The interceptor must be installed with a wire basket or similar device, removable for cleaning that prevents passage into the drainage system of solids larger than ¼-inch in any dimension, strings, rags buttons or other materials detrimental to the public sewerage system. Inlet and outlet piping shall be a minimum of four (4) inches or the size of the building sewer whichever is greater. In traffic areas, the interceptor shall be designed to have adequate reinforcement and cover (including piping), meeting NJDOT traffic loading specifications.

Maintenance

The lint interceptor should be cleaned routinely to prevent the escape of appreciable quantities of lint, silt and solids. Cleaning should be performed when the interceptor is at 75% of lint / silt retention. The frequency of cleaning at any given installation will vary depending on use. Cleaning frequencies should range from once (1) a month to once every six (6) months.

Sizing Criteria for Lint Interceptors

The lint interceptor shall be sized according to the Uniform Plumbing Code using the following formula:

$$\text{Basic formula} = (\text{TGC}) \times (\text{CPH}) \times (\text{RT}) \times (\text{ST}) = \text{Size of Interceptor (gallons)}$$

TGC = Total Gallons per cycle, i.e. gallons / cycle per machine x number of machines

CPH = Cycles per hour, i.e. 2 cycles per hour

RT = Retention time depending on size of laundry:
 2.5 for institutional laundry
 2.0 for commercial laundry
 1.5 for light commercial laundry

ST = Storage factor, based on hours of operation:
 1.0 Operation of a 8 hour day
 1.5 Operation of a 12 hour day

11. Abandoned Interceptors and Traps

Interceptors and traps abandoned in-place shall be cleaned of all debris (grease, sand, oil, etc.), the inlet and outlet pipe plugged at each end, then filled with gravel and the access area sealed, not to permit any entry into the interceptor.

Non Food Related Interceptor Requirements and Sizing Criteria

<u>Type of Business</u>	<u>Interceptor or other Pretreatment Device</u>	<u>Minimum Size</u>
<u>Commercial laundry</u>		
Up to 30 machines	Lint or Sand-Oil	350 gal
+30 machines	Lint or Sand-Oil	750 gal
<u>Industrial Shop</u>		
1 to 3 Fixtures	Sand-Oil	350 gal
4 or more	Sand-Oil	750 gal
<u>Barber / Beauty Salon:</u>		
Shampoo Sink	Hair Trap or Solids	JR Smith 8750 or Equiv
<u>Veterinary</u>		
Cage wash-down drain or Grooming Wash Tub	Hair Trap Solids	JR Smith 8750 or Equiv
<u>School</u>		
Science Lab Sink	Acid Neutralization	350 gal
Art Room Sink	Plaster Trap or Solids	JR Smith 8710 or Equiv
<u>Hospital, Doctor, Dentist or Lab</u>		
Cast Room Sink	Plaster Trap or Solids	JR Smith 8710 or Equiv

Dental Lab Sink	Plaster Trap or Solids	JR Smith 8710 or Equiv
Laboratory Sink	Acid Neutralization Tank	Site Specific

Silk Screen Printing

1 to 3 Fixtures	Sand-Oil	350 gal
4 or more	Sand-Oil	750 gal

Optical Manufacturing

Lens Machine & Lab Sink	Solids	JR Smith 8715 or Equiv
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E. Pretreatment

The Authority reserves the right to require pretreatment and/or flow equalization where the chemical or flow characteristics of the proposed industrial wastes, in the opinion of the Authority Engineer, or in the opinion of state or federal agencies, make such pretreatment or flow equalization desirable or mandatory. Some of the characteristics which may indicate pretreatment are listed below:

1. Five (5) day B.O.D. in excess of 300 Mg/L.
2. Total Suspended solids in excess of 400 Mg/L.
3. Average daily flow in excess of 17% of rated capacity of the establishment.
4. 40 mg/L of fat, oil or grease or minerals.
5. Presence of arsenic, barium, cadmium, chloride, chromium, copper, cyanide, fluoride, iron, lead, magnesium, manganese, nickel, nitrate, selenium, sulfate, zinc, or pH values outside the acceptable limits as described above.
 - a. The substances listed below shall not exceed the following specified limits:

Limit Mg./L

Arsenic	0.1
Barium	2.0
Cadmium	0.02
Chromium (hexavalent)	0.10
Copper	1.0
Cyanide (Total)	1.0
Iron (as Fe)	5.0
Lead	0.10
Mercury	0.01
Nickel (as Ni)	0.36
Selenium	0.02
Silver (as Ag)	0.24
Zinc	2.0
MBAS	10.0

- b. Persistent pesticides – not to exceed one one-hundredth of the TL₅₀ value at ninety six (96) hours as determined by appropriate bioassay. (Persistent pesticides are defined as natural and synthetic materials having a half-life

of greater than ninety six (96) hours, which are used to control unwanted or noxious animals or plants. They include fungicides, herbicides, insecticides, fumigants and rodenticides.)

6. Dissolved solids in excess of 1500 Mg/L.
7. Ammonia (NH₃) in excess of 40 Mg/L.
8. Phenol in excess of 1 Mg/L.
9. Substances exceeding regulations of agencies treating the waste stream or regulating same shall be immediately incorporated into these regulations without local approval.
10. No user shall ever increase the use of water to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance with the limitations contained in the Federal Categorical Pretreatment Standards, or in any other pollutant – specific limitation developed by the Authority or State.

In such instances where it is agreed that the industrial waste will be received following pretreatment, drawings and specifications shall be submitted for approval of the Authority Engineer showing all pertinent details of the indicator recorder-register type of flow meter, wastewater sampler and housing to be used, to meter and sample the flow of industrial wastes, and also details of the control manhole to be constructed on the industrial waste connection. The flow meter will be tele-metered via leased telephone wires to a receiver in the Authority's offices. The Receiver and all other incidental expenses incurred are to be borne by the applicant. The manhole shall be provided with adequate access manhole covers of approved type, through which access shall be possible to Authority personnel at all times. Drawings, specifications, reports, etc., shall be submitted in quadruplicate and shall be prepared and sealed by a Professional Engineer registered in the State of New Jersey.

Where pretreatment and/or flow equalization facilities are required, they shall be provided and continuously maintained in an effectively operating condition at all times, at the expense of the industry.

Each industry connected to the Authority sewer system shall be responsible for maintaining a quality of effluent from their premises that conforms to the provisions established in their agreement with the Authority. Sampling and analysis shall be done to conform with accepted practice and in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" and shall be performed by and be signed by a licensed operator.

The cost of preparing and submitting this data for consideration by the Authority shall be borne by the industry. Likewise, the cost of sampling and analysis to determine compliance with the terms of the agreement shall be borne by the industry, although conducted by the Authority or its duly authorized representative.

F. Control Manhole

Industries permitted to connect to Authority sewers, even though not initially being required to provide preliminary treatment, may be required to provide a control manhole and/or meter and sampler as described herein.

G. Industrial Waste and Flow Meter

Where deemed necessary by the Authority, industrial and/or commercial customers may be required to provide an approved flow measurement and sampling system. The requirement to furnish, install and maintain a flow meter of the indicator-register-recorder type, to measure the discharge of industrial wastes, and a wastewater sampler to periodically take and preserve a portion of the wastewater stream is described herein. The flow meter and wastewater sampler will be approved by the Authority, but supplied by the customer with the cost of said equipment and installation to be borne by the industry. Flow meters shall be tele-metered via leased telephoned wires to a receiver in the Authority's office. All cost of furnishing, installing and maintaining the industrial waste flow and sampling equipment will be borne by the industry and shall be readily accessible to Authority personnel.

H. Treatment of High Strength Industrial Wastewaters

High-strength wastewaters, including pretreated wastewaters will be subject to a rate surcharge if they unduly add to the burden of the sewage treatment plant. The surcharge for industrial wastewater shall be based on an analysis of the industrial wastewater.

SECTION IX FEES, BILLING & PAYMENTS

A. Connection Fees

The Authority assesses Connection Fees for connection into the Authority sewer system in accordance with N.J.S.A. 40:14B-22. The cost of the Connection Fee shall be determined annually at the December meeting and any change will become effective on January 1st of the ensuing year. No connection to the system shall be permitted until a Connection Permit is obtained and the connection fee is paid.

When the Authority extends sewer lines into areas of the Township that did not have sewers available, or when developers extend sewer lines past improved properties, the Authority shall notify the owners of all improved properties that service will be available to them. The Connection Fee that is currently applicable shall be locked in for those residents.

Each single improved, residential property connecting to the system will be charged the annual Connection Fee, as calculated annually. Improved properties having multiple dwelling units will be charged one (1) Connection Fee for each living unit, apartment or dwelling unit present based on the Tax Assessor's records of the number of apartments or units for the Block and Lot.

For the purpose of computing the Connection Fee for non-Living/Commercial customers, the basis of computation shall be based on Equivalent Dwelling Units (EDU's). Commercial, industrial users and non-living units, shall be charged Connection Fees based on Equivalent Dwelling Units that are calculated by dividing the design flow in gallons by eighty thousand (80,000). The Connection Fee shall be the number of EDU's or portion thereof multiplied by the annual rate set by the Authority each year.

The Connection Fee shall be calculated using the following guidelines for annual flow along with NJDEP Rules & Regulations Section 19.5. In no case will an EDU determination be less than 1.0.

Hotels and Motels – Number of units x 75 gpd x 365 days x 60% occupancy.

Restaurants – Number of seats x 35 gpd x 333 days.

Fast Food Restaurants – Number of seats x 15 gpd x 333 days.

Office Buildings – Useable building area x .125 gpd x number of days per year consistent with type of office (260-315 days).

Retail Stores – Useable building area x .125 gpd x reasonable occupation per year (315-360 days).

Retail Stores greater than 4,500 SF will utilize 20% of NJ factored flow for all water independent operations; in no case will resulting Equivalent Dwelling Unit (EDU) determination be less than 2.0.

Day Care Facilities – Number of occupants x 25 gpd x 260 days per year.

Gymnasiums and Health Clubs – Number of occupants x 15 gpd x 333 days / year.

Churches – Number of seats x 3 gpd x 104 days / year.

Schools – Number of students x 15 gpd x 200 days per year.

Warehouses – Employee basis using 25 gpd per employee or .0055 gpd/SF x 230 days.

Theaters – 5 gpd per seat x 365 days x 30% occupancy.

Finite Industrial Superfund – 10% of the total daily flow x 365 days per year.

The Authority reserves the right to utilize appropriate flow rates and annual sewage use on a case by case basis for all uses not listed.

In those cases where the owner of a property, which is presently connected to the public sewerage facilities and has paid a connection charge in the past, elects to expand the building, or change the usage of the facilities from which the sewage is being generated, a new connection charge will be levied on this account in the following cases:

1. An additional physical connection is required to the public sewerage facilities or a change in the existing connection due to capacity or location requirements.
2. New construction that requires a modification to the design flow or sewage allocation as described in the NJDEP Sewer Construction Permit for the property.
3. A change in use of a property that includes either a change in the character of the flow or a change in the intensity of the flow from the facility.

B. Five (5) Year Plans for Connection Fees

When sewer lines are extended past existing improved properties, the existing property owners shall be given the opportunity to pay the Connection Fee over five (5) years, billed quarterly, along with the sewer service bill. This Five (5) Year Plan will require that the property owner sign a contract with the Authority. No payments are required upon signing the contract and no interest will be charged as long as the customer pays all bills on time. Billing will begin with the next quarterly billing or when the property is connected, whichever happens first.

The Five (5) Year Plan and the terms of the contract are not transferable. A Ten-Dollar (10.00) Administrative Fee will be charged quarterly until the Connection Fee is paid in

full. This Five (5) Year Plan applies only to existing improved properties and cannot be used for new construction. The balance can be paid off at any time without incurring additional Administrative Fees.

C. Final Sewer Lateral Inspection

The Authority must make a final sewer inspection before a Certificate of Occupancy (CO) or Temporary Certificate of Occupancy (TCO) can be issued from the Egg Harbor Township Building Department. The Inspection Fee must be paid at the time the Connection Permit is issued.

The applicant, or the applicant's agent, shall request a final inspection by fax to the Authority's office at least three (3) days prior to the date that the CO or TCO is required.

1. If the property passes inspection, the Authority will notify the Building Department and applicant of the results.
2. If the property fails inspection, the Authority will notify the Building Department and applicant of the deficiencies. The applicant shall have thirty (30) days to correct the deficiencies. All subsequent inspections will result in an additional inspection fee.

D. Annual Sewer Service Charges

1. Residential Customers – Sewer service bills are rendered annually. Each bill will contain four (4) stubs and the charges are due and payable on a quarterly basis at the sewer rate established annually.
2. Commercial & Industrial Customers will be billed for the actual sewage flow discharged into the Authority's system. The Authority will determine the flow for billing based on water consumption. All commercial accounts will pay an annual fee of one EDU for the first eighty-thousand (80,000) gallons and an additional fee for excess usage per thousand (1,000) gallons at a rate that is set by the Authority for each Fiscal Year. Commercial accounts are billed in advance for the first 80,000 gallons. Any excess usage will be billed once the actual usage for the account has been determined. The Authority will obtain water consumption records from those public utilities that provide service to customers of the Authority. All commercial customers who are not serviced by a public water utility shall be required to install and maintain a water meter on their water line that will provide the basis for determining flow. The meter must be readily accessible to the Authority's meter reader at all times or have a remote readout installed on the exterior of the building.
 - a. Finite Industrial Superfund customers will be billed using the actual, metered flow from the property. Each EDU will be billed quarterly at the current quarterly residential rate.
3. Each Commercial Establishment and/or Non-Living Unit that is, or is capable of, separate property ownership including by the act of subdivision, condominium establishment or other means, shall maintain a separate water meter for each such

establishment and/or unit for the purpose of measuring the sewer flow discharged into the Authority's system and for the calculation of sewer service charges for such establishment and/or unit that is, or is capable of, separate property ownership. This provision shall apply regardless of whether the establishment(s) or unit(s) is/are currently owned by the same individual or entity.

E. Unpaid Sewer Bills

All sewer bills that remain unpaid after thirty (30) days will accrue interest at the rate authorized by the applicable state statutes. Any unpaid balance of service charges and interest hereon shall be a lien against the property and action shall be initiated pursuant to the procedures specified at the discretion of the Authority and in accordance with applicable laws.

Notice of delinquent charges shall be given annually to the Tax Collector of Egg Harbor Township thirty (30) days prior to the Township posting notice of publishing all delinquent municipal charges.

F. Title Search

All sewer charges levied against an improved property are municipal liens and shall remain on a property until paid. Upon written request, the Authority will provide a written accounting of all charges pending against a property to the Title Company or whatever authorized agent is processing the transfer of property. In the event that the charges are not paid at settlement, the charges shall remain on the account as a lien against the property.

G. Changes to the Account Information

Any and all requests for changes to the billing information on any account must be done in writing. The request must be made by and signed by the property owner.

H. Account Adjustments

Customers who have documented proof that a water leak or spill has resulted in excessive water usage that did not enter the sewer system may apply to the Authority for an adjustment to their account to reflect the true amount of water that entered the sewer system. All requests for adjustment must be made in writing and must be accompanied by proof that satisfies the Authority that the water was not discharged into the sewer system.

I. Owner / Tenant Responsibility

All charges for sewer service are a lien against the property and therefore the responsibility of the owner. If the property owner requests in a letter that the bills be sent to the tenant, the Authority, at its discretion, may oblige after informing the property owner that the final responsibility for any unpaid charges is the responsibility of the owner of the property.

J. Continuation of Service

Upon connection of an improved property to the sewer, the obligation to pay the minimal annual service charge continues despite the failure to occupy the property or to use the sewerage facilities, so long as the building or structure on the property is still available for use and the sewer facilities remain available. Sanitary sewerage service may be terminated through procedures outlined in Section X.

K. Developer's Account

A developer may submit plans prepared by his or her engineer for the extension of sanitary sewers to the Authority or, at the developer's option, request that the Authority Engineer provide the design of off-site facilities with the Authority Engineer's consent. If the applicant desires to have the Authority Engineer provide the design of the facilities the developer shall request an estimate of the Authority's cost to design the system and obtain all necessary permits. The developer shall submit the estimated amount to the Authority and the funds will be deposited into the Developer's Account. These funds will be used to compensate the Authority Engineer, Solicitor and contractors for the work of designing the sewer system and obtaining all permits.

L. Review Fees & Escrow Deposits

All Review Fees or Escrow Deposits stipulated in the Rules & Regulations are intended as initial deposits to be held by the Authority in the Developer's Account and used to reimburse the Authority for all expenses incurred by the Authority for the project.

The following close-out procedure shall apply to all deposits and escrow accounts established under the provisions of N.J.S.A. 40:14B-20.1 and shall commence after the approving authority has granted final approval and all upgrades, improvements and/or inspections have been completed.

The applicant shall send written notice by certified mail to the Authority Clerk of the Egg Harbor Township MUA, and to the relevant Authority professional, that the upgrades, improvements and/or inspection have been completed. After receipt of such notice, the professional shall render a final bill to the Authority Clerk within 30 days, and shall send a copy simultaneously to the applicant. The Authority Clerk shall render a written final accounting to the applicant on the uses to which the deposit was put within 45 days of receipt of the final bill. Any balances remaining in the deposit or escrow account shall be refunded to the applicant along with the final accounting.

M. Meeting with the Engineer

Any interested party may arrange to meet with the Authority Engineer for a pre-application meeting to investigate the possibility for obtaining sewer service. The Authority will charge for such meetings at an hourly rate that is set each year by resolution. All fees shall be deposited to the Developer's Account.

N. Recapture

Developers that expend funds for the extension of sewer facilities may seek to recover some costs of their expenditures when and if a subsequent property owner connects to the

sewer system via the sewer facilities constructed and/or paid for by the Developer (“Recapture Costs”). The Developer must enter into a Recapture Agreement with the Authority to become eligible to recover Recapture Costs. The Authority regulates and controls all Recapture Agreements.

1. Eligibility

- a.** A developer shall become eligible to receive Recapture Costs upon entering into a Recapture Agreement with the Authority and legally commencing construction of sanitary sewer improvements in accordance with the applicable Authority Rules and Regulations.
- b.** The total Recapture Costs will consist of the certified construction costs, administrative fee and soft costs which equate to ten (10%) percent of the certified construction costs.
- c.** A developer becomes eligible to enter into a Recapture Agreement when the eligible Recapture Costs exceed \$50,000.

2. General Provisions

- a.** All recapture agreements must be prepared and approved by the Authority Solicitor. Once drafted, the agreement must be submitted to and approved by the Authority Engineer and Authority Clerk in conjunction with the final application. The agreement must contain all information pertinent to the application.
- b.** Prior to execution of the Recapture Agreement by the Authority, the developer shall pay an estimated Administrative Fee of 1% of the estimated construction costs. The Administrative Fee is defined as 1% of the certified construction costs.
 - i.** At the time the construction costs are certified, the Administrative Fee will be adjusted according to the increase or decrease of the estimated construction costs.
 - ii.** The Administrative Fee will also be charged on an agreement extension.
- c.** All recapture agreements are for a term of five (5) years. The term shall begin on the date escrow funds specifically designated for the eligible improvements are deposited with the Authority, or letters of credit are posted with Authority (on projects where the Authority will be constructing the improvements) or the legal commencement of construction by the developer.
- d.** An extension may be granted for good cause as demonstrated by the developer. All extension requests must be in writing and reviewed by the Commissioners prior to the expiration of the original agreement.
- e.** The Recapture Costs that are eligible to be included in the agreement are certified construction costs, soft costs (10% of certified construction costs) and the Administrative Fee.

3. Original Developer

- a. The original developer is required to submit an estimate of the construction costs in conjunction with final approval. This estimate will be used to determine the estimated Recapture Costs. The certified construction costs will be based on the estimate provided at the time final approval was granted. The certified construction costs will not exceed 125% of the estimated construction costs.
- b. When the developer receives the MUA final approval, the developer will be given sixty (60) days to sign the Recapture Agreement and pay the Administrative Fee. Failure to sign the agreement within the sixty (60) days will release subsequent developers from recapture obligations.
- c. All construction costs must be submitted to the Authority Engineer for review and certification within thirty (30) days of the completion of the project.

4. Subsequent Developers

- a. Define initial developer as Developer Number One, herein the parties to this agreement.
- b. Define each subsequent developer as Developer Number Two, Three, etc....
- c. Developer Number One provides the total amount of construction funds as required to construct any system upgrades as defined in the Final EHTMUA Approval.
- d. Developer Number Two contributes as sum of money equal to an amount determined by the ratio of Developer Number Two's sewage flow allocation to the total flow allocation for Developer Number One, and Number Two taken together. This ratio or percentage is multiplied by the total sum of construction funds initially contributed by Developer Number One.
- e. Developer Number Three's sewage flow allocation now becomes the numerator of the aforementioned ratio and the denominator is increased by Developer Number Three's flow. This new percentage is multiplied by the total sum of construction funds to determine amount of funds contributed to the repayment program by Developer Number Three. This sum of money must now be apportioned to developer Number One and Two.
- f. The portion of Developer Number Three's total contribution which is paid to Developer Number One is determined by the ratio of developer Number One's flow to the total flow of Developers Number One and Two. Developer Number Two receives the remaining portion of Developer Number Three's contribution.
- g. The above procedure continues in a like fashion for each subsequent developer.
- h. Any applicants that propose two or more units will be subject to recapture. All commercial connections will be subject to recapture based on the permitted annual flow.

- i.** All recapture monies due and administrative fees must be paid prior to the EHTMUA Construction Permit/Connection Permit being issued and/or the legal commencement of construction.
- j.** All checks for Recapture must be certified to insure that monies will be available to disperse to original developers.

5. Exceptions

- a.** An existing, improved property connecting to the sewer line will not be subject to recapture.
- b.** A not for profit, Township owned, property will not be subject to recapture. (Includes but not limited to: fire halls, rescue squad buildings, sports facilities)

SECTION X

MISCELLANEOUS PROVISIONS

A. Reasonable Access

The properly identified authorized agents for the Authority shall have the right of access to the premises served, at all reasonable hours, for the purposes of examining fixtures and pipes, observing the manner of using the sewer and for any other purposes which are proper and necessary in the conduct of the Authority's business.

B. No Oral Agreements

No agent or employee of the Authority has authorization to bind it by any promise, agreement, or representation not provided for in these Rules & Regulations.

C. Replacement of Service Lateral

In the event that a sewer service lateral must be replaced from the main to the cleanout, the Authority will renew the service in its existing location. If the property owner or customer, for his or her own convenience, desires the new service lateral to be placed at some other location, the Authority will lay the new service lateral at the location desired provided the property owner agrees to pay all expenses of such relocation in excess of the cost of replacing the service lateral in the same location as previously used.

D. Disconnection from the Sewer System

1. Property owners can elect to temporarily disconnect from the sewer system under the following conditions:
 - a. Account must be current or made current.
 - b. A one-hundred (\$100) dollar disconnect fee must be submitted with application.
 - c. If the line is capped, the Authority Inspector must inspect the line to ensure the capping has been properly accomplished.
 - d. A thirty (\$30) dollar inspection fee will be charged annually. This inspection will be accomplished to ensure that the property owner has not re-connected to the sewer system.
 - e. To reconnect, a one-hundred (\$100) dollar reconnect fee must be paid.
 - f. Service, and billing, will be activated on the day the re-connect fee is paid.
2. Property owners can elect to permanently disconnect from the sewer system.
 - a. A demolition permit must be obtained from the Township.
 - b. No disconnect fee will be charged.
 - c. The building sewer must be cut and capped on the property side of the cleanout.
 - d. The Authority Inspector must make a final inspection to ensure that the capping has been properly accomplished.
 - e. Once the Township Building Department provides a final satisfactory inspection of the demolition, the sewer service charges will be canceled as of the capping inspection date.

- f. Once the line is capped, the property owner must file a connection application with the Authority if the property is to be reconnected.
- g. In the case of a Non-Living, Commercial account, the Connection Fee will be recalculated based on the proposed use and/or increase of the EDU's of the property.

E. Complaints

All complaints with regard to the service furnished or the bills rendered must be made to the Authority's office, either orally or in writing. All complaints will be recorded by the Authority on forms approved for the purpose and will note the name and address of the complainant, the nature of the complaint and the remedy taken, if any. All complainants shall receive a response from the Authority explaining the actions taken by the Authority as a result of the complaint.

F. Release of Franchise

When the Authority receives a request to release a township property from the requirement to connect to its sewer system so that the property can be connected to sewerage facilities of another agency, the Authority will conduct a full review of the application and options for providing service to the property.

If the Authority determines that it lacks the ability to provide service in the area or that an extension of Authority facilities would constitute an onerous burden on the applicant, a revocable release may be granted. The Authority will charge a fee for the release in the amount established by the Authority annually.

If, at some future time, the Authority determines that it can service the area as a result of changes or additions to its facilities in the area. The Authority reserves the right to negotiate with the other agency to reconnect the released units to its system.

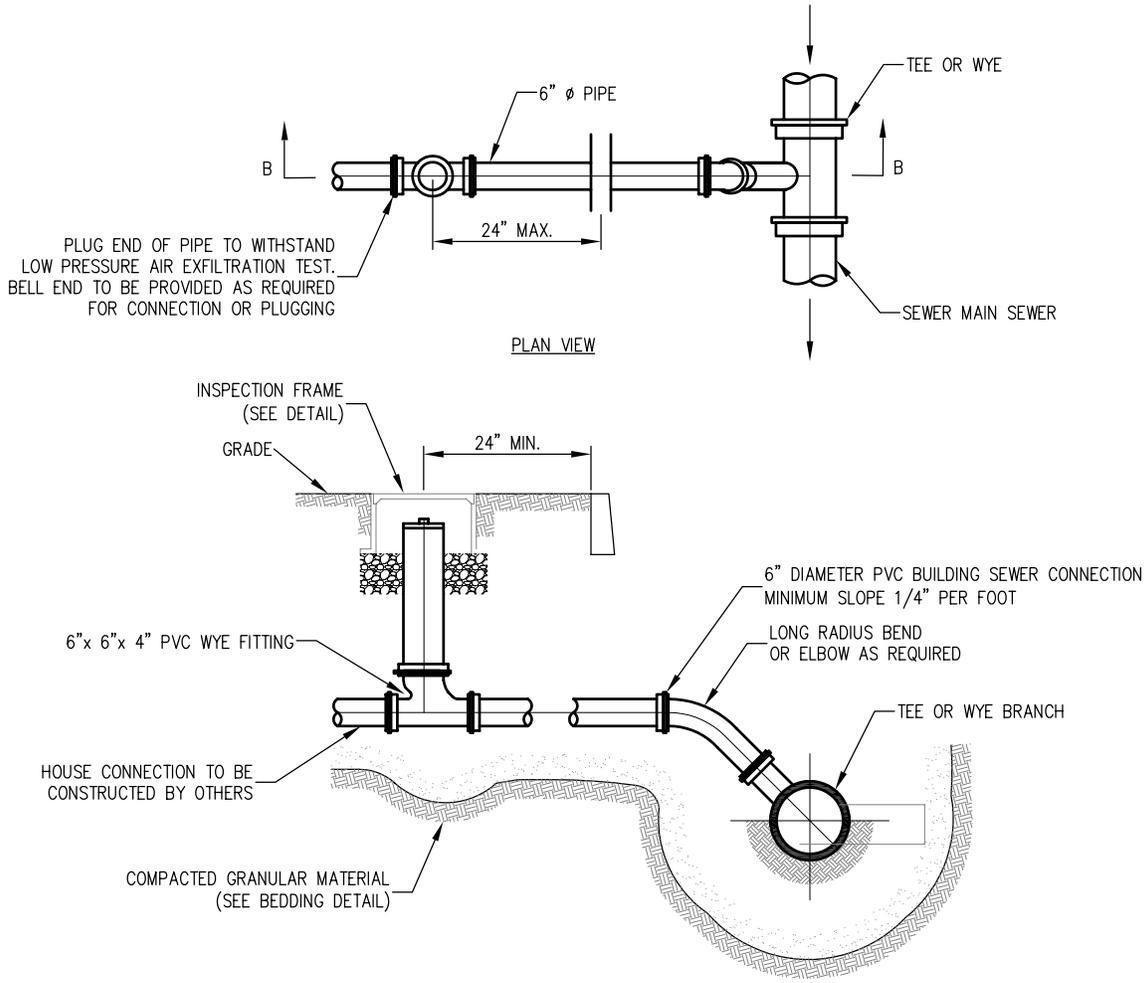
G. Dry Sewers

The Authority shall not permit the installation of any sewer line nor accept into its system any sewer line that is not connected to the Authority's existing sanitary sewer system or another approved connection point and available for use by the Authority's customers.

SECTION XI EXHIBITS

- A. Typical Lateral Connection**
- B. Inspection Frame Cleanout Detail**
- C. Deep Sewer Connection**
- D. Concrete Encased Lateral Connection**
- E. Gravity Main Bedding Detail**
- F. Force Main Bedding Detail**
- G. Standard Precast Concrete Manhole**
- H. Standard Precast Drop Manhole**
- I. Standard Precast Inside Drop Manhole**
- J. Manhole Cover & Frame**
- K. Air Release Chamber**
- L. Grease Interceptor**
- M. Drainage Fixture Unit**

EXHIBIT A



- NOTES:
1. ADEQUATE PROTECTION FOR SEWER MAIN TO BE PROVIDED DURING INSTALLTION OF BUILDING CONNECTION.
 2. IF SERVICE LATERAL CROSSES A WATER MAIN. LATERAL IS TO BE D.I.P. 5'-0" EITHER SIDE OF WATER MAIN.

SECTION B-B

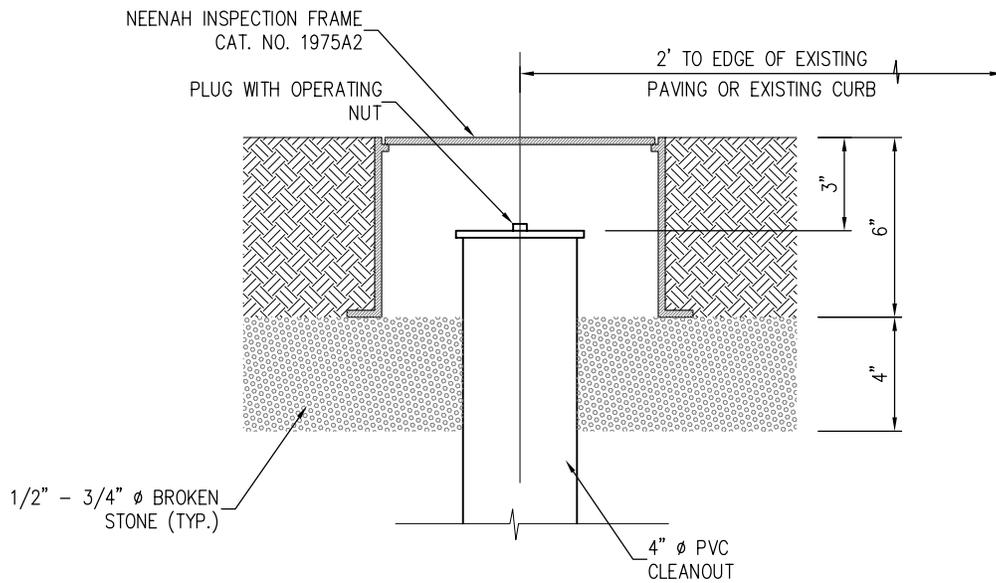
TYPICAL LATERAL CONNECTION

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	 POLISTINA Associates, LLC Engineers & Planners	Vincent J. Polistina				
	Sheet			Professional Engineer New Jersey License No. 41978				
B/O	1	EHTMUA	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Date				
Total	12			Building Lateral Connection	Section Detail	Designed STAFF	Drawn STAFF	Checked V.J.P.

EXHIBIT B

NOTE: MUST BE LOCATED IN PUBLIC RIGHT-OF-WAY.
 NO CLEANOUT IS TO BE LOCATED
 WITHIN A DRIVEWAY OR OTHER
 AREA SUBJECT TO VEHICULAR TRAFFIC.

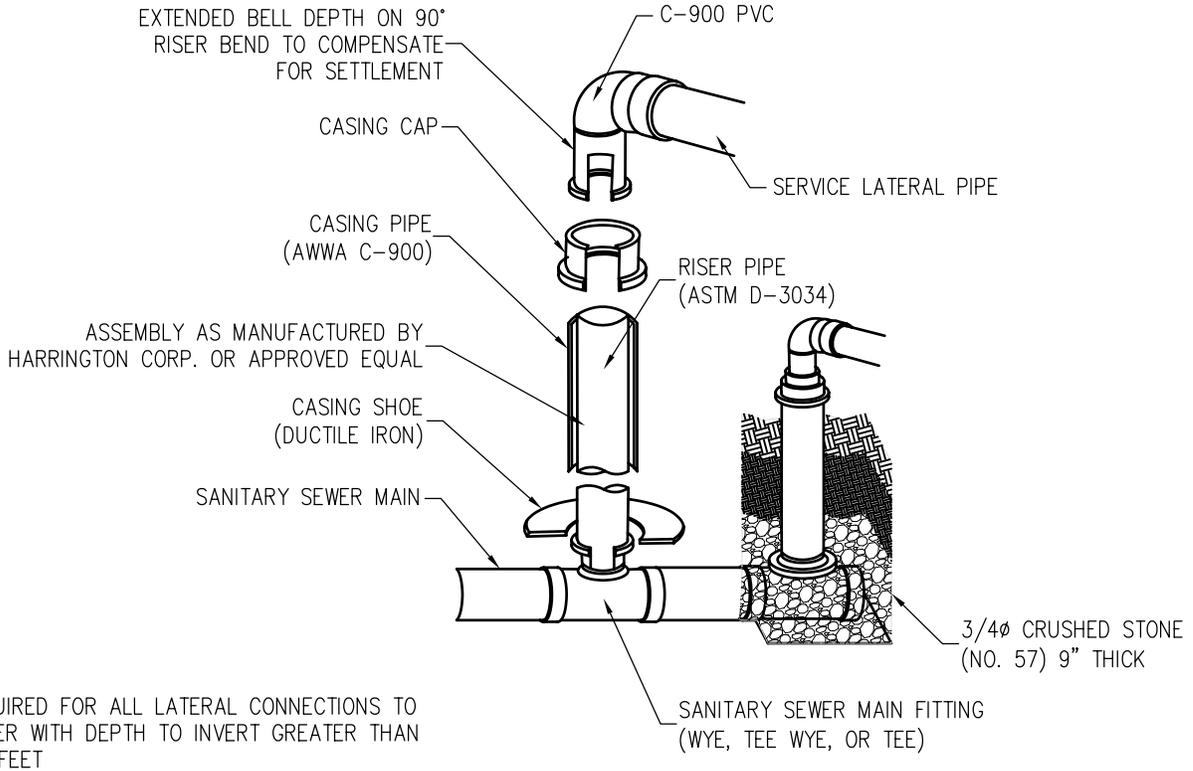


INSPECTION FRAME CLEANOUT DETAIL

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA Associates, LLC Engineers & Planners 6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date				
	2				Sheet	7/5/05			
B/O	Total	EHTMUA Inspection Frame Cleanout Section Detail	Designed STAFF	Drawn STAFF	Checked V.J.P.	Approved V.J.P.	Date 7/5/05		
12								12	

EXHIBIT C

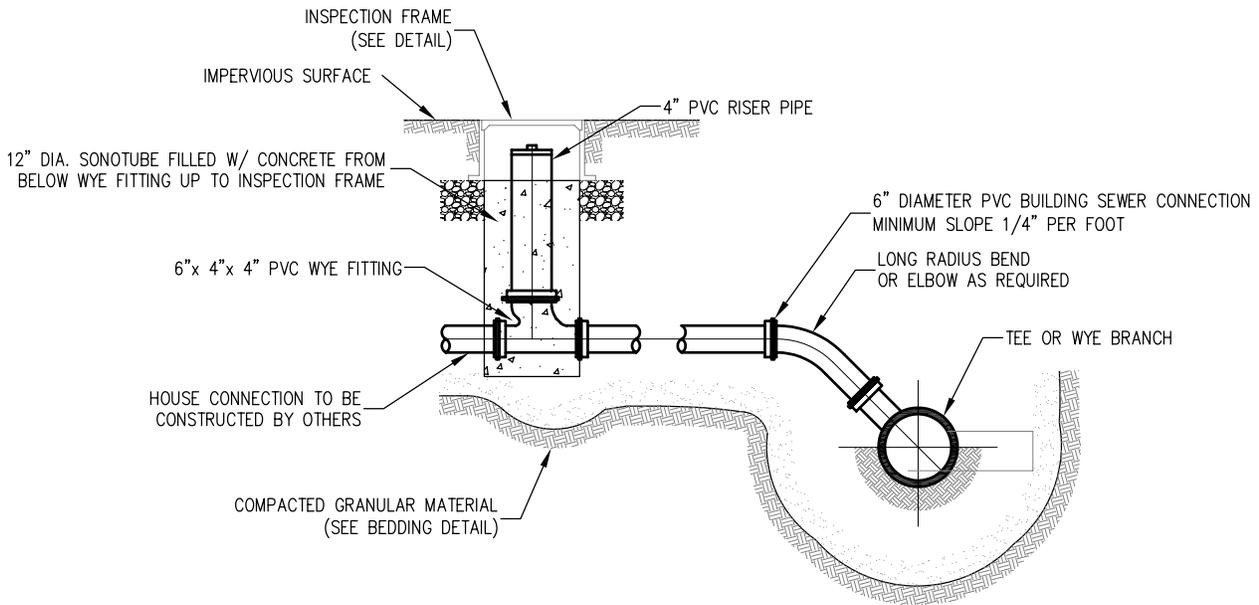
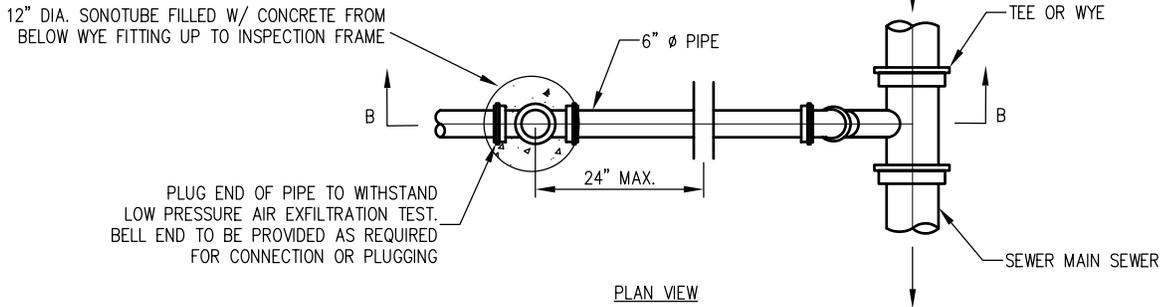


DEEP SEWER CONNECTION

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners 6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date				
	B/O				Sheet	Designed	Drawn	Checked	Approved
12	Total	EHTMUA			V.J.P.	V.J.P.	7/5/05		
		Deep Sewer Connection Section Detail			STAFF	STAFF			

EXHIBIT D



- NOTES:
1. ADEQUATE PROTECTION FOR SEWER MAIN TO BE PROVIDED DURING INSTALLTION OF BUILDING CONNECTION.
 2. IF SERVICE LATERAL CROSSES A WATER MAIN. LATERAL IS TO BE D.I.P. 5'-0" EITHER SIDE OF WATER MAIN.

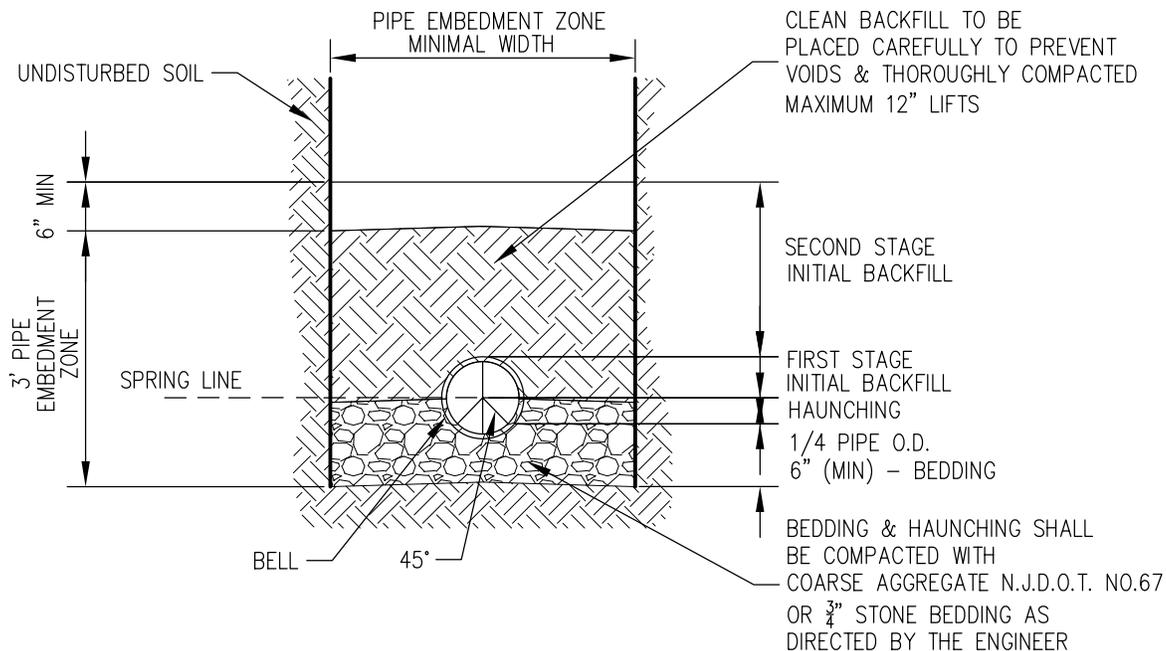
SECTION B-B

CONCRETE ENCASED LATERAL CONNECTION

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	 POLISTINA Associates, LLC Engineers & Planners	Vincent J. Polistina				
	B/O			Sheet	Professional Engineer New Jersey License No. 41978			
4	Total	EHTMUA	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Date				
12		Concrete Encased Riser Lateral Section Detail		Designed STAFF	Drawn STAFF	Checked V.J.P.	Approved V.J.P.	Date 7/5/05

EXHIBIT E



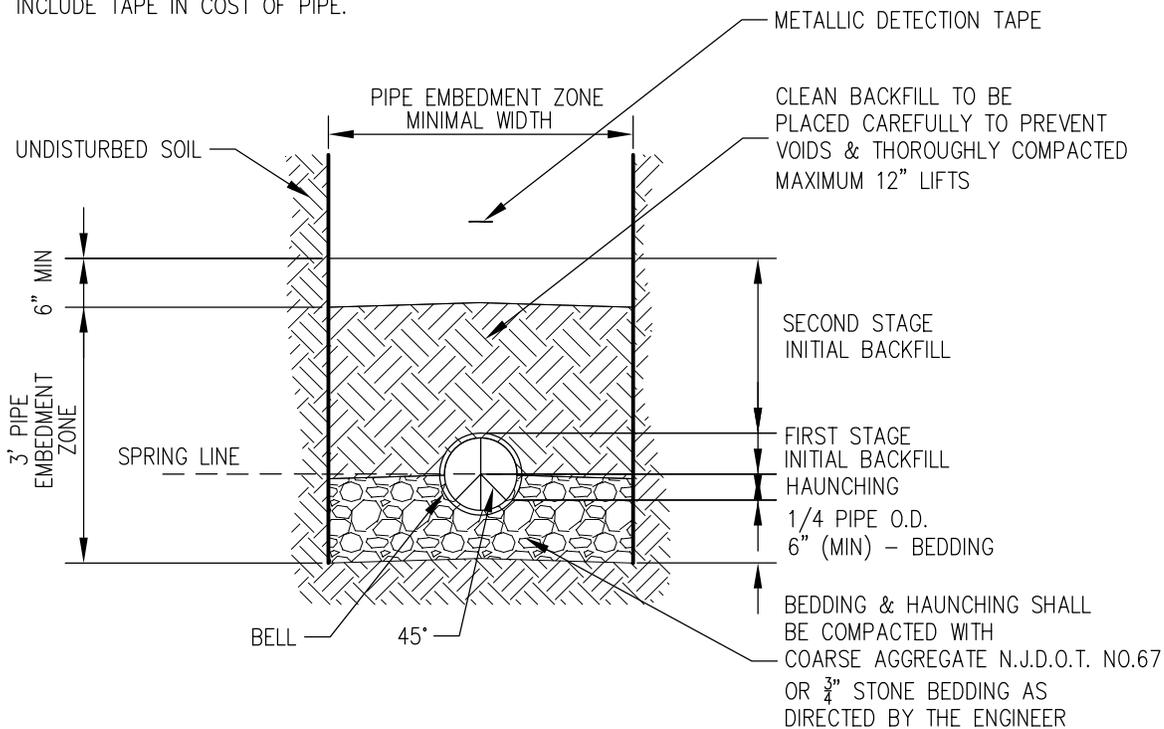
GRAVITY MAIN BEDDING DETAIL

N.T.S.

Job No. 8000	Sheet 5	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners 6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Vincent J. Polistina Professional Engineer New Jersey License No. 41978				
				Date				
B/O	Total	EHTMUA Gravity Main Bedding Detail Section Detail	Designed STAFF	Drawn STAFF	Checked V.J.P.	Approved V.J.P.	Date 7/5/05	
12	12							

EXHIBIT F

NOTE: INSTALL MAGNETIC DETECTABLE TAPE ABOVE ALL PVC PIPE LINES, 12"-18" BELOW FINAL GRADE. MINIMUM 2" WIDE, GREEN COLOR, METALLIC CORE PLASTIC FOIL WITH THE WORDS "CAUTION-PIPELINE BURIED BELOW" PRINTED IN BOLD BLACK LETTERS. INCLUDE TAPE IN COST OF PIPE.

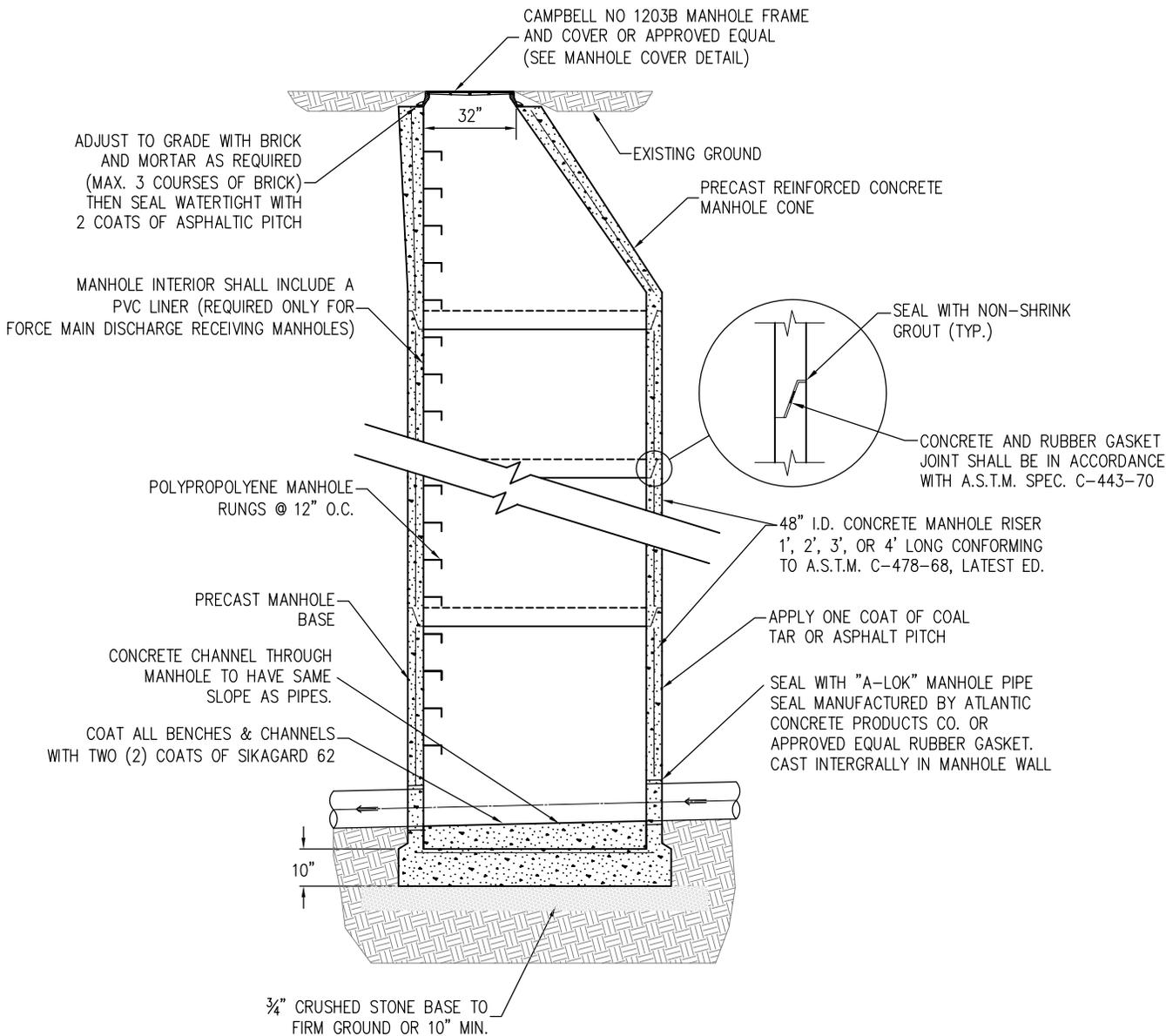


FORCE MAIN BEDDING DETAIL

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date				
	B/O				Sheet	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Designed	Drawn	Checked
12	Total	EHTMUA	Force Main Bedding Detail	Section Detail	STAFF	STAFF	V.J.P.	V.J.P.	7/5/05

EXHIBIT G

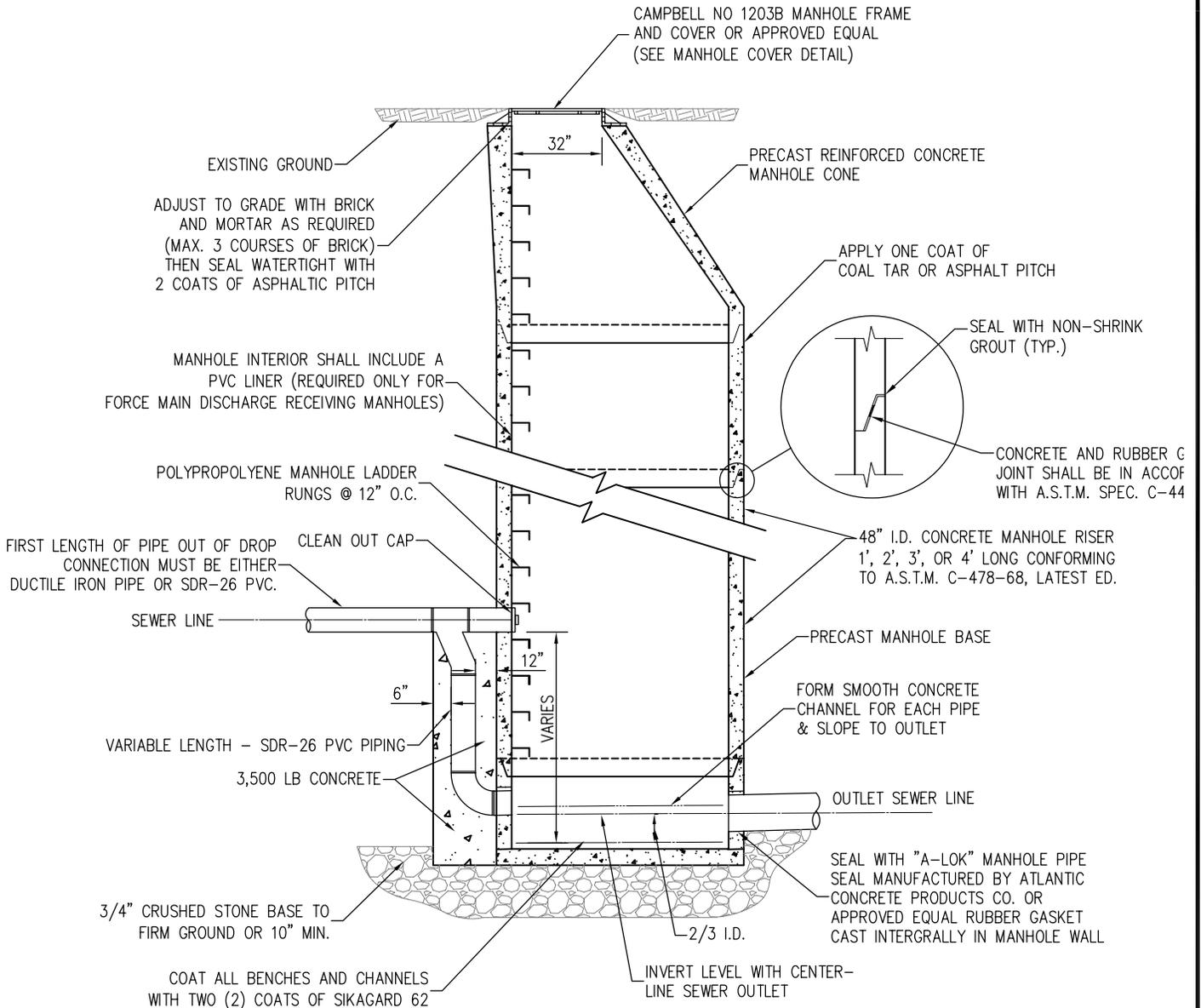


STANDARD PRECAST CONCRETE MANHOLE

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners	Vincent J. Polistina												
	Sheet			Professional Engineer New Jersey License No. 41978												
B/O	7	EHTMUA	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Date												
Total	12			<table border="1"> <tr> <td>Designed</td> <td>Drawn</td> <td>Checked</td> <td>Approved</td> <td>Date</td> </tr> <tr> <td>STAFF</td> <td>STAFF</td> <td>V.J.P.</td> <td>V.J.P.</td> <td>7/5/05</td> </tr> </table>					Designed	Drawn	Checked	Approved	Date	STAFF	STAFF	V.J.P.
Designed	Drawn	Checked	Approved	Date												
STAFF	STAFF	V.J.P.	V.J.P.	7/5/05												

EXHIBIT H



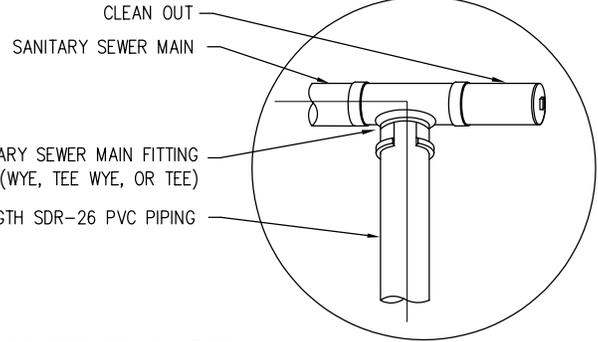
STANDARD PRECAST OUTSIDE DROP MANHOLE

N.T.S.

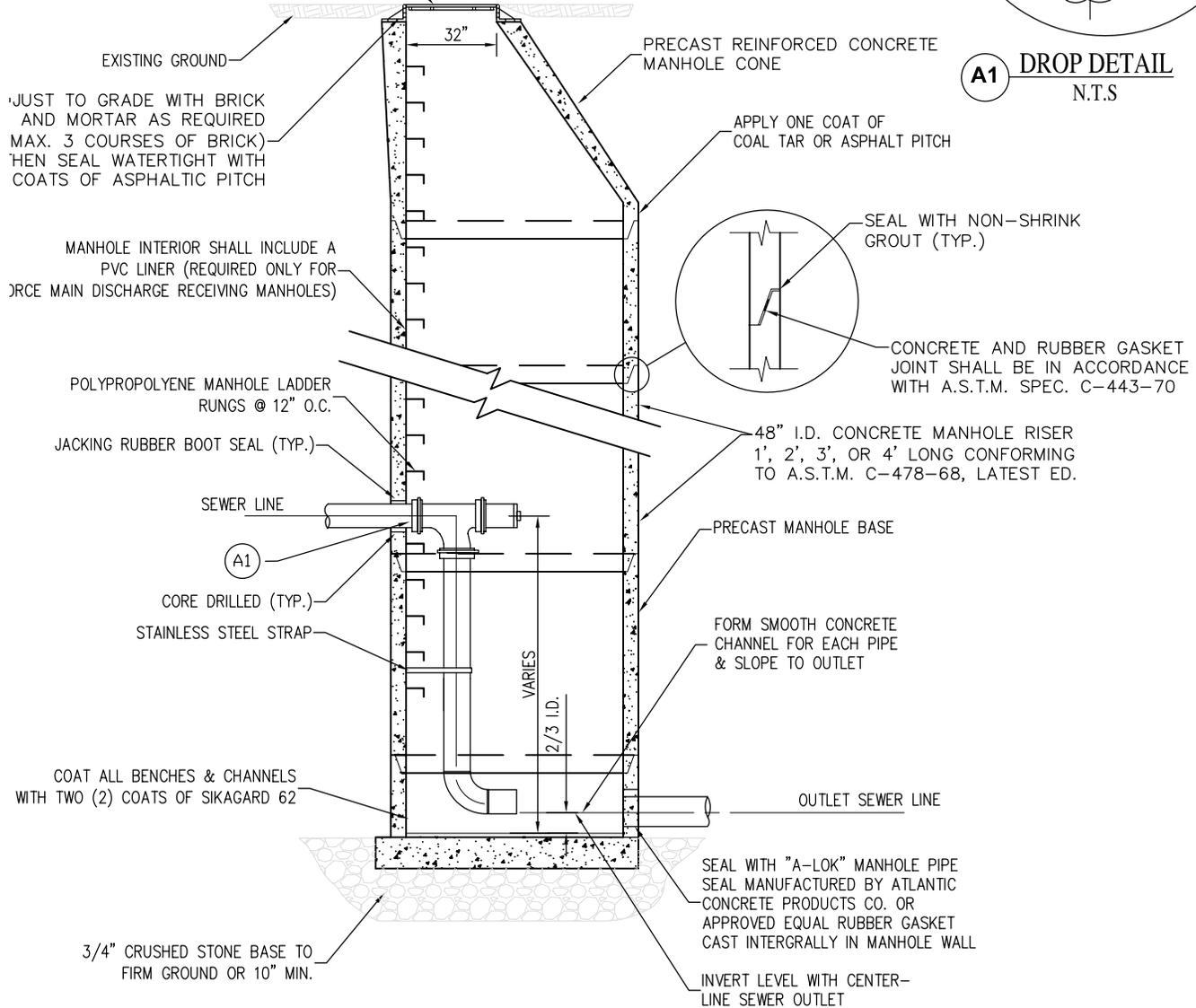
8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA Associates, LLC Engineers & Planners	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date				
	Sheet				6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Designed STAFF	Drawn STAFF	Checked V.J.P.	Approved V.J.P.
B/O	8	EHTMUA Standard Precast Outside Drop Manhole Section Detail							
Total	12								

EXHIBIT I

CAMPBELL NO 1203B MANHOLE FRAME AND COVER OR APPROVED EQUAL (SEE MANHOLE COVER DETAIL)



A1 DROP DETAIL
N.T.S.



STANDARD PRECAST INSIDE DROP MANHOLE

N.T.S.

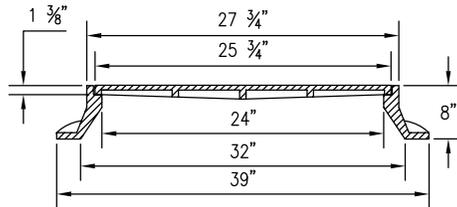
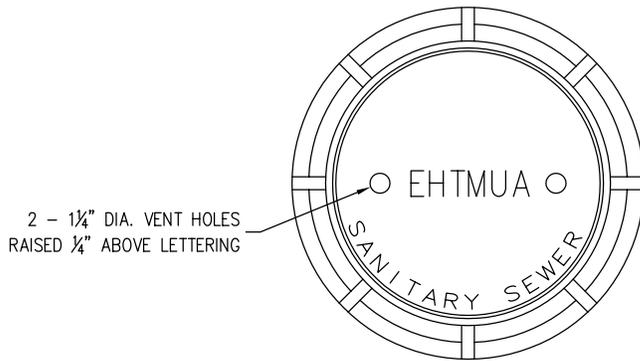
8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA Associates, LLC Engineers & Planners	Vincent J. Polistina Professional Engineer New Jersey License No. 41978				
	B/O							
12	Total	Standard Precast Inside Drop Manhole Section Detail	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Designed STAFF	Drawn STAFF	Checked V.J.P.	Approved V.J.P.	Date 7/5/05

EXHIBIT J

NOTE:

MANHOLE FRAME AND COVER TO BE CAMPBELL FOUNDRY CO. PATTERN NO. 1203B OR APPROVED EQUAL, WITH 4 $\frac{7}{8}$ " HOLES EXCEPT ON WATERTIGHT COVERS. ALL COVERS SHALL HAVE LETTERS CAST ON TOP AS NOTED.

BEARING SURFACE AT SEAT OF COVER AND FRAME SHALL BE MACHINED FOR UNIFORM FIT.

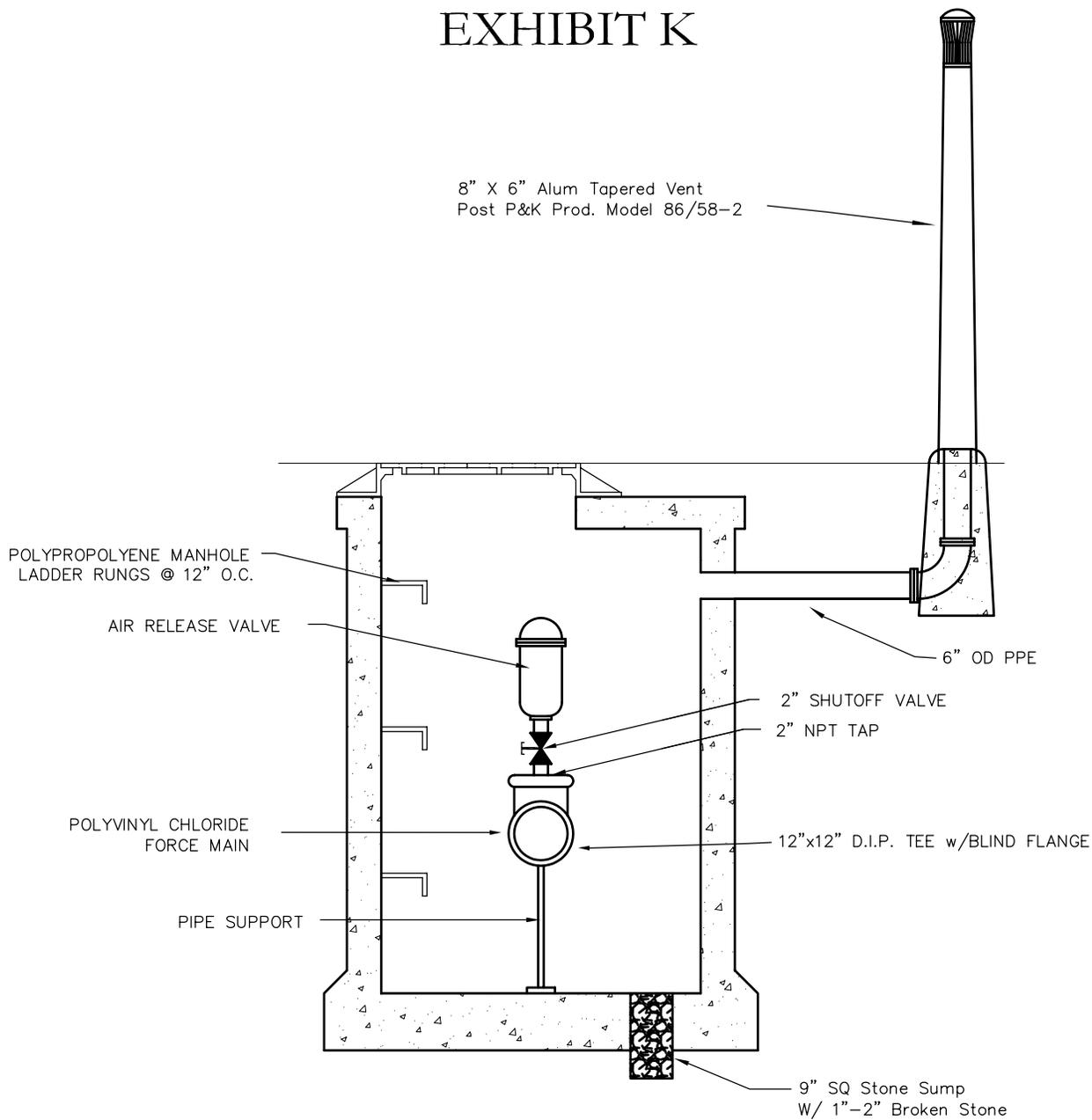


MANHOLE COVER & FRAME

N.T.S

8000	Job No.	Egg Harbor Township Atlantic County, New Jersey	 POLISTINA Associates, LLC Engineers & Planners	Vincent J. Polistina Professional Engineer New Jersey License No. 41978				
				EHTMUA Typical Manhole Frame and Cover Section Detail	Date 7/5/05			
B/O	Sheet	6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Designed		Drawn	Checked	Approved	Date
12	10		STAFF	STAFF	V.J.P.	V.J.P.	7/5/05	

EXHIBIT K

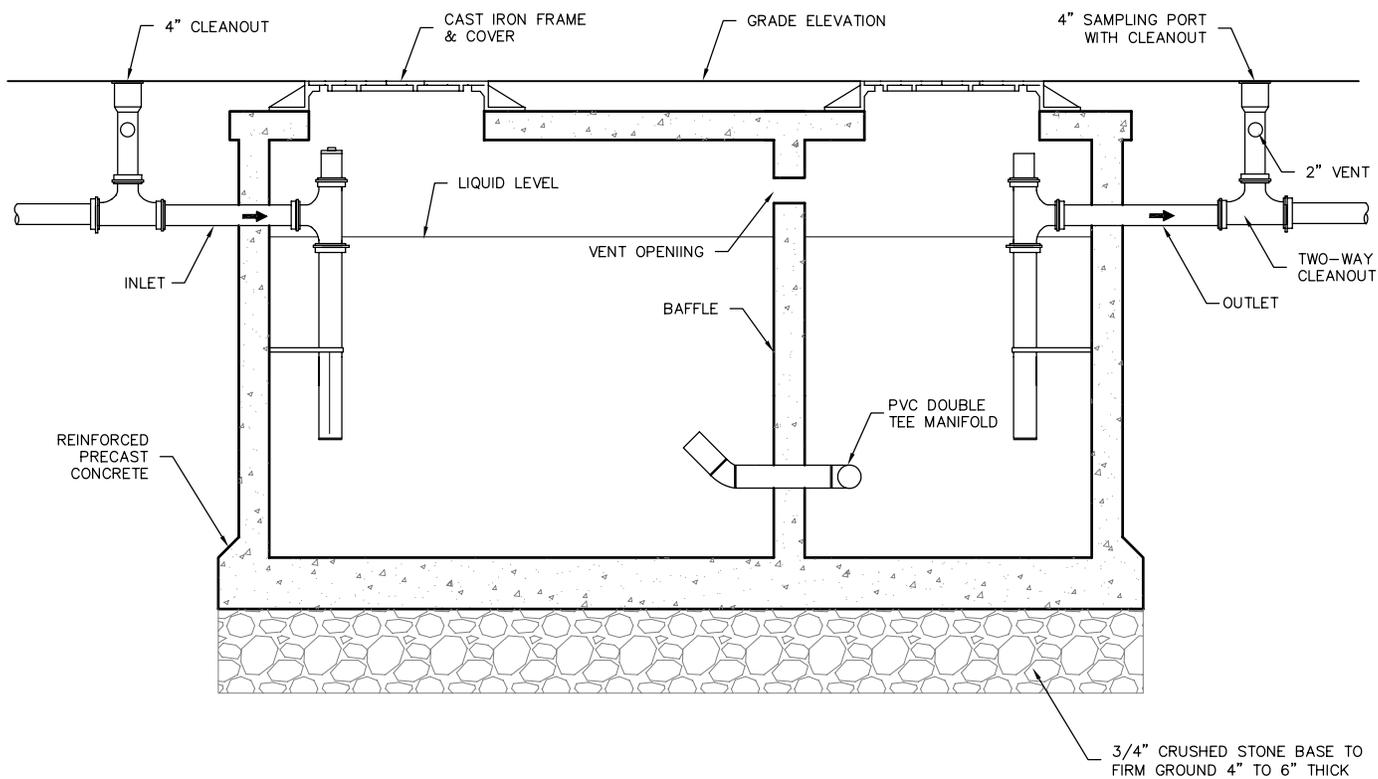


AIR RELEASE CHAMBER

N.T.S.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners 6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date				
	B/O				Sheet	Designed	Drawn	Checked	Approved
12	Total	Air Release Chamber Section Detail			V.J.P.	V.J.P.	7/5/05		

EXHIBIT L



GREASE INTERCEPTOR

N.T.S.

DETAIL SHOWS GENERAL SCHEMATIC REQUIREMENTS. APPLICANT SHALL SUBMIT PROPOSED INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO THE AUTHORITY ENGINEER FOR APPROVAL. PROVIDE INTERCEPTOR WITH ADEQUATE STRUCTURAL STRENGTH TO ACCOMMODATE VEHICULAR TRAFFIC AT INSTALLATION LOCATION.

8000	Job No.	Egg Harbor Township MUA Atlantic County, New Jersey	POLISTINA <small>Associates, LLC</small> Engineers & Planners 6684 Washington Avenue Egg Harbor Township, NJ 08234 Phone: (609) 646-2950 Fax: (609) 646-2949 Cert of Auth No 24GA28091200	Vincent J. Polistina Professional Engineer New Jersey License No. 41978	Date											
	B/O				Sheet	<table border="1"> <tr> <td>Designed</td> <td>Drawn</td> <td>Checked</td> <td>Approved</td> <td>Date</td> </tr> <tr> <td>STAFF</td> <td>STAFF</td> <td>V.J.P.</td> <td>V.J.P.</td> <td>7/5/05</td> </tr> </table>					Designed	Drawn	Checked	Approved	Date	STAFF
Designed	Drawn	Checked	Approved	Date												
STAFF	STAFF	V.J.P.	V.J.P.	7/5/05												
	Total	Pre-Cast Concrete Grease Interceptor Section Detail														

EXHIBIT M

Instructions: Drainage Fixture Unit Method

The following formula shall be used to calculate the size of the interceptor:

1. Determine total Fixture-Unit value by multiplying Fixture type count by drainage value.
2. Total all values.
3. Determine total flow by multiplying total value by flow rate by 3 GPM.
4. Multiply total flow by 12 if no garbage disposal unit is used.
5. Multiply total flow by 17 if garbage disposal unit is used.
6. Round to the next nearest size interceptor - minimum of a 500-gallon interceptor is required.
7. Maximum single intercepter size allowed is 3,000 gallons.

Trap Sizing Table

Fixture Outlet / Trap Size (inches)	Drainage Fixture Units (DFU)	Gallons Equivalent (GPM)
1 1/4	1	7.5
1 1/2	2	15
2	3	22.5
2 1/2	4	30
3	5	37.5
4	6	45
Floor Drains - all	2	15
Dishwashers	2X Trap Arm Size	

Sizing Example:

The following is an **example** of a restaurant that will have one 3-compartment sink discharging directly into a 2 1/2-inch floor drain, one Chinese Range discharging into a 3-inch floor sinks, one mop sink that has a 3-inch drain, one 2-inch floor sinks, and five floor drains.

Type of Fixture	Fixture Count	Outlet / Trap Size	Fixture-Unit Value	Total
3-comp sink	1	2 1/2"	4	4
Chinese range	1	2"	3	3
Mop sink	1	3"	5	5
Floor sink	1	2"	3	3
Floor drain	5	-	2	10
Dishwasher	2X	2"	3	6
Total Fixture-Units				31
Multiply by 3 GPM Flow Rate				X 3
Total GPM Flow Rate				93
Multiply by either 12 or 17 - without or with garbage disposal unit				X 12
Size of interceptor calculated				1,116
Round up to next available size				1,250