

RULES AND REGULATIONS

**GOVERNING APPLICATIONS TO THE
LITTLE EGG HARBOR MUNICIPAL UTILITIES AUTHORITY**

**FOR CONSTRUCTION OF COMPREHENSIVE WATER SYSTEMS
IN THE TOWNSHIP OF LITTLE EGG HARBOR**

Revised July 2016

**THE LITTLE EGG HARBOR MUNICIPAL UTILITIES
AUTHORITY**

823 Radio Road Little Egg Harbor Township, New Jersey

Table of Contents

RESOLUTION #2016-50 Adopting Water Regulations	
I. DEFINITIONS.....	2
II. CONDITIONS REQUIRING INSTALLATION OF AND CONNECTION TO WATER SYSTEMS.....	4
III. APPLICATIONS TO THE AUTHORITY.....	5
A. General	5
B. Application for Connection to Operational Water System	5
C. Application for Preliminary Approval	5
D. Application for Tentative Approval	6
E. Application for Final Approval	8
F. Easement Documents	9
G. Application for a Water Connection in Conjunction with Approval of Newly Constructed Water Facilities.....	9
IV. DOCUMENT DETAILS	10
A. General Map of the Entire Project.....	10
B. Plans of all Proposed Water Distribution Systems.....	10
C. Blanket Easements.....	11
D. Detailed Plans of Storage Tanks, Wells, Pumping Stations and/or Treatment Works, if Applicable.....	11
E. Specifications	11
F. Estimate of costs	11
G. Engineer's Report.....	11
H. Application to the New Jersey Department of Environmental Protection.....	12
I. Proof of Title	12
V. WATER SYSTEM DESIGN CRITERIA	13
A. General	13
B. Estimation of Demand	13
C. Pipeline Design	13
D. Design of Wells	15
E. Design of Treatment Plants	16
F. Design of Booster Pumping Stations and Storage Tanks	16
G. Oversizing	17
H. Fire Protection	18
VI. TECHNICAL SPECIFICATIONS.....	19
A. Materials and Installation	19
B. Leakage and Testing	22
C. Disinfection	23

VII. GUARANTEES AND ESCROW DEPOSITS	24
A. Acceptable Types	24
B. Guarantees Required	24
C. Guarantee Reductions	25
D. Guarantee Release	26
E. Escrow Payments for Professional Services.....	27
F. Escrow Deposits with Authority, Interest	27
G. Inspection Escrow Deposit	28
VIII. SYSTEM CONSTRUCTION	29
A. Inspection	29
B. Shop and Working Drawings	29
C. As-Built Plans	30
D. Operation and Maintenance Manuals.....	30
E. Use of System by the Authority	30
F. Illegal Use of the System	30
G. Acceptance of Improvements by the Authority	30
IX. WATER LATERAL CONNECTIONS PACKAGE	32
A. 1” to 2” Diameter Water Services for single domestic line applications only (Excluding Development Applications)	32
B. Lateral Connection Package	33
C. WATER SERVICES	33
X. FORMS	42
A. Irrevocable Standby Letter of Credit (Performance)	
B. Performance Surety Bond	
C. Irrevocable Standby Letter of Credit (Maintenance)	
D. Maintenance Surety Bond	
E. Certificate of Completion	
F. Contractor’s Affidavit	
G. Resolution	
H. Deed of Dedication	
I. Exhibit A Description of Property	
J. Affidavit of Consideration or Exemption	
K. Affidavit of Title	
PLATES	61

RESOLUTION #2016-50

RESOLUTION OF THE LITTLE EGG HARBOR MUNICIPAL UTILITIES AUTHORITY, COUNTY OF OCEAN, STATE OF NEW JERSEY, AUTHORIZING APPROVAL AND ACCEPTANCE OF RULES AND REGULATIONS GOVERNING INSTALLATION AND MAINTENANCE OF THE WATER SYSTEM

WHEREAS, the Little Egg Harbor Municipal Utilities Authority (hereinafter referred to as the "Authority") is empowered pursuant to the provisions of N.J.S.A. 40:14B-1 et seq. to adopt, implement and from time to time modify Rules and Regulations governing the installation and maintenance of the Authority's water facilities; and

WHEREAS, the Authority has authorized its Executive Director and Superintendent to prepare Rules and Regulations governing the maintenance and installation of the Authority's water facilities; and

WHEREAS, the Authority has received and carefully considered the final draft of proposed Rules and Regulations governing the maintenance and installation of its water facilities with an effective date of July 2016; and

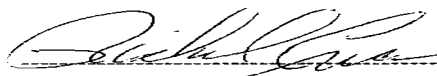
WHEREAS, the Authority believes that the proposed Rules and Regulations are acceptable and should be adopted and implemented by the Authority;

NOW, THEREFORE, BE IT RESOLVED this 12th day of July 2016 by the Little Egg Harbor Municipal Utilities Authority as follows:

- 1 - The Authority accepts and adopts the proposed Rules and Regulations governing the installation and maintenance of water facilities, which Rules and Regulations bear an effective date of July 2016.
- 2 - The Authority authorizes and directs the Chairman, Secretary, and Executive Director to execute any and all necessary documents in order to implement the intent of this Resolution.

CERTIFICATION

I certify that the foregoing Resolution was duly adopted by the Little Egg Harbor Municipal Utilities Authority at a meeting held on the 12th day of July 2016, a quorum being present and voting in the majority.



Richard Crea, Secretary

I. DEFINITIONS

As used in these Rules and Regulations, unless a different meaning clearly appears from the context, the following words shall have the following meaning:

<u>APPLICANT:</u>	the property owner or an authorized agent of the owner, certified to the Authority as such, making application to the Authority for review and approval of plans for a comprehensive water distribution system and/or connection to the water distribution system.
<u>AS BUILT:</u>	a record of the plans and details of the facilities as constructed.
<u>AUTHORITY:</u>	the Little Egg Harbor Municipal Utilities Authority.
<u>AUTHORITY ENGINEER:</u>	a licensed professional engineer retained or employed by the Authority.
<u>BUILDING LATERAL:</u>	the pipe and appurtenances between the building and the shut off valve (curb stop) located at or near the street curb or near the property line.
<u>ESTIMATE OF COSTS:</u>	An itemized list of improvements to be constructed shall be furnished and shall include, but not be limited to, cost of rights-of-way and easements as may be required. The estimate of costs will be subject to review and approval of the Authority's Engineer. The estimate must make use of the latest copy of the approved "Standard Unit Price Schedule" for water facilities.
<u>MAJOR SUBDIVISION:</u>	any subdivision classified as such in all Township ordinances.
<u>MULTI-FAMILY STRUCTURE:</u>	any residence designed, intended for use or occupancy by or occupied by two or more families.
<u>NON-RESIDENTIAL STRUCTURE:</u>	any building designed or intended for use or occupancy for any purpose other than residential.

WATER SYSTEM:

all water mains or lines, service connections and all appurtenances necessary and incidental to the distribution of water, owned by the Authority.

SERVICE CONNECTION:

the pipe and appurtenances between the Authority's street main and the Authority's shut off valve located at or near the street curb or near the property line.

TOWNSHIP:

the Township of Little Egg Harbor, in the County of Ocean, State of New Jersey.

WATER MAIN:

a water pipe in a public street or easement other than a service connection.

II. CONDITIONS REQUIRING INSTALLATION OF AND CONNECTION TO WATER SYSTEMS

Any subdivision or any multi-family structure regardless of volume of flow, and all non-residential development shall be required to install a water distribution system and to connect to the nearest operational water main in the Township in accordance with the provisions of the Ordinances of the Township of Little Egg Harbor and of these Rules and Regulations, except as herein provided. The Applicant is responsible to design and construct a water main to all property corners at all existing street frontage, for future extensions and/or for the looping of the system. If the Applicant designs the mains through the proposed development and is able to provide the same end result, the Authority may, at its sole option, approve such alternate.

In the event that the Applicant's lands are deemed by the Authority to be too remote from an operational water distribution main; then a well, treatment plant and storage facility may be required. Said plant and the location thereof shall be subject to approval by the Authority in accordance with the standards and requirements as hereinafter set forth, and as may be required by any other governmental regulatory agencies having jurisdiction thereof.

Whenever a water system shall be operational in any given area of the Little Egg Harbor Township, the owner of any structure which abuts or is adjacent to or within 200 feet from any operational main within the said water system shall, prior to, or as a condition of continued occupancy, be required to tie into said system, make use thereof and be subject to such costs and charges as shall be promulgated from time to time by the Authority pursuant to statutory authorization.

III. APPLICATIONS TO THE AUTHORITY

A. General

Prior to consideration, applications shall be filed with the Authority together with the required fees.

All application, review and inspection fees shall be paid by check or in cash as hereinafter provided. If the cost to the Authority of review or inspection exceeds the amount set forth herein, the Authority shall within 120 days of incurring such excess cost provide the Applicant with evidence of the amount of such excess cost. The Applicant shall remit by check or cash to the Authority the amount of any excess cost within 15 days after the receipt of a true copy or evidence of such cost. In no event shall the amount charged by the Authority to the Applicant exceed the actual cost to the Authority. For any check returned to the Authority by a bank, the Applicant will be charged any and all fees as the Authority is charged by the bank.

All preliminary, tentative or final applications must be submitted at least 21 days before a regular scheduled meeting of the Authority. All applications are to be signed by the Owner or by a duly authorized agent, shall be accompanied by proof of authorization by affidavit of the Owner.

B. Application for Connection to Operational Water System

This application shall be accompanied by fees as set forth herein, on a form provided by the Authority.

Water connection shall be made to a street main only under the review and inspection of the Authority's authorized representative. Connection to the water main shall be made in accordance with methods set forth within these Rules and Regulations.

The water service and its maintenance and/or repair, is solely the responsibility of the landowner from Authority's curb shut-off to the building.

C. Application for Preliminary Approval

The Applicant shall submit a preliminary application, on a form provided by the Authority the application shall state whether:

- a. Installation of individual water systems are proposed; Proposed individual water systems shall be constructed in accordance with New Jersey Statutes, Ocean County Ordinances and all state and county regulations.
- b. Installation of individual water systems together with a comprehensive system of "Dry Lines" are proposed.
- c. An active comprehensive water distribution system is proposed.

Submission Requirements for Preliminary Approval

A complete application for Preliminary Approval shall consist of:

- a. Completed Preliminary Application form, original and two (2) copies
- b. Application fee of \$ 200.00
- c. General location plan and sketch plan or subdivision plat, indicating streets and tax block and lot numbers, 3 copies.

Authority Action on Preliminary Applications

The Applicant shall receive written notification from the Authority as to whether:

Individual water systems will be permitted.

Individual water systems will be permitted together with the installation of comprehensive system of “Dry Lines”.

An active comprehensive water distribution system shall be required.

Preliminary approval shall expire 1 year from the date on which the resolution of Preliminary Approval is adopted.

D. Application for Tentative Approval

Should the Authority determine that a comprehensive system of “Dry Lines” or active comprehensive water system shall be required, the Applicant must submit a tentative application in duplicate, on a form provided by the Authority.

Submission Requirements for Tentative Approval

A complete application for Tentative Approval shall consist of the documents, listed below, all prepared in accordance with the design criteria of these Rules and Regulations.

- a. Completed Tentative Application Form, original and two (2) copies.
- b. Review escrow, equal to 3-1/2% of the estimated cost of construction, based upon the Authority’s standard unit price schedule, subject to review and approval by the Authority’s Engineer. The minimum fee shall be \$700.00.
- c. Plans of all proposed water mains including service connections, hydrants, blow-offs, etc., 3 copies, signed and sealed by a licensed engineer.
- d. Plans for booster pumping stations, treatment plants, and/or water tanks if any, 3 copies.
- e. Engineer’s Report, 3 copies.
- f. An application form, filled out in the name of the Authority, to the New Jersey Department of Environmental Protection, with applicable fee.

Authority Action on Tentative Applications

Within 60 days of receipt of a complete application, the Authority shall review and take action on the application. Approval of the Tentative Application shall authorize the submission of the permit applications to NJDEP, if applicable.

Tentative approval shall expire 3 years from the date on which the resolution of tentative approval is adopted. The Applicant may submit for final approval on or before the expiration date of tentative approval the whole or a section or sections of the project. The Applicant may apply for and the Authority may grant extensions to such tentative approval for additional periods of 1 year each but not to exceed a total extension of 2 years, provided that if the design standards have been revised by the Rules and Regulations, such revised standards shall govern.

In the case of a project of 50 acres or more, the Authority may grant an approval longer than 3 years as shall reasonably be determined by the Authority. The Applicant may apply for and the Authority may grant extensions to such tentative approval for such additional period of time as shall reasonably be determined by the Authority, provided that if the design standards have been revised by the Rules and Regulations, such revised standards shall govern.

Whenever the Authority grants an extension of tentative approval and tentative approval has expired before the date on which the extension is granted, the extensions shall begin on what would otherwise be the expiration date. The Applicant may apply for an extension either before or after what would otherwise be the expiration date.

Approval of Plans by State and other Agencies

Approval of plans by the New Jersey Department of Environmental Protection, Division of Water Resources, must be obtained and will be a condition of the Authority's final approval. The Applicant shall obtain all permits from the New Jersey Department of Environmental Protection where required. Permits to construct water main and/or other structures within the right-of-way limits of State, County, and Municipal roads and all Railroads must be secured and paid for by the Applicant.

Water diversion rights will be secured by the Applicant in the name of the Authority, from the New Jersey Department of Environmental Protection, Division of Water Resources. Well drilling permits shall be obtained by the Applicant.

Installment of Improvements Prior to Filing Plat

Nothing herein shall prevent an Applicant from installing required improvements prior to the filing of the final subdivision plat provided that all regulatory construction permits have been secured, inspection fees are posted with the Authority pursuant to the itemized estimate of cost of construction as approved by the Authority or its Engineer, and plans be in compliance with all approvals.

Prior to the time of filing the final subdivision plat the Applicant shall receive Final Approval from the Authority and post a performance guarantee to guarantee the completion of any remaining improvements not yet completed.

Upon completion of required improvements or release of a performance guarantee a maintenance guarantee shall be posted with the Authority. The amount, terms and conditions of any maintenance guarantee shall be as set forth herein.

E. Application for Final Approval

Upon notification by the Authority that tentative approval has been granted and all NJDEP permits received (if any), an application for final approval may be filed for review and approval by the Authority.

Submission Requirements for Final Approval

- a. One completed Final Application Form, original and two (2) copies.
- b. Review escrow, equal to 1% of the estimated cost of construction, based upon the Authority's Standard unit price schedule, subject to review and approval by the Authority's Engineer. The minimum fee shall be \$500.00.
- c. Final plans of all proposed water mains, service connections. Fire hydrants, blow-offs, etc. 3 copies, signed and sealed by a licensed engineer.
- d. Final construction plans for booster pumping stations, treatment plants and or water storage tanks, if any, 3 copies signed and sealed, by a licensed engineer.
- e. Detailed estimate of construction costs.

Authority Action on Final Applications

Within 60 days of receipt of a complete application, the Authority shall review and take action on the application.

Final approval shall expire 2 years from the date on which the resolution of final approval is adopted. The Applicant may apply for and the Authority may grant extensions to such final approval for additional periods of 1 year, but not to exceed three extensions.

In the case of a subdivision or site plan for a planned development of 50 acres or more, conventional subdivision or site plan 150 acres or more, or site plan for development of a nonresidential floor area of 200,000 square feet or more, the Authority may grant extensions to such final approval for such additional period of time as shall reasonably be determined by the Authority.

Whenever the Authority grants an extension of final approval and final approval has expired before the date on which the extension is granted, the extension shall begin on what would otherwise be the expiration date. The Applicant may apply for the extension either before or after what would otherwise be the expiration date.

The Authority shall grant an extension of final approval for a period determined by the Authority, but not exceeding one year from what would otherwise be the expiration date, if the Applicant proves to the reasonable satisfaction of the Authority that the Applicant was barred or prevented, directly or indirectly, from proceeding with the project because of delays in obtaining legally required approvals from other governmental agencies and that the Applicant applied promptly for and diligently pursued these approvals. An Applicant shall apply for the extension before (1) the expiration date of final approval or (2) the 91st day after the Applicant receives the last legally required approval from other governmental agencies, whichever occurs later.

F. Easement Documents

The Applicant shall submit to the Authority within sixty (60) days from the date of final approval, a proposed deed of easements describing by metes and bounds all the lands to be dedicated to the Authority for utility purposes.

G. Application for a Water Connection in Conjunction with Final Approval of Newly Constructed Water Facilities

This application shall be filed in duplicate on a form provided by the Authority. The Applicant shall pay a connection fee, and meter fee, as provided in the current schedule of rates and charges adopted by the Authority, which shall be paid to the Authority upon submission of an application for connection.

In the event that the Applicant is required to provide a comprehensive system of “Dry Lines” and individual water systems, then the Applicant shall have the option of paying the said connection fee at the time of final approval. The exercise of such option shall be made in writing by the Applicant at the time of application.

If the Applicant elects not to pay the connection fee, buyers shall be notified in writing that the Authority will charge the connection fee in effect at the time said “dry” water system is connected to a functioning water treatment facility or transmission line. A copy of said notice signed by the buyer shall be filed with the Authority as a condition to the issuance of a certificate of occupancy.

Should Applicant’s property abut or be contiguous with any street or lands in which there is an operational water line, the Applicant shall apply for connection to such line on a form provided by the Authority and shall pay such fees therefore as may be required.

Water connections shall be made to a water main only by the contractor authorized by the Authority to make such connections.

The above shall also apply where a landowner is required by the Authority to connect to an operational water main.

The landowner is solely responsible for the proper maintenance of the meter and maintenance and/or repair of the water pipe between the building and the Authority’s shut-off.

IV. DOCUMENT DETAILS

The following information is intended to generally describe the minimum required information for applications to the Authority. Additional information may be required, as determined by the Authority, Authority Engineer or Solicitor.

A. General Map of the Entire Project

A general map of the entire project shall be furnished to show booster pumping stations, water distribution system, and water supply and storage facilities for the project at a scale appropriate for a 24" X 36" sheet and a key map at a scale of 1" = 1000'.

B. Plans of all Proposed Water Distribution Systems

Properly entitled plans shall be of uniform size, 24 X 36 inches with a 1/2 inch border on top, bottom, and right side and a 2 - inch border on the left side. Three sets of plans shall be submitted and show the following:

- a. Details - Plans shall show all existing and proposed improvements including underground utilities, water mains, sewer mains, storm drains, first floor elevations of proposed buildings, etc. Contours shall be shown at 2 foot intervals with proposed streets and surface elevations at all breaks in grade and street intersections, tributary areas with population per acre, the true or magnetic meridian, boundary line, title, date and scale. All sheets shall be numbered. Drawings not meeting reasonable engineering standards as to accuracy and neatness will not be accepted.
- b. Symbols - Water mains to be built, as indicated by this application, shall be shown by dashed lines (_ _ _); water mains proposed for future construction to be shown by double dashed lines (-- --); existing water mains to be shown by solid line (___). All topographical symbols and conventions shall be the same as those of the U.S. Geological Survey.
- c. Elevations - All permanent bench marks of New Jersey Coast and Geodetic Survey shall be shown. Elevations of street surfaces shall be placed outside the street lines. The elevations of sewer inverts, shown at street intersections, ends of lines, and at changes of grades shall be written parallel with the sewer lines and between the street lines. The elevations of street surfaces shall be shown to the nearest 0.1 foot; the sewer inverts to the nearest 0.01 foot. Sufficient bench marks shall be permanently established for the area.
- d. Distances, Grades and Sizes - The distances and stationing between valves, water main diameters, strength class, and material shall be shown on the plans. Plans, profiles and hydraulic analyses of the existing water distribution system from the Applicant's point of connection to the point of supply by the Little Egg Harbor Municipal Utilities Authority shall be included.

C. Blanket Easements

When blanket easements are required, the Applicant shall add the following note to the Final Plat: Little Egg Harbor Municipal Utilities Authority shall have an easement of access for the purpose of maintaining the on-site comprehensive water system. Said easement is hereby granted to the Little Egg Harbor Municipal Utilities Authority over all or any part of Block ____, Lot ____, for said purpose.

D. Detailed Plans of Storage Tanks, Wells, Pumping Stations and/or Treatment Works, if applicable

The plans for storage tanks, wells, pumping stations, and/or treatment plants, shall include general site plan showing boundaries, one-foot contours, proposed pumping stations, wells, underground piping and appurtenances, underground and overhead wires. The detail plans for wells shall show the depth, size and construction of each well. Results from test well, logging, etc. shall be furnished as the basis for design. The ground strata through which the well is to be driven shall be shown in cross-section. The arrangement of mechanical and electrical equipment within the well house plus connections to the storage tanks and distribution system shall be shown. The method and equipment proposed for applying sodium hypochlorite shall be clearly indicated. If treatment beyond chlorination is required, the plans shall show details of each component of the treatment facility, the method of applying chemicals, master meter, piping, valves, etc. The plans and specifications must indicate provisions for landscaping, paved roads, and walkways. Drawings shall conform to the size specified with these rules and regulations.

For Tentative Approval, the plans shall include sufficient information such that they are in compliance with the submission requirements for NJDEP.

For Final Approval, the plans are to include a complete set of construction drawings, including all structural and electrical design drawings, as necessary for a complete project.

E. Specifications

Complete specifications for the construction of the proposed water system and appurtenances, including pumping stations and/or treatment plants, method of disinfection, shall accompany the plans. They may be omitted for main extensions, provided specifications for the water system are already filed and reference is made to them in the application. In addition, the requirements of all governmental regulatory agencies must be satisfied by the submitted specifications.

F. Estimate of Costs

An itemized list of improvements to be constructed shall be furnished and shall include, but not be limited to, cost of rights-of-way and easements as may be required. The estimate of costs will be subject to review and approval by the Authority. The estimate must make use of the latest copy of the approved "Standard Unit Price Schedule" water facilities.

G. Engineer's Report

A complete engineer's report setting forth the basis of design shall be submitted to the Authority for each project. The engineer's report shall include but not be limited to, all information required by the New Jersey Department of Environmental Protection and the Authority. Material specifications and construction details shall be set forth and comply with those specified herein.

H. Proof of Title

A copy of a title report, title policy or attorney certificate, establishing that no part of the system is encumbered so as to prevent, unduly restrict, or circumscribe the ability to the Applicant to make all conveyances, transfers and dedications incidental to vesting in the Authority, title to the entire system and its appurtenances. Should the Applicant not be the property owner, then the property owner must sign the application together with the Applicant.

I. Application to the New Jersey Department of Environmental Protection

If applicable, the Applicant shall as a condition to receipt of final approval from the Authority, prepare and submit to the New Jersey Department of Environmental Protection, all required plans and specifications. Engineer's Report and the New Jersey DEP form in duplicate. The Applicant shall prepare and submit the entire exhibit to the New Jersey Department of Environmental Protection in the name of the Authority.

V. WATER SYSTEM DESIGN CRITERIA

A. General

The following requirements are to be considered minimum requirements for the design and construction of water systems. The Applicant shall, through the proper balance of supply, storage and distribution, secure for the community a water system having a minimum, "Class 6" rating as judged by the American Insurance Association and outlined in their Standard Schedule for Grading Cities and Towns.

System design and placement shall comply with the following construction specifications, incorporated herein by reference: all applicable NJ Department of Environmental Protection (NJDEP) rules, the American Water Works Association (AWWA) standards, and in the Pinelands Area, the Standards of the Pinelands Comprehensive Management Plan, with the strictest standards governing, with appropriate jurisdiction.

Regardless of the size of the project, the water distribution system shall be capable of supplying the necessary domestic flow and fire protection based upon the complete project flow and fire requirements.

B. Estimation of Demand

The demand rates for all uses shall be considered in computing the total system demand. Where fire protection is provided in accordance with the Fire Suppression Rating Schedule, etc. as stated below, the system shall be capable of providing the required fire demand plus the required average daily residential demand as indicated in Table 5.1, NJAC 5:21-1.1 et seq, or the peak hour flows indicated in Table 5.2 NJAC 5:21-1.1 et seq, whichever is greater.

Average daily residential consumption shall be computed in accordance with the housing unit type and size data shown in Table 5.1, from NJAC 5:21-1.1 et seq. The peak daily flows shall be computed by applying a peaking factor of three (3) times the average daily residential consumption. The Authority may require deviations in the peaking factor value provided appropriate documentation and justification for the deviation from the standards is provided.

The design of the on-site water distribution system shall be adequate to provide fire protection as per ISO standard, Fire Suppression Rating Schedule, or per AWWA M31, "Manual of Water Supply Practices - Distribution System Requirements for Fire Protection," ISO method on pages 3-9, incorporated herein by references.

C. Pipeline Design

Design capacity of water mains shall be such as to maintain a minimum pressure of 20 pounds per square inch (psi) at street level under all flow conditions.

Water mains shall be a minimum diameter of eight (8) inches except at the end of a permanent cul-de-sac, unless another size is required for fire flow and other criteria. A six (6) inch main may be used when it serves not more than 20 dwelling units and only one fire hydrant.

Distribution mains of the overall system shall be connected into loops so that the supply may be brought to the consumer from more than one direction. In balancing loops in a design, the Hardy-Cross, or an equivalent, method shall be used. Manning roughness coefficients listed in Table 7.1 in N.J.A.G. 5:21-7.1 or a C=100 frictional index based on the Hazen-Williams formula may be used in these calculations. Dead-end lines shall be permitted within the design of a looped system provided that there are no more than 20 dwelling units permanently, or no more than 50 dwelling units temporarily, on a dead-end line. When dead-end lines are used, they shall be provided with a hydrant at the terminus as a means of flushing.

If the requirements for dead ends prevent the feasible development of the project, then the Applicant shall demonstrate to the satisfaction of the Authority the site conditions that prevent the feasible development of the project and the proposed alternate design.

A corporation stop shut off with a valve box for air release shall be located at all high points in a distribution system, with adequate means of drainage provided. Unrestricted easements to the Authority water mains shall be a minimum of 20 feet wide. The pipe shall be placed 5 feet off either easement line to allow sufficient room for maintenance or installation of future pipe.

All dead-ends on mains to be extended in the future shall have valves installed, followed by one full length of pipe and closed with iron plugs or caps.

Valves, except on a permitted dead end, shall be located on distribution mains so that no more than one hydrant would be out of service as a result of a single water main break. They shall be located in all small branches off larger mains; and where eight (8) inch or larger mains lines intersect, a valve shall be located in each branch. At street intersections, valves shall be located near pipe intersections for ease in finding in the event of a water main break.

In addition to the above requirements, water mains shall have valves installed so that not more than one-quarter of a mile would be affected by a single water main break. Geared valves on 16 inch mains or larger shall be furnished.

Hydrants shall be spaced to provide necessary fire flow. The average building area served per hydrant shall not exceed 120,000 square feet. In addition, the distance between any dwelling and a hydrant shall not exceed 400 feet when measured along the street right-of-way. Commercial and industrial areas will require closer spacing.

Paint and proper operation of the Hydrant shall be inspected before the Authority takes ownership of the system. Paint deterioration and operating nut shall be rectified in the event the inspection determines any problems.

No pipe shall be placed on private property unless the owner of the land is to own or operate the pipe, or an easement deeded to the Authority is obtained. Easements shall be in a form approved by the Authority, the Authority's Engineer and Attorney. Easements shall be required for all water lines which are not within a public right-of-way. All easements shall be a minimum of 20 feet wide unless depth of pipe, soil conditions, or additional utilities require wider.

Service connections must be installed along the off-site main to serve all individual properties along the route. The Applicant shall submit to the Authority the developer's proposed plan for the installation of the off-site service connections for the Authority's Engineer's review no later than thirty (30) days prior to commencement of construction. Costs for the installation of said service connections will be the responsibility of the developer.

D. Design of Wells

Wells shall be constructed and protected against possible contamination in accordance with American Water Works Association Standard A100. Well casings should be welded and made up with threaded couplings, and the protective casing shall have tight joints throughout its entire length.

A gamma ray log and/or a caliper log shall be provided for each well. The flow from each well shall be averaged over a 72 hour period and shall not be less than 300 gpm with a drawdown not lower than 5 feet above the top of the screen or pump, whichever is higher. Static readings of the well shall be taken every 3 hours for 12 hours prior to starting the test. During the test, one hour will be permitted for adjustment of equipment during each 8 hour period except that the pumping shall be continuous during the final 8 hours.

Test water level readings shall be taken at the following time intervals:

readings every 5 minutes for

5	30 minutes
10	30
15	60
30	60
60	remaining test time

Area of influence of the well shall be determined by at least one observation well.

Observation well requirements may be waived for wells over 200 feet in depth. Also, observation shall be made at all existing wells within a 1,000 foot radius regardless of well depth.

Well heads shall be at an elevation higher than the maximum flood level and high enough to permit drainage away from the facilities. All wells, treatment plants, and above ground appurtenances shall be located at least 500 feet from any possible source of contamination and shall be enclosed with a six (6) foot high chain link fence. They shall be provided with a double gate entrance for pedestrian and truck use.

The maximum pumping permitted from each well field shall be taken at 50% of the normal capacity of the well as determined from the aforementioned 72 hour test. Emergency electrical power must be provided.

E. Design of Treatment Plants

No general rules can be formulated for the design of treatment plants and each case will be considered individually based upon the raw water quality. Treatment facilities shall be so designed to produce water that is reasonably uniform and of the quality required by the New Jersey Department of Environmental Protection.

Treatment plants involve a considerable amount of design criteria. If an applicant is required to construct a plant, it must be in conformity with all existing State and Federal regulations. All designs must be fully reviewed and approved by the Authority or Authority's Engineer.

The type and method of treatment must be approved by the New Jersey Department of Environmental Protection. Treatment plant plans and specifications must include provisions for lawns, shrubbery, paved roads and sidewalks. Plants shall be architecturally compatible with the environment. The entire property must be surrounded by a 6 foot high chain link fence.

Separate gates must be provided for pedestrian and truck use. Detailed estimates of operating and maintenance costs of the proposed treatment plant must be submitted with the engineer's estimate. Emergency electrical power must be provided. All water shall be disinfected before it enters the distribution system and shall have a residual of 0.2 mg/l throughout the system. All standards of U.S. Environmental Protection Agency applicable to protection of the water sources, wells, water mains, equipment, and treatment works shall be met in the design of treatment plants.

The finished water shall meet the potable water standards adopted by the New Jersey Department of Environmental Protection. Adequate light, ventilation, heat and potable water supply shall be provided at the plant. Complete repair and operating tools and accessories shall be provided with the treatment facilities and wells.

F. Design of Booster Pumping Stations and Storage Tanks

In general, the requirements of the Safe Drinking Water Act shall be used. Suitable controls and remote telemetering must be provided from the pumping station or storage tank to the Authority's center of operations. Telemetry must be via an automatic self dialing telephone system such as a RACO VERBATIM with a minimum of 16 channels or equal. Storage tanks must be steel and shall be constructed by firms competent in the field of tank erection.

Storage may consist of an elevated tank, standpipe or, where units do not exceed 50, hydro pneumatic tank. The details of all storage facilities shall include tank dimensions, minimum water level and overflow level, capacity, foundation, piping, valve pit dimensions, etc.

Storage in elevated tanks or standpipes shall have a total effective capacity, when combined with pumping capacity, at least equal to the fire demand flow plus the maximum day consumption, or meet the peak hour demand requirements, whichever is greater.

The effective amount of water in elevated storage shall be that amount of water which is 70 feet higher than the highest point in the area being served, with allowance made for building heights.

All elevated storage tanks are to be equipped with a level recording system that is to the chart recorder at the Water Treatment Plant, and the SC ADA system. A low level and high level alarm is to be installed and also transmitted via the SC ADA system to the Water Treatment Plant. The SC ADA equipment and software shall be manufactured by the existing LEHMUA SCADA provider.

The pumping equipment, when hydro-pneumatic tanks are used, shall be designed to facilitate its change over to the overall elevated storage system as required by the Authority without undue loss in pressure in any part of the system.

The capacity of hydro-pneumatic tanks shall be sufficient to provide the peak hourly rate of consumption in combination with the pumping facilities for a period of not less than 20 minutes. The effective capacity of the tank shall be taken at 25%. The following formula shall govern the size of hydro-pneumatic tanks:

Required Tank Capacity in Gallons = (Peak flow less well yield) X 20 X 4. Peak hourly flow rate and total allowable yield from wells shall be expressed in gallons per minute.

A double acting altitude control valve shall be used for water level control in elevated storage tanks and standpipes. A by-pass line and pit shall also be provided.

G. Oversizing

When plans for future development necessitates oversizing of the water supply system, the Authority may enter into an agreement with the Applicant to address the fair share of the costs.

If the size of any water main, as shown by the application to be installed by the Applicant is inconsistent with the projected requirements of the area to be serviced, the Applicant shall install mains, as required by the Authority. The Authority shall pay the Applicant the differences in the material, labor and excavation costs as determined by the Authority or its Engineer.

If the Authority requires the installation of a booster pumping station of greater capacity than that capacity determined by the Authority as necessary to serve the Applicant, the Authority shall pay said Applicant the difference between the cost of the facilities necessary to serve the Applicant and the facilities required by the Authority as determined by the Authority or its Engineer.

The Authority will not assess the increased cost, if any, of the Engineer's review and inspection fee when the increased cost of such review and inspection to provide facilities in excess of those necessary to serve the Applicant results from an order of the Authority.

If the Authority requires a treatment plant and/or water storage tank of greater capacity than that capacity determined by the Authority as necessary to serve the Applicant, the Authority shall pay said Applicant the difference between the cost of the treatment plant and/or storage tank necessary to serve the Applicant and the cost of the treatment plant and/or storage tank required by the Authority.

H. Fire Protection

For developments where a fire suppression system is proposed or required, a hydrant flow test must be conducted. The test shall be conducted at the hydrant nearest to the project site, the cost for inspection shall be one thousand dollars (\$1,000.00).

The fire suppression system shall be certified by a licensed professional engineer.

Where permitted by Law a standby fee will be billed to the account on the Authority's regular billing cycles. The fee will be based on the size of the water main providing water to the Fire Protection system and will be billed quarterly at the time of regular billing.

VI. TECHNICAL SPECIFICATIONS

All materials to be used on the proposed project that will become the property of the Authority upon conveyance by the Applicant shall be deemed to be “Domestic” and manufactured in the United States. The Applicant is directed to refer to “Chapter 107, Laws 1982” of the State of New Jersey effective date October 3, 1982, as amended or supplemented. No-Lead Brass: All Brass fittings shall comply with Senate Bill 3874 “Reduction of lead in Drinking Water Act”, that amended the Safe Drinking Water Act.

A. Materials and Installation

a. Water Mains

Pipe materials to be used in construction of water mains shall be cement-lined ductile iron, polyvinyl chloride, or prestressed concrete cylinder pipe.

For bridge crossings, or other special aerial installations, pipe material shall be ductile iron pipe or HDPE.

For water main extension within the right-of-way of an existing or proposed collector road, pipe material shall be ductile iron pipe.

Ductile iron pipe, appurtenances, and fittings shall comply with ANSI/AWWA C110/A21.10 (fittings), C111/A21.11 (gasket joints), C115/A21.15 (flanged joints), and C151/A21.51 (pipe). Thickness shall be designed in accordance with ANSI/AWWA C150/A21.50 and shall be a minimum of Class 52. It shall be cement-mortar lined in accordance with ANSI/AWWA C104/A21.4. Joints shall be gasketed push-on in conformance with ANSI/AWWA C111/A21.11. The exterior of the ductile iron pipe shall be covered with a coal-tar, epoxy-type coating. In aggressive soils, ductile iron pipe wrapped in polyethylene, in accordance with ANSI/AWWA C105/A21.5, shall be used.

PVC pipe, appurtenances, and fittings shall conform to ANSI/AWWA C900 for pipes and joints shall be elastomeric-gasket couplings of a corresponding size. Laboratory performance requirements, as specified in ASTM D3139, shall be met. Solvent-cement couplings shall not be permitted.

All fittings shall be mechanical joint type and shall conform to ANSI A21.10. Fittings shall conform to pressure ratings of 250 psi.

All mechanical joints shall be installed with meg-a-lugs (or approved equal) or thrust rods, where required. The pipe shall be furnished with the necessary rubber gaskets.

Steel pipe shall conform to AWWA C202. Steel pipe less than 12 inches in diameter shall be Schedule 40, 12 inches and over shall have a wall thickness of 0.375 inches. Steel pipe shall be cement mortar lined and coated in accordance with AWWA C104.

Buried steel pipe shall be wrapped in accordance with AWWA C203, Section A-1.4. Exposed steel pipe shall be primed (2 mils dry) and then painted with a two coat vinyl system (5 mils dry total). Ductile iron pipe shall be encased in polyethylene in accordance with AWWA C105-72 when soil conditions so dictate. The Authority or Authority Engineer will make the determination.

Where transitions to flanged fittings are made, adapters approved by the Authority shall be used.

Pipe bedding and backfill shall be installed in accordance with the pipe manufacturer’s recommendations.

The Authority may require the Applicant to provide an opinion of a professional engineer relative to the suitability of the on-site material to be used as backfill. The Authority shall rely on this opinion.

Where the on-site material is deemed suitable, the opinion shall specify the appropriate installation methods for the material. Where the on-site material is deemed not suitable, the opinion shall specify modification or replacement of the material and the appropriate installation for the specified material.

Prestressed concrete cylinder pipe shall conform to AWWA Specifications C301. Joint shall be rubber and steel, LOCK-JOINT SP-5 or approved equal.

b. Valves

Gate valves shall be iron body, non-rising bronze stem with resilient seated wedge. All internal ferrous metal surfaces shall be fully epoxy coated. Valves shall be full size. Valves on 16 inch mains or larger shall be butterfly valves and shall have suitable by-passes. All valves shall meet or exceed AWWA Standards. Valve boxes shall be cast iron of the adjustable type with a minimum shaft diameter of 5-1/4 inches, with cover indicator of "water" and direction of valve operation. The valve box cover shall be set flush with the surface of the finished grade.

Valves shall have a working water pressure rating of 200 psi. Valves shall open left (counter clockwise) and be provided with 2" square wrench nuts.

c. Hydrants

Installation of hydrants shall be in accordance with the requirements of the AWWA Standard for Dry-Barrel Fire Hydrants, ANSI/AWWA C502. Street main connections shall not be less than six (6) inches in diameter. A valve shall be provided on connections between hydrants and street mains. All pipe, fittings, and appurtenances supplying fire hydrants shall be AWWA or ASTM approved.

All fire hydrants shall be painted with Rust-Oleum Fire Hydrant Enamel #202660 Red (Reorder USA Blue Book Part #43827).

All fire hydrants shall conform to NFPA Standard 291.

All hose connections shall have National Standard Threads.

In the interest of standardization, only hydrants manufactured by Mueller are considered acceptable. All fire hydrants shall be freshly painted before the Authority takes over ownership. All fire hydrants shall be Mueller Super Centurion 200 A-423. Fire hydrants shall have a minimum valve opening of 5-1/4 inches. All fire hydrants shall open left (counter clockwise).

All hydrants are to be properly secured with thrust blocking or rods. The preferred method is to rod the six (6) inch hydrant valve to the main, thence rod the hydrant to the six (6) inch valve.

d. Fittings

All fittings shall be new and suitable for a minimum working pressure of 150 psi. Iron fittings shall be cement-lined with a bituminous seal coat interior conforming to ANSI/AWWA C104/A21.4 and an exterior coating of coal tar or asphalt foundry dip. Tees, bends, etc. of 11-1/4 or greater shall be blocked against movement from water pressure using proper size thrust blocks.

e. Water Services

The curb box and curb stop shall be located in the right-of-way or near the curb line. The curb box and curb stop are not permitted in sidewalks, driveways, concrete, blacktop, brick paver, etc.

Inspection and approval of the installation of the building lateral from the curb shut-off to the building is under the jurisdiction of the Township Board of Health acting through the Township Plumbing Inspector.

Separate water service connections for each unit shall be utilized for detached housing where maintenance is the responsibility of the individual homeowner.

Common water service connections shall be allowed for multi-family housing where there is an entity, such as a homeowner's association, that is responsible for the maintenance of the common water laterals. Where common laterals are utilized, individual water shut offs, meters and transmitters shall be provided for each unit. The Authority's responsibility for maintenance and repair shall terminate at the water shut off of the common water lateral. A blanket easement shall be provided for access by the Authority to the individual shut offs.

The water service connections for service to the docks must include a curb shut off, a water meter, transmitter and a backflow preventer. The make and model of the backflow preventer shall be submitted to the Authority or Authority's Engineer for approval. The water meter and backflow preventer shall be installed in a location to the satisfaction of the Authority and visible for inspections by the Authority's personnel. The property owner shall be responsible to construct, own, operate and maintain the dock service, and the Authority shall bill the property owner for the water usage to the dock area based on the current rate schedule.

f. Water Meters

After payment, the meter shall be provided by the Authority and installed by the Applicant at the Applicant's cost. An unobstructed area no smaller than 2' x 2' (two feet by two feet) shall be provided around any installed meter. Upon completion of the meter wire (provided by the Authority) installation by the Applicant, the Authority shall install the remote readout receptacle and set the account codes. The remote readout receptacle shall be installed on the outside of an exterior wall no more than eighteen (18) inches from either side of the electric meter and approximately four to five feet above the finished grade. There shall be no shrubs, fences or obstructions whatsoever which prevent easy access to the receptacle. The water service shall not be used until the installation of the meter has been completed and the Authority has determined the system is operating properly.

Jumpers are not permitted at any time and subject to a fine.

No new meters are to be installed in a crawlspace. On existing homes, where a meter is located in a crawl space the meter shall be within 10 feet or less from a crawlspace entry and must be approved by the Authority.

Where the construction of more than one unit is contemplated, the meter and transmitter location shall be standardized by the Applicant.

For buildings requiring a meter larger than one inch, the Applicant shall be responsible to purchase the meter and transmitter. It is also the applicant's responsibility to install the meter at their cost. The meter shall read in gallons, and be as manufactured by Sensus including transmitter, and remote encoder register.

For existing buildings, the Authority must be able to gain access to water meters to perform repairs or replacement. An area no smaller than 2' x 2' (two feet by two feet) shall be provided around any installed meter. Obstructions are to be removed by the homeowner or agent in order to gain access by Authority personnel. If Authority personnel assist a homeowner or agent upon written permission in moving an appliance or other item, Authority personnel, management or Commissioners are not responsible for any damage caused while performing this work, or while re-locating the item after work is performed.

Please be advised that the water meter must be located in a climate to prevent freezing or excessive heat. The Manufacturer's recommended range is 33° F to 150° F. The Authority is not responsible for any damage resulting from negligence or misuse. If the meter freezes, the cost to replace the meter will be at your expense. Contractors installing meters must advise the owner of the required climate conditions to avoid damage and future replacement costs.

B. Leakage and Testing

The contractor shall furnish all labor, materials and equipment necessary for the testing. Preliminary pressure and leakage tests shall be made as required to reasonably assure a successful final acceptance test which will be made under the inspection of the Authority. 72 hour notice to the Authority is required before performing these tests.

No work shall be closed or covered up until it has been duly inspected and approved for proper and satisfactory construction and installation. Should uncompleted or unapproved work be covered, the Applicant shall uncover all work so that it can be properly inspected and approved; and after such inspection and approval he will properly repair and replace all work found defective, unsatisfactory, and not in accord with the Plans and Specifications, and after such repair and replacement, he will bring all work to the completeness and status existing before it was closed and covered. After absorption is complete, the pipe(s) and appurtenances shall be pressure-tested for a period of one hour under a pressure equal to twice the maximum possible pressure in each pressure zone but in any case not less than 150 psi. A leakage test shall be conducted after the satisfactory completion of the pressure test.

The duration of each leakage test shall be 2 hours; and during this period, the main shall be subjected to a pressure equal to twice the maximum possible pressure zone, but in any case not less than 150 psi, and shall not be permitted to fall more than 10 psi below that amount.

Leakage is defined as that quantity of water to be supplied into the newly laid pipe, or any valved section thereof, necessary to maintain the specified leakage pressure after the pipe has been filled with water and the air expelled.

No pipe installation will be approved until the leakage is less than the number of gallons per hour as determined by the following formula:

$$L = \text{SDP}^{0.5} / 133,200$$

where:

L = Allowable leakage in gallons
per hour

S = Length of pipe tested (feet)

P = Average test pressure during the test (psi)

D = Nominal diameter of pipe (inches)

If leakage occurs greater than the allowable quantity specified, the defective joints or pipes shall be located and repaired until the leakage is within the acceptable allowance. Leakage tests shall be conducted in accordance with AWWA C600.

C. Disinfection

Before being placed in service, all water mains, appurtenances, pipe, treatment units and storage tanks must be disinfected and bacteria tested. The results are to be provided to both the Authority and Engineer for the Authority if applicable for verification prior to operation.

The mains and tanks shall first be thoroughly flushed to remove all dirt and foreign matter and then filled with water containing a dosage of 50 ppm of chlorine. The chlorinated water shall be retained in the mains and tanks for at least 12 hours after which the mains and tanks shall be flushed. The Applicant may, at his option, chlorinate storage tanks by spraying all interior surfaces with a solution containing 500 ppm concentration of chlorine.

A solution of not less than one percent of the tank capacity shall be prepared at this concentration and sprayed on all surfaces. The tank shall then stand with drain closed for at least 12 hours. When the required time has elapsed, the tank shall be drained and flushed with water. After flushing, the system shall be filled with water and a bacterial analysis, by a licensed laboratory, shall be made. The results shall meet the standards as set forth by the New Jersey Department of Environmental Protection. Disinfection shall be done in accordance with AWWA C601.

VII. GUARANTEES AND ESCROW DEPOSITS

A. Acceptable Types

The Authority shall accept a performance or maintenance guarantee in the form of:

- a. Cash.
- b. A surety bond from a bonding company licensed to do business in the State of New Jersey and approved by the Authority, see enclosed standardized form.
- c. An Irrevocable Letter of Credit issued by a recognized lending institution authorized to do business in the State of New Jersey and in a form and content approved by the Authority, see enclosed standardized form.
- d. Other acceptable forms of Guarantee, as approved by the Authority.

B. Guarantees Required

Prior to filing the final subdivision plat, the Applicant shall provide and the Authority shall accept a performance guarantee for the purpose of assuring the installation and maintenance of improvements. The performance guarantee shall be for a minimum of one year, and shall remain in full force and effect until reduced or released by the Authority.

- a. The performance guarantee shall be in the amount equal to 120% of the estimated cost of construction of the required improvements based upon the Authority's unit price schedule, as determined by the Authority Engineer.

The Authority Engineer shall prepare an itemized estimate of cost of the improvements covered by the performance guarantee, which itemized estimate of cost shall be appended to each performance guarantee posted by the obligor.

In the event that final approval is by stages or sections of the project, the provisions of this section shall be applied by stage or section.

- b. The time allowed for installation of the improvements for which the performance guarantee has been provided may be extended by the Authority by resolution. As a condition of any such extension, the amount of any performance guarantee shall be increased or reduced, as the case may be, to the amount of 120% of the estimated cost of construction determined as herein provided.
- c. If the required improvements are not completed or constructed in accordance with the performance guarantee, the Applicant and surety, if any, shall be liable thereon to the Authority for the reasonable cost of the improvements not completed or constructed and the Authority may either prior to or after receipt of the proceeds thereof complete such improvements.

Such completion or construction of improvements shall be subject to the public bidding requirements of the "Local Public Contracts Law," P.L. 1971, c. 198 (C. 40A: 11-1 et seq.).

d. Nothing herein shall prevent an Applicant from installing required improvements prior to the filing of the final subdivision plat provided that final approval has been granted by the Authority, all regulatory construction permits have been secured and inspection fees are posted with the Authority pursuant to the itemized estimate of cost of construction as approved by the Authority Engineer.

At the time of filing the final subdivision plat the Applicant shall post a performance guarantee to guarantee the completion of any remaining improvements not yet completed.

C. Guarantee Reductions

Upon substantial completion of all required improvements (except for the top course of paving) and the connection of same to the Authority system, the Applicant may request of the Authority in writing, by certified mail addressed in care of the Executive Director, that the Authority Engineer prepare, in accordance with the itemized estimate of cost prepared by the Authority Engineer and appended to the performance guarantee, a list of all uncompleted or unsatisfactory completed improvements. If such a request is made, the Applicant shall send a copy of the request to the Authority Engineer. The request shall indicate which improvements have been completed and which improvements remain uncompleted in the judgment of the Applicant. Thereupon the Authority or Authority's Engineer shall inspect all improvements covered by the Applicant's request and shall file a detailed list and report, in writing, with the Authority, and shall simultaneously send a copy thereof to the Applicant not later than 45 days after receipt of the Applicant's request.

The list prepared by the Authority or Authority's Engineer shall state, in detail, with respect to each improvement determined to be incomplete or unsatisfactory, the nature and extent of the incompleteness of each improvement or the nature and extent of, and remedy to correct any completed improvement determined to be unsatisfactory. The report prepared by the Authority or Authority's Engineer shall identify each improvement determined to be complete and satisfactory together with a recommendation as to the amount of reduction to be made in the performance guarantee relating to the completed and satisfactory improvement, in accordance with the itemized estimate of cost prepared by the Authority or Authority's Engineer and appended to the performance guarantee.

The Authority, by resolution, shall either approve and accept the improvements determined to be complete and satisfactory by the Authority or Authority's Engineer, or reject any or all of such improvements for cause expressed in said resolution, and shall approve and authorize the amount of reduction to be made in the performance guarantee relating to the improvements accepted, in accordance with the itemized estimate of cost prepared by the Authority or Authority's Engineer and appended to the performance guarantee. This resolution shall be adopted not later than 45 days after receipt of the list and report prepared by the Authority or Authority's Engineer. Upon adoption of the resolution by the Authority, the Applicant shall be released from all liability pursuant to its performance guarantee, with respect to those approved and accepted improvements, provided that a percentage of the amount of the performance guarantee shall be retained to ensure completion and acceptability of all improvements.

The Applicant's request for a reduction in the amount of the performance guarantee must be accompanied by an affidavit certifying that all of the contractors) and suppliers) have been paid in full as of the date of the request.

- a. The amount of the performance guarantee may be reduced to 30% of the amount of the estimate of cost of construction upon successful completion of the preliminary testing of the system after all of the structures, mains, service connections and appurtenances have been installed. The preliminary testing is optional and not a requirement of the Authority.
- b. The amount of the performance guarantee may be reduced to 20% of the amount of the estimate of cost of construction upon successful completion of the final testing of the system. The final testing will not be conducted until all of the underground utilities (water, sanitary sewer, storm sewer, gas, electric, telephone, etc.) and all of the curbs and sidewalks have been completed along with the base course of road restoration have been installed and approved.
- c. The amount of the performance guarantee may be reduced to 10% of the amount of the estimate of cost of construction when the as-built plans in a form and content satisfactory to the Authority or Authority's Engineer have been submitted by the Applicant and when the only remaining punch list work consists of the final adjustments to set the valve box covers and curb shutoffs to final grade (i.e., final pavement overlay has not been completed).

D. Guarantee Release

The performance guarantee may be released by the Authority upon the completion of all final punch list items, resolution of all outstanding complaints, submission of all closeout documents and maintenance guarantees by the Applicant to the Authority in a form and content satisfactory to the Authority's Attorney and upon formal acceptance of the improvements by the Authority.

Upon completion of required improvements or release of a performance guarantee a maintenance guarantee shall be posted with the Authority. The amount, terms and conditions of any maintenance guarantee shall be as set forth in this section.

Provision for a maintenance guarantee to be posted with the Authority shall be for a period of 2 years after final acceptance of the improvement, in the amount of 10% of the cost of the improvement, which cost shall be determined by the Authority Engineer according to the method of calculation set forth herein.

If the Authority or Authority's Engineer fails to send or provide the list and report as requested by the Applicant pursuant to this section within 45 days from receipt of the request, the Applicant may apply to the court in a summary manner for an order compelling the Authority or Authority's Engineer to provide the list and report within a stated time and the cost of applying to the court, including reasonable attorney's fees, may be awarded to the prevailing party.

If the Authority fails to approve and accept or reject the improvements determined by the to be complete and satisfactory or reduce the performance guarantee for the complete and satisfactory improvements within 45 days from the receipt of the list and report, the Applicant may apply to the court in a summary manner for an order compelling, within a stated time, approval of the complete and satisfactory improvements and approval of a reduction in the performance guarantee for the complete and satisfactory improvements in accordance with the itemized estimate of cost prepared by the Authority or Authority's Engineer and appended to the performance guarantee; and the cost of applying to the court, including reasonable attorney's fees, may be awarded to the prevailing party.

In the event that the Applicant has made a cash deposit with the Authority as part of the performance guarantee, then any partial reduction granted in the performance guarantee shall be applied to the cash deposit in the same proportion as the original cash deposit bears to the full amount of the performance guarantee.

If any portion of the required improvements is rejected, the Authority may require the Applicant to complete or correct such improvements and, upon completion or correction, the same procedure of notification, as set forth in this section shall be followed.

To the extent that any of the improvements have been dedicated to the Authority on the subdivision plat or site plan, the Authority shall be deemed, upon the release of any performance guarantee required pursuant to this section, to have accepted dedication for public use of improvements made thereon according to site plans and subdivision plats approved by the Authority.

Nothing herein, however, shall be construed to limit the right of the Applicant to contest by legal proceedings any determination of the Authority or the Authority Engineer.

E. Escrow Payments for Professional Services

The Authority shall make all of the payments to professionals for services rendered for review of applications for projects, review and preparation of documents, inspection of improvements or other purposes. If the Authority required of the Applicant a deposit toward anticipated Authority expenses for these professional services, the deposit shall be placed in an escrow account. The amount of the deposit required shall be reasonable with regard to the scale and complexity of the project. All payments charged to the deposit shall be pursuant to vouchers from the professionals stating the hours spent, the hourly rate and the expenses incurred. The Authority shall render a written final accounting to the Applicant on the uses to which the deposit was put. Thereafter the Authority shall, upon written request, provide copies of the vouchers to the Applicant. If the salary, staff support and overhead for a professional are provided by the Authority, the charge to the deposit shall not exceed 200% of the sum of the products resulting from multiplying (1) the hourly base salary of each of the professionals by (2) the number of hours spent by the respective professional on review of the application for project or the Applicant's improvements, as the case may be. For other professionals the charge to the deposit shall be at the same rate as all other work of the same nature by the professional for the Authority pursuant to said professionals' contract for services adopted by resolution of the Authority at its yearly Reorganization Meeting.

A. Escrow Deposits with Authority, Interest

Whenever an amount of money in excess of \$5,000.00 shall be deposited by an Applicant with the Authority for professional services employed by the Authority to review applications for a project, for Authority inspection fees in accordance with this section, the money, until repaid or applied to the purposes for which it is deposited, including the Applicant's portion of the interest earned thereon, except as otherwise provided in this section, shall continue to be the property of the Applicant and shall be held in trust by the Authority. Money deposited shall be held in escrow. The money shall be deposited in a banking institution or savings and loan association in this State insured by an agency of the federal government, or in any other fund or depository approved for such deposits by the State, in an account bearing interest at the minimum rate currently paid by the institution or depository on time or savings deposits. The Authority shall notify the Applicant in writing of the name and address of the institution or depository in which the deposit is made and the amount of the deposit. The Authority shall not be required to refund an amount of interest paid on a deposit which does not exceed \$100.00 for the year. If the amount of interest exceeds \$100.00, that entire amount shall belong to the Applicant and shall be refunded to him by the Authority annually or at the time the deposit is repaid or applied to the purposes for which it was deposited, as the case may be; except that the Authority shall retain for administrative expenses a sum equivalent to no more than 33-1/3% of that entire amount which shall be in lieu of all other administrative and custodial expenses.

The provisions of this section shall apply only to that interest earned and paid on a deposit after the effective date of the adoption of these revised Rules and Regulations.

B. Inspection Escrow Deposits

The Applicant shall reimburse the Authority for all inspection fees paid to the Authority Engineer for the inspection of improvements; provided that the Authority shall require of the Applicant a deposit for the inspection fees in an amount not to exceed, except for extraordinary circumstances, the greater of \$500 or 8.5% of the cost of improvements. For those projects for which the anticipated inspection fees are less than \$10,000, fees may, at the option of the Applicant, be paid in two installments. The initial amount deposited by an Applicant shall be 50% of the anticipated fees. When the balance on deposit is reduced to 10% of the anticipated fees because of payment to the Authority Engineer for inspection, the Applicant shall deposit the remaining 50% of the anticipated inspection fees. For those projects for which the anticipated fees are \$10,000 or greater, fees may, at the option of the Applicant, be paid in four installments.

VIII. SYSTEM CONSTRUCTION

No Applicant shall commence construction of any kind until a Construction Permit is issued by the Authority. The Authority shall not issue a Construction Permit until the Applicant has complied with all conditions of the application and the resolution of final approval, if applicable, and all required fees have been paid. The Construction Permit shall be in a form designated by the Authority and shall be issued at the office of the Authority during regular business hours. The Authority shall direct the Building Inspector that no building permit shall be issued from his department until proof of the issuance of a Construction Permit or a letter of no interest from the Authority is presented. A copy of each Construction Permit or letter of no interest shall be forwarded to the Building Inspector by the Authority at the time of issuance.

Application for a Construction Permit for the improvements shall be made not later than forty-five (45) days prior to the expiration of final approval. All construction of the said improvements shall be completed within three (3) years from the date of the issuance of the Construction Permit.

A. Inspection

The Applicant shall give 72 hours notice to the Authority and the Authority's Engineer prior to construction. All construction shall comply with the approved plans and specifications and shall be subject to construction review or inspection by the Authority or its authorized representative. In the event of noncompliance, the Authority or its authorized representative may direct or order discontinuance of construction.

The Applicant shall submit a progress report together with the cost of construction at the end of each month to the Authority.

No service connections shall be made to a street main whether pressure tested or not, unless said connection is made under the review and inspection of the Authority's representative.

B. Shop and Working Drawings

Prior to construction, the Contractor shall submit for approval, shop or work drawings of concrete reinforcement materials fabricated especially for the project and materials for which drawings are specifically requested. Such drawings shall show the principal dimensions and construction details. When it is customary to do so, or when the dimensions are of particular importance, the drawing shall be certified by the manufacturer as correct for this project.

No material shall be purchased or fabricated for equipment until the Authority's Engineer has approved the shop or work drawings. No work shall be done upon any part of a structure where a shop or working drawing is required until such approval has been given by the Authority's Engineer. All shop or work drawings shall be submitted in five (5) copies to the Authority.

The approval of shop or working drawings, will be general and shall not relieve the Applicant from responsibility for details of design, dimensions, etc., necessary for proper fitting and construction work.

C. As-Built Plans

After construction and before final acceptance by the Authority, the Applicant shall furnish to the Authority one Mylar reproducible drawing, in ink, approved by the Authority's Engineer, and three sets of sealed prints of each drawing showing the distribution system and all facilities as constructed.

The "as-built" plans shall show the exact location of the water mains, water service connections, fire hydrants and main line valves. All water service connections shall be stationed from the nearest downstream sanitary sewer manhole.

D. Operation and Maintenance Manuals

After construction and before final acceptance, the Applicant shall furnish the Authority with five (5) sets of Operation and Maintenance Manuals for facilities constructed.

E. Use of Water System by the Authority

During construction and before final acceptance, the Authority shall have the right to use any completed portion of the system without waiving its right to order correction of any defects.

F. Illegal Use of the System

Use of the active portion of the water system for construction, flushing of sewers, and the like is strictly prohibited without the expressed permission of the Authority. Any other use for which the system was not specifically designed shall be an "Illegal Use of System," and is strictly prohibited. Such use shall be subject to penalty and/or fine as may be prescribed by law.

G. Acceptance of Improvements by the Authority

After construction of all proposed improvements has been completed, the Applicant shall:

- a. Obtain from the Authority or Authority's Engineer a certification that the construction has been completed in accordance with the approved plans and specifications.
- b. Submit deeds with metes and bounds description to all lands, easements, and improvements not previously transferred, together with title policies.
- c. Submit Affidavits of Title for land, easements, and equipment and a recitation thereon that everything conveyed to the Authority has been paid for in full. Corporate resolution authorizing said transfers if applicable.
- d. Submit copy of filed subdivision plat showing all easements containing the filed plat number and filing date.
- e. Submit surveys for sites and easements dedicated to the Authority and sealed by a licensed New Jersey Land Surveyor.
- f. Submit Bills of Sale for all equipment and facilities, including warranties from manufacturers of equipment.
- g. Submit releases from the general site contractors) who furnished and installed the facilities.
- h. Furnish three sets of sealed prints and as-builts in CAD format along with one (1) signed and sealed Mylar.

- i. Post a Maintenance Guarantee in a form and content approved by the Authority and to the satisfaction of the Authority's Attorney equal to 10% of the Estimate of Cost, guaranteeing the satisfactory performance and functioning of the improvements for a minimum of two (2) years.
- j. Provide an affidavit that all submittals are true, accurate and complete and that all conveyances are free from any lien or encumbrances.
- k. Attached hereto are proposed close-out documents which may be utilized by the applicant. The attached close-out documents are not required to be utilized, but documents similar to the closeout documents must be similar in form and content to the proposed documents which must be prepared by the applicant and submitted to the Authority's consulting engineer and attorney for review and recommendation of approval to the Authority.

IX. WATER LATERAL CONNECTIONS PACKAGE

**A. 1" TO 2" Diameter Water Services for single domestic line applications only.
(Excluding development applications)**

1. Property owner identifies whether new water laterals are needed to service the property. The owner may contact the Authority to check for prior installation and pay the appropriate fee for determination of existing service.
2. Property owner contracts for the construction of the water lateral installation.
3. An application is to be completed and submitted to the LEHMUA. The application will be approved upon receipt of the following:
 - a) Form Utility Service Installation Application
 - b) Certificate of Insurance in which the LEHMUA and Authority Engineer (if applicable) are named as additional insured
 - c) Hold Harmless Agreement Indemnifying the LEHMUA and Authority Engineer (If applicable)
 - d) Copy of Valid Road Opening Permit
 - e) Underground mark-out confirmation number
 - f) Connection Fee Paid
4. The property owner or contractor is to contact the Authority 72 hours in advance of the scheduled excavation.
5. The contractor is to remove the pavement and excavate to the main, carefully exposing the pipe for the tap. The excavation is to meet OSHA and PEOSHA standards.
6. Saddles with a 1" CC tap are to be supplied by the Authority for an individual application. Saddles with a tap larger than 1" CC require authority approval before installation and are to be provided by the applicant.
7. The property owner/contractor is to construct the service from the tap to the curb line and set the clean-out or curb stop and box. See attached specifications for acceptable curb stops.
8. The inspection services provided by the Authority will be for the excavation near pipelines, constructing the service line and backfilled 2' above the pipeline.
9. The property owner/contractor is responsible to backfill, compact, and pave the roadway in accordance with the Road Opening Permit from the Township, County, or State.
10. A W-9 for (Taxpayer Identification number and certification) is to be completed and submitted to Authority with this application.

B. Lateral Connection Package

1. Utility Service Installation Package (See Page 37)
2. Indemnification (See Page 38)
3. Insurance Certificate Requirements (See Page 39)
4. Form W-9, Request for Taxpayer Identification Number and Certification
(See Page 41)
5. Acknowledgement of Manufacturer's Suggested Operating Temperature Range for Water Meter

C. WATER SERVICES

1" - 2" Diameter Material and Installation Specifications

a. Description

Water services shall include the excavation and backfill for and the construction of water services for conveying potable water from the water main to and including the curb stop behind the curb or curb line, and restoration.

b. Materials

1. Pipe

Pipe shall be 200 p.s.i. Polyethylene tubing per AWWA C-901, SIDR 7. Diameters for polyethylene tubing given shall be nominal for iron pipe size (I.P.S.). Installation shall include the use of stainless steel metal stiffeners. Stainless steel metal stiffeners cannot be longer than the inside of the pack joint. After final installation of the tubing, the stiffener cannot extend past the end of the pack joint which will cause damage after backfilling.

Acceptable materials are as manufactured by:

- a. Endot/Yardley, Rockaway, NJ
- b. Mu Creek, Titusville, PA, or
- c. Polystar, Trenton, NJ
- d. Or Equal

2. Saddles

Saddles with a 1" CC tap are to be supplied by the Authority for an individual application. Saddles with a tap larger than 1" CC require Authority approval before installation and are to be provided by the applicant. If ductile iron pipe is being tapped, the applicant must perform a 1" CC direct tap without the use of a saddle. Taps larger than 1" CC on ductile iron pipe require Authority approval before installation and are to be provided by the applicant.

3. Corporation and Curb Stops

Corporation stops and Curb Stops shall be of the ball valve type. These valves must be brass and marked NL. The ball shall be Teflon or equal coated brass, and shall be held in position by the seal off-against seats of Buna N Rubber that are held securely in place with epoxy adhesive. Valves shall be water tight against flow in either direction. The waterway shall be no smaller than the nominal size of the valve and shall be smooth, with no abrupt changes in size to create resistance to flow. The stem that turns the ball shall exert no other force on it except to open or close the ball and shall be held securely in place by means of a bronze ring.

The seal around the stem shall consist of two "O" rings. Each valve shall have a substantial T- head for the operation of opening and closing with a 90 degree turn using a rod. The stops or lugs for controlling the motion of the T-head shall be enclosed and properly positioned to line up the waterway through the ball with the water passage through the valve body. Optional end connections shall be iron pipe threads, or pack joint (compression type) connections for copper, or plastic pipe. The valve shall be available in sizes from 1" through 2". The valve shall turn easily and shall be of quality construction throughout. Pack joint connections shall consist of a pack joint nut along with a stainless steel set screw in order to accommodate pipe that is not perfectly true-to-round. One piece nuts shall not be accepted. They shall be for iron pipe size (I.P.S.) polyethylene tubing with appropriate end connections to suit pipe being used. The minimum diameter of the stem at the point of attachment to the valve body shall be as follows:

Valve Size Minimum	
Diameter	
1"	1 1/16"
1-1/2"	7/8"
2"	1"

Acceptable Corporation Stop materials are as manufactured by:

- a. Model FI001 NL Ford - Meter Box Co., Wabash, Indiana

Acceptable Curb Stop materials are as manufactured by:

- a. Model B11 -XXX-NL Ford - Meter Box Co., Wabash, Indiana
- b. Model B66-XXX-NL Ford-Meter Box Co., Wabash, Indiana
- c. Or Equal

4. Curb Boxes

Curb stop boxes shall be compatible for use with the curb stops, have Erie extensions only and include a stainless steel rod. They must be of the telescopic type and shall be of cast iron. They shall be extended to the proper depth below grade. Lids will be of the two hole type and marked Water or W.

Acceptable materials are as manufactured by:

- a. Model 10314- Mueller Co., Decatur, III. Or Equal (With stainless steel rod, adaptable to 1 V* 1 'A" and 2" curb stop by pacing CB-7 curb box base.

4. Methods of Construction

1. General

All materials installed shall be new which have at no time previously been used for any purpose whatsoever.

2. Excavation and Backfill

Shall be as specified in the road opening permit. The depth of water services shall be 4'0" measured from the top of pipe to surface of ground previous to excavation or to proposed finished grade, except where additional depth is required due to interference by existing surface or subsurface utilities or structures or by connection to existing facilities.

3. Location

The water service shall be located a minimum of five (5) feet away from other utilities. The pipe shall be laid perpendicular to the water main, unless otherwise permitted.

4. Handling

All pipe and fittings shall be handled in such a manner to insure undamaged delivery and installation.

5. Tapping

To be performed by an Authority Approved Contractor.

6. Laying Pipe

The pipe shall be thoroughly bedded and supported throughout its length and handled at all times in such a manner as to prevent any "kinks". Any damaged pipe shall be removed and replaced. The proper tools shall be used which shall be in new condition. Pipe shall be cut at right angles to axis, with all rough edges removed and with proper stiffeners joined in a watertight and permanent manner by experienced workmen. The interior of all pipe and fittings shall be kept clean at all times and protected against the entrance of any foreign materials. Under no conditions will the entire pipe be laid in water.

7. Curb Box and Curb Stop

Shall be set level and plumb. The curb stop shall be properly bedded on a sound foundation, concrete block or brick to prevent turning or movement by contractor's operations and shall be undisturbed on completion. They shall be set plumb and adjusted to proper level. The base shall be set so as to protect valve and not bear on piping.

The curb box and curb stop shall be located in the right-of-way or near the curb line. The curb box and curb stop are not permitted in sidewalks, driveways, concrete, blacktop, brick paver, etc.

8. Tests

Entire installation must remain uncovered and tested under pressure. When installation is found tight in presence of inspector, backfilling may commence. The pressure applied shall be static pressure on main. Any defective material shall be removed and replaced.

UTILITY SERVICE INSTALLATION APPLICATION 4" & 6" DIAMETER SEWER SERVICES AND 1" TO 2" DIAMETER WATER SERVICES

Premises to be connected: Block _____ Lot _____ Qual _____
 SERVICE ADDRESS: _____
 Name of Owner: _____ Phone No. _____

WATER DEPOSIT Connection Fee Paid	SEWER DEPOSIT Connection Fee Paid
Inspection Fee Paid	Inspection Fee Paid
Check No. Cash	Check No. Cash

Service Size to Be Installed _____ Service Size to Be Installed _____

It is understood and agreed that the applicant/property owner has elected to install a SEWER and/or WATER service _____ and that same will be installed at the sole expense of the applicant/property owner with no cost attaching to the Authority. The installation shall be made by a utility contractor.

It is also agreed that the Authority shall be the sole owner of the sewer and water services constructed from the main line to the property line/curb after it has been approved by the Authority.

The applicant/property owner is responsible for obtaining the necessary road opening permit(s) for construction _____ of said service(s). A copy of the road opening permit(s) must be provided to the Authority before this application can be approved.

APPLICANT MUST CONTACT THE AUTHORITY to schedule an appointment for the inspection of the installation of the service(s) a minimum of 72 hours before construction begins. The LEHMUA will require a \$500.00 deposit per service (\$500 for water and \$500 for sewer) for inspection fees. Any charges beyond the deposit will be billed to the property owner of record. If the charges do not exceed the deposit, the balance will be returned to the applicant/property owner.

CONTRACTOR INSTALLING SERVICE(S) _____
 Emergency Telephone Number of Contractor _____

CONTRACTOR PERFORMING INSTALLATION OF SERVICE(S) MUST SUBMIT A CERTIFICATE OF INSURANCE BEFORE APPLICATION CAN BE APPROVED. Attached is a copy of the Insurance Requirements.

The property owner shall hold the Authority harmless by reading, agreeing to, and executing the Indemnification on the back of this application.

SIGNATURE OF PROPERTY OWNER _____ DATE _____

FOR OFFICIAL USE ONLY

LEHMUA Account No. _____

Date Service Installation Application Received: _____

Township, County, or State Road Opening Permit No: _____ Date _____ Received:

Date Certificate of Insurance Received: _____ Indemnification Signed _____

Underground Mark-out Confirmation No. _____

Date Approved by LEHMUA _____

LEHMUA Approval Signature _____

APPOINTMENT SCHEDULED

(WATER)	(SEWER)
Date _____ Time _____	Date _____ Time _____
Scheduled Date Initials _____	Scheduled Date _____ Initials _____

INDEMNIFICATION

The permittee or their contractor shall defend, indemnify and save harmless, the Little Egg Harbor Municipal Utilities Authority from and against all losses, costs, damages, expense claims, or demands arising out of or caused or alleged to have been caused in any manner against claims arising from the operation of the permittee's contractor, subcontractor or agent's operations, by a defect in any equipment or materials supplied hereunder or by performing the permitted utility work herein provided, including all suits or actions of every kind of description brought against Little Egg Harbor Municipal Utilities Authority, either individually or jointly with the permittee for or on account of any damage or injury to any person or persons or property, caused or occasioned or alleged to have been caused by or on account of the performance of any work pursuant to or in connection with this permitted utility work or through any negligence or alleged negligence in guarding the work or through any act, omission or fault or alleged act, omission or fault of the permittee or their contractor, their employees or agents, or others under the permittee's control.

Signature of Owner _____

Witness _____

INSURANCE CERTIFICATE REQUIREMENTS

PROJECT:				
	Limits of Liability in Thousands (000)			
Type of Insurance	Policy Number and Insurance Company	Policy Expiration Date	Amounts of Less than 1,000,000 Will Not Be Acceptable	Amount Required Each Occurrence
<i>General Liability</i> ACCORD <input type="checkbox"/> B Comprehensive Gen. Form <input type="checkbox"/> B Premises - Operations <input type="checkbox"/> B Explosion & Collapse Hazard <input type="checkbox"/> B Underground Hazard <input type="checkbox"/> B Projects/Completed Operations Hazard <input type="checkbox"/> B Contractual Ins. (Blanket) <input type="checkbox"/> B Broad Form Prop. Damage <input type="checkbox"/> Independent Contractors <input type="checkbox"/> Personal Injury			Bodily Injury Property Damage	\$1,000
			Bodily Injury and Property Damage Combined	\$1,000
			Personal Injury	\$
<i>Automobile Liability</i> <input type="checkbox"/> B Comprehensive Form <input type="checkbox"/> B Owned <input type="checkbox"/> 0 Non-Owned <input type="checkbox"/> Garage keepers Insurance (Without Regard to legal liability as direct coverage on a primary basis)			Bodily Injury (Each Person)	\$
			Bodily Injury (Each Accident)	\$
			Property Damage	\$
			Bodily Injury and Property Damage Combined	\$1,000
<i>Excess Liability</i> <input type="checkbox"/> Umbrella Form <input type="checkbox"/> Other Than Umbrella Form			Bodily Injury and Property Damage Combined	\$
<input type="checkbox"/> Worker's Compensation and Employers' Liability	All States Endorsements	Statutory NJ Coverage Minimum \$100,000	\$100,000	
Remarks: Additional Insured ATMA: Little Egg Harbor Municipal Utility Authority, 823 Radio Road, P.O. Box 660 Little Egg Harbor, NJ 08087 and Remington, Vernick and Vena, Authority Engineers (if applicable)				

The Insurance Certificate Must Indicate that, In the event of any material change in, cancellation of, or expiration of the policy or policies Contractors Insurance Company agrees to give a written notice to the Little Egg Harbor Municipal Utility Authority, at the above address ten (10) days in advance of such change or cancellation.

The Insurance Certificate shall be properly executed and issued to the Little Egg Harbor Municipal Utility Authority certifying that the Insured has been Issued a policy or policies with the Limits of Liability of at least the required amounts

TO: INSURANCE PRODUCER

Your client is required to provide a certificate of insurance to the Little Egg Harbor Municipal Utilities Authority for the coverage's and amounts indicated on the reverse side of this form. It is important to your client that you respond quickly since the installation of utility services depend upon valid insurance. Additionally, the minimum amount and type of coverage shown on this form is not negotiable and is not intended to imply that is all the insurance necessary to protect him/her from all losses or liability. It is the Little Egg Harbor Municipal Utilities Authority's policy to require all persons or Utility Contractors performing any water and or sanitary sewer utility service installations, repair operations or a service in. on. or upon any property/premises or facilities under the Authority's care, custody and control to maintain the insurance coverage described below: such insurance must be obtained prior to the start of any such work.

- A. Comprehensive General Liability (CGL)
This coverage must include: Premises-Operations. Products/Completed Operations Hazard. Contractual Insurance (Blanket Coverage). Broad Form Property Damage. Independent Contractors, and Personal Injury and all others shown on 'X' in the required column.

Minimum Coverage

Bodily Injury and Property Damage combined - as shown in the amount required column.

AMOUNTS OF LESS THAN \$1,000,000 WILL NOT BE ACCEPTABLE.

Contractual Insurance (Blanket Coverage)

Contractual Indemnification - Save Harmless Agreement which is incorporated into all Vouchers. General Purchase Agreements and Contracts.

- B. Automobile Liability - Comprehensive Form (or as shown on reverse side).

Minimum Coverage

Bodily Injury and Property Damage combined - as shown in the amount required column

- C. Worker's Compensation - As required by New Jersey State Statute and
Employer's Liability (minimum \$100,000)

- D. Excess Liability
Commercial Umbrella Form - \$1,000,000 preferred.

- E. Other Coverage(s)
As shown on reverse side.

Important - Producer:

THE CERTIFICATE MUST BE SIGNED BY THE AGENT OF THE INSURER OR CERTIFICATE WILL BE RETURNED.

IT IS NECESSARY TO SUBMIT YOUR CLIENT'S COVERAGE THIRTY (30) DAYS PRIOR TO THE EXPIRATION OF THE EXISTING COVERAGE ON OUR CERTIFICATE ONLY: ALL OTHERS WILL BE RETURNED TO THE SUPPLIER AND SERVE TO DELAY FUTURE BUSINESS DEALINGS BETWEEN THE OWNER AND YOUR CLIENT.

FORMS

Form A

Block(s) _____ **Lot(s)** _____

IRREVOCABLE STANDBY LETTER OF CREDIT (PERFORMANCE)

Issued by:

Name of Banking Institution: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Fax: _____

Issue date: _____

Expiration date and time: _____

Letter of Credit Number: _____

Beneficiary:

Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Fax: _____

Applicant:

Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____

Fax: _____

Amount: _____ Dollars (\$ _____)

(Not to exceed 120 percent of the cost of the improvements, as certified by the authority engineer)

We hereby issue our irrevocable standby letter of credit in your favor, which is available by your draft at sight bearing our letter of credit number _____ on _____ (name of banking institution).

Your draft must be presented at the office indicated above by personal delivery or by registered or certified mail or courier and must be accompanied by (1) the original standby letter of credit and any subsequent original amendments and (2) an original statement purportedly signed by the authority engineer of Little Egg Harbor Municipal Utilities Authority stating: "The amount of this drawing under

Irrevocable Standby Letter of Credit No. _____, issued _____ by _____ (name of

banking institution), represents the amount due us as a result of the failure of _____ (name of applicant) to complete, in whole or in part, the required site improvements as detailed in the authority resolution of approval and in that certain Engineer's Estimate entitled " _____" prepared by _____ and dated _____ . I hereby certify that notice of the incompletions upon which this

drawing is based was given to the applicant by registered or certified mail or by courier on _____ (date at least 30 days prior to the date of the authority engineer's statement). This certification shall be accompanied by a resolution of the Little Egg Harbor Municipal Utilities Authority endorsing the findings of the engineer and stating that the improvements have not been approved or accepted.

This letter of credit shall be deemed to be automatically extended annually for periods of one year unless written notice is given by the banking institution by registered or certified mail or by courier to the applicant and the authority at least 60 days prior to the then-current expiration date.

In the event of the failure of the applicant to furnish another letter of credit meeting the requirements of N.J.S.A. 40:55D-53.5 and N.J.A.C. 5:39-1.3, or other acceptable security, at least 30 days prior to the expiration date of this letter of credit, the authority may, to the extent allowed by law, draw upon this letter of credit to pay the cost of any incompletions.

This letter of credit shall expire upon approval or acceptance by resolution of the Little Egg Harbor Municipal Utilities Authority of all improvements cited in the aforesaid Engineer's Estimate or upon replacement of this letter of credit by other security meeting applicable legal requirements. Upon approval or acceptance of some, but not all, of said improvements, a reduction in the amount of this letter of credit shall be granted in accordance with N.J.S.A. 40:55D-53, provided that the remaining amount shall be sufficient to secure provision of the improvements not yet approved and that the authority may require that the remaining amount be 30 percent of the original amount.

All correspondence to the banking institution concerning this letter of credit shall be addressed to the office indicated above.

This letter of credit shall inure to the benefit of the beneficiary authority only and no other party shall acquire any rights hereunder.

This letter of credit is subject to [Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce Publication No. 500] [International Standby Practices 1998 (ISP98)]. (Note Either shall be acceptable).

We hereby agree with you that drawings under and in compliance with the terms of this letter of credit shall be duly honored upon presentation to us.

Witness/Attest:

(Authorized signature and title)

Form B

Block(s) _____ **Lot(s)** _____

PERFORMANCE SURETY BOND

We, _____, having offices at _____, _____, as principal, and _____, having offices at _____, _____, a corporation duly licensed to transact a surety business in the State of New Jersey, as surety, are indebted to the authority of _____ in the county of _____, oblige, in the sum of \$ _____, for which payment we bind ourselves and our respective heirs, legal representatives, successors, and assigns, jointly and severally.

On _____ (date), principal was granted approval by the _____ (approving authority) of the _____ of _____ for _____ (include reference to specific job and resolution of approval). The estimate by the authority engineer of the cost of this work and the resolution of approval are attached hereto and made a part hereof.

Pursuant to authority ordinance, adopted under authority of the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), the principal hereby furnishes a performance surety bond in the amount of \$ _____ (not to exceed 120 percent of the cost of the improvements, as certified by the authority engineer), written by _____, a surety licensed in the State of New Jersey, guarantying full and faithful completion of improvements approved by the approving authority, in lieu of completing the required improvements prior to the granting of final approval. This bond shall remain in full force and effect until such time as all improvements covered by the bond have been approved or accepted by resolution of Little Egg Harbor Municipal Utilities Authority, except that in those instances where some of the improvements are approved or accepted by resolution of the governing body upon certification by the authority engineer, partial release from the bond shall be granted in accordance with N.J.S.A. 40:55D-53. The amount of the bond remaining shall be sufficient to secure provision of the improvements not yet approved; provided, however, that the authority may require that 30 percent of the amount of the bond be retained to ensure completion of all improvements.

This bond shall remain in full force and effect until released by resolution of Little Egg Harbor Municipal Utilities Authority.

This bond is issued subject to the following expressed conditions:

1. This bond shall not be subject to cancellation either by the principal or by the surety for any reason until such time as all improvements subject to the bond have been accepted by the authority, in accordance with the applicable provisions of the Municipal Land Use Law.
2. This bond shall be deemed to be continuous in form and shall remain in full force and effect until the improvements are accepted by the authority and the bond is released, or until default is declared, or until the bond is replaced by another bond meeting applicable legal requirements. Upon approval or acceptance of all improvements by the authority, or upon replacement of this bond by another bond, liability under this bond shall cease. Upon approval or acceptance of some, but not all, of the required improvements by the authority, partial release from the bond shall be granted in accordance with N.J.S.A. 40:55D-53; provided, however, that the portion of the bond amount sufficient to secure completion of the improvements shall continue in effect and the authority may retain 30 percent of the bond amount posted in order to ensure such completion.
3. The aggregate liability of the surety shall not exceed the sum set forth above.

Form C

Block(s) _____ **Lot(s)** _____

**IRREVOCABLE STANDBY LETTER OF CREDIT
(MAINTENANCE)**

Issued by:

Name of Banking Institution: _____

Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

Issue date: _____

Expiration date and time: _____

Letter of Credit Number: _____

Beneficiary:

Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

Applicant:

Name: _____

Address: _____

City/State/Zip: _____

Telephone: _____ Fax: _____

Amount: _____ Dollars (\$ _____)

(Not to exceed 15 percent of the cost of the improvements, as certified by the Authority engineer)

We hereby issue our irrevocable standby letter of credit in your favor, which is available by your draft at sight bearing our letter of credit number _____ on _____ (name of banking institution).

Your draft must be presented at the office indicated above by personal delivery or by registered or certified mail or courier and must be accompanied by (1) the original standby letter of credit and any subsequent original amendments and (2) an original statement purportedly signed by the Authority's engineer of _____ (Little Egg Harbor Municipal Utilities Authority) stating: "The amount of this drawing under Irrevocable Standby Letter of Credit No. _____, issued _____ by _____ (name of banking institution), represents the amount due us as a result of the failure of _____ (name of applicant) to take necessary corrective action to repair defects in functioning, materials or quality of work in the required site improvements as detailed in the Authority resolution of approval and in that certain Engineer's Estimate entitled " _____ " prepared by _____ and dated _____. I hereby certify that notice of the defects upon which this drawing is based was given to the applicant by registered or certified mail or by courier on _____ (date at least 30 days prior to the date of the Authority engineer's statement)." This certification shall be accompanied by a resolution of the Little Egg Harbor Municipal Utilities Authority endorsing the engineer's findings.

This letter of credit shall continue in effect until the expiration date and shall be deemed to be automatically extended for a further period of _____ (not to exceed one year) unless written notice is given by the banking institution by registered or certified mail or by courier to the applicant and the authority at least 60 days prior to the then current expiration date.

In the event of the failure of the applicant to furnish another letter of credit meeting the requirements of N.J.S.A. 40:55D-53.5 and N.J.A.C. 5:39-1.4, or other security meeting applicable legal requirements, at least 30 days prior to the expiration date of this letter of credit, the municipality may draw upon this letter of credit, to the extent allowed by law.

All correspondence to the banking institution concerning this letter of credit shall be addressed to the office indicated above.

This letter of credit shall inure to the benefit of the beneficiary municipality only and no other party shall acquire any rights hereunder.

This letter of credit is subject to [Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce Publication No. 500] [International Standby Practices 1998 (ISP98)]. (Note: Either shall be acceptable).

We hereby agree with you that drawings under and in compliance with the terms of this letter of credit shall be duly honored upon presentation to us.

Witness/Attest:

(Authorized signature and title)

We, _____, having offices at _____, _____, as principal, and, having offices at _____, _____, a _____ corporation _____, duly licensed to transact a surety business in the State of New Jersey, as surety, are indebted to the authority of Little Egg Harbor, the county of Ocean, obligee, _____, in the sum of \$ _____ for which payment we bind ourselves and our respective heirs, legal representatives, successors, and assigns, jointly and severally.

On (date), principal was granted approval by the Little Egg Harbor MUA for (include reference to specific job and resolution of

Block(s) _____ Lot(s) _____

approval).

This bond shall become effective upon approval or acceptance of the improvements by the governing body, as certified by the resolution of the governing body, which is, or shall be, attached hereto and made a part hereof.

The improvements subject to this bond are as follows:

The certification of the cost of such improvements by the authority engineer is attached hereto and made a part hereof.

Pursuant to authority ordinance, adopted under authority of the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), the principal, as a condition of approval or acceptance of improvements, hereby furnishes this maintenance bond in the amount of \$ _____ (not to exceed 15 percent of the cost of the improvements as certified by the authority engineer), written by _____, a surety

licensed in the State of New Jersey, guarantying full and faithful compliance with all terms and conditions of the approval. The bond shall continue in effect for a period of _____ (not to exceed two years) from the date of approval or acceptance of the said improvements.

This bond is issued subject to the following expressed conditions:

This bond shall not be subject to cancellation either by the principal or by the surety for any reason until the end of the period for which it is required to be maintained.

1. The aggregate liability of the surety under this bond shall not exceed the sum set forth above.
2. In the event that the improvements subject to this bond exhibit any defects in functioning, materials or quality of work, Little Egg Harbor Municipal Utilities Authority may, at its option, and upon at least 30 days prior written notice to the principal and to the surety by personal delivery or by certified or registered mail or courier, declare the principal to be in default and, in the event that the surety fails or refuses to perform the necessary corrective work, claim payment under this bond for the cost of any work required for the proper correction of any such defects in the said improvements. In the event that any action is brought against the principal under this bond, written notice of such action shall be given to the surety by the authority by personal delivery or by registered or certified mail or courier at the same time.

1. The surety shall have the right to repair any defects in functioning, materials or quality of work and, to that end, to do such corrective work as may be necessary in accordance with the terms and conditions of original approval, either with its own employees or in conjunction with the principal or another contractor; provided, however, that as an alternative to performing such maintenance or corrective work it may, in its sole discretion, make a monetary settlement with the authority.

2. This bond shall inure to the benefit of the authority only and no other party shall acquire any rights hereunder.

Date: _____ Principal: _____ Witness/Attest: _____

Date: _____ Surety: _____ Witness/Attest: _____

Form E

CERTIFICATE OF COMPLETION
(Corporation, Individual or Partnership)

Certification of Completion No: _____

LITTLE EGG HARBOR MUNICIPAL UTILITIES AUTHORITY
Application for Certification of Completion for Sanitary Sewerage Facilities and Water System
Facilities

1. Applicant's Name: _____

Address: _____

Phone: _____

2. Name and Address of Present Owner if other than above:

3. Preliminary Application No:

Date of Approval: _____

4. Final Application No.:

Date of Approval: _____

Dates of Construction:

Starting: _____ Finishing: _____

5. Dates of Construction:

Starting: _____ Finishing: _____

6. Have record drawings for the construction been submitted to the Authority

Consulting Engineers: (yes or no) _____

7. Have the legal documents been drawn up and submitted to the Authority's Attorney H

Dated:

Signature of Applicant

FOR OFFICIAL USE ONLY

Date Received: _____

Authority Consulting Engineer's Remarks:

Date Record Drawings Received: _____

Date Conveyance of Facility Received: _____

Action of the LITTLE EGG HARBOR MUNICIPAL UTILITIES AUTHORITY:

Approved: _____ Disapproved:

Certification of Completion Granted (date): _____

Secretary: _____

Form F
CONTRACTOR'S AFFIDAVIT

(Corporation Only)

STATE OF NEW JERSEY:

SS:

COUNTY OF OCEAN

I, _____, full age, being duly sworn, according to law, upon my oath, depose and say:

1. I am the _____ (officer) of _____ a corporation of _____ the State of _____

_____, said corporation being the owner of the lines and appurtenances designated on record drawings attached hereto and made a part hereof.

2. I do hereby state and represent that all subcontractors and materialmen who have supplied any labor and/or material on the aforementioned property have been paid in full in accordance with an agreement entered into between the above mentioned corporation and the supplier or contractor and that no stop notice, mechanics' notice of intention and/or mechanics' lien or any other lien has been filed against the aforesaid premises, which would adversely affect the conveyance made to the Little Egg Harbor Municipal Utilities Authority.

IN WITNESS WHEREOF, the Grantor has hereunto set its hand and seal on this ____

Secretary
Corporate Seal

President

STATE OF NEW JERSEY:

SS:

COUNTY OF OCEAN

BE IT REMEMBERED, that on this _____ day of _____, 20____, before _____ me, the _____ subscriber, personally appeared _____, who, being duly sworn on _____ oath, deposes and makes proof to my satisfaction that _____

_____ is the Secretary of _____, the corporation named in the within Instrument; that he/she is the _____ President of said corporation; that the execution, as well as the making of this instrument, has been duly authorized by a proper resolution of the Board of Directors of said Corporation; that the deponent well knows the corporate seal of said corporation; and that the seal affixed to said instrument is the proper corporate seal and was thereto affixed and said instrument signed and delivered by said _____ President as and for the voluntary act and deed of said corporation in presence of the deponent, who thereupon subscribed his/her name thereto.

Sworn and Subscribed to:
Before me this day:
of _____ 20____ :

Notary Public

Form G

RESOLUTION

BE IT RESOLVED by the Board of Directors of _____ a corporation of the State of New Jersey, whose regular course of business consists of the development, redevelopment and construction of building developments and the buying and selling of land incidental thereto, that said corporation be and hereby is authorized to convey to the Little Egg Harbor Municipal Utilities Authority for no monetary consideration all of its right, title and interest in and to its sewer and water facilities, and all appurtenances thereto, situate, lying and being within Little Egg Harbor Township, Ocean County, New Jersey, as shown on Exhibits A and B attached hereto and made a part hereof.

BE IT FURTHER RESOLVED, that the President and Secretary be and hereby are authorized and directed to execute and deliver, in the name of the corporation and under the seal of the corporation, a Deed of Dedication, and any other papers pertinent thereto, conveying all of its right, title and interest in and to its sewer and water facilities, and all appurtenances thereto, lying within Little Egg Harbor Township as aforesaid, to said Little Egg Harbor Municipal Utilities Authority for no consideration.

CERTIFICATE OF SECRETARY

I, _____ Secretary of _____ , a corporation of the State of New Jersey, HEREBY CERTIFY that the foregoing is a true copy of a resolution duly adopted by the Board of Directors of said corporation at a meeting thereof duly called and held on the day of _____ , 20 ____, at which a quorum was present.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said corporation this day of _____ , _ 20 ____ .

SECRETARY

Form H

DEED OF DEDICATION

This Deed of Dedication is made on _____ . 20

BETWEEN

Referred to as the Grantor,

AND Little Egg Harbor Municipal Utilities Authority municipal corporation of the State of New Jersey
whose post office address is Post Office Box 660, Little Egg Harbor, New Jersey 08087

Referred to as the Grantee.

The word "Grantee" shall mean all Grantees listed above.

WITNESSETH, that the Grantor, for and in consideration of the Grantee granting approval to the Grantor for the installation of sewer and water facilities in _____
_____ does hereby grant, convey, sell, alien, enfeoff, release and confirm (transfer ownership of) unto Grantee all of its right, title and interest in and to said sewer and water facilities, and all appurtenances thereto, for the operation of said sewer and water facilities within ALL that certain tract of land situate, lying and being in the Township of Little Egg Harbor, County of Ocean, and State
of New Jersey, designated as _____
_____ as further described and shown on Exhibits A and B attached hereto and made a part hereof.

Signatures. This Deed of Dedication is signed and attested to by the Grantor's proper corporate officers as of the date at the top of the first page. Its corporate seal is affixed.

Attested by:

By: _____

SECRETARY PRESIDENT

STATE OF NEW JERSEY: COUNTY OF OCEAN) ss.

I CERTIFY that on _____, 20__ , _____
personally came before me and this person acknowledged under oath, to my satisfaction, that:

- (a) _____ this person is the Secretary of ,
_____ the corporation named in this
Deed dedication;
- (b) this person is the attesting witness to the signing of this Deed of Dedication by the proper corporate officer who is _____ , the President of the corporation;
- (c) this Deed was signed and delivered by the corporation as its voluntary act duly authorized by a proper resolution of its Board of Directors;
- (d) this person knows the proper seal of the corporation which was affixed to this Deed of Dedication;
- (e) this person signed this proof to attest to the truth of these facts; and
- (f) the full and actual consideration paid or to be paid for the transfer of title is \$0.00 (Such consideration is defined in N.J.S.A. 46:15.5).

**Signed and sworn to before
me on _____, 20**

Form I

EXHIBIT A

DESCRIPTION OF PROPERTY

ALL THAT CERTAIN area lying within _____

_____ at _____

Said area being in the Township of _____ County of Ocean

And State of New Jersey and illustrated on the plan of _____

_____ Prepared by _____

_____ dated _____

NJ LICENSED LAND SURVEYOR

DEED OF DEDICATION

Record, chg. & Return

Inc.
Grantor,

To

Att:

LITTLE EGG HARBOR MUNICIPAL
UTILITIES AUTHORITY
Grantee,

Prepared by:
