

## SECTION III

### WATER AND WASTEWATER PROCEDURES

#### 3-1 GENERAL PROVISIONS

##### A. Type of Developments

Developments in this section are divided into the categories of Commercial and Residential. Some Developments are a combination of Commercial and Residential.

1. Commercial developments are individual commercial buildings, shopping centers, multifamily complexes (ie: apartments), industrial buildings, schools, and churches.
2. Residential developments are single family residences located on a singularly owned parcel of land.

##### B. Improvements

“Improvements” are water and wastewater facilities installed by the Owner/Developer of Developments at their total cost to provide water/wastewater service and fire protection to the Developments. The “Improvements” are for the perpetual maintenance and ownership of LUS upon the final acceptance of the facilities by LUS.

##### C. Agreement to Install Improvements

The Owner/Developer of Developments requiring Improvements shall enter into a written agreement with the Lafayette Utilities System.

##### D. Improvements Guarantee

In order for the Owner/Developer of Developments requiring Improvements to receive approvals (ie: building permit, certificate of occupancy, plat approval) prior to the installation and release of the Improvements for service, a performance bond or letter of credit shall be granted LUS. The Guarantee is 100% of the total cost of installation and engineering.

##### E. Improvements Warranty

The Owner/Developer of Developments requiring Improvements shall Warrant the Improvements for a period of one (1) year from the established start of the warranty period. The warranty period shall begin no earlier than Final Inspection and completion of the punch list items. LUS will accept perpetual maintenance of the Improvements upon the completion of the warranty period.

##### F. Improvements Materials and Installations

LUS approved materials and installation standards are located in the Appendix of this manual. All materials and installations shall adhere to LUS specifications. Prior approval is required for all non listed materials and installation procedures.

##### G. Improvements Easements

The Owner's/Developer's Engineer shall prepare the necessary servitude to encompass the actual location of the installed improvement on the final plat of the property or by individual easement plat. The easement width shall be a minimum of ten (10) feet. The Engineer shall record the approved easement in the Lafayette Parish Courthouse and provide a recorded copy to LUS.

#### **H. Improvements Construction Control**

The Owner/Developer shall provide for qualified on site inspections and submit the required testing reports and certifications.

#### **I. Improvements Connections to Existing LUS Facilities**

LUS shall be contacted 24 hours in advance of any connections. No connection to existing LUS water/wastewater facilities shall be made without the presence of LUS. All water transfers from the existing water system to the new Improvements water system shall be controlled by LUS personnel, only. No discharge into the existing wastewater system will be allowed without the approval of LUS. All wastewater connections to LUS shall remain plugged until the release is approved by LUS. Persons discharging into LUS' wastewater system and operating valves/fire hydrants without LUS approval, will be subject to legal prosecution.

#### **J. Improvements Final Inspection**

The Owner's/Developer's Engineer shall schedule a final inspection with LUS upon the completion of all utilities, landscaping, roadways, and any other item that establishes final grade.

### **3-2 PROCEDURES**

The procedures listed below are a general guide as to the sequence of events necessary for a Development installing Improvements.

1. Construction Plans are submitted to LUS for review and approval.
2. LUS forwards the specific project comments and all project related forms to the Architect/Engineer and/or Owner.
3. Architect/Engineer and/or Owner completes the forms, accepts LUS' review comments and/or revises the Construction Plans. If owner(s) are requesting final plat approval, or for certificate of occupancy prior to installation and acceptance of improvements, owners will need to provide for project's guarantee. (Letters of Credit, etc.) LUS grants approval to construct the Improvements and/or grants permits.
4. The Owner's Architect/Engineer schedules a preconstruction meeting with the installing contractor and LUS.
5. The Owner's Architect/Engineer coordinates all phases of construction, provides on site construction inspection, easement, asbuilts, testing reports, and construction certification.
6. The Owner's Architect/Engineer schedules a final inspection upon the installation of all utilities, roadways, landscaping, and any other item that establishes final grade. Upon the completion of the punch list, LUS accepts the Improvements for service and/or grants permits.
7. The Owner warrants the improvements for a period of one (1) year following the acceptance of the Improvements for service. Upon the completion of the warranty period, LUS accepts the Improvements for perpetual maintenance.

### 3-3 DESIGN CRITERIA

#### A. Improvements Construction Plans

Construction Plans for improvements shall be submitted to LUS for review and approval. The Plans shall be detailed drawings engineered by a Louisiana Licensed Engineer or Architect qualified to perform services in the area of their competence. The Plans shall reflect established professional civil engineering practice. Plans shall not be based solely on statements such as “extend and connect” or “install according to LUS standards”. Typical Details shall supplement the engineered drawings and shall not be submitted in lieu of detailed engineered drawings.

Key plan elements shall include existing utilities (plan and profile), existing and proposed easements, location and type of connections to existing LUS facilities, methods of restraints for proposed and/or existing LUS facilities, valving, fire protection devices, permits by Authorities of Jurisdiction (ie: LA DOTD, LCG Public Works, State Fire Marshall), grades, materials, installation requirements, testing procedures, and water meter services lines and/or taps, and supporting hydraulic and technical reports.

Approved service connections shall be installed and provided to each and every lot or parcel of development by the Owner/Developer.

#### B. Design Standards of Reference

##### WATER

American Water Works Association  
Insurance Services Office  
National Fire Protection Association  
Fire Prevention Code  
LCG Code of Ordinances  
LUS Details and Specifications  
Louisiana Dept. of DOTD  
LCG Subdivision Regulations

##### WASTEWATER

National Environmental Federation  
Standard Plumbing Code  
Louisiana Sanitary Code  
LCG Code of Ordinances  
LUS Details and Specifications  
Louisiana Dept. of DOTD  
LCG Subdivision Regulations

1. General. No Development shall adversely impact the existing Lafayette Utilities System. Additional water and/or wastewater facilities may be required to supplement the existing LUS system(s) to allow the construction of the Development. All associated costs shall be at the total cost of the Owner/Developer. Supporting hydraulic and technical reports may be required to show that the proposed water and wastewater facilities will meet the minimum standard for the particular Development.
2. Water Distribution System Design Requirements. Minimum standards for Water Mains, Valves, and Fire Hydrants are listed below. The actual size of the supply main shall be determined by its ability to deliver water based on the peak-daily demand, plus the designated fire flow. Commercial Developments vary too much in scope to include all applications. Where possible, dead end lines should be avoided. Placement shall be located in an accessible grassy areas or LUS approved locations.

**MAINS**

Smallest pipes in network	6 in.
Smallest branching pipes (dead ends)	8 in.
Largest spacing of 6 in. grid	600 ft.
Smallest pipes in high-value district	8 in.
Smallest pipes on principal supply mains	12 in.
Largest spacing of supply mains	3000 ft.

**VALVES**

Largest spacing in network	800 ft.
Largest spacing in high-value district	500 ft.

**FIRE HYDRANTS**

	Isolation Valve per Each
Largest spacing in network	500 ft.
Largest spacing in high-value district	300 ft.

3. Water Meters. Separate meters are required for domestic service and non-potable applications. The installation of the water meter boxes varies with the type of Development. Placement shall be in a protected, accessible grassy area, or LUS approved location. LUS will determine the size and configuration of all metering, based on needed flow as determine by the developer.

Commercial Developments. The Owner/Developer shall install the necessary water main and/or service line to the Development. LUS will install the water meter/box on existing water mains, at the applicable installation fee, when the water main is located within the Development and where no Improvement is being proposed. Where an existing line is not located within the Development, the Owner/Developer shall install an adequately sized service line and/or the connecting appurtenance. For Developments being master metered (one meter servicing many units), once the Owner/Developer has installed an approved water distribution system, including the water meter connection appurtenance, LUS will install the water meter/box at no cost to the Owner/Developer. Developments requesting a meter for each unit, will install the water meter boxes and all service appurtenances in LUS approved locations (typically, meters are installed groups in these applications). LUS will install the water meters at no cost to the Owner/Developer where the Owner/Developer has installed water meter boxes in LUS approved locations.

Residential Developments. Where the Owner/Developer has installed an LUS approved water distribution system with a water line to every residence and the water meter location is approved by LUS, LUS will install a water meter/box at no cost to the Owner/Developer. This applies only to domestic meters. The water meter boxes for non-potable applications will be installed by the Owner/Developer and LUS will install the meter at no cost to the Owner/Developer, or LUS will install the water meter/box at the standard installation fee where the meter box is located adjacent to the water main.

4. Fire Lines. The Owner/Developer shall install LUS approved fire line supply configurations in LUS approved locations. Typically, the fire line supply appurtenances are installed adjacent to the property line. The water line to the building is under the jurisdiction of the State Fire Marshall and the City of Lafayette Fire Department.
  
5. Wastewater Collection System Design Requirements. Minimum standards are listed below. The actual size of wastewater mains shall be determined upon the capacity needed to adhere to the standards of jurisdiction. The Owner/Developer shall install a service to each defined parcel of individually owned land. Typically, wastewater collection systems installed within Commercial Developments are considered private plumbing line and not under the jurisdiction of LUS. Private plumbing lines are under the jurisdiction of the Metro Code Plumbing Authority. Residential Developments with installations along Public Streets and/or utilities servitudes are generally under the jurisdiction LUS. The Owner/Developer shall extend wastewater mains to the Development at the necessary depth to service the Development from the existing LUS system.



<b>SERVICES</b>	6 in. at 1% grade
<b>MAINS</b>	8 in. at 0.4% grade
	10 in. at 0.28% grade
	12 in. at 0.22% grade
<b>MANHOLES</b>	500 ft. at intersecting sections
<b>FORCEMAINS</b>	Sized per Development
<b>LIFT STATIONS</b>	Sized per Development