Building Community

To be completed by JEA only:
Permit No. _____
Date of Issue: _____
Approved by: _____
Note: This permit will expire 5 years after date issued

Permit for Construction of an Extension to a JEA Drinking Water Distribution System and/or JEA Wastewater Collection/Transmission System

INSTRUCTIONS: This form shall be completed and submitted (in **duplicate**) to JEA via SAGES in Step 3, post construction plans, and design data.

Check all that apply: (Note: This permit is for JEA or future JEA owned and operated facilities.)

- ☐ New Permit Submittal for Availability Number
- ☐ Permit Modification Submittal for Associated JEA Permit No.
- ☐ This project involves an extension to a JEA Water Distribution System
- ☐ This project involves additions to JEA Wastewater Collection/Transmission System

I. NAME, DESCRIPTION, AND LOCATION OF PROJECT:

Project Name:
Project Description:

- Project Location:
  County: Vicinity:

II. STATEMENT BY PERMITTEE:

I, the undersigned owner or authorized representative of am fully aware that the statements made in this application are true, correct, and complete to the best of my knowledge and belief. I, the undersigned am fully aware that it is my responsibility to operate and maintain this facility in such a manner as to function as it was designed. I agree to retain a professional engineer to observe that construction of the project is in accordance with all applicable JEA standards and approved engineering plans. **I am fully aware that we must obtain a letter of clearance from JEA before we place this project into service.** Also, I am fully aware that, if we sell or legally transfer ownership of this project before obtaining a letter of clearance from JEA, we must submit to JEA a letter of request to transfer this permit within 30 days after such sale or legal transfer of ownership. Upon JEA permit approval, I understand that the terms, general and specific conditions, requirements, limitations, and restrictions set forth herein and as defined within the approved permit, and within the latest version of the JEA Water & Sewer Standards Manual are "Permit Conditions" and as such are binding upon the permittee and are enforceable pursuant to the authority of JEA and/or the Florida Department of Environmental Protection (FDEP). I understand that JEA and FDEP may review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the Permittee, its agents, or representatives. Any unauthorized deviation from the approved drawings, JEA specifications and standards, or conditions of the approved permit may constitute grounds for revocation and enforcement action by JEA and/or FDEP.

_____
Signature and Date
Company Name:
Address:
City: State: Zip:
Office Phone No.: Email Address:

III. STATEMENT BY PROFESSIONAL ENGINEER IN RESPONSIBLE CHARGE OF DESIGNING THE PROJECT:

I, the undersigned professional engineer registered in Florida, certify that I am in responsible charge of the preparation and production of engineering documents for this project; that I have expertise in the design of water distribution systems and/or wastewater collection/transmission systems; and that, to the best of my knowledge and belief, the engineering design and construction plans for this project complies, where applicable, with Chapter 62-555, F.A.C., Chapter 62-604, F.A.C., and the latest versions of the JEA Developer Installed Systems Manual, JEA Water & Sewer Standards, Details & Materials Manual, JEA Backflow Prevention Program, and other applicable JEA standards. I certify that, to the best of my knowledge, the location and size of existing water mains, reclaimed water lines, force mains, sanitary sewers, storm sewers, and other utilities, as well as the location and size of the proposed utilities, are shown on the plans. Also, I certify that all water mains, gravity sewer mains, and force mains associated with this application are 12-inch in size or less and are located wholly within JEA's service territory. The design includes procedures for keeping existing utilities in service or minimizing outages. To the best of my knowledge, this project does not include installation of any new utilities in areas of ground water or soils for which there is documentation of the presence of petroleum products or other contaminates at concentrations exceeding groundwater standards.

_____
Signature and Date and Seal
Company Name:
Address:
City: State: Zip:
Office Phone No.: Email Address:

This item has been electronically signed and sealed by , on using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

WATER DESIGN AND CONSTRUCTION REQUIREMENTS CHECKLIST

(TO BE COMPLETED BY THE PROFESSIONAL DESIGN ENGINEER WHEN APPLYING FOR A JEA WATER PERMIT)

If this project is being designed to comply with the following requirements, initial before the requirements. If any of the following requirements do not apply to this project, mark "NA".

General

_____ (1) Signed and sealed water hydraulic calculations supporting fire flow requirements including fire hydrant flow test results and a letter or review and approval from the Fire Marshall's office.

_____ (2) Note referencing compliance with JEA Water and Sewer Standards Manual and JEA DIS Manual.

_____ (3) All pipe construction and testing conform to the appropriate AWWA standards.

_____ (4) Pressure and leakage testing specified in accordance with AWWA C600 and C605 or other applicable standards.

_____ (5) Proper water demand information is provided below.

_____ (6) Design Plans signed and sealed by a professional engineer registered in Florida indicating:
- a. Benchmark (Permanent benchmark required or a temporary benchmark referenced to a permanent benchmark)
- b. Plan views of entire project to include location and pipe size of new water mains; gravity sewers and force mains; trench details; manhole details; joint details and material specifications
- c. Location of existing water mains/reclaimed water lines/force mains/ gravity sewers/storm sewers and water wells
- d. Restrained joints are specified, and general details shown

_____ (7) Minimum water main and sewer collection/transmission system or reclaimed water main separations are maintained per F.A.C. 62-555 as measured from the pipes outside edges:
- a. Horizontal Separation of at least 6 feet and preferably 10 feet maintained. Horizontal separation between water main and gravity type sewers may be reduced to three (3) feet where the water main is laid at least six (6) inches above the top of the sewer.
- b. Vertical separation of at least six (6) inches and preferably twelve (12) inches maintained at crossings between water main and gravity or vacuum-type sanitary sewer or storm sewer. Vertical separation of at least twelve (12) inches maintained at crossings between water main and pressure type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water.
- c. At crossings, pipe joints are as far apart as possible and equidistant from the point of crossing. Water main is on top. A full length of pipe is to be centered at the crossing.

Water Main Requirements

_____ (8) Water mains are arranged to form a grid of looped distribution.

_____ (9) The use of dead-end mains is minimized.

_____ (10) Minimum cover for water mains less than 24 inches in diameter is 30 inches in unpaved areas and 36 inches in paved areas with a maximum of 60 inches in arterial or collector roadways where construction is anticipated. Minimum cover for water mains 24 inches in diameter or greater is 36 inches (paved and unpaved areas) with a maximum of 84 inches.

_____ (11) Minimum size for water main providing fire protection and serving fire hydrants in residential is shown to be 6 inches in diameter.

_____ (12) Minimum size for water mains in non-residential areas is 8 inches in diameter when in a closely interconnected grid and 12 inches in diameter if not closely interconnected.

_____ (13) No record of historical organic or gasoline contamination within 1500 feet of the area of proposed PVC pipe installation.

_____ (14) No water pipe passes through or encounters any part of a sewer manhole.

_____ (15) Proper water main disinfection is in accordance with AWWA C651 and JEA Standards.

WATER DESIGN AND CONSTRUCTION REQUIREMENTS CHECKLIST

(TO BE COMPLETED BY THE PROFESSIONAL DESIGN ENGINEER WHEN APPLYING FOR A JEA WATER PERMIT)

Service Requirements

_____ (16) Water services are 1-inch for single family residences or double 1 ½ inch long side services for adjacent lots.

_____ (17) No more than five (5) domestic service connections are shown on a 2-inch water main.

_____ (18) Gang water services (5 or more services in one area) are shown in accordance with detail W-1 of the JEA Water and Sewer Standards Manual.

_____ (19) The maximum length of a water services does not exceed 100 feet.

Meter Requirements

_____ (20) Multi-family or commercial developments serving multiple tenants where the project is under single ownership is metered by one of the following options:

a. Master metered with private on-site utilities
b. Individual JEA meters with a master backflow prevention device and private on-site utilities
c. Individual JEA meters with JEA on-site utilities in appropriate easements.

Valve Requirements

_____ (21) Valves are shown on all water main branches in two directions on a tee and in three directions on a cross.

_____ (22) Valves are provided on water mains at a maximum of 500-foot intervals within high density residential, commercial or industrial developments and at a maximum of 800-foot intervals within residential areas.

_____ (23) On transmission mains with a limited number of service connections, valves are located at a maximum of 2500 foot intervals and at distribution branches where allowed by JEA.

_____ (24) No 2-inch water valves. A minimum 4-inch gate valve with a 4-inch by 2-inch reducer is shown where connecting a 2-inch main.

Fire Hydrant Requirements

_____ (25) Fire hydrants are on the same side of the road as the water main, at property corners just inside the right-of-way, and a minimum of 3 feet from the edge of pavement or back of curb.

_____ (26) Fire hydrants are located not more than 600 feet apart in single family residential areas and not more than 500 feet apart in commercial, industrial or multi-family residential areas.

_____ (27) Fire hydrants within commercial, industrial or multi-family residential areas shall be served with a minimum 8-inch water main.

Backflow Prevention Requirements

_____ (28) Adequate backflow prevention devices are provided at all proposed lift station, irrigation lines, commercial facilities, etc.

_____ (29) Backflow prevention devices are located on private property within 10 feet of the meter, but outside of applicable meter easements.

Explanation for requirements marked “NA” above (including justification, documentation, assurances, and/or alternative as required by rule for exceptions to requirements listed above:

WATER DESIGN AND CONSTRUCTION REQUIREMENTS CHECKLIST

(TO BE COMPLETED BY THE PROFESSIONAL DESIGN ENGINEER WHEN APPLYING FOR A JEA WATER PERMIT)

IV. ENGINEER CERTIFICATION

I completed the Water Design and Construction Requirements Checklist of this permit application, and the information provided in the Water Checklist and on the attachment(s) to the Water Checklist is true and accurate to the best of my knowledge and belief.

_____
Signature and Date and Seal
Company Name:
Address:
City: State: Zip:
Office Phone No.: Email Address:

This item has been electronically signed and sealed by , on using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

V. WATER DESIGN DATA

1. Does this project include any new flows? ☐**Yes** ☐**No**
If "YES", please answer Questions 2, 3, and 4.

2. Design/Projected Annual Average and Maximum Day Water Demands for Proposed Altered/New Distribution Facilities (i.e., water mains) Under this Project:

A = Type of Service Connection	B = Number of Service Connections	C = Average Daily Water Demand Per Service Connection	D = Total Average Daily Water Demand (Columns B x C for Residential Service Connections)	E = Total Maximum Day Water Demand
Single-Family Home				
Mobile Home				
Apartment				
Commercial, Institutional, or Industrial Facility*				
Total				

**Description of Commercial, Institutional, and Industrial Facilities and Explanation of Method Used to Estimate Average Day Water Demand for These Facilities:*

3. Design/Projected Maximum Hour Water Demand for Proposed Altered/New Distribution Facilities Under this Project and Basis of Design/Projection:

4. Will the proposed altered/new distribution facilities under this project be part of a community water system or a public water system that has a service area also served by a reclaimed water system? ☐**Yes** ☐**No**
If "YES", document that the system has a routine cross-connection control plan, including a written plan, in accordance with Rule 62-555, F.A.C.:

WASTEWATER DESIGN AND CONSTRUCTION REQUIREMENTS CHECKLIST

(TO BE COMPLETED BY THE PROFESSIONAL DESIGN ENGINEER WHEN APPLYING FOR A JEA WASTEWATER PERMIT)

If this project is being designed to comply with the following requirements, initial before the requirements. If any of the following requirements do not apply to this project, mark "NA".

General

_____ (1) Signed and Sealed Sewer Hydraulic Calculations including:
- a. Influent Flow Data
- b. Point of Connection Pressure Provided by JEA (where applicable)
- c. Hydraulic Analysis of the System
- d. Pump Information including Model, Impeller Diameter, Motor Speed and Horsepower, Pump Curve with Operating Point Indicated
- d. Buoyancy Calculations (not required if existing structure)

_____ (2) Note referencing compliance with JEA Water and Sewer Standards Manual and JEA DIS Manual.

_____ (3) All pipe construction and testing conform to the appropriate AWWA standards.

_____ (4) Proper water demand information is provided on the permit application (Equivalent Dwelling Unit = 350 gals per day).

_____ (5) Design Plans signed and sealed by a professional engineer registered in Florida indicating:
- a. Benchmark (Permanent benchmark required or a temporary benchmark referenced to a permanent benchmark)
- b. Plan views of entire project to include location and pipe size of new gravity sewers and force mains; trench details; manhole details; joint details and material specifications
- c. Plan and profile views for gravity sewers
- d. Location of existing water mains/reclaimed water lines/force mains/ gravity sewers/storm sewers and water wells
- e. Detail of pipe construction to withstand superimposed loads
- f. Cross Sectional View of Pump Station showing station piping and fittings and wetwell elevations
- g. Pump Information (Model, Impeller Diameter, Horsepower, Motor Speed, and Operating Point)
- h. Panel information
- i. JEA Pump Station Standards sheets (where applicable)

_____ (6) No cross connections between collection/transmission systems and potable, storm water, or reclaimed water mains.

_____ (7) Minimum water main and sewer collection/transmission system or reclaimed water main separations are maintained per F.A.C. 62-555 as measured from the pipes outside edges:
- a. Horizontal Separation of at least 6 feet and preferably 10 feet maintained. Horizontal separation between water main and gravity type sewers may be reduced to three (3) feet where the water main is laid at least six (6) inches above the top of the sewer.
- b. Vertical separation of at least six (6) inches and preferably twelve (12) inches maintained at crossings between water main and gravity or vacuum-type sanitary sewer or storm sewer. Vertical separation of at least twelve (12) inches maintained at crossings between water main and pressure type sanitary sewer, wastewater or stormwater force main, or pipeline conveying reclaimed water.
- c. At crossings, pipe joints are as far apart as possible and equidistant from the point of crossing. Water main is on top. A full length of pipe is to be centered at the crossing.

_____ (8) Reclaimed water main and sewer collection/transmission system separations are maintained per F.A.C. 62-604 and 62-555 as measured from the outside pipe edges:
- a. Horizontal separation of at least three (3) feet shall be maintained between the reclaimed water main and any sewer collection or transmission pipe.
- b. Vertical separation of at least twelve (12) inches maintained at crossings between pipelines conveying reclaimed water and pressure type sanitary sewer, wastewater or stormwater force main, or gravity or vacuum-type sanitary sewer.

_____ (9) Protection of subaqueous and aerial crossings of water ways.

WASTEWATER DESIGN AND CONSTRUCTION REQUIREMENTS CHECKLIST

(TO BE COMPLETED BY THE PROFESSIONAL DESIGN ENGINEER WHEN APPLYING FOR A JEA WASTEWATER PERMIT)

Gravity Sewer Requirements

_____ (10) Gravity sewer meets preferred slope requirements stated in JEA DIS Manual providing for a velocity of not less than 2 feet per second or data justifying an exception.

_____ (11) Uniform slope and straight alignment between manholes.

_____ (12) Minimum gravity sewer diameter of 8 inches and minimum manhole diameter of 4 feet.

_____ (13) Gravity sewer mains meet minimum depth requirements of 30 inches in unpaved areas and 36 inches in paved areas.

_____ (14) Manholes provided at the end of each line, at all changes in grade, size or alignment, at all intersections and or at distances not greater than 400 feet for sewers 16 inches and smaller or 500 feet for 18-to-30-inch sewers.

Force Main Requirements

_____ (15) Minimum velocity of 2 feet per second should be maintained. Maximum velocity of 5 feet per second should be maintained.

_____ (16) Minimum force main diameter is 4 inches in public right-of-way or easement.

_____ (17) Isolation valves provided at branches of intersecting force mains and at force main stub outs for future connections and, at minimum, every 1000 feet.

_____ (18) Gate valve on the force main in the right-of-way adjacent to the discharge manhole.

_____ (19) 4-inch Minimum Pump-Out adjacent to the right-of-way (not required if the off-site force main is to remain privately owned and operated)

_____ (20) Restrained joints are specified including general details shown.

_____ (21) Air release valves are provided at high points and at changes in elevation of 2 feet or greater.

_____ (22) Force main elevations provided every 100 feet.

_____ (23) Minimum distance of 3 feet maintained from outside of force main force to drainage structures, telephone duct banks, electrical transformers, signal relays, power poles and other structures in the right-of-way as well as any other parallel underground utility apart from water mains.

_____ (24) Force main meets minimum depth requirements of 30 inches in unpaved areas, 36 inches in paved areas, and a maximum 60 inches in arterial or collector roadways where reconstruction is anticipated.

_____ (25) Pressure and leakage testing specified in accordance with AWWA C600, AWWA C605 or another applicable standard.

Discharge Manhole Requirements

_____ (26) JEA Connection Detail to Manhole should be provided, where applicable.

_____ (27) Note indicating discharge manhole should be lined per JEA Specifications.

Pump Station Requirements

_____ (28) Pump station design criteria (estimated flow, operating conditions, GPM at TDH; pump and system curves; wet well storage calculations; influent elevations; float elevations, pump control setting; pump details).

_____ (29) Minimum of two pumps. (Each pump shall be of the same capacity in JEA dedicated stations).

_____ (30) Design peak hourly flow handled with largest pump out of service.

_____ (31) Pumps capable of passing a minimum of 3-inch sphere except for grinder pumps. Reduced capacity pumps must be capable of passing a 1.75 inch solid.

Pump Station Requirements (continued)

_____ (32) Pump-out at station (If station is within 25 feet of the JEA required pump-out at the right-of-way, an additional pump-out at the station is not required).

_____ (33) Adequate ventilation (if applicable).

_____ (34) Pump station designed and located on the site to minimize odor, noise, and lighting nuisances.

_____ (35) Designed to discourage the entry of animals and unauthorized persons.

_____ (36) Electrical and mechanical equipment protected from 100-year flood.

_____ (37) Pump station fully operational and accessible during 25-year flood, in no case less than the 10-year flood.

_____ (38) Adequate backflow prevention devices are provided at pump station site.

_____ (39) Pump station to withstand floatation forces when empty.

_____ (40) Audible and Visible High Water Level Alarm.

_____ (41) 24-hour Emergency Contact Number Posted at the Station.

_____ (42) Motor overload phase protection.

_____ (43) Provisions for continuous operation (auxiliary power required) for pump stations with 500 EDU's or greater. Pump stations with less than 500 EDU's shall include a generator receptacle.

_____ (44) All pump stations shall have provisions for by-pass pumping (i.e., valving and coupling device for connection of a portable pump.)

_____ (45) Minimum slope of bottom of wet well should be one to one relative to hopper bottom.

_____ (46) Shutoff valves provided on suction line of dry pit pumps.

_____ (47) Shutoff and check valves provided in discharge line of each pump. Check valve between shutoff valve and discharge pump. Check valve not placed on vertical portion of discharge piping.

_____ (48) No valve in wet well.

Explanation for requirements marked "NA" above (including justification, documentation, assurances, and/or alternative as required by rule for exceptions to requirements listed above:

IV. ENGINEER CERTIFICATION

I completed the Wastewater Design and Construction Requirements Checklist of this permit application, and the information provided in the Wastewater Checklist and on the attachment(s) to the Wastewater Checklist is true and accurate to the best of my knowledge and belief.

This item has been electronically signed and sealed by , on using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Signature and Date and Seal
Company Name:
Address:
City: State: Zip:
Office Phone No.: Email Address:

WASTEWATER DESIGN DATA

1. Does this project include any new flows? ☐**Yes** ☐**No**
   If "YES", please answer Questions 2, 3, 4 and 5.

2. Will this project connect any new industrial or commercial facilities to the JEA sanitary sewer? ☐**Yes** ☐**No**
   If "YES", please attach a listing of the company names and addresses.

3. Design Peak Flow: GPD. Total Average Daily Flow: GPD. Design Population:

4. Indicate the following:

Number and Type of Unit	Population	Per Capita Flow	Total Average Daily Flow (GPD)
Single Family Homes			
Apartments			
Motel Rooms			
Mobile Homes			
Other (describe)			