

## APPENDIX 1

### CONSTRUCTION PLAN CHECK LIST ALL PLANS

- Plans on 24" x 36" paper (Originals shall be transmitted on a CD as an electronic dwg file. The file format shall be AutoCAD 2008 or later. No conversion from Microstation or other CAD based programs is acceptable)
- Signed, sealed, and dated by the Florida Registered Engineer of Record (all sheets).
- Letter of transmittal with Service Request Number, Folio Number, name, address, and telephone number of the project engineer.
- Plans must reflect the approved point of connection (P.O.C.) as specified in the "Service Application Conditional Approval Letter."
- Index of Drawings on the cover sheet or first sheet following.
- Project location map.
- A title block on each sheet identifying the Engineer of Record, firm, telephone number, and page content. Include North Arrow, as appropriate, and scale.
- One or more overall utility plan sheets at a minimum scale of 1" = 200' showing existing and proposed improvements.
- The horizontal scale is:
  - 1 inch = 20 feet
  - 1 inch = 30 feet
  - 1 inch = 40 feet
  - 1 inch = 50 feet
- The vertical scale is:
  - 1 inch = 5 feet
- Width and center line of each right-of-way indicated.
- Width of pavement and distance to property line shown for all streets.
- All underground utilities, storm drains, or other structures which cross or are located close to the proposed pipelines and structures are shown on the drawings in both plan and profile views.
- Size, type, material, and length of pipes shown, for all proposed water, reclaimed water, and wastewater lines, both on-site and off-site.
- Schematic diagrams and designs for all equipment and structures not otherwise clearly indicated on the plans.
- Street names or identifiers indicated (correct location on plan).
- Subdivision name, lot, and block numbers.
- All County-regulated utilities proximate to the design shall be shown on the plan view in their reported location.
- Wastewater or reclaimed water lines crossing under potable water lines have at least 18" vertical clearance.
- The method of pipe crossing existing pavement is specified, i.e., jack and bore, or open-cut.
- The invert elevations of all intersecting utilities are shown on the profile views.
- Minimum pipe line clearance is 5' from property lines.
- Minimum cover of 36" for water and reclaimed water lines, and 48 inches for forcemain lines.

## **POTABLE WATER MAINS**

- Joint restraint shown at all water main bends, fittings, valves, fire hydrants, and tapping sleeves.
- Joint restraint detail that conforms to County standards.
- Valves with roadway boxes are provided for all branch connections, loop ends, fire hydrant stubs, or other locations as required, to facilitate operation of the distribution system.
- Valve spacing is 500 feet in commercial, industrial, or multi-family residential districts, or 1,000 feet in other areas
- Air release valves are specified where the water main profile is high, as required.
- Fire hydrant spacing in accordance with Specification 02080.1
- Location of PVC sleeve for use in connection with far side water service installation.
- A note stating that the PVC water mains shall have locator wire attached to it.
- Backflow prevention device, as required.
- Location of blowoffs, as required.

## **RECLAIMED WATER MAINS**

- Joint restraint shown at all water main bends, fittings, valves, fire hydrants, and tapping sleeves.
- Joint restraint detail that conforms to County standards.
- Valves with roadway boxes are provided for all branch connections, loop ends, or other locations as required to facilitate operation of the distribution system.
- Valve spacing is 1000 feet in commercial, industrial, or multi-family residential districts, or 2,000 feet in other areas.
- Air release valves are specified where the water main profile is high, as required.
- Location of PVC sleeve for use in connection with far side water service installation.
- A note indicating that PVC water mains shall have locator wire attached to it.
- Location of blowoffs, as required.

## **WASTEWATER GRAVITY MAINS**

- On the wastewater gravity profiles, show the size, type of pipe, slope, and distance between manholes.
- Minimum parallel separation from a potable water main is 10 feet; minimum crossing separation is 18 inches. See Appendix D of the WRS Technical Specifications for criteria when there is less than minimum separation.
- Invert elevation and direction is shown for each pipe entering or exiting a manhole. Rim elevation must also be specified.
- All manhole stubs and connections shown on both the plan and profile view.
- Manhole and manhole connection details must be shown.
- Drop manhole and detail is required for drops 2.0 feet or more.
- 8" PVC minimum for gravity mains within right-of-way, 6" minimum for double service laterals and 4" minimum for single service laterals.

## **FORCE MAINS**

- Joint restraint specified at all force main bends, valves, fittings, and tapping sleeves.
- Joint restraint detail that conforms to County Standards.
- Air release valves are specified at high points along the force main profile.
- A note stating that the PVC force main shall have locator wire attached to it.
- If the force main is connecting to a manhole, a detail of the connection is included.

## **JACK AND BORE CROSSINGS**

- Jack and bore crossings showing the casing pipe on both the plan and profile view. County Standard jacking detail is included.
- A cross sectional detail of the jacking is included.
- Casing pipe diameter, thickness, and class is specified on the plan and detail views.

## **PRIVATELY OWNED WASTEWATER PUMP STATIONS**

- Location of pump station on private property.
- Design capacity (average daily/peak flows) and system response/curve calculations.
- Pump identification, including all nameplate data. Pump curve for selected pump with design point noted.
- Wet well operating elevations, inverts, and slab elevations.
- Identification of fittings and valves on private property.

## **WASTEWATER PUMP STATIONS TO BE COUNTY OWNED AND MAINTAINED**

- Location and size of site to be dedicated to County.
- A to-scale site plan showing the pump station slab, access driveway, elevations, setbacks from property lines and surrounding buildings and lot grading details.
- Valve and piping identification.
- Backflow prevention device.
- Pump identification, including all nameplate data.
- Design capacity (average daily / peak flows) and system response/curve calculations.
- Wetwell design criteria and pump control level settings.
- Pump curve for selected pump with design point noted.
- Information included on a pump station calculations detail sheet.
- The proposed pumping station meets the wastewater system's hydraulic requirements provided by the County.
- Electrical sheet includes load calculations and coordination study, or a note that this information will be submitted with the pump station shop drawings.