

Thank you for your interest in developing a project within TWA's water, sewer, and reuse service area.

This project timeline has been developed to provide our customers an overall summary of the TWA project construction and closeout process. Please keep in mind that this chart begins at the construction phase of a project, immediately following a pre-construction meeting with a Development Project Manager, continues through infrastructure testing and finally concludes with the submittal and TWA acceptance of the required project closeout documentation.

Please refer to our Private Development Outline for more information concerning initial project submittal and overall process.

If, after reviewing this document, you still have questions or concerns please feel free to contact TWA Engineering at 407-944-5034 (or 5035) to be directed to a Development Project Manager.

Using the Timeline

The project timeline has been provided to reflect the average times required to complete elements for a moderately sized project. Timeframes will vary based on the overall complexity and requirements associated with your project.

Category headers, found at the left of the chart, may be clicked on and will link you to sections within the **Commonly Asked Questions and Tips** section of this document. For more specific information, please refer to the TWA Standards and Specifications Manual and/or our TWA Standard Details.

Water and Sewer Development Construction Timeline Prerequisite: FDEP Permit & TWA Accepted Plans Average Project Timeframe Represented by Project Week* **Business** Task Month 4 Month 5 Month 2 Month 3 Month 6 Month 7 Month 8 Month 9 Days 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 Water Infrastructure Installation 30 Water Testing 14 Water Main Pigging 2 Hydrostatic Pressure Test 3 Chlorination 1 WM Flushing 1 BT Samples Water As-Builts 10 FDEP Water Clearance Process 13 W Clearance App, Test Results & AB's 3 TWA Processes Clearance App 5 Clearance App to FDEP 5 Sanitary Sewer Installati Sewer Infrastructure Installation 60 Lift Station Installation 114 Pay TWA for Telemetry 42 Install Wet Well, Plumbing & Panel 21 Install Antennae 3 Lift Station Power 90 Sewer Testing 25 Low Pressure Air Test 3 CCTV 10 CCTV Report to TWA 10 Tracer Wire Test 1 Pre-Final Inspection 1 FM Pigging 2 FM Pressure Test 3 Lift Station Inspections 5 Lift Station Meter Account & Set 20 Lift Station Telemetry & Start-Up 24 Lift Station Electric Meter Set 14 Program Telemetry 10 Lift Station Start-Up 10 Sewer As-Builts 10 Lift Station Transfer of Ownership 30 **FDEP Sewer Clearance Process** 13 WW Clearance App, Test Results & AB's 3 TWA Processes Clearance App 5 Clearance App from FDEP 5 TEP Documentation for TWA Review 10 Water Meters 25 Set up Water Meter Accounts 5 Pay for Water Meters 5 Meter Set 15 Post Construction Review Period 90 Acceptance Review Period Tracer Wire Test 3 3 Industrial Waste Inspection Density Test Reports 30 Density Test Review by TWA 10 **Initial Record Drawing Review** 53 30 Hard Copy Record Drawings Inspector Record Drawing Review 5 **EOR Revise Record Drawings** 10 Redline Record Drawing Review 5 Stamped and Sealed Record Drawings 3 **Utility Final Inspection** 5 **Easements Review** 35 Easement Prep by EOR 25 TWA Easement Review 10 Fees & Maintenance Bond 11 Certified Cost of Construction Review 5 Payment of Inspection Fee 1 Maintenance Bond 5 TWA Release 80% Final GIS Record Drawing Review 30 **GIS Review** 10 10 **EOR Revises Record Drawings** TWA Record Drawing Acceptance 10 TWA Project Acceptance **Building Final Inspection** 1 **TEP Inspection**

^{*}Timeframes can vary based on the overall complexity and requirements of each project.

Commonly Asked Questions & Tips

Section 1: Water Installation

Water Infrastructure Installation

Please refer to sections 50 through 52 of TWA standards and specifications.

Water Main Pigging

- Pig must be initialed by TWA inspector.
- Inspector must witness pig insertion in line.
- Pig must be 2" larger than internal pipe size.
- Please refer to sections 51.6.2 and 51.6.3 of TWA standards and specifications.

Hydrostatic Pressure Test

- Hydrostatic Pressure test is 2 hours.
- No pressure loss allowed.
- Please schedule a minimum 3 business days in advance.
- Please refer to sections 51.5 of TWA standards and specifications.

Chlorination

- Gas Chlorination is not allowed.
- 24 Hour minimum.
- Please refer to sections 51.6.4 through 51.6.9 of TWA standards and specifications.

WM Flushing

- Do not crack valve to flush.
- Must be flushed through jumper.
- Please refer to sections 51.6.10 and 51.6.11 of TWA standards and specifications.

Bacteriological Samples (BT's)

- Must be taken by certified lab and must be transported by lab personnel.
- Expire within 60 days of first test.
- Please refer to section 51.6.10 of TWA standards and specifications.

FDEP Water Clearance Process

- Items Required for FDEP Clearance App Submittal to TWA:
 - a. Water main hydrostatic pressure test reports
 - b. Bacteriological Test Reports, 2 consecutive days of testing
 - c. Exhibit with BT's sample point locations
 - d. As-builts
 - Signed and sealed
 - Are acceptable to TWA if acceptable to FDEP
 - Are not the same as TWA final record drawings
 - e. Completed FDEP clearance application

When to Expect the Completed FDEP Water Clearance Application from TWA

• TWA will review and process submitted FDEP Clearance App package and return to your Engineer of Record within 5 business days.

Submitting your Clearance Application to FDEP

• Your engineer of record will submit the TWA signed FDEP clearance application to FDEP.

Section 2: Sanitary Sewer Installation

Sewer Infrastructure Installation

- Gravity Sewer Please refer to sections 40 through 44 of TWA standards and specifications.
- Force Main Please refer to section 45 of TWA standards and specifications.

Lift Station Installation

- Refer to sections 22, 46, 47 and 48 in the 2017 TWA Standards & Specifications Manual for detailed information on Lift Station Installation.
- Refer to 2017 construction details TWA- 31.1, 31.2 31.3 and 31.4.

TWA Telemetry Fee Payment

- We recommended contacting our Finance department as soon as possible, following the pre-construction meeting, to arrange payment of the \$8,700 telemetry fee.
- Minimum 6 week lead time on shipping.

Install and Plumbing Wet Well

- Contact TWA inspector 72 hours in advance of installation of wet well.
- TWA inspector must be present to witness installation.
- Shop drawings must be TWA approved prior to installation.
- Please refer to section 48 of TWA standards and specifications.

Wet Well Liner Spark Test

- Contractor must schedule Spark Test with TWA inspector 72 hours in advance.
- This can be combined with remaining spark test for lined manholes.
- Please refer to section 46.2 of TWA standards and specifications.

Lift Station Antennae

- Contractor installs the antenna wire chase from the control panel to the tower.
- TWA will provide and install the antenna and cable when programing the telemetry system.

Installation of RTU Box

- Contractor/developer must:
 - a. Pick up the RTU from TWA SCADA.
 - b. Install the control panel support for the station.
- Please refer to section 48.9.13 of TWA standards and specifications.

Lift Station Power

- Power is required prior to setting up the TWA communication system.
- TWA does not control the schedule on this item.
- Please refer to section 48 of TWA standards and specifications.

Lift Station Inspections

- Contractor must schedule 'Rough-In Inspection' after the following:
 - a. Piping from the panel to LS wet well is complete and prior to backfilling.
 - b. Grounding wire exposed.
- Email Rough_In_Inspection@tohowater.com to schedule the inspection 72 hours in advance.
- Contractor shall provide equipment to perform the grounding wire test.
- Rough-In Inspection is required prior to requesting Lift Station Start-Up.
- Please refer to section 46.12 of TWA standards and specifications.

Lift Station Meter Account and Set

- Water Meter
 - a. Project may request water meter once FDEP water clearance has been received.
 - b. Request will be submitted at tohowater.com.
 - c. Meter will be set within 10 business days once payment has been received.
- Backflow Preventer
 - a. Shall be tested, email test report to your Development Project Manager and BackflowCompliance@tohowater.com
 - b. Shall have weather proof tag.

Lift Station Telemetry

- Notify your DPM when the station electric meter is set and powered.
- DPM will in turn notify TWA SCADA to schedule telemetry programing.
- TWA will install the antenna, cable and program the telemetry unit.
- This will be complete within 10 business days.

Lift Station Start-Up

- When all of the above items have been complete, request start up with your DPM.
- Start-up will be set up by coordinating the schedule of TWA engineering staff, TWA Lift Stations and TWA SCADA. Start-Up will be held within 10 business days.

Lift Station Transfer of Ownership

- Prior to TWA signing over FDEP sewer clearance the Developer must provide TWA the items listed below.
- TWA will own the Lift Station after receipt of FDEP Clearance and acceptance of these items.
- Documents Needed
 - a. Warranty Deed
 - b. Title Insurance of \$50k minimum
 - c. FIRPTA Certificate
 - d. Seller's Affidavit
 - e. Affidavit of Authority
 - f. Closing Statement

FDEP Sewer Clearance Process

- Lift station transfer must be complete prior to TWA processing sewer clearance application, if applicable.
- Items Required for FDEP Clearance App Submittal to TWA:
 - a. Low air and CCTV report
 - b. If applicable FM pigging, FM pressure test and lift station start-up results
 - c. As-builts
 - Signed and sealed
 - Are acceptable to TWA if acceptable to FDEP
 - Are not the same as TWA final record drawings
 - d. Completed FDEP Clearance application

When to Expect the Completed FDEP Wastewater Clearance Application from TWA

• TWA will review and process submitted FDEP Clearance App package and return to your Engineer of Record within 5 business days.

Water Meters

- FDEP water clearance is required prior to release of water meters.
- If water meters are requested prior to receipt of FDEP sewer clearance, the following conditions must be met:
 - a. Water meter account must be created online for billing purposes.
 - b. TWA will then invoice for the meter(s).
 - c. Once paid, meter set time averages 5-15 business days.
 - 24 to 48 hours' notice will be provided, site must be ready for meter.
- Early meter release policy

Section 3: Post Construction Review Period

Acceptance Review Period

- Items required post construction:
 - a. Tracer wire test
 - b. Density Test Report For TWA review and approval
 - c. Industrial waste (grease and oil interceptors) must be inspected prior to and after installation.

Record Drawing Review (2 step process)

- Inspector review is step one. Step 2 is GIS review (described below).
- Hard copy record drawings will be reviewed, initially, by the TWA inspector.
 - a. Initial record drawings do not need to be signed and sealed.
- Any inspector comments on the record drawings are red lined and returned to EOR.
- EOR addresses comments and returns revised, signed and sealed copy with the redlines.
- Please refer to section 11.6 of TWA standards and specifications.

Utility Final Inspection

- Scheduled with your DPM after the following has been completed:
 - a. All pre-final inspection items must be addressed prior to the final.
 - b. Record drawings must be submitted for review
 - c. Connection inspections completed (scheduled online at www.tohorcbi.com)
- Please refer to sections 11.2 and 11.3 of TWA standards and specifications.

Easement Review

- EOR must submit required easements DPM for review and acceptance prior to recording at County Property Appraiser.
- Record drawings shall be overlaid onto easements for TWA review.
- Please refer to section 11.7 of TWA standards and specifications.

Inspection Fees and Maintenance Bond

- Certified Cost of Construction must be submitted to DPM for review and acceptance.
 - a. Must be signed and sealed.
 - b. Infrastructure must be divided between TWA owned and privately owned.
 - c. Must be broken down to unit cost.
- Inspection fees will be based off the cost of construction; 1% of privately owned infrastructure plus 2% for TWA owned infrastructure.
- One-year maintenance bond shall equate to 10% of the certified construction cost of items to be owned and maintained by TWA.
- Please refer to section 11.3.6 of TWA standards and specifications.

Sections 4 and 5: TWA 80% Release and Project Acceptance

Final GIS Record Drawing Review

- TWA GIS team has a 10-day review timeline.
- Please refer to section 11.6 of TWA standards and specifications.

Building Final Inspection

- Building final inspections requests are submitted online at, tohowater.com.
- Inspections requests received before 6:00 am will be held the same day, after 6:00 am requested inspections will be held the following day.
- Cancelations are made via emailing TWACI@tohowater.com.

TEP Acceptance

- All submittals must have the following:
 - a. TWA project name and number prior to any review.
 - b. Include all attachments, plans and pdf's delivered electronically at one time or TWA will not accept.
 - c. Include tables for IRC1 and LC5 showing percentages and sq. ft.
- Variances may be allowed based on technological upgrades to irrigation systems.
- TEP Inspection will occur at the building final inspection.
- Contact <u>rtilley@tohowater.com</u> or 407-944-5121 for questions relating to TEP acceptance and criteria.

Appendix A – Document Web Addresses

Standards and Specifications Manual

Standard Details

Private Development Outline

General Construction Notes

Project Closeout List

Meter Account Set Up

Meter Installation Request Form

Easement Template

Maintenance Bond Form

Record Drawing Checklist

Inspection Request Form

Toho Efficiency Program (TEP)