6. PROJECT COMPLETION REQUIREMENTS

6.1 Record Drawings

All projects shall require the submittal of record drawings (A.K.A. As-Built drawings) prior to any water, wastewater and/or reclaimed water facilities being accepted by Palm Beach County Water Utilities Department (Department). The State Plane Coordinate System (x, y, and z) shall be used for all As-Built data locating any Department facility. In addition, the Department will only accept the addition of station and off-sets along with State Plane Coordinates on any installed Department facility when it is installed within road right-of-way as part of a roadway permit as required by the road right-of-way permitting Agency. State Plane Coordinates (x, y, and z) shall be shown on all pipes at 100' intervals, and all fittings, as-built elevations for pipe crossings, pipe lengths, and locations, as appropriate, for all facilities including as-built grade elevations added to all aforementioned facilities with as-built data. As-Built drawings for potable water shall including water services and shall show sample points for bacteriological sampling. As-built data for water services shall include control valves and services taps on all water service installations no matter if both occur alongside the water main. As-built drawings for gravity sewers shall include pipe lengths, slopes, cleanouts, data for conflict clearances, manhole rims and invert elevations. If the gravity sewer system includes oil/grease interceptors and/or sand/oil interceptors the cleanouts located on each end of each interceptor shall be shown with as-built data, specifically the invert elevations. Utilities are to be shown at the actual location on the record drawing. For an on-site distribution plan, the design alignment is to be deleted, leaving only the as-built alignment on the plan. For any transmission main located within a right-of-way, the original design alignment may remain, appearing together with the as-built alignment. All as-built data shall be bolder than any design and background information on the record drawing. Additional enlarged details to scale may be required to clarify as-built data for hard to read areas. Separate water, wastewater and reclaimed water record drawings may be required at the Department's discretion so all as-built data will be clearly legible on any record drawing that is cluttered with combined as-built data. All Department water, wastewater and reclaimed water crossings shall be provided with as-built data at the crossing location. The Department will not accept any tabular as-built data associated with crossings or for any other Department required as-built data.

When submitting record drawings, the initial submittal shall consist of three (3) surveyor signed & sealed copies of each water, wastewater and reclaimed water drawing as applicable for review. Then two (2) surveyor signed & sealed copies of each revised record drawing thereafter until the As-Built drawings have been accepted by the Department. Preliminary record drawings used for "Construction Water Only" release from the Health Department shall include at a minimum as-built data on all sample points, all potable water facilities, all potable water main crossings with other water, wastewater, reclaimed water, storm, and gas pipes along with all electrical and communication conduits, both new and/or existing pipes and conduits, prior to the Department approving a "Construction Water Only" request. When requesting partial "Construction Water Only" release, or partial final DEP/PBCHD Water and/or Wastewater Certification a set of record drawing prints being submitted for review shall be highlighted to reflect the portion of the project that is being requested to be released.

As-Built drawings shall address the following:

(a) All As-Built drawings shall be computer generated. No hand written as-built data will be accepted.

(b) The original WUD approved design plan view sheets and profile sheets shall be used for as-built presentation or an as-built survey is also acceptable with the original design being shown.
(c) All As-Built submittals shall include all original project Department approved plan and profile view drawing notes, location map, etc., along with all as-built data being shown unless otherwise determined by the Department
(d) Record drawing prints must be signed and sealed by a Professional Land Surveyor. A "Third Party Disclaimer" will not be accepted (i.e. As-Built data provided by contractor). All as-built data shall be collected by the same party who is preparing the Record Drawings. Record Drawings signed and sealed by a Professional Land Surveyor must comply with applicable Florida Statutes.
(e) Each record drawing sheet shall contain surveyor notes and legend applicable to that drawing.
(f) The as-built data on submitted drawings (line work, numerical data) must be clearly legible, accurate and comply with Department standards. An increase in font size and/or the use of a different font style may be required to improve legibility. Separate water, wastewater, and reclaimed water record drawings may be required for projects with a high density of data and/or poor legibility (i.e., multi-family complexes, commercial centers, etc.).
(g) If As-Built drawings are for only potable water the drawings must state "Water Only"-with As-Built drawings for wastewater only stating "Sewer Only"and As-Built drawings for only reclaimed water stating "Reclaimed Water Only".
(h) Add street names and addresses to each lot, building, and unit.
(i) All record drawings that contain plan views shall indicate the recording information associated with project such as the plat, Plat Book/Page, along with any Palm Beach County Utility Easements (PBCUE) recorded by ORB/Page.
(j) Complete title block with current file name (including f/k/a, a/k/a, plat name, etc.). Label drawings "Record Drawing" or "As-Built Drawing" and show appropriate entries in the revision block.
(k) As-Built drawings with plan views must state the valve manufactures, the fire hydrant manufacturer and model, the corrosion barrier system and applicator.
(l) Horizontal coordinates shall be rounded off to the nearest tenth of a foot. Elevation data shall be rounded off to the nearest hundredth of a foot (I.E. top of manholes, inverts, top of pipes, etc.). Elevation datum shall be listed on each plan view sheet. Slopes shall be rounded off to the nearest one-ten thousandth.
(m) As-built data for pressure mains must include coordinates for valves, fittings, hydrants and top of pipe @ 100 foot intervals. As-built data must also include elevations for top of nut on valves, fittings, hydrant main nozzle and on top of pipe@ 100 foot intervals.
(n) All new hydrants and main valves must be numbered on As-Built drawings.
(o) As-built data for sewer laterals shall include coordinates for cleanouts (and invert elevations if proposed invert elevation data is shown on the design plan).
(p) As-built data for water services shall include taps and meter control valve for meter sizes 2" or less (PVC and HDPE services). As-built data required on all fittings and valves associated with meter sizes 3" or larger.

(q) As-built data for “wet tap” or “cut-in” connections into an existing pressure pipe system required on tapping sleeve or tee as applicable, new gate valve(s) associated with the connection and the distance to the nearest existing in-line valve(s).
(r) All casings installed require as-built data on both ends to include both horizontal coordinates and elevation.
(s) As-built data for oil/grease interceptors (OGI’s), grease traps and sand/oil interceptors (SOI’s) shall including interceptor type, manufacturer, model number, and capacity. The cleanouts located at each end of any interceptor or grease trap shall be shown with as-built data on the inverts.
(t) Lift station as-built information is required to be reflected on the project’s “Lift Station Mechanical Standard Details, 1 of 2” sheet. As-built data must be shown on the “Wet Well”, Pump Data” and “RTU Record Data” charts as well as the site plan on that sheet.
(u) If the lift station is providing power and communication to a reclaimed water lake discharge system the reclaimed lake discharge as-built information must also be shown on the “Lift Station Mechanical Standard Details, 1 of 2” sheet site plan.
(v) As-Built drawings associated with phasing of project shall clearly state phase number to applicable sheets with the phase limits being clearly defined on all applicable drawings. If As-Built drawings are for only water the drawings must state “Water Only”, and if the As-Built drawings are for wastewater only the drawings must state “Sewer Only”. Gravity sewer must terminate at a manhole with a temporary plug being shown for future phase(s). Phased as-built drawings with lift stations must include in the first phase as-built data for the lift station and force main up to the point of connection to the “existing” wastewater system. Phased pressure potable water mains and wastewater force mains shall end at a restrained valve for future pressure main extension.

Once the Department accepts the record drawings a final record drawing package is required to be submitted for permanent Department records. The final record drawing package shall include the following:

(a) Two (2) surveyor signed & sealed sets of prints (24” x 36”) and two (2) sets of unsigned prints.
(b) Electronic record drawings file submitted on a CD, a flash drive, or another electronic format as determined by the Department. The electronic files must include the As-Built drawings (AutoCAD Release 2010 version or higher with x-references bounded to files). along with PDF files of the AutoCAD drawings saved to 24"x36" in size and an AutoCAD "Strip" file. The strip file only shows the property boundaries and the WUD facilities (IE. pipes, valves, etc.) with no text being shown. Note the layers cannot just be turned off but removed thus stripped.

6.2 Record Data List and Required Tests

All projects when applicable shall require the submittal of a “Manhole, Hydrant and Valve” data list using a spreadsheet format (EXCEL) as approved by the Department. The engineer of record shall submit a hard copy for review and acceptance. Once the data list has been accepted the engineer is required to submit a hard copy along with an electronic file copy.

Fire hydrant Fire Flow Tests are required for all new and relocated fire hydrants associated with a

project. The fire hydrant Fire Flow Tests are required to be completed by the PBC Fire Marshal Office or applicable Fire Rescue Department within an incorporated city, town or village within the Department's service area. The fire hydrant Fire Flow Tests shall not be conducted until after the potable water system has received DEP/PBCHD "Construction Water Only" Certification and has passed its required Department pressure test. The engineer is required to submit one (1) copy of each fire hydrant Fire Flow Test for the project prior to the Department approving a project's final DEP/PBCHD Water Certification.

When a project has new and/or renovated sanitary sewer concrete structures (i.e. manholes, lift station wet well or valve vault) the engineer is required to submit either a spark test or a thickness test for the applicable corrosion barrier coating applied to each concrete structure. The spark test and/or thickness tests must be submitted and accepted prior to Department approving a project's final DEP Wastewater Certification.

6.3 Legal Documents

All projects when completed require a Bill of Sale, Attachment to Bill of Sale and Owner's Affidavit forms to be submitted for Department review and acceptance. The Bill of Sale form shall be signed by the project's developer/property owner as applicable and shall be witnessed by two (2) separate individuals and notarized. The Attachment to Bill of Sale form shall be completed and signed by both the project's developer/property owner as applicable along with either the Underground Contractor or General Contractor as applicable. The costs reflected on the Attachment to Bill of Sale form shall only include the water, wastewater and reclaimed water facilities (assets) being turned over to the Department. If a project includes a new Department lift station the lift station number shall be listed on the form along with the emergency generator or emergency pumping unit serial number(s) when applicable. If the project involves phasing then a separate Bill of Sale, Attachment to Bill of Sale and Owner's Affidavit forms are required with each phase. When the Bill of Sale and Attachment to Bill of Sale are submitted and are deemed acceptable those forms will not become officially accepted for warranty purposes by the Department until the first permanent service activation. If no final DEP/PBCHD Certification(s) is required on the project, then the Bill of Sale and Attachment to Bill of Sale will become officially accepted for warranty purposes by the Department when all final required project closeout documents have been submitted and accepted by the Department. An Owner's Affidavit is required to be completed and signed by the project's developer/property owner as applicable and shall be witnessed by two (2) separate individuals and notarized.

6.4 Utility Easement

When a Palm Beach County Utility Easement (PBCUE) is required over installed potable water, wastewater (both gravity sewer and force main) and reclaimed water facilities to be owned and operated by the Department a legal description and sketch is required to be prepared by a licensed surveyor. Once the legal description & sketch is prepared the engineer of record is required to submit two (2) original surveyor signed & sealed copies for the Department's review and acceptance. Once a PBCUE legal description & sketch has been accepted, the Department will approve one (1) original and return it to the engineer of record for recording purposes. A current Department authorized PBCUE cover page shall accompany the approved legal description & sketch when recorded. The cover page is required to be signed by the property owner and shall be witnessed by two (2) separate individuals and notarized for the recorded PBCUE to be accepted by the Department. If the property on which the PBCUE is being granted has a mortgage, then a current Department authorized "Consent and Joinder of Mortgagee for Utility Easement" form

must be executed by the mortgage holder and shall be recorded with the PBCUE. The "Consent and Joinder of Mortgagee for Utility Easement" form shall be attached to the PBCUE and placed behind the PBCUE cover page when being recorded. After the PBCUE has been recorded the engineer of record is required to submit a certified copy to the Department for their use. A Title Policy for the benefit of the Department is required for the recorded PBCUE and the policy amount shall be $50.00 per lineal foot of recorded PBCUE measured along its centerline. If a PBCUE is required for a Department owned wastewater lift station the Title Policy for the lift station PBCUE area alone shall be a set amount of $150,000.00. When a PBCUE area is less than 1,000 square feet an Opinion of Title may be acceptable in the place of a Title Policy at the Department's discretion. Now when a Utility Easement for Department facilities is granted by plat a copy of the recorded plat is required to be submitted for Department review and for verification that all Department facilities are within the platted Utility Easement(s)

6.5 Indemnity Agreement

An Indemnity Agreement is required when there is any encroachment into a Palm Beach County Utility Easement (PBCUE) including but not limited to paver brick, actual brick and/or stamped concrete, sidewalks and/or driveways along with fences and/or walls. The Indemnity Agreement must be signed by the property owner and shall be witnessed by two (2) separate individuals and notarized along with a sketch prepared by a licensed surveyor detailing the encroachment area. The sketch shall be to an engineer scale along with being labeled "Exhibit B" and be attached to the Indemnity Agreement when submitted to the Department for processing. If the property on which the Indemnity Agreement is being granted has a mortgage, then a current Department authorized "Consent and Joinder of Mortgagee for Indemnity Agreement" form must be executed by the mortgage holder and be submitted with the Indemnity Agreement and sketch for the Department to process the Agreement.

6.6 DEP/PBCHD Certification

When applicable projects shall require DEP/PBCHD Certification for potable water systems and DEP Certification for wastewater systems by the Health Department. When the project has a potable water permit DEP/PBCHD "Construction Water Only" Certification is required prior to any pressure testing of the new system and fire hydrant fire flow tests being completed. The Department will approve the DEP/PBCHD "Construction Water Only" Certification form(s) once the project has received passing two (2) day bacteriological tests along with preliminary As-Built drawings being submitted, reviewed and accepted for construction water only purposes as outlined in Subsection 6.1 - Record Drawings. Only after the project has received "Construction Water Only" certification can the contractor start any type of pressure testing either their own or by the Department. The project can only receive final DEP/PBCHD Water Certification once the potable water system has passed its required Department pressure test along with all required fire hydrant Fire Flow Tests and any Utility Easements required over Department facilities being recorded by plat and/or by PBC Official Record Book (ORB) and Page. The project can only receive final DEP Wastewater Certification once the wastewater system has passed its required Department testing including but not limited to gravity main lamping, force main pressure testing, lift station start-up and all applicable spark tests and/or thickness tests for all wastewater structures with an approved corrosion barrier system applied being submitted and accepted by the Department.

6.7 Miscellaneous Documents

When a project includes a Department lift station the engineer of record is required to submit to the Department a copy of any form of FPL documentation (i.e. FPL bill or FPL e-mail creating an electric account) showing that an account has been established for the lift station electric service. Once FPL documentation is received the Department will proceed in transferring the electric service into the County's name. The FPL documentation must include the lift station address and FPL account number. The electric service shall not be transferred into the County's name until the project has been completed and has received final DEP Wastewater Certification from the Health Department.