

**BOARD OF WATER SUPPLY
CAPITAL PROJECTS DIVISION DESIGN AND PLANS REVIEW BRANCH (CPD)
CHECKLIST FOR CONSTRUCTION PLANS SUBMITTALS
(Minimum Requirements)**

*(Update to Section 2.7 of City and County of Honolulu Department of Planning
and Permitting (DPP) Site Development Division Plans Review, 2017)*

**TYPE OF IMPROVEMENTS THAT REQUIRE BWS CPD'S REVIEW AND
SIGNATURE OF APPROVAL:**

- 1. UTILITY IMPROVEMENTS:** Projects to install or improve public or private utilities within the existing or proposed public rights-of-way or private City-maintained or State-maintained rights-of-way or BWS easements including, but not limited to, the following:
 - a. BWS water mains.
 - b. Private water mains.
 - c. Sewer and Drain lines.
 - d. Road Resurfacing or Widening.
 - e. Electric, Telephone, Gas, Fuel and Cable Lines.
 - f. Landscape/Irrigation Improvements.
 - g. Other Road Improvements.

- 2. WATER MAIN IMPROVEMENTS CROSSING A BRIDGE.**

- 3. SUBDIVISION:** Development of land into two or more lots, parcels, sites, including designation of improvements.
 - For site work within private parcels with no BWS facilities, show the existing meter locations with size, meter number and premise ID.
 - For site work within private parcels with no BWS facilities, indicate whether or not connecting after the existing water meter within the public (City and State) right-of-way.

- 3. ONE-LOT DEVELOPMENT:** Developments involving the improvement of, or construction of improvements on a single lot including, but not limited to, the following:
 - a. Residential Cluster Improvements.
 - b. Industrial/Commercial or Condominium Projects.
 - c. Ordinance 19-8 Affordable Housing Projects.

- 4. NEW RESERVOIRS, EXPLORATORY WELLS, AND BOOSTER STATIONS.**
 - a. Please contact CPD Plans Review at 808-748-5450 for consultation.

- 5. NON-BWS UTILITY INSTALLATIONS**

6. NON-UTILITY CONSTRUCTION (GRADING, GUARDRAILS, ROADWAY, RESURFACING, ROADWAY/SIDEWALK RECONSTRUCTION, ROADWAY WIDENING, ROADWAY RESTRIPIING, ETC.)

THE FOLLOWING ITEMS, AS APPLICABLE, SHALL BE COMPLIED WITH PRIOR TO SUBMISSION TO BWS CPD:

- A. Transmittal letter indicating what is being submitted, title of the project and contact person with phone numbers.
- B. Provide the following information on your set of drawings (general requirements only). All incomplete plans will be returned without review.
 - 1. Constructions plans shall measure 24-inches x 36-inches.
 - 2. Tax Map Key numbers, North arrow and graphic scales, site location map.
 - 3. Type of development, i.e., multi-family, single family, clusters, high-rise, commercial, industrial, etc. For residential developments, indicate the number of units and living stories.
 - 4. Location of access to property (show ingress and egress). Location of existing and proposed driveways with driveway flares.
 - 5. Building, street, and lot layouts. Show property lines and easement lines. All structures within public right(s)-of-way shall be labeled as existing or new. All street names shall be labeled as existing, new, City, State, Federal, privately-owned, or private City-maintained roadways.
 - 6. Existing conditions, including all underground utilities such as sewer, drainage, electrical, telephone, gas, cable, lines, and others. Existing utilities must be shown and called-out on plan and profile views in light or hidden lines.
 - 7. Plan and profile views showing existing and new water main locations and sizes including meter connections. Existing waterlines must be in light or hidden lines and new utilities in solid or thicker lines for distinction. Plan and profile views shall distinguish between potable and non-potable water systems. Additionally, the following shall be on the plan and profile view of the new water system:
 - a) Connection to existing main with correct material(s) call-outs including materials for testing, bends, fittings with concrete blocks or beams (as required), valves and station numbers. Provide schematic layout for connections, as required.

- b) All utilities labeled as existing or new with adequate vertical and horizontal clearances to new or existing water utilities per BWS Water System Standards, as amended. This includes any other new or existing utilities crossing the water main. (Concrete jacket the water main with more than 8-foot cover or under utilities larger than 16-inches).
- c) For new easements, provide dimensions, total area, and call-out new easement to be granted to BWS. All call-outs are to be similar to item 7b.
- d) For on-site fire hydrant, show all existing and/or new on-site property piping from the existing/new detector check meter with the call-outs to be similar to item 7h.
- e) Plan and profile view for all water mains and laterals showing crossings to other utilities (sewer, drain, electrical, gas, communication lines, etc.).
- f) Layout of meter connections per BWS Water System Standards, as amended.
- g) Locations of all existing water meter boxes within the project limits and indicate meter numbers on plans (The meter numbers are located on top of or underneath the meter dial cover.)
- h) For new meter(s) installations, provide the following information:
 - o Meter locations. Location to be in the public (City and State) right-of-way.
 - o Completed flow requirement table (FU, GPM, GPD).
 - o Completed BWS cost estimate table for meter and WSFC charges.
 - o For new 3-inch and larger meters, provide plan and profile of laterals 4-inches and larger (show meter and box, property line, easement limits with dimensions, material call-outs, and valve locations). Service lateral connections (indicate size) shall be shown from the property line or backflow preventer(s) to existing or new main (indicate sizes).
 - o Appropriate Water Notes.
 - o Layout of meter connections per BWS Water System Standards, as amended.
- i) Show existing and/or new backflow preventers. Location, size, and type of backflow preventer (not required for DC meters).
- j) Show and call-out laterals to be cut and plugged at main and meters and meter boxes to be removed.
- k) Call-out connection to existing water main with station numbers. Provide invert of existing main and new line at connection point.
- l) Existing and new finished grade lines.

- m) All valves, ARVs, FH connections and any branches with station numbers and inverts.
 - n) Call-out name of existing roadway or proposed new roadway.
8. Water Notes applicable to the project (complete content and spelling). Contact BWS for a copy of the latest Water Notes for the specific type of project.
 9. Corrosion protection plan for water laterals, new waterlines, and subdivision water system improvements details (for 4-inch and larger ductile iron pipe installation). Provide two (2) copies of the soil's resistivity report.
 10. Show all standard and non-standard details (i.e. electronic marker, water trench, pipe support details, water line jacket details, temporary by-pass details, typical non-standard meter installation details, non-potable water system details, etc.).
 11. Board of Water Supply signature block(s) on sheets showing BWS water notes, water system improvements and all other sheets as required.
 12. Show all existing off-site Fire Hydrants with hydrant numbers. (Numbers can be found by facing hydrant from the street.) Show existing FH laterals to the main connection.
 13. Applicable State of Hawaii licensed engineer's stamp and signature block. Engineer's signature is required on tracings prior to approval by the BWS.
 14. For reservoirs, booster stations and wells, please schedule a meeting with the BWS on requirements.
- C. Submit additional information for the following as required:
1. Two (2) sets of structural calculation reports for concrete block, concrete jackets, and modified water manholes for complex and non-standardized projects. To be certified by a State of Hawaii licensed structural engineer.
 2. For new reservoirs, wells, booster stations and facilities to be dedicated to BWS, submit 2 sets of soils/geotechnical survey report, drainage report and structural calculations and 5 sets of project specifications/special provisions.
 3. Project specifications specific for those complex non-standardized projects.