

SPECIAL WATER UTILITY REGULATIONS

RULE AND REGULATION 21

A. GENERAL

In addition to the general requirements outlined in Rule and Regulation 18 for Utility Services Facilities on Customers' Premises, the following is required:

B. SERVICE CONFIGURATIONS

1. NUMBER OF SERVICES PER BUILDING

Only one Water Service Line is allowed per building (or other Customer Premises), except additional Water Services may be provided for commercial properties at CPAU's discretion, if any of the following conditions apply:

- a. space is not available in the Public Right-of-Way at any one location for the number of Water Meters required to serve the property.
- b. additional Water Services are needed for irrigation and fire Water Services.
- c. a single Water Service location is not practical, due to parcel configuration or size.

C. DEDICATED FIRE SERVICES, INCLUDING AUTOMATIC FIRE SPRINKLERS

1. PURPOSE

CPAU will furnish a dedicated fire Service connection in 2-inch to 10-inch size only if CPAU confirms that Customer has made adequate provisions to prevent the use of Water for purposes other than fire suppression.

2. APPLICATION AND AGREEMENT

The Customer/Applicant will be required to sign an Application for CPAU connection and an Agreement to operate the fire Service in accordance with these Rules and Regulations. The Applicant, at the Applicant's expense, will be required to install an approved backflow protection assembly in accordance with Title 17 of the California Code of Regulations, Article 2, Protection of Water System, Sections 7601-7605, as well as Section E of this Rule and Regulation, and all other applicable City standards and requirements.

3. INSTALLATION CHARGES

CITY OF PALO ALTO
UTILITIES RULES AND REGULATIONS

Issued by the City Council



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The Applicant will be required to make payment in advance of construction in accordance with CPAU's applicable Connection Fee Rate Schedule.

4. QUANTITATIVE CHARGES

Water provided via a dedicated fire Service connection as authorized under subsection C of this Rule and used for fire suppression and suppression system testing is billed according to Rate Schedule W-3 (Fire Service Connections). Unauthorized Water use will be subject to the same penalties as set forth in Section D.2 below.

6. PRESSURE AND SUPPLY

CPAU assumes no responsibility for loss or damage because of lack of Water or pressure. CPAU furnishes such quantities and pressures as are available in its general Distribution System. Water Service is subject to shutdowns and variations required by CPAU's operation of the Water system and system Demands. Customers must comply with applicable Fire Department requirements at all times, including whenever fire protection systems are out of service.

D. FIRE HYDRANTS

1. USE AND DAMAGE OF FIRE HYDRANTS

No Person(s), other than those designated and authorized by the proper authority or by CPAU, may open any fire hydrant, attempt to draw Water from it, or in any manner damage or tamper with it.

- a.** The process for approval to withdraw Water from a public fire hydrant is as follows:
 - i.** Prior to use at a construction site or for any other purpose, a Fire Hydrant Meter Permit from CPAU must be validly obtained, and Water use is subject to all permit restrictions and requirements. Potable water for consolidation of backfill and other nondomestic uses in construction is not permitted if other water sources, such as reclaimed water, are available.
 - ii.** The permittee must pay in full to CPAU the Hydrant Meter deposit and all related Charges as stated on the applicable Water Service Rate Schedule for Fire Hydrants (W-2).



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- iii. All Water taken from the fire hydrant must be registered on the hydrant Meter. It is illegal to draw Water from a hydrant without the hydrant Meter attached to record the volumes. Meter reading is performed by CPAU Utilities Operations Department at a 6-month interval when the permittee brings in the Meter for renewal, or at the end of the rental period if less than 6 months.

2. PENALTIES FOR IMPROPER USE

- i. Tampering with fire hydrants and improperly using Water from fire Services is prohibited. CPAU may, at its option, levy a fine, discontinue and remove a Service in addition to charging for the Water illegally used, and pursue all available civil and criminal remedies, including, but not limited to, prosecution under Palo Alto Municipal Code Section 1.08.
- ii. If the Customer removes a fire Service, the Customer will be responsible for all related expenses, including installation of a new fire Service, before any new fire Service is re-installed and activated.
- iii. Failure to submit timely Meter reading may result in forfeiture of all or part of the Customer Fire Hydrant Meter deposit.
- iv. Failure to return the hydrant Meter at the end of the appropriate period may result in additional Charges, as described in the applicable Water Service Rate Schedule for Fire Hydrants (W-2).
- v. Anyone violating Section D of this Rule on more than one occasion in a three year period may be denied any use of fire hydrant Water Service. Such Customers may use reclaimed Water if available.

3. MOVING OF FIRE HYDRANTS

When a fire hydrant has been installed in the location specified and approved by CPAU, CPAU has fulfilled its obligation. If a property owner or other party desires a change in the size, type, or location of the hydrant, the requester is responsible for the cost of such changes, without refund. Any change in the location of a fire hydrant must be approved by the City of Palo Alto Fire Department and the Utilities Department. The cost of relocation will be as estimated by the CPAU Engineering Manager for Water, Gas, and



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Wastewater (WGW). This cost estimate must be paid by the requesting party before CPAU will begin relocation.

E. WATER SYSTEM PROTECTION

1. CROSS CONNECTION CONTROL PROGRAM

The purpose of the Cross Connection Control Program is to protect the City's potable Water from contamination. The connection of unprotected actual or potential connections between the potable Water system and any source or system containing unapproved Water, or any substance that presents a potential danger is prohibited. This program is operated in accordance with the current State Department of Public Health Regulations contained in Title 17 of the California Code of Regulations, Division 1, Chapter 5, Subchapter 1, Group 4, Sections 7583 through 7605, as amended (hereafter "State Regulations"). The Cross Connection Control Program document, drafted in accordance with State Regulations, is available on the City's website and on file with the City Clerk.

The Utilities Director is authorized to terminate Water Service to any Customer who fails to comply with this Rule, or with any other City Cross Connection Control Program requirements, after notice is given.

2. BACKFLOW PROTECTION

a. GENERAL REQUIREMENTS

- i. Backflow protection assemblies must be approved by the University of Southern California's (USC) Foundation for Cross Connection Control. A list of approved assemblies and other background information can be found at the assembly manufacturer's website and the Foundation's website.
- ii. The Customer must install the required Water backflow prevention assemblies in accordance with CPAU and State of California requirements.
- iii. The backflow prevention assemblies are owned and maintained by the Customer.
- iv. The Customer is responsible for annual testing of the backflow prevention assemblies and any required repair or replacement. Additional information about annual testing requirements is provided in section E(2)(e) of this Rule.



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- v. As a protection to the Customer's plumbing system, the Customer must install a suitable pressure relief valve and pressure expansion tank between a backflow assembly and any natural gas, electric or solar water heater on the Customer's Water system.
- vi. The backflow prevention assembly must be installed in a Utility-approved location on private property at a location within 5 feet of the Point of Service (property line/Meter) unless a different location is specified elsewhere in this Rule or an exception has been granted by the CPAU WGW Engineering Manager.

b. EXISTING SERVICES

Customers are required to install Reduced Pressure Principle Assembly (RPPA) backflow prevention assemblies on Existing Water connections (commercial, industrial or domestic) at the Customer's expense within 90 days of notification by CPAU, when any of the following conditions occur:

- i. Salt water, or water otherwise polluted, is available for industrial or fire protection purposes, or where fresh water hydrants are or may be installed on piers or docks;
- ii. Processes which produce industrial wastes, Wastewater or any other dangerous substances are occurring on the Premises;
- iii. Gray water, stored rain water, well water, reclaimed water or other unapproved source of water is present on the premise for irrigation or other uses.
- iv. An approved Water supply line terminates at a pier head outlet which is used to supply vessels at piers or water fronts. These installations must be located where they will prevent the return of any water from a vessel or any other source into the approved Water supply line.
- v. The Customer is engaged in the handling of dangerous or corrosive liquids, or industrial or process water.
- vi. Circumstances are such that there is danger of backflow of wastewater or other contaminated liquids through plumbing fixtures of water-using or treating equipment, or storage tanks and reservoirs. Such circumstances include, but are not limited to, dangers present at the following types of facilities or caused by the following types of activities:
 - a) Non-single family home swimming pools;
 - b) Sewage ejector pumps;
 - c) Boilers, hydronic or solar heating systems;
 - d) Animal veterinary or grooming facility;



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- e) Automotive maintenance, washing, painting or fueling facility;
- f) Oil, gas, radioactive material or chemical storage, transmission or production facilities;
- g) Barber / beauty shop or nail salon;
- h) Restaurant, bar, or brewery;
- i) Printer copy/reprographic service or film processing/developing;
- j) Dental, medical facility, nursing home, sanitarium or hospital;
- k) Manufacturing or processing plant;
- l) Dry cleaning or laundry facility;
- m) Portable cleaning/spray equipment;
- n) Steam cleaning facilities;
- o) Swamp cooler, cooling tower or water chillers;
- p) Water booster pump;
- q) Tanker truck yards or water storage tanks;
- r) Florist or plant nursery;
- s) Non-single family home fountain or lagoon;
- t) Grocery store;
- u) Gym, hot tub or spa facility;
- v) Concrete, asphalt, sand or gravel plant;
- w) Laboratory, school or college;
- x) Metal manufacturing, processing, plating, cleaning or fabrication;
- y) Morgue, mortuary, graveyard, crematorium or funeral home;
- z) The CPAU WGW Operations Manager has determined that the Service connection poses a contamination risk to the Water Distribution System.

c. SPECIAL CONDITIONS – EXISTING SERVICES

When a Customer is required to install a backflow prevention assembly (BPA) in the University Avenue or California Avenue Business Districts, the Customer may, at the discretion of the Director of Utilities and the Chief Building Official, be allowed to install backflow prevention assemblies in the Public Right-of-Way (PROW) where no feasible placement alternative exists outside of the PROW. The customer must obtain an Encroachment Permit from the City of Palo Alto prior to the installation of the backflow prevention assembly. Installations in the PROW are subject to the following conditions:

- i. Existing building structure must contain a vertical wall at the edge of the PROW.



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- ii. The Customer must obtain insurance with minimum liability coverage of \$1,000,000 each for personal injury and property damage, and must indemnify and hold the City harmless via a contractual liability endorsement.
- iii. The backflow prevention assemblies are limited to sizes rated as 2 inches or smaller.
- iv. BPAs located in the PROW must encroach the minimum distance necessary for compliance. In no event will right-of-way sidewalk access be restricted to less than five (5) feet of clearance.
- v. Any BPA proposed in the PROW may, at the discretion of the Director of Planning and Community Environment, require mitigation to paint the equipment to match the building, provide for a screening cage, or other techniques to minimize visual impacts along the streetscape.
- vi. Any BPA proposed in the PROW to be located on the exterior of a designated historic building requires review and approval by the Department of Planning and Community Environment, in addition to other approvals.
- vii. In the event of a future building improvement, the Encroachment Permit will be revoked as a component of development approval, and the Applicant will be required to move the backflow prevention assembly off of the PROW and onto the Applicant or building owner's property.

d. NEW OR UPGRADED SERVICES

The installation of a backflow prevention assembly is required before the connection of a new or upgraded Service under any of the following conditions:

- i. For single family Residential Customers, an approved Reduced Pressure Principle Assembly (RPPA) backflow prevention assembly is required when an unapproved fresh Water supply is available from a well, spring, reservoir, or other source. This condition applies even if the unapproved source is not connected to the CPAU Water System. If the Customer agrees to abandon the other supply, agrees to remove all pumps and piping necessary for the utilization of this supply, and properly abandons the alternate supply source, the installation of a backflow protective assembly may not be required.
- ii. For commercial or industrial fire services, a RPPA backflow prevention assembly must be installed for any existing or new Water connections. Alternative backflow prevention assemblies may be substituted after approval by the CPAU WGW Engineering Manager.



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- iii. Single and multi-family residences that have fire sprinklers that are connected to the domestic Water Service must have an approved Double Check Valve backflow prevention assembly installed on the main Water Service connection.
- iv. Commercial, industrial, retail, and multi-unit housing (more than 4 units in a building) Water Service Applicants must install a RPPA backflow prevention assembly for all Water Services.
- v. Whenever the CPAU WGW Operations Manager has determined that the connection poses a contamination risk to the Water Distribution System.

e. INSPECTION AND TESTING OF BACKFLOW PREVENTION ASSEMBLIES

- i. The owner of any Premises with required backflow prevention assemblies must have them inspected at least once annually by a Backflow Protection Assembly Tester certified by the California-Nevada Section of the American Water Works Association and registered with CPAU.
- ii. Backflow prevention assemblies must be inspected and tested before a Service is connected.
- iii. Customer must provide proof that the backflow prevention assembly that they have installed is on USC's Foundation for Cross Connection Control approved list.
- iv. Backflow prevention assemblies must be tested annually, and repaired or replaced within 30 calendar days whenever they are defective or upon notice from CPAU.
- v. The annual testing certificates must be sent to the Water Transmission Supervisor/Cross Connection Control Officer, City of Palo Alto, P.O. Box 10250, Palo Alto, CA 94301, each year on the anniversary of the device's initial testing. If the required backflow testing certificate is not received within 90 days of notification by the City, the City may either contract for the testing and charge the Customer for the expense, or terminate Water Service.
- vi. All expenses for repair and maintenance of backflow prevention assemblies will be borne by the Customer.
- vii. CPAU reserves the right to perform additional inspection or testing of any required backflow prevention assembly as it deems necessary to protect the Water Distribution System.

f. PLUMBING CHANGES REQUIRED IN SPECIAL CIRCUMSTANCES



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In special circumstances, where the Customer is engaged in the handling of dangerous or corrosive liquids, or industrial or process water, CPAU may require the Customer to eliminate certain plumbing or piping connections as an additional precaution and as a protection to the backflow preventive assemblies. In making plumbing connections beyond the backflow prevention assembly to the Service, the Customer must comply with local and state plumbing ordinances and regulations.

- g. BACKFLOW PROTECTION ON ADDITIONAL WATER SUPPLY LINES**
Whenever CPAU or state regulations require backflow protection on a Water supply line entering a Customer's Premises, any and all Water supply lines from CPAU mains entering such Premises, buildings, or structures must be protected by a City-approved backflow prevention assembly in conformance with state regulations, regardless of the use of the additional Water supply lines.
- h. PROTECTION AGAINST FLOWS BETWEEN DIFFERENT MAINS**
Two or more Services supplying Water from different mains to the same building structure or Premises through which Water may flow between mains must have an approved backflow prevention assembly on each Water Service installed at locations defined in this Rule.
- i. DISCONTINUANCE OF SERVICE**
CPAU, at its discretion, may immediately discontinue Water Service to any Premises if the backflow prevention assemblies have not met the conditions outlined in this Rule or if the WGW Operations Manager has determined that situation could cause contamination of the Water Distribution System. Service will not be restored until the WGW Operations Manager has determined that any conditions that compromise the safety of the Water system have been corrected.

F. IRRIGATION METERS

CPAU will install a dedicated irrigation meter for new and rehabilitated landscaping greater than 1,000 square feet, as required by the Palo Alto Municipal Code section 16.14.220 for industrial, commercial, institutional, and multi-family common areas. The separate Meter will be designated as an irrigation Account and no other Utilities will be billed on such Account. The Customer must pay for the additional Service according to Rate Schedule W-5.

G. WASTE OF WATER



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In the event that CPAU discovers Water waste, due to leaking, defective, or wasteful equipment, CPAU will notify the Customer. If the Customer does not take reasonable steps to curb this waste, CPAU retains the right, after giving 30 day notice, to discontinue Service to the Customer until the repairs have been completed on the Customer's equipment. CPAU will restore Service when it inspects and determines that the physical cause for discontinuance has been rectified, safe operating conditions have been restored, and the engineering and operations requirements for Service have been met.

H. MAINTENANCE OF THE WATER DISTRIBUTION SYSTEM

1. CPAU RESPONSIBILITY

CPAU is responsible for the maintenance of the Water Service from, and including, the Water Meter located near the street curb, up to and including the Water main and the remainder of the City's water distribution system, except under the following conditions:

- a. Expenses resulting from Customer's violation of the Municipal Code or applicable Rules and Regulations are the responsibility of the violator, and must be paid to CPAU before CPAU performs any maintenance required as a result of the violation.
- b. In Easements, private streets, and subdivisions, CPAU's responsibility is limited to the Water mains and Water Meters in the Public Utility Easement (PUE). If the City's reasonable use of the PUE to provide Service results in any damage to common areas, it is the responsibility of the owner or Home Owner's Association, not the City, to restore the affected portions of the common areas.

2. CUSTOMER RESPONSIBILITY

- a. The Customer is responsible for replacing small (2" or less) Services that are not polyethylene or copper when building a new structure or constructing additions/remodels that have a value greater than \$200,000 for residential projects or greater than \$300,000 for commercial projects, as stated on the project's building permit application. Reconnection to the CPAU Water Services will only be allowed on current standard Services. All other Services must be replaced, per the CPAU WGW Utility Standards and applicable CPAU Rules and Regulations, from the main up to and including the Water Meter box, including all applicable Charges in Utility Rate Schedule W-5.



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- b. The Customer is responsible for maintenance of the on-site Water Distribution System downstream of the Water Meter in accordance with the Palo Alto Municipal Code Chapter 16.08, including the Water Meter vaults and boxes as shown on Diagram A below.

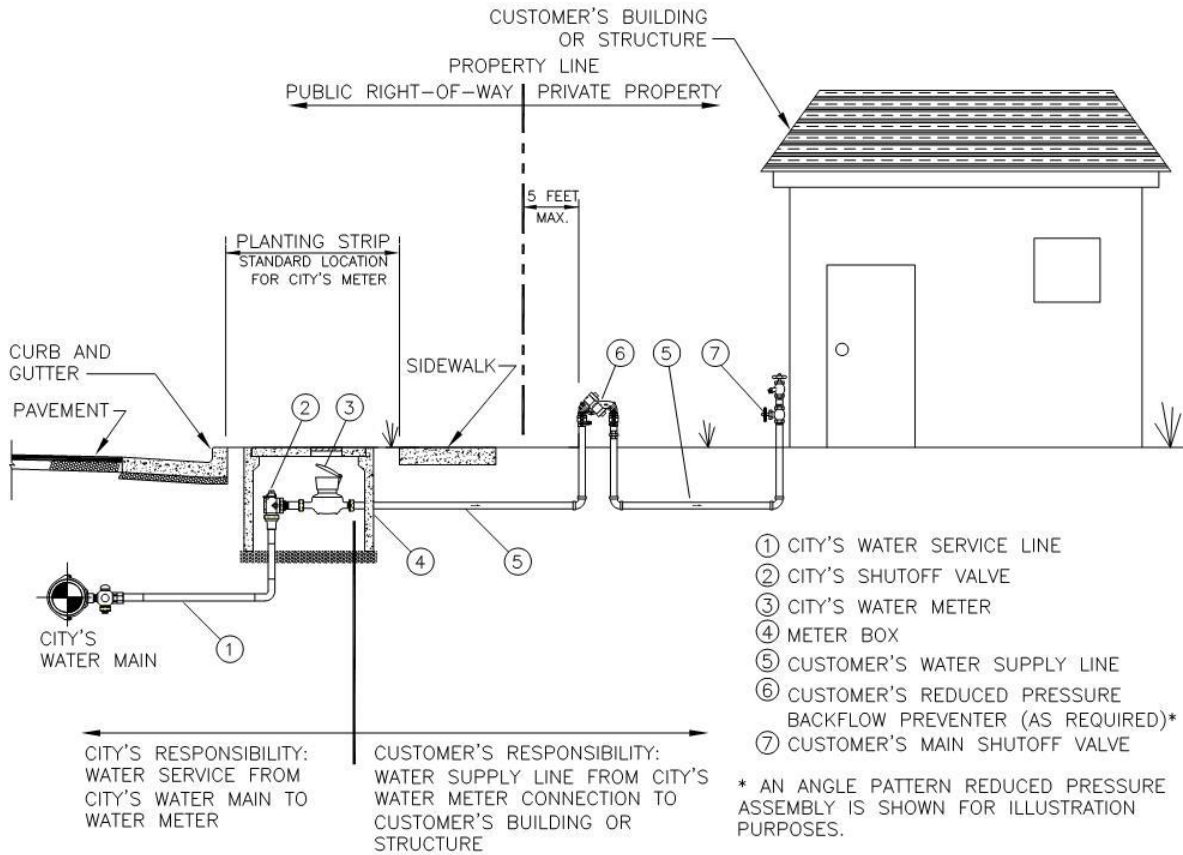


Diagram A
Water Service Responsibility

(END)

