SUBURBAN WATER

NEW INFRASTRUCTURE DESIGN STANDARDS

Combined internal standard prepared from DESIGN CRITERIA, Service Standards, the engineering study application, the current Water Master Plan / capital improvements study, and the current refund-agreement template.

Field	Value
Document	Suburban Water New Infrastructure Design Standards
Source Documents	• DESIGN CRITERIA • Commercial and Residential Service Standards & Specifications • Petition for Engineering Study Water Main Extension and/or Service • Suburban Water Inc. Water Master Plan / capital improvements study • Water Main Extension Petition and Agreement with Refund Provision
Purpose	Consolidate project initiation, master-plan-driven improvement planning, infrastructure design, service connection, and refund-agreement requirements into one internal reference document.
Use	For new development intake, engineering study initiation, master plan review, development review, engineering coordination, offsite-improvement determination, and preparation of related extension and refund-agreement documents.

KDHE Reference. All designs, plans, and construction prepared under this standard shall meet or exceed the minimum design standards of the Kansas Department of Health and Environment (KDHE), as applicable, in addition to Suburban Water requirements and technical specifications.

1. Purpose, Governing Requirements, and Project Initiation

This document consolidates Suburban Water's current project-initiation requirements, minimum design criteria for new public water infrastructure, commercial/residential service connection standards, and refund-agreement procedures used during development review, permitting, construction, inspection, and acceptance.

- The standards in this document are minimum requirements for the design and construction of Suburban Water infrastructure.
- These standards do not replace project-specific engineering calculations, final design analysis, construction specifications, or permit requirements.
- All construction shall conform to Suburban Water Technical Specifications.
- Any design submitted to Suburban shall meet or exceed the applicable minimum design standards established by KDHE for public water supply systems in Kansas.
- Where different standards apply, the more stringent requirement shall govern unless Suburban approves an exception in writing.

1.1 Required Starting Point for New Development and Improvement Projects

- Any new development, water main extension, or project that may require improvements to Suburban Water's system shall begin with a completed Petition for Engineering Study Water Main Extension and/or Service.
- The application is the required starting point for Suburban review of infrastructure needs, probable project cost, and the most economical and advantageous means of serving the property and the district system.
- The applicant shall identify the owner/developer, describe the real property to be served, attach the warranty deed, and submit drawings sufficient for Suburban to evaluate the requested service and any required system improvements.
- The applicant shall deposit the required engineering-study fee with Suburban to initiate preparation of the probable project cost. The deposited amount shall be retained by Suburban without interest.
- Suburban shall use the application materials to prepare the probable project cost and determine the infrastructure needs for the property, with the application form stating a 60-day timeframe for that evaluation.
- Acceptance of the application does not constitute a promise or guarantee that water service will be furnished at a future date; it is the entry point for engineering review only.
- No project-specific improvement letter, extension agreement, or refund agreement should be prepared until the application has been submitted and the engineering study process has begun, unless Suburban authorizes otherwise in writing.

1.2 Minimum Application Contents

- Applicant name and contact information.
- Identification of the subject property and ownership/developer status.
- Property description with attached warranty deed.
- Drawings or exhibits showing the property to be served and the requested service area.
- Engineering-study deposit amount.

- Applicant acknowledgement that the study provides a probable project cost and infrastructure review only, without any guarantee of future water service.
- Applicant signature and date.

1.3 Current Capital Improvements Study / Water Master Plan

Suburban Water's current capital improvements study, reflected in the Suburban Water Inc. Water Master Plan, shall be the primary planning document used to determine what major water system improvements are required to serve new development, increased demand, and future system growth. The study updated the District's hydraulic model and evaluated current and projected conditions through 2045 to identify system deficiencies and recommended improvements.

- The master plan shall be used together with the project-specific engineering study application, current plats, projected demand data, fire-flow requirements, and final engineering review to determine whether a proposed development can be served from existing infrastructure or must construct or fund offsite improvements.
- The master plan evaluates system pressure, fire flow, water age, pumping, storage, water treatment plant capacity, water source capacity, and future demand conditions. It is therefore the driving planning reference for identifying what offsite improvements may be required based on a development's location and demand.
- The study states that significant growth is expected in and around the District over the next 20 years and that planned development will trigger distribution-system needs and recommendations, with approximately 75 percent of future demand expected in the eastern part of the District.
- Under the 2025 maximum-day evaluation, the study found that about 65 percent of the system could provide the 1,000 GPM minimum at 20 psi residual pressure and about 22 percent could not provide more than 500 GPM. Under the 2045 maximum-day evaluation, about 44 percent of the system could provide the 1,000 GPM minimum and about 24 percent could not provide more than 500 GPM.
- Where a proposed development is located in an area identified by the master plan as needing looping, transmission upgrades, pressure improvements, storage improvements, source improvements, or other capital work, Suburban may require the developer to install, fund, oversize, or proportionally participate in those improvements as a condition of service.
- Master-plan cost estimates are planning-level estimates used for prioritization and budgeting. Final project scope, sizing, phasing, allocation methodology, and cost responsibility shall be determined by Suburban through project-specific engineering review.

Current Master Plan Improvement Priorities

- 2035 priority: Redundant 12-inch Main to Storage Tank.
- 2035 priority: Hollingsworth Road Loop (6-inch PVC).
- 2035 priority: 166th Street and Parallel Road (8-inch PVC).
- 2045 priority: 158th and Parallel Road (8-inch PVC).
- 2045 priority: 158th Street and Kansas Avenue (8-inch PVC).
- 2045 priority: 182nd Street (6-inch PVC).

The current Water Master Plan also recommends additional storage in the east part of the system, identifies future water treatment plant and source-capacity needs, and notes that purchase of additional water from BPU may be required if growth continues and no additional water rights are available. These system-level improvements shall be considered during development review whenever a project's location or demand contributes to those needs.

1.4 Service Connection Permit Conditions

- The terms of the service connection permit are subject to all applicable provisions of the Rules and Regulations of Suburban Water Company, Inc., incorporated by reference.
- The applicant shall obtain required excavation permits and pay all city, township, county, and state fees; the applicant remains responsible for excavation, backfill, and site restoration.
- Upon final inspection and acceptance, Suburban shall own and maintain the service connection.
- The customer service line from the terminus of the service connection to the building or premises served shall be owned and maintained by the applicant.
- Failure to comply with construction specifications may result in denial of future service connection permits.
- Suburban may refuse an application from any applicant with unpaid obligations owed to Suburban.
- The water permit must be available on site upon request before the service connection is made.
- Suburban personnel shall have free and unobstructed access to the water meter at all times.
- A permit may be canceled, refunded, or revised if delivery of materials and installation is not requested within 120 days from issue.
- Any partial or full refund shall be made payable to the applicant shown on the permit unless the applicant directs otherwise.

2. Public Water Main Design Criteria

2.1 Minimum Pipe Size and Main Classifications

- No public water main shall be less than 6 inches in diameter unless otherwise specified.
- Transmission mains are used to transport water from a water source to a pumping station or reservoir, shall be 16 inches or larger as shown in the currently adopted Master Plan, and shall not be tapped.
- Major distribution mains transport water from a transmission main to the minor distribution system, include all other mains 16 inches or larger as shown in the Master Plan, may only be tapped by minor distribution mains, and shall have connections at intervals of not less than 1,000 feet.
- Minor distribution mains are 6-inch to 12-inch mains. Six-inch mains are permitted only at dead-end mains that will not be extended in the future.

2.2 System Layout and Capacity

- Water mains shall be laid on a loop or grid system with cross-connections not more than 1,000 feet apart.
- Cross mains installed as part of a subdivision or platted lot shall be at least 8 inches in diameter; however, a 6-inch main may be permitted on a dead-end segment that will not be extended in the future.
- The distribution system and any extension thereof shall have adequate capacity to supply peak demand while maintaining 20 psi at any point in the system.
- The distribution system is not designed to provide fire protection at all points within the district.

2.3 Water Main Location, Separation, and Crossings

- Water mains shall be placed outside the right-of-way whenever possible.

- When placed within or adjacent to right-of-way, the main shall be at least 4 feet from back of curb where embankment slope is 3:1 or flatter; street crossings shall be bored; boring excavations shall be at least 2 feet from back of curb and at a depth of at least 42 inches from finished grade to top of pipe; no parallel utility may be laid in the same trench; and where a sidewalk is on the same side as the main, the main shall be at least 4 feet from the sidewalk outside the right-of-way in a utility easement.
- When located away from right-of-way, water mains shall be installed in easements with embankment slope of 3:1 or flatter, shall not be located in the rear of property, and shall be centered in the easement.
- Water mains and appurtenant structures shall be laid at least 10 feet horizontally from any existing or proposed sanitary sewer or force main and at least 10 feet horizontally from any storm sewer, measured edge-to-edge.
- At crossings with sanitary or storm sewers, provide at least 18 inches of vertical clear distance between the outside of the water main and the outside of the sewer, whether the water main is above or below the sewer. Both pipe joints shall be located as far from the sewer as possible, and the minimum crossing angle shall be 45 degrees.
- For DIP water mains crossing other cathodically protected pipelines, submit calculations to determine whether cathodic protection is required.
- Water mains shall be at least 10 feet from sewer structures, at least 5 feet from storm sewer inlets, junction boxes, or similar structures, at least 15 feet from buildings, and sufficiently clear of retaining walls so maintenance does not compromise wall integrity.

2.4 Dead-End Mains

- Dead-end water mains shall not exceed 700 feet in length, measured to the center of the cul-de-sac where applicable.
- Dead-end mains that are intended for future extension shall be installed to the subdivision boundary with an in-line valve and a properly restrained temporary fire hydrant. The valve shall be the same size as the main.
- Where a subdivision abuts or contains a planned water main shown in the Master Plan and will benefit from that main, the contractor/developer shall extend the main to the plat boundary. Cost responsibility is limited to an 8-inch main unless a larger main is necessary to serve the development.
- Dead-end mains not intended for future extension shall be at least 6 inches in diameter between the last two fire hydrants.
- Dead-end mains serving a cul-de-sac shall extend around the cul-de-sac far enough that service lines do not need to be bored more than the width of the normal non-cul-de-sac street right-of-way.

2.5 Thrust Restraint, Utility Locating, and Trench Design

- Thrust restraint may consist of restrained joint pipe, thrust blocks, or straddle blocks.
- Thrust restraint design shall assume 250 psi design pressure, 1,500 psf allowable soil bearing capacity, and a safety factor of 1.0. Horizontal thrust block bearing areas shall range from 4.0 to 50.0 square feet; vertical thrust block sizes shall range from 4.0 to 216.0 cubic feet using 140 pcf concrete unit weight.
- For mains 16 inches and larger, straddle blocks shall be used in lieu of thrust blocks. Restrained joint pipe calculations shall comply with DIPRA requirements for DIP and Uni-Bell requirements for PVC pipe.
- Retainer glands, Duc-Lugs and all-thread, set screw collars, and field-welded collars are short-term restraint methods. Gripper gaskets should be limited to one side of fittings where field adjustment is necessary.

- Utility marker tape and tracer wire shall be installed above each water main.
- Provide a minimum of 42 inches of cover over the top of pipe and no more than 7 feet of cover unless otherwise approved. Bedding aggregate shall extend from 6 inches below the bottom of pipe to 12 inches above the top of pipe.
- Backfill under roadways, curb and gutter, and paved areas in right-of-way shall consist of flowable fill backfill extending from 2 feet behind curb to 2 feet behind curb and to 18 inches below finished grade, or to the base of pavement for existing roadways.
- No conduits, pipes, or other utilities shall be located in a water main trench.
- Provide straddle blocks as required to restrain piping and, at a minimum, at 36-foot spacing on 20% to less than 35% slopes, 24-foot spacing on 35% to less than 50% slopes, and 16-foot spacing on slopes of 50% or greater. Shorter spacing may be required under extreme conditions.
- Pipe encasement, where required or permitted, is intended to provide maximum support where standard embedment is insufficient.

2.6 Valves and Valve Boxes

- On transmission and major distribution mains, install three valves at every tee, four valves at every cross.
- On minor distribution mains, install two valves at every tee on opposite lines, three valves at every cross.
- Valves shall be placed at or near the ends of mains to allow future main extension without loss of service on the existing main.
- Where fire lines connect to Suburban public water mains, install one valve on the fire line at the tee. No valves are required on the main if an existing valve lies within 500 feet in either direction; otherwise place one valve on each side of the tee.
- One valve shall be installed on a single-branch fire hydrant unless otherwise required by Suburban to improve system isolation.
- Air release valves shall be provided on all 12-inch and larger mains, at a minimum at high points and on straight runs at intervals approved by Suburban. Combination air valves shall not discharge directly or indirectly to storm drains, storm sewers, sanitary sewers, or service laterals.
- Tapping sleeves and valves are to be minimized and allowed only case-by-case with design justification. Thrust blocks shall be installed behind all tapping sleeves and valves.
- Valve boxes shall be provided for buried valves. In paved areas, use adjustable screw-type ferrous metal valve boxes; in grassed areas, AWWA C900 PVC or equivalent may be used.

2.7 Backflow Prevention, Fire Lines, and Fire Hydrants

- Backflow prevention devices are required on all fire lines and commercial buildings. Building BFPD systems shall comply with the currently adopted plumbing code of the permitting authority.
- Where BFPDs are installed in a vault, the vault shall be outside right-of-way and easement lines, not in the low area, graded to drain away, as watertight as practical at penetrations, provided with cast steps, designed for AASHTO H-20 loading, and sized so the opening is directly over the BFPD and large enough for removal. The approved plans shall include a backflow-vault detail acceptable to Suburban for each vault installation.
- Where fire lines are installed, a restrained valve shall be installed at the point of connection to the public water main.
- If the BFPD is installed inside a building, the building shall be no more than 50 feet from the public water main; the line from the restrained valve to the BFPD is a private fire line; the building service line shall not

tap from the private fire line; private fire hydrants shall be installed after the BFPD, painted red, and maintained by the property owner; and no private fire line shall be less than 4 inches.

- For buildings more than 50 feet from the public water main, the BFPD shall be in a buried vault within 5 feet of the right-of-way or utility easement line on the private side.
- Post indicator valves shall be installed as required by the Fire Department; accessible valves on a fire suppression system shall be electronically supervised or secured and locked; and PIVs shall be secured with a suitable break-away padlock, except as otherwise required by the Fire Chief.
- In one-family and two-family residential subdivisions, provide at least one hydrant within 600 feet hose length of the nearest wall of any building, measured on a drivable surface, with not more than 500 feet street length between hydrants. Adjacent-street hydrants do not count toward this requirement.
- In commercial, industrial, and apartment areas, hydrants shall be located so that no more than 300 feet of approved route hose is required to reach any point at the base of an exterior wall to supply the required fire flow.
- No more than one hydrant may be located on a 6-inch public dead-end main. Hydrants shall be at least 20 feet from points of curvature of curb return, should be located at property lines where practicable, and on streets without curbs shall be within 1 foot of right-of-way or no more than 10 feet from edge of pavement. No hydrant shall be located in the bottom of a ditch.

2.8 Service Lines, Water Meters, Casing Pipe, and Easements

- Service lines from the water main to the water meter are public. Service lines from the water meter to the building are private. Service lines shall be at least 10 feet from sanitary sewer manholes and at least 5 feet from storm sewer structures.
- Service lines extending from a private water main to a water meter are private; meters connecting to private service lines are public.
- Three-inch service lines are not allowed. Services shall use corporation stops for 2-inch and smaller lines and cut-in tees with appropriate valving for larger sizes.
- No splice or fitting is allowed between the water main and the meter. Any splice between the meter and the customer shall comply with the adopted plumbing code.
- Each individual residential or business unit, except apartments, shall have separate meters and service lines. The public portion of the service line shall not run parallel to or continuously within the right-of-way.
- Public service lines installed under this standard shall be HDPE. No service line shall connect to a fire hydrant assembly without approval.
- Meters shall be located in right-of-way or easement within 1 foot of the governing line, whichever is farther. Two-inch and smaller meters shall be in a minimum 5-foot by 5-foot easement or in right-of-way. Three-inch and larger meters shall be in vaults with at least 10 feet of surrounding easement and, where necessary, a 15-foot-wide access easement.
- Meters shall be outside paved areas unless otherwise approved. Where paved-area installation is necessary, the engineer shall submit plans for a traffic-bearing meter well and lid. The top of the meter shall be 14 to 18 inches below the top of the lid.
- Casing pipe is required on all bores as directed by the District Engineer. Use stainless steel centered casing spacers with manufactured end seals and size the casing extent with consideration for future road widening.

- Easements shall be at least 10 feet wide when adjacent to right-of-way, 15 feet when detached from right-of-way, and 15 feet around the cul-de-sac bulb adjacent to right-of-way. For installations deeper than 7 feet, easement width shall be at least 2 feet for each foot of trench depth. Temporary construction easements shall be acquired as required.
- Legal descriptions shall include point of commencement, point of beginning, line bearings, line distances, ending point, and area, with survey drawings on letter-size paper sealed by a Kansas-registered land surveyor and formatted to meet Leavenworth County filing requirements. Recorded easements are required before approval of plans for mains extending beyond platted areas.

3. Commercial and Residential Service Connection Standards

3.1 Applicant Responsibilities

- The applicant shall pay for all furnished materials as specified and perform the labor necessary to excavate the tap hole and install the new service.
- The applicant shall call utility locates before excavation and excavate in accordance with OSHA Regulation 29 CFR Part 1926 Subpart P – Excavations.
- For taps and material coordination, the applicant shall provide required notice to Suburban, obtain material from Suburban's warehouse as directed, and have materials installed at proper elevation and unbackfilled for inspection before Suburban arrives. The minimum service connection size is 1 inch.
- After installation of the new service, the applicant shall notify Suburban for preliminary inspection with water pressure on, the pit set, and before any backfill unless otherwise directed. Tracer wire must be installed and inspected on HDPE service lines. Ductile iron pipe must be poly-wrapped and inspected before backfill. Suburban staff will determine whether a pressure test is required.
- Immediately after inspection and approval, the tap hole and trench shall be backfilled to 12 inches above the top of piping with 1/2-inch clean crushed rock, tamped to provide uniform bearing on the corporation stop and service connection. A locator ball provided by Suburban shall be placed no more than 12 inches below final grade perpendicular to the saddle/tap location.
- Upon completion of work, the applicant shall remove unused material, refuse, and dirt from the site and restore the site to original condition.
- Established yards disturbed by excavation shall be re-sodded or seeded. If restoration is not completed properly, Suburban may complete the restoration through a third party and bill the applicant. Outstanding restoration balances may be grounds to refuse additional service connections.
- For final inspection, the applicant shall notify Suburban after grading and sodding are complete; the meter cover shall be flush with finished grade; the meter shall be correctly set; only permanent leveling materials may be used; and deficiencies not corrected within 30 days may be corrected by Suburban at the applicant's expense.

3.2 General Service Connection Requirements

- The water main is installed by Suburban, and the corporation stop is furnished and installed by Suburban.
- All service lines shall be HDPE.
- All taps 1-1/2 inches and larger shall be at least 5 feet from any water main pipe joint or other tap. All 1-inch taps shall be at least 18 inches from any joint or other tap.

- The applicant shall furnish and install HDPE from the corporation stop to the property line with approximately 42 to 46 inches depth at the meter pit and minimum 42 inches cover elsewhere.
- Piping between the water main and the meter pit shall be one continuous line with no intermediate couplings unless approved by Suburban. Only compression-type couplings may be used underground.
- The service line between the water main and the meter pit shall be in line with the corporation stop and perpendicular to the main. Horizontal bends and offsets are not allowed. Provide minimum 3 feet separation from other utilities or storm sewer lines and minimum 10 feet separation from parallel sanitary sewers.
- The meter pit shall be in public right-of-way or easement within 1 foot of the applicant's property line and supported on crushed rock-fill (maximum 1/2 inch) or concrete blocks in line with the corporation stop. Meter pit locations shall be in grassy areas unless otherwise approved by Suburban.
- The meter setter or branch piece shall be centered in the meter pit so the shut-off valve is accessible and in line with the corporation stop at 90 degrees to the main.
- The water meter shall be installed 15 to 18 inches from the top of the meter register to the meter pit cover, and the cover shall be flush with final grade.
- The applicant shall furnish and install the private service line from the property line to the building in compliance with the building code of the authority having jurisdiction.

3.3 Final Inspection Checklist

- Slope pit and lid to grade where required.
- Correct pits that are too high or too low; if too low, use only Suburban-approved extension rings or sloped extension rings.
- Confirm the meter is upright, centered, and set 15 to 18 inches below the pit lid at grade.
- Locate and uncover buried meter pits and raise them to grade.
- Replace egg-shaped or damaged meter pits.
- Fill any sunken excavation around the pit or service connection.
- Clean out the meter pit so both setter couplings are visible; on 1-1/2 and 2-inch services, ensure the bypass valve is uncovered.
- Repair leaks and replace damaged or frozen meters as directed by Suburban. If a meter wire is cut, only Suburban may remove or replace the meter, and the applicant is responsible for repair or replacement cost.
- Replace incorrect lids with Suburban's current standard cover and ring.
- Do not install any other equipment inside the pit or make modifications inside the pit, including irrigation taps.
- For 1-1/2-inch and larger services with cut meter wires, the customer shall bring in the meter for register and wire assembly replacement and reinstall the meter afterward.
- Complete all needed repairs before requesting final inspection; Suburban final inspection and approval are required before Suburban assumes ownership and maintenance.

3.4 Taps 4 Inches and Larger (Domestic and Fire Line Connections)

- All 4-inch and larger taps shall be scheduled on a morning schedule only.
- Fire line taps will not be scheduled until written approval of hydrostatic testing, or a written exception, is received from the appropriate fire district.

- The applicant shall excavate the tap hole with at least 4 linear feet of water main exposed, 1 foot behind the main, 1 foot below the main, and 7 feet in front of the main, with trench slopes complying with OSHA excavation requirements.
- All taps to the water main shall be at least 2 feet from any pipe joint or any other tap.
- If the site is not ready when the Suburban tap crew arrives, or if the site does not meet Suburban standards, the tap will be canceled and must be rescheduled.
- If the contractor damages polywrap or tracer wire, all repairs shall be completed before Suburban makes the tap. Polywrap inspection is required before backfill.
- Provide at least 7 feet of uninterrupted Ductile Iron Pipe PC 350, C900 PVC minimum DR18, or HDPE C906 4710 minimum DR13.5 directly out of the service valve before any fittings, bends, or vault entry. HDPE shall be installed with an MJ adapter.
- All fire line taps require a backflow prevention device installed within 6 feet of the water main tap, with a low-flow meter present at the time of inspection. Suburban will replace the factory meter with a Suburban-furnished meter. The backflow vault lid shall include a 2-inch-diameter hole for the meter antenna, and the approved plans shall include a backflow-vault detail acceptable to Suburban.
- Ductile iron fire and service lines shall be polywrapped from and including the tapping valve to the backflow vault, or for a minimum of 20 feet if the BFPD is more than 20 feet from the main.
- Where the main is deeper than 60 inches, standard valve box materials must be exchanged for alternate Suburban-approved materials, including any required valve stem extension. The applicant shall furnish the 6-inch Class 200 PVC riser pipe cut to final grade.
- Service connection piping and fittings shall be inspected prior to backfill.
- The contractor shall call 913-724-1800 for preliminary inspection prior to backfilling.

HDPE Quick Reference

Size Standard	Size Range	Material Specification
CTS	1 to 2 inches	AWWA C901 4710 DR9 PC250
IPS	2 to 3 inches	AWWA C901 4710 DR11 PC200
IPS	4 inches and larger	AWWA C906 3408/4710 DR13.5 PC160

HDPE service lines shall be pigmented blue throughout, stiffeners must be used in the ends of the HDPE, and approved trace wire shall be reinforced blue No. 12 AWG trace wire acceptable to Suburban.

4. Water Main Extension Petition and Agreement with Refund Provision

The following standards incorporate the current form of Suburban Water's Water Main Extension Petition and Agreement with Refund Provision into this combined infrastructure standard so that offsite extension requirements, refund-area documentation, and cost recovery procedures can be handled consistently.

4.1 Relationship to the Capital Improvements Study

- The current Water Master Plan / capital improvements study is the planning basis for determining whether an offsite water main, storage, transmission, or source-related improvement should be required from a proposed development.
- Improvement letters, development cost allocations, and refund-agreement exhibits shall be consistent with the current master plan and the project-specific engineering study, while remaining subject to updated field conditions, final design, and Suburban's final engineering judgment.

- Where the master plan identifies a planned improvement in the vicinity of a proposed project, or where the project's location and demand trigger a modeled deficiency, Suburban may require the developer to participate in that offsite improvement through direct construction, reimbursement, proportional cost sharing, or a refund-area agreement, as applicable.

4.2 When a Refund Agreement Is Required

- Use a Water Main Extension Petition and Agreement with Refund Provision when a developer or petitioner requests extension of water mains to serve property and the proposed extension will also be available to serve additional tracts or future customers beyond the petitioner-owned property.
- The agreement shall create a defined refund area for the portion of the main extension that provides shared future benefit and shall document the terms under which Suburban may collect pro rata reimbursement from later participants.
- This agreement section is provided pursuant to Section XII, Paragraph F.2. of Suburban Water's tariffs approved by the Kansas Corporation Commission.

4.3 Required Agreement Components

- The agreement shall identify the petitioner, Suburban Water, and the project-specific water main extension to be constructed.
- The petitioner shall deposit an amount equal to the estimated cost of the water main extension by cashier's check or irrevocable letter of credit, subject to adjustment when actual cost is known.
- After construction, if actual cost is less than the deposit, the difference shall be refunded to the petitioner without interest; if actual cost exceeds the deposit, Suburban shall invoice the deficiency and the petitioner shall reimburse Suburban within 30 days.
- Suburban shall retain ownership and title to the water supply main at all times and may repair, replace, or extend the main without petitioner consent.
- The refund area shall be described in Exhibit B and depicted on Appendix 1 to Exhibit B. The boundaries of the refund area are permanent and not subject to change once established in the agreement.
- Appendix 2 to Exhibit B shall contain the list of current property owners in the refund area, their mailing addresses, and legal descriptions of property.
- Exhibit C shall state the refund area charge per customer and the methodology used to calculate that charge.
- All agreement exhibits and appendices shall be development-specific and shall be updated for the current project before execution.

4.4 Refund Charge and Reimbursement Administration

- Suburban will collect from owners within the refund area a pro rata share of the original cost of the water main extension as new water main extensions, domestic connections, fire protection connections, or enlargements of prior service connections are made.
- The refund area charge per customer shall be set forth in Exhibit C. For Suburban's current development-specific practice, the customer charge should be based on the applicable development's allocated extension cost divided by the number of potential customers/lots within that development unless Suburban approves a different project methodology.
- Any refund calculation shall also account for applicable fire-flow requirements and line losses as determined by Suburban.

- Refund charges collected from other participating parties shall be paid over to the petitioner within 90 days as partial reimbursement of the previously paid extension cost.
- Consistent with Suburban's current tariff-based refund-agreement form, Suburban will stop collecting prorated shares for reimbursement to the petitioner five years from the date of the agreement and shall have no further refund obligation after that date. No interest shall be credited on petitioner or participating-party payments unless required by the governing tariff or executed agreement.

4.5 Preparation Standards for Project-Specific Refund Agreements

- Where applicable, the agreement and any improvement letter should state that the required offsite improvement is based on the current Water Master Plan / capital improvements study together with the project-specific engineering review of location, demand, pressure, and fire-flow needs.
- Use the current development name, petitioner name, cost estimate, extension description, refund-area map, owner list, and customer-charge calculation. Do not carry forward names, exhibits, or numeric values from prior developments without project-specific revision.
- Tie Exhibit B descriptions, Appendix 1 maps, Appendix 2 owner lists, and Exhibit C customer charges to the current plat, legal description, and engineering layout.
- Where an offsite extension is being cost-shared among separate developments, each development-facing document should disclose only the payment obligation applicable to that development unless Suburban directs otherwise.
- Record easements and legal descriptions needed for mains extending beyond platted areas before engineering plan approval, consistent with the easement requirements in Section 2.8 of this standard.
- Coordinate final agreement form, tariff references, and execution blocks with Suburban’s current legal and administrative requirements before signature.

4.6 Minimum Exhibit Package

Document Component	Required Content
Exhibit A	Map of property to be served by the main extension.
Exhibit B	Description of the water main extension and refund area.
Appendix 1 to Exhibit B	Map of the refund area.
Appendix 2 to Exhibit B	Property owner list with mailing addresses and legal descriptions.
Exhibit C	Refund area charge per customer and calculation methodology.

Implementation Note. This document is intended as a consolidated internal standard. Project-specific plan sheets, technical specifications, permit applications, and executed extension/refund agreements must still be prepared for each development.

Appendix A. Petition for Engineering Study - Reference Form

This appendix reproduces the minimum content of Suburban Water's Petition for Engineering Study Water Main Extension and/or Service. Use this form as the required starting point for any new development or project that may require improvements to Suburban Water's system.

Form Component	Required Content
Form Title	SUBURBAN WATER, INC. - Petition for Engineering Study Water Main Extension and/or Service
Applicant	Name of owner/developer requesting service or system improvements.
Property Description	Identify the real property to be served. Attach warranty deed.
Requested Action	Petition Suburban for water service and engineering evaluation of infrastructure needs for the property.
Applicant Deposit	Deposit the engineering-study fee required to initiate preparation of the probable project cost.
Suburban Review	Suburban evaluates the most economical and advantageous means of serving the property and the district system. The application form states this review will occur within 60 days.
Applicant Acknowledgement	Applicant acknowledges that no promises or guarantees have been made concerning whether water service shall or will be furnished at a future date.
Attachments	Warranty deed and drawings showing the property to be served.
Execution	Date, applicant signature, and applicant phone/email.

Implementation Standard. For standards administration, Suburban shall require this application at the front end of any new development or improvement project that may affect Suburban facilities, trigger engineering review, or require a water main extension, cost estimate, improvement letter, or refund agreement.

Appendix B. Petition for Engineering Study - Form Copy

Embedded copy of the current Petition for Engineering Study Water Main Extension and/or Service form included as part of the complete package.

SUBURBAN WATER, INC.

PETITION FOR ENGINEERING STUDY
WATER MAIN EXTENSION AND/OR SERVICE

This PETITION, made and entered into this _____ day of _____, 20____, by and between _____, hereinafter called the APPLICANT, and SUBURBAN WATER,INC.,BASEHOR, KS hereinafter called the DISTRICT, WITNESSETH:

WHEREAS, the APPLICANT is the owner (developer) of real property described and identified as follows: *(Please attach warranty deed)*.

WHEREAS, the APPLICANT hereby petitions the DISTRICT for water service to the above mentioned property; and

WHEREAS, the APPLICANT and the DISTRICT are in need of a report detailing the infrastructure needs for the property. The APPLICANT is willing to provide the sum of $_____ for the preparation of a probable project cost to furnish water service; and as the DISTRICT shall decide, within 60 days, the most economical and advantageous means of which to serve the property and the DISTRICT'S system; and

THUS, in consideration of this Application and Petition of the APPLICANT and the provisions and conditions thereof herein contained, the parties agree as follows:

The APPLICANT hereby applies to and petitions the DISTRICT for the Probable Project Cost, that may be payable by the APPLICANT, for any infrastructure needs to provide water service to the property described above and shown on the attached drawings, provided by the APPLICANT.

The APPLICANT has simultaneously, with the execution and delivery of this Petition deposited with the DISTRICT the sum of of $$_____ cash, being the fee necessary to initiate preparation of the Probable Project Cost. The said amount so paid by the APPLICANT shall be retained by the DISTRICT without interest.

The APPLICANT hereby agrees to the terms and conditions of the above Application and Petition, with the clear understanding that no promises or guarantees have been made by the DISTRICT concerning whether or not water shall or will be furnished to them at a future date.

DATED THIS _____ day of _____, 20____

APPLICANT _____

APPLICANT _____

PHONE/EMAIL _____

Jan 2025