

**INSURE QUALITY...
INSIST ON THE PROFESSIONAL UNION PLUMBING
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PLUMBING INDUSTRY COUNCIL**

**PROTECTING THE HEALTH
OF YOUR COMMUNITY**

This Directory lists only those plumbing contracting firms who are members of the Plumbing Industry Council of St. Louis and employ trained, licensed journeymen plumbers. The craftsmen who perform their trade have proven proficiency and graduated from the Plumbers' & Pipefitters Local #562 Joint Apprenticeship Training School of St. Louis and have served as apprentices prior to obtaining journeymen status and becoming licensed.

The Plumbing Industry Council member firms abide by all permit and inspection requirements, assuring the consumer that the installation meets all code requirements and has been completed in accordance with code provisions. Only those members doing service, remodel or repair work, and requesting inclusion in this booklet have been listed.

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TABLE OF CONTENTS

| | |
|--|----|
| PLUMBING CODE | 3 |
| LICENSING | 3 |
| INSPECTIONS AND PERMITS..... | 4 |
| IT PAYS TO TAKE CARE OF YOUR PLUMBING..... | 4 |
| DRAINS | 5 |
| TOILETS | 6 |
| TUBS..... | 7 |
| FLOOR DRAINS..... | 7 |
| FITTINGS | 8 |
| FAUCETS..... | 9 |
| KITCHEN CARE..... | 12 |
| LAVATORIES | 13 |
| BATHTUBS..... | 13 |
| WATER CLOSETS..... | 14 |
| SHOWER EQUIPMENT/SCALDING PREVENTION | 17 |
| WATER HEATERS | 20 |
| LEAKY PIPES | 21 |
| FROZEN PIPES..... | 22 |
| NOISES IN THE PLUMBING SYSTEM..... | 22 |
| SWEATING PIPES | 24 |
| ODORS IN THE PLUMBING SYSTEM..... | 25 |
| DRAINING PLUMBING IN A VACANT HOUSE | 26 |
| WHERE AND HOW TO SHUT OFF WATER..... | 27 |
| MISSOURI'S BACKFLOW PREVENTION PROGRAM..... | 29 |
| TESTING OF BACKFLOW PREVENTION DEVICES..... | 30 |
| LEAKAGE FROM AN RP DEVICE..... | 30 |
| MISCELLANEOUS SUGGESTIONS..... | 31 |
| WHEN CALLING THE PLUMBER..... | 33 |
| FOR A LICENSED UNION PLUMBING CONTRACTOR | 34 |

This booklet contains helpful plumbing tips and a list of licensed union plumbing contractors who have indicated a desire to fulfill your plumbing repair, maintenance and/or replacement needs.

THE PLUMBING CODE

The Code outlines the best and most modern methods to be used in plumbing installations. Since the plumbing in any private or public building is a part of the community water and sewage disposal system, it is vital that such installations should not be left to the discretion of irresponsible individuals. The protection of the health and safety of the public is maintained by the establishment of sound code provisions.

A plumbing or sanitation code is not a plumber's code. It is rather a set of rules and regulations imposed by cities, counties and states on anyone who undertakes any work involving the installation of drinking water, sewer or toilet facilities in homes, offices, factories, schools and hospitals. Regardless of who might do the work, plumbing and sanitation codes require that it be done in a specific, safe manner because it was found that failure to do so caused widespread disease, which can be crippling and deadly to the community.

LICENSING

Plumbers must demonstrate their competence as installers of plumbing systems to an official executing board prior to being issued a license. A plumbing code which is technically perfect is valueless if its provisions are not observed and enforced. The issuance of a license by a community specifies that its holder is qualified both theoretically and practically and that their technical knowledge is sufficient to maintain the standards of the code.

Is licensing intended to prevent anyone but a plumber from doing sanitation work? NO...Licensing prohibits the irresponsible, incapable person from endangering the health of your family, neighbors and the community.

Any person who has sufficient knowledge to do it in a safe manner may do the work, so long as the rules and regulations of the Plumbing and Sanitation Code are observed. However, those wishing to do such work must demonstrate their ability by taking out a license and passing an examination.

The State requires that, like a doctor, nurse, dentist or pharmacist, anyone whose work affects the public health and safety shall have adequate knowledge and training. No one wants a “quack doctor” to treat his or her family or a “soda clerk” to fill his or her prescriptions. For precisely the same reasons, one does not want a “handyman” to do work in his or her home, office, or factory which can adversely affect the health of family, employees or neighbors.

Done improperly this work would probably need to be rectified at the time the property changed hands which means paying twice for the same work.

INSPECTION AND PERMITS

Through the issuance of permits and the requirements of public inspection, a community can assure itself of proper plumbing code enforcement. The permit allows the plumbing inspector to protect the consumer by assuring plumbing installations are done properly. The inspection of such plumbing work insures that the installation is being completed in accordance with code provisions.

IT PAYS TO TAKE CARE OF YOUR PLUMBING

The average household plumbing system represents an investment of about fifteen percent of the value of the house. No part of the house is more important. Nothing in the house is used more often. A smoothly functioning plumbing system is a protection to health and adds to the convenience of modern living.

This booklet was written with the objective of helping homeowners as well as renters keep their plumbing systems in good operating condition. The sale value of a house with sound plumbing is far greater than that of a house where plumbing is in poor repair.

There are many things that an owner or renter can do; there are many things that should be left to an expert—the licensed union plumbing contractor and his or her staff of journeymen plumbers. Minor repairs should be made promptly. Such annoyances such as a clogged drain, dripping faucet or a leaking flush valve in the toilet are more than a mere bother, they usually waste money. This booklet suggests remedies for these and many other household plumbing problems.

Major repairs, replacements, and new plumbing installations should be left to the supervision of a plumbing contractor. His or her working methods are based on years of experience and his or her guarantee is assurance that all materials and methods are of the highest quality.

This booklet will help prolong the useful life of your plumbing system. Your plumber will be happy to give you additional hints that apply specifically to your own home.

DRAINS

Plumbers get more calls to open clogged drains than for any other service. Many such calls could be prevented by greater care in the use of drains. The most-used drain is the one in the kitchen sink and that is the drain most often clogged.

Preventing this situation can be done by carefully watching what is emptied into the sink drain and by the regular use of a safe biodegradable waste digester. Your licensed union plumber can give you more information on these products.

Sink stoppages are usually caused by liquid fats, emulsified by warm dishwater and carried through the pipes. The water cools as it proceeds to the main sewer and leaves the fatty deposits along the way. A film of grease forms on the pipe wall, then another and another. Coffee grounds and bits of food add to this accumulation layer until the pipe becomes impassible.

Pour excess grease into a tin can and throw it out with the garbage, not down the sink drain. When using a food disposer, always let sufficient cold water run to carry the particles down and into the main line to prevent buildup in the smaller waste lines.

In the event of a stoppage, you should have a “plumber’s friend,” or plunger, a large rubber suction cup with a wooden handle. Cup it tightly over the drain and plunge it vigorously several times. If it is a double drain sink, make sure you seal the other drain, so water will not splash out into the other bowl or onto you. Drain piping can also be cleaned by removing the J-bend on the trap below the fixture. First place adhesive tape around the packing nut or wrap the wrench jaws with cloth to prevent scratching the metal surface. If plastic piping is in place, do not grip the nuts too tightly with the wrench, as they can crack easily.

Place a bucket directly under the pipe to catch any dripping from the open pipe. Pull out the clogging material with a piece of wire or small hand-turned cable. If you take the trap off, have some new gaskets ready to slip into the joints.

TOILETS

A clogged trap way in a water closet is a ticklish problem, so be careful with whatever method you use for cleaning the drain. Most water closets are made of vitreous china which might crack if exposed to extremely hot water.

A plunger will normally handle simple toilet clogs. Another method of cleaning a water closet trap or toilet is the use of an auger with an adjustable, crank-type handle. Known to plumbers as a “snake,” the spring-steel coil is easily worked past the trap and down the pipe. A three-foot auger is inexpensive and will quickly drill through most clogs. Use the auger carefully. Careless handling may crack the toilet. If the rubber-cupped plunger or the auger does not clear the toilet, call your plumber.

TUBS

When trying to clear a plugged bathtub drain, place a heavy cloth in the bottom of the bathtub so your shoe soles won't scratch the bath's enameled surface. Hold your hand or rag over the waste and overflow plate, cup the plunger over the drain and plunge it vigorously several times. If it doesn't open easily, the drain may require cabling to open it.

Heavy steel spring coils should not be used to clean traps under lavatories, sinks, or bathtubs. A more flexible type of wire or spring should be used – one which is easy to work through the bend of the trap.

FLOOR DRAINS

To clean out a floor drain, remove the strainer or grating which covers the drain box. The dirt and grease can then be dug out with a spoon or a stick. After this, a hooked wire or coil spring-steel auger will clean out the bend or trap.

Check to find out whether a removable clean-out plug has been provided to make this job easier.

When the clogging material has been removed from the trap, pour a pail or two of hot water into the drain to wash out any loose material. Check the strainer itself and clean it in hot water and soap in order to open all holes. The floor drain should be checked regularly, especially one that is not often used, since water in the trap may evaporate. This would allow sewer gases to enter the room. Pour a pail of water into the drain periodically in order to make sure of a proper water seal.

FITTINGS

Fittings (faucets and valves) are used more often than any other part of the plumbing system. They get plenty of use but are built to take it, under normal conditions.

The best modern fittings are all chrome plated brass and will last a lifetime under everyday use. They clean easily with soap and warm water.

CAUTION: The metal chromium is easily dissolved in hydrochloric acid and sulfuric acid. Muriatic acid has for years been considered a good tile cleaner, but only where there are nickel-plated plumbing fittings. Where chrome plating is present, clean bathroom tile with warm oxalic acid, never with muriatic or sulfuric acids. Even covering the chromium surfaces with cloths will not prevent the acid fumes from inflicting permanent damage.

Gaining in popularity are polished brass fittings and trim. These will hold up well, as long as certain precautions are observed. **NEVER** use any abrasive cleaner on polished brass. This can scratch the protective coating on the brass finish resulting in deterioration or pitting of the brass plating.

Also, avoid use of solvent-based cleaners because they can be deleterious to the polished brass finish.

New technologies have brought about the development of improved finishes that can withstand more wear, but check the manufacturer's warranty regarding it to determine whether or not you have the "new and improved" lifetime warranty finish.

FAUCETS

Today, most faucets can be categorized as being "washerless" (port-type faucets), or of the "compression" (washer) type.



WASHERLESS FAUCETS

Washerless faucets can be either single handle or the two-handle type. In washerless faucets, the control of the water flow is done by a replaceable cartridge or arrangement of seals that allow water flow when the holes or ports are lined up in the proper configuration. Giving the handle an extra hard twist to stop water flow will be ineffective. This type of faucet does not use compression strength to stop water flow.

A washerless faucet does not mean it will never leak, but rather because of the way it is designed, the parts will last much longer, as their design minimizes friction and wear.

When repairing this type of faucet or requesting service on one, it is vital that you know the brand name, or have a sample of the part you require, as there are hundreds of faucet cartridges and parts kits on the market today.

Your licensed union plumber will carry an extensive assortment of faucet parts in his or her service truck, but it is impossible to carry absolutely every part. So, it can be very helpful if he knows in advance, the brand of faucet.

COMPRESSION FAUCETS

In a compression type faucet, you will find the conventional setup – a faucet washer on the end of the stem. Replacing the washer usually will correct a dripping faucet.

However, when removing the stem, always check the seat inside the faucet body – the brass ring that the washer grinds against. The faucet seat can be worn or grooved, making the washer replacement ineffective within days. The washer and seat are the two parts of a compression type faucet that receives the greatest amount of wear. It is not difficult to replace a washer. First, shut off the water supply. Usually, the shut-off valve is under the sink in the kitchen, or in the bathroom, under the lavatory basin. If there is none, shut off the branch-line valve in the basement or the main valve where the water supply enters the house.

Pad a smooth jawed wrench with a cloth, then, using the padded wrench, unscrew the large packing nut and turn out the faucet stem. Then, with a screw driver that fits the screw slot closely, remove the screw from the bottom of the stem and pry out the worn washer. If the screw is tight or stubborn, tap its head lightly or apply penetrating oil (WD-40).

Next, clean out the washer seat or compartment. When this is done, insert the new washer of the correct size and composition for hot or cold water.

Some of the newer, soft neoprene washers are for both hot and cold water and have a long life. The washer should fit snugly without having to be forced into position. After inserting, replace the screw and tighten.

It is usually just as expensive to renew a seat as it is to buy a new faucet, unless it has been made with a renewable seat. Check with your plumber about a badly worn faucet.

With cloth over finger, clean the valve seat inside the faucet. The edge should be smooth and free from deep nicks. If you find it badly worn, you will probably need to replace the seat or have the entire faucet replaced by the plumber. Otherwise, it will leak again.

Next, replace the faucet stem and turn it in. Tighten the packing nut. Be careful not to tighten the nut more than necessary to stop seepage around the faucet stem.

Remembering that a faucet leaking 60 drops a minute (not usual) will waste 2,299 gallons of water every year. Homeowners should repair a leaky faucet at once. You pay twice, once for the water going through the meter, and then again on your sewer bill, which is based on water usage.



GENERAL CARE OF KITCHEN SINKS

Today, kitchen sink bowls come in many different materials. Although enameled cast iron remains an attractive and durable product, many people today are choosing bowls made of stainless steel, and other solid surface materials for their added durability and stain resistance.

Bowls are available in Corian®, Moenstone®, Swanstone®, Surrell® and others. The important thing to remember is to follow the manufacturer's instructions pertaining to the material of which your bowl is constructed. With some of the solid surface materials, scratches can be removed when lightly sanded because the color goes throughout the thickness of the material.

To prolong the life and appearance of enameled cast iron sinks, clean the bowl immediately after use. Use a non-abrasive cleaner. Constant use of abrasive cleaners can eventually wear the finish down, making it much more porous and susceptible to stains. This can also happen with enameled, cast iron tubs over a long period.

Don't allow fruit or vegetable juices or cleaning acids to stand on surface. An acid-resisting sink will safely resist lemon, orange, and other citrus fruit juices, tomato juice, mayonnaise, and other vinegar preparations if these are not permitted to remain more than a few hours. A regular enamel finish is not impervious to acids.

Teas and coffee grounds will also stain enameled surfaces, if allowed to remain very long. Photographic solutions are even more harmful to enamel, and the amateur photographer should not be allowed to use the sink, because a fixture once damaged in this way can never be corrected. When cleaning the sink, use hot water and soap. Water and soap are not as hard on the enameled finish as strong cleaning solutions like washing soda or a gritty abrasive. If a cleaner is used, it should be one that specifically states that it is non-abrasive.

LAVATORIES

The same precautions mentioned above for kitchen sink care, pertain to lavatory bowls. Clean them often with hot water and soap. If a cleaner or cleanser is necessary, use one that is non-abrasive. Today, it is easy to eliminate the use of glass bottles and jars from the bathroom. This prevents the possibility of chipping the lavatory bowl if dropped. If acids or medicine spill on the surface, wash the spills immediately.

BATHTUBS

Modern bathtubs and showers can be made from a myriad of materials ranging from the conventional enameled, cast iron and steel, to fiberglass, acrylic, and man-made materials such as cultured marble. Many one-piece tub or tub and shower combination units are made from gel coated fiberglass or acrylic plastic.

Never use abrasives on any of these materials. They can cause scratches to the surface. Usually they will clean with hot water and soap. If that is not sufficient, a cleaning product recommended by the manufacturer of the fixture, or your plumber, can be used to handle heavier cleaning tasks.

With fiberglass and acrylic units, special polishes with no abrasives are available to protect their finishes, by sealing the pores in the material, which makes subsequent cleaning easier. When decorating the bathroom or repairing something near the bathtub, place a heavy cloth over every inch of the bathtub surface so paint, falling tools, etc., will not mar or chip the enameled surface. Do not stand in the bathtub with shoes, as the nails and grit in the soles will scratch the enameled surface. Fiberglass and acrylic tubs should be cleaned with non-abrasive cleansers recommended by manufacturers.

WATER CLOSETS

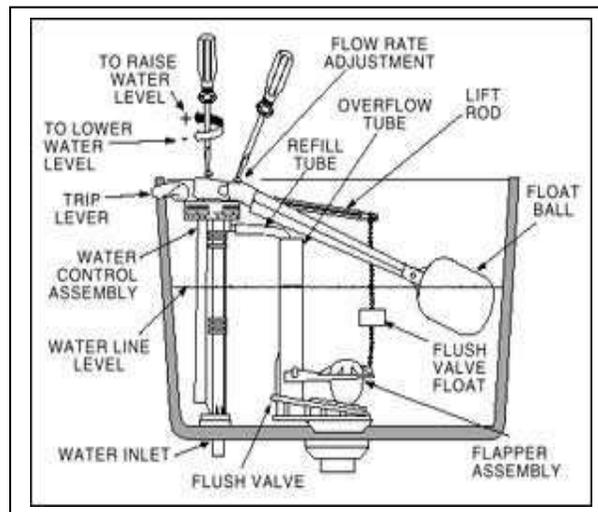
Closet tanks and bowls are made of vitreous china and are impervious to ordinary household acids. If something more than hot water and soap is needed to clean them, apply a non-abrasive powder or cleaner recommended by your licensed union plumber. Many good bowl cleaners are on the market today. Most plumbers however, have found that the “blue water” continuous bowl cleaners tend to accelerate the deterioration of the rubber and neoprene parts in the tank, due to the chemicals they contain.



Seat bumpers should be replaced if worn. Defective bumpers may cause breakage of the seat or hinges. Stains or moisture at the base of the closet bowl indicate that the joint or seal between the closet and its outlet have failed and should be reset immediately to prevent rotting of the floor, damage to the plaster of the ceiling below, and possible leakage of sewer gas into the home.

WATER CLOSET TANKS

If water continues to run into the closet bowl after the toilet is flushed, it is obvious that some part of the mechanism is out of order.



When the tank has refilled, if water continues to seep into the bowl or if there is a low humming noise, this indicates leakage from the tank. This leakage can occur from either the supply valve or the improper seating of the rubber tank ball or (flapper) on the discharge opening.

A small amount of food coloring added to the tank water will help you determine whether the tank ball in the bottom of the tank is leaking. Add it to the water after the tank is filled. Watch for the coloring to seep into the toilet bowl, and if it does, the ball or flapper over the discharge opening is not watertight. If the rubber tank ball does not fit tightly over the discharge opening, a defective ball, irregular seat or bent lift wires may be responsible. If the ball is worn out, misshapen or has lost its elasticity and fails to drop tightly into the hollowed seat, it should be replaced with a new one. Sometimes the ball is covered with a slimy coating that can easily be wiped off. To replace the ball, shut off the water supply (a stop is installed underneath the tank where the water may be conveniently shut off at this point) and empty the tank or place a stick under the ball float lever-arm to hold it up, thereby shutting off the intake cock and preventing the tank from refilling. Then unscrew the ball from the lower lift wire and attach a new ball of the same diameter as the old one.

NOTE: Some old tank balls swell from age and absorption of water.

If the collar or seat of the discharge opening is corroded or grit-covered, it should be scraped and sand-papered until it is smooth and forms a uniform bearing for the stopper. Straighten or replace bent lift wires so that the ball drops squarely into the hollowed seat.

A leaky, waterlogged float ball holds the supply valve open and does not completely shut off the water. If the rod which connects the tank float to the supply valve has become bent, it may prevent the float from reaching its full height, thus leaving the valve open and allowing leakage. This rod should be straightened and a little oil applied to the lever joints to insure smooth action.

Sometimes the tank will not fill sufficiently or will fill to overflowing. These difficulties may be corrected without disturbing the supply valve by bending the rod attached to the tank float upward or downward. If the rod is bent upward, the water will rise higher in the tank, and if downward, the water level will be lowered.

An overflow tube or pipe is provided in the closet tank to take care of the water in case it should rise above its accustomed level which should be at least $\frac{3}{4}$ of an inch below the top of the overflow. While there is not much danger of its becoming stopped up, it might be well to examine it occasionally to see that it is in working order.

If water rises to the top of the overflow pipe an adjustment or new fill-valve assembly is necessary. Consult your licensed union plumber if in doubt.

SHOWER EQUIPMENT

Some plumbing codes require the use of pressure balanced bath/shower valves to prevent scalding in new homes and remodeling. Your plumber can suggest the proper unit for your application.



There is more potential for the scalding of a person showering if the pressure fluctuates. Most people aren't aware that young children and older persons can be scalded much sooner than adults. Lowering the water temperature at the water heater will minimize the potential danger at the tub spout or shower head and is the best preventive action which can be taken to prevent scalding.

A small child doesn't have to soak in overly hot tap water to get scalded. Tragically, injury can happen literally in the blinking of an eye. 150-degree water can scald in just ½ second, 140-degree water scalds in just 1 second, but it takes four minutes for water at 120 degrees to scald.

CAUTION: Never let a child bathe unattended, because of the danger of scalding and injury. In addition, always turn cold water on first, followed by the hot water until the desired temperature is achieved. That way, no one is exposed to straight hot water.

If you have small children, please contact the Plumbing Industry Council for a complimentary "Dippy the Dinosaur." This small temperature gauge/bath time dinosaur will help you make sure that your child's bath water is always safe and warm.

You need not rush to buy another shower head if the one you have suddenly gives off an uneven spray. It's probably clogged with mineral deposits which build up in the showerhead and distort the shower stream.

If the showerhead holes are clogged, remove the face of the showerhead, clean the back surface and free holes with a coarse needle. The latest showerheads on the market are all self-cleaning and need no such attention. The only positive preventive measure is investing in a water softener.

When changing showerheads, wrap adhesive tape around the packing nut or pad the wrench jaws with a cloth so you won't mar the finish.

Shower curtains made of fabric such as heavy drill or canvas can be put into the washing machine or laundry tub. All other shower curtains should be washed by spreading flat on a table and sponging with sudsy water. Rinse the curtain with clear water, then wipe with a clean cloth. Turn the curtain over and repeat on the other side. Then replace on the shower rod and spread it out straight to dry. While you're at it, give the shower rod a good cleaning.

Clean prefabricated shower cabinets with soap and hot water, but never with a gritty abrasive. New shower cabinets usually have fiberglass or acrylic walls which will not withstand heavy scouring powders. If you stand in it to wash the inside walls of the cabinet the receptor should be protected by a heavy cloth or papers.

CHROME PLATING

Chrome plating is a hard and durable finish that requires little attention except for the occasional washing with soap and water.

Salt air or other corrosive atmospheres have a destructive effect on chrome. Where chromium-plated fittings are exposed to these agents, it is important to wash them frequently. After they are washed and dried, it is advisable to apply a protective coating such as ordinary furniture wax.

Green spots may appear on chromium plating. If this happens, prevent the rust from spreading by scouring the spots with the same kind of powder which manufacturers recommend for enameled, cast iron fixtures. When the spots have been removed, apply a film of wax. Your licensed union plumber will be glad to help you select a good cleanser.

WATER HEATERS

You can't get along without hot water. Therefore, take care of the source, the water heater. If you have a gas or electric water heater, keep the temperature dial setting at or below the suggested Factory Energy Savings Settings listed on the water heater. Above that mark means excessive wear on the water heater and the potential for scalding.



The burner of a gas-fired water heater is easily accessible and should be checked by your licensed union plumber periodically to keep it clear of dust or sediment. The flame at full fire should be a light to dark blue. If the flame is more orange or yellow, the gas pressure or air flow needs to be adjusted.

You can keep your water bills low by tempering all hot water as it is used. Letting the hot water faucet run excessively and continuously wastes not only water but fuel as well. With all water heaters, plan your hot water needs and you'll be delighted with the savings you get.

All domestic water heaters are required to be equipped with a relief valve as a safety feature to prevent damage from excessive pressure and temperature.

There is always danger that this valve may become frozen or corroded from long disuse. For this reason, it is advisable to trip the lever of this valve manually every two or three months to be sure it will operate freely if an emergency arises.

NOTE: The discharged water will be extremely hot and can cause immediate scalding! Be careful to contain the water in a pan or bucket or allow to run to a floor drain.

THERMAL EXPANSION

Water expands when it is heated, and if there is no place for the water to expand, it can cause dripping or discharge from the water heater relief valve. In most homes, the water can expand back into the main water supply line. However, when the main supply line to the home has either a backflow preventer (see pages 29-30) or the pressure reducing valve has no by-pass, or the by-pass is clogged, the water system becomes a sealed system, and the thermal expansion of the water will be discharged at the water heater relief valve.

Thermal expansion, if left to continue, can cause damage to the water heater, dripping faucets and failure of appliance water inlet valves, such as dishwashers and wash machines.

If thermal expansion exists, the pressure regulator needs to be serviced or replaced. In addition, an expansion tank can be installed near the water heater to compensate for the expansion of the water.

LEAKY PIPES

If you find a leak in your plumbing system, shut off the water supply and call your licensed union plumbing contractor immediately. Water supply systems are under high pressure.

Temporary repairs are only temporary and wrapping the pipe usually fails. Leaks must have immediate attention, since they can progress into a serious break in a hurry.

THAWING FROZEN PIPES

Frozen plumbing pipes, although inconvenient, do not constitute a calamity. The calamity may come if the pipes are thawed with a blow torch, and if the open flame or the torch is allowed to come too close to combustible material, such as insulation, wooden joists or flooring.

Another danger from the use of a torch arises when both ends of a pipe are clogged with ice and when the heat is applied in the center. The application of the heat of the torch at the center of the pipe is likely to cause the water to flash into steam. Potentially this could cause an explosion with disastrous results for the user of the torch. It is far better to adopt the slower and more conservative procedure of melting ice by the use of blow dryer or heat gun.

NOISES IN THE PLUMBING SYSTEM

In designing the plumbing system for a new house, a plumbing contractor will endeavor to make it as noiseless as possible. Manufacturers of plumbing fittings are making every effort to reduce the noise connected with the operation of their equipment, and contractors have been very successful in eliminating much of the noise formerly associated with plumbing systems.

Because so much of the noise is due to water traveling at a high velocity, it follows that whatever can be done to reduce the velocity of the water will correspondingly reduce the noise in the system. It is for this reason that it is so important not to skimp on the size of the water supply piping.

Larger pipe will not only provide a more adequate supply of water, but will reduce noise.

There are three general types of noises found in some of the older plumbing systems. These are water hammer, whistling and chattering.

Water hammer is the thump in the piping heard when faucets or valves are turned off abruptly. There is no excuse for water hammer. It can usually be eliminated by the installation of an air chamber or short length of pipe in the wall where each supply pipe enters a plumbing fixture.

In some cases, however, the ordinary type of air chamber will not prevent water hammer. In such cases, special devices known as shock arrestors should be installed on the main line near the meter or as close as possible to the cause of the noise.

Sometimes water hammer is due not to the plumbing in the house in which it is heard but to a condition outside of the house, either along the water main or in a neighboring house. In such cases, skillful detective work by an experienced licensed union master plumber is necessary to ferret out the source of the trouble and to plan corrective methods.

Water hammer should not be permitted to go on indefinitely. The noise is only an audible symptom of what is going on in the piping. The piping is being subjected to the wear and tear of a multitude of shock waves. The result will be leaks in piping, tanks or fixtures unless the condition is corrected.



Chattering in the piping may be caused by loose pipes, by pipes rubbing against a metal projection, by worn faucet washers or looseness of other inside parts. A plumber will be able to locate the offending part and repair it.

Whistling is caused by the speed of water flowing through piping, which is usually too small. A pressure-reducing valve will help as will a general straightening out of the plumbing system. Whistling is most common at bends and tees in the pipe.

SWEATING PIPES

“Sweating” pipes and plumbing fixtures in summer time or during seasonal changes are not a sign of faulty plumbing. Due to condensation of water vapor in the air, beads of moisture will form in warm weather on any pipes and fixtures containing cold water.

Normally, when not in use, the water and fixture will warm rapidly to room temperature and the condensation will stop. When a closet tank or other fixture continues to “sweat” for hours after it has been used, it is a sign that cold water is continuing to flow through it, possibly due to an improper adjustment of the tank valve or a leak. In this case, a plumber should be called for checking and servicing. Sweating pipes can be wrapped with an insulation material, which prevents the condensation and formation of moistures.

ODORS IN THE PLUMBING SYSTEM

The well-designed and correctly installed plumbing system is odorless. Odors are most likely to arise from leaks in the waste or vent piping or from traps, which have lost their water seal. In an incorrectly installed system, there are, of course, many opportunities for odors to result from defects in the system, particularly if it is not properly vented. Unusual odors should never be ignored. Such odors are often an indication that sewer gas is present. Sewer gas, while not always deadly, is noxious and capable of causing headaches and other minor illnesses. Sewer gas is foul smelling air and should be prevented from entering the house.

If it is suspected that sewer gas is entering through a leak in the piping, a plumber will subject the system to a test either by means of smoke, water or oil of peppermint. The test will indicate the location of the leak.

In order to explain how the sewer gas may enter a house through a plumbing fixture, it is necessary to clarify the function of traps and vents.

Every plumbing fixture is the terminus of the city water supply system and the beginning of the city sewerage system. The faucets control the water supply. The traps and vents control the sewer air. They do so by a very simple method. Sewer air will not penetrate a water barrier. Therefore, a device is employed which keeps several inches of water between the house air and the sewer air. This is the trap, which is plainly visible under such plumbing fixtures as sinks and lavatories. It is built into water closets. In the case of bathtubs and shower cabinets, it is usually concealed in the floor or basement.

A trap, however, would lose its water seal by siphonic action every time a fixture is used unless the air on the sewer side is balanced with the air on the house side. This is the function of the vents. Occasionally, due to changes in atmospheric conditions, a correctly vented trap will lose its seal.

Usually, when a trap loses its seal, it is due either to incorrect design of the vents, absence of vents or to evaporation of the water in the trap. Traps under fixtures that are used infrequently should be filled with water from time to time to insure an adequate trap seal.

DRAINING PLUMBING IN A VACANT HOUSE

If your house is to be vacated during cold weather and the heating system turned off, follow this procedure.

Shut off the water supply at the main shut-off valve at the street. Then beginning with those on the top floor, open all faucets and leave them open. When water stops running from these faucets, open the cap on the main shut off valve in the basement and drain the remaining water into a pail or tub. Remember, this cap must be closed after the faucets have run dry, or the house water supply will flow from this valve and flood the basement. Your plumber can do all this for a small fee.

Remove all water in the traps under sinks, water closets, bathtubs, and lavatories by opening the clean out plugs at the bottom of traps and draining them into a pail. If no plugs are provided, use a force pump or other method to siphon the water out. Sponge all the water out of the water closet bowl. Clean out all water in the flush tank.

Fill all traps with a non-freezing solution such as mineral oil, windshield washing fluid or RV type anti-freeze.

Drain all hot water tanks. Most water tanks are equipped with a vented tube at the top, which lets air in and allows the water to drain out the faucet at the bottom. Make sure all horizontal pipes drain properly. Air pressure will get rid of trapped water in these pipes, but occasionally the piping may have to be disconnected and drained. To be safe have your licensed union plumber check your entire plumbing system.

If your house is heated by hot water or steam, drain the heating pipes and boiler before leaving. Burners and pilots should be completely out and the main water supply turned off at the basement wall or street. Draw off the water for the boiler by opening the draw-off valve at the lowest point in the system. Open the water supply valve to the boiler so no water will be trapped above it. If you have a hot water system, begin with the highest radiators and open the air valve on each as fast as the water lowers. Every radiator valve must be opened on the one-inch pipe system to release condensation.

NOTE: When you return home, refill the systems, BEFORE lighting the hot water heater or the boilers.

WHERE AND HOW TO SHUT OFF WATER

Knowing where and how to shut off water to the entire house or any part of it can be very important in an emergency. That's why it is extremely important for all members of the family to know where the valves are and in which direction they should be turned to shut off the water.



One way to identify the valves is to have a tag on each valve indicating its function, that is, which fixtures or group of fixtures it controls. Valve identifying tags may be obtained from plumbing dealers. Many plumbers are glad to offer a valve tagging service to their customers or prospective customers.

Another method of identification is by means of a valve chart. Because this is somewhat more elaborate, it is usually employed only for houses with several bathrooms. A drawing is made of the basement piping with all the valves indicated. The valves are numbered on the chart, and then tags with corresponding numbers are placed on the valves. Another idea which aids in identification is to paint the pipes a distinctive color.

Obviously, the most important valve in the house is the main shut-off valve for the entire plumbing system. This valve, generally located on the house side of the water meter, usually has a handle like a wheel. If it has not been used in many years, it may require a wrench to turn it. Because the easy operation of this valve in case of an emergency is so important, it is advisable to place a few drops of oil around the valve handle once or twice year. This will prevent the sticking action of corrosion. The shut-off valve may be the ground-key type with a small hole bored in its side for draining the pipes after the water is shut off or it may be a compression stop with a cap nut covering the drain opening. In either case, close the opening before turning the water off. Unless this is done, water will spurt with force.

Where no means has been provided for shutting off a drain opening, drive a small wooden peg into it until the pressure is relieved by draining the piping that is exposed.

In addition to the main shut-off valve at the meter, the well plumbed house has individual shut-off valves on the branch lines leading to individual fixtures, groups of fixtures or equipment such as water heaters, water softeners, automatic washers etc. Many contractors, when installing plumbing fixtures, provide separate shut-off valves or stops for each individual fixture. These will be found on the supply lines below the fixture. These individual stops are a great convenience to regulate water flow in case of repairs as well as emergencies.

UNDERSTANDING MISSOURI'S BACKFLOW PREVENTION PROGRAM

Beginning January 1987, the Missouri Department of Natural Resources, through the enforcement of the Federal Clean Water Act, was given the task of protecting our potable water supplies. It clarified that water purveyors must protect the public water supply from contamination by an outside source, through implementation of a Backflow Prevention Program.

Conformance to these state requirements minimizes the possibility for the water using public to inadvertently contaminate or pollute the domestic water system of the public water supply.

This program requires the installation of a backflow prevention device in the plumbing system where the possibility of a "cross connection" may take place. A "cross connection" is an arrangement of piping or faucets which allows the potable water supply to come into contact with a contaminant.

An example of a potential cross connection is a lawn irrigation system, where fertilizers, chemicals or other contaminants can come into contact with the potable water supply through the irrigation heads.

There are several types of backflow prevention devices used today. The type of device is determined by the degree of hazard presented by the possible “cross connections.”

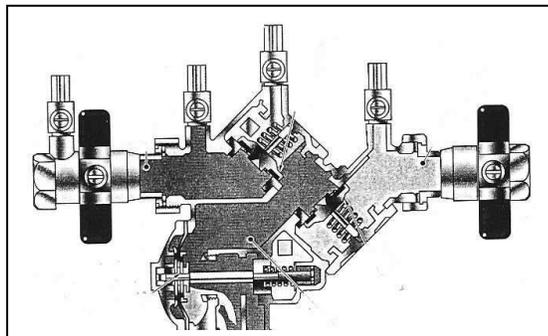
TESTING OF BACKFLOW PREVENTION DEVICES

In the case of a residential or commercial irrigation system, a reduced pressure principle backflow prevention device (RP device RPZ) is required between the potable water supply and the irrigation system. Due to the requirements of the backflow prevention program the devices are required to be tested annually by a Certified Backflow Prevention tester. Certified Backflow Prevention tester is registered with the Department of Natural Resources, and the jurisdictional area in which they are working. The annual test ensures that the device is working properly and is a requirement of the areas cross connection control program.

Most licensed plumbing contractors have one or more certified testers in their employ, and will be happy to provide this service for you.

LEAKAGE FROM AN RP DEVICE

Leakage from a backflow preventer is normally attributed to foreign matter lodging on the seating area of the internal check valve seats. The majority of the time this can be corrected by simply flushing the device, which will dislodge any loose particles.



However, the spillage for the dump port does provide a “warning signal” that the device is in need of maintenance. A call to a Plumbing Industry Council member will provide you with the needed service, performed by a Certified Backflow Prevention Tester.

MISCELLANEOUS SUGGESTIONS

Sump Pump If you have a sump pump, be sure that it is always in good operating condition so that it will be ready for function when it is needed. Oil it carefully in accordance with the manufacturer’s instructions. Make it operate occasionally by tripping the lever after filling the basin with water. Unless you do this every three or four months, there is danger that corrosion may cause a sticking of the shaft when operation is required.

Backwater Valve The function of this valve is to prevent the sewer from backing up into the house during heavy rains. Most backwater valves operate automatically. A valve with a butterfly action closes against the sewer on the house side. Sometimes, however, debris lodges against the seat of the valves so that it cannot close tightly. There are also manually operated valves that have a wheel handle to shut them down.

Sometimes, debris (mop strings etc.) can accumulate or collect near the valve seat, which prevents it from closing tightly. With automatic backwater valves, removing the lid, cleaning the seat, and greasing the hinge pin on the valve gate annually will guarantee that the valve will operate as expected when it is called upon to prevent the water from coming into your basement.

With the manual type of valve it is best to operate this valve manually every six months in order that (1) all members of the family may be familiar with the location of the valve, its function, and where the wheel for manual operation is stored; and (2) in order that the manual operation may keep the valve free from corrosion and lessen the chance for debris interfering with the valves closing.

FLAMMABLE VAPORS

Vapors from flammable liquids can explode and catch fire, causing death or severe burns. **It is vitally important that you NEVER use flammable liquids such as gasoline, adhesive solvents, lighter fluid, mineral spirits, paint thinner and kerosene, around water heaters, furnaces, or any appliance with the potential for flame or sparks.**



Keep flammable products far away from the water heater or furnace, stored in an approved container, tightly closed and out of children's reach.

Flammable products improperly stored or used near an open flame give off invisible vapors that can travel the length of the house and be ignited by any of a dozen or more household sources of flame or spark. A few precautionary measures can prevent a tragedy from taking place.

WHEN CALLING THE PLUMBER...

You can help your licensed union plumber by telling him to the best of your knowledge, exactly what's wrong when you talk to him on the telephone.

If the water closet is leaking, tell him it's the water closet. If it's the lavatory, don't merely say "there's a leak in the bathroom", and expect him to tell you what to do until he gets there.

There are a thousand and one tools and parts in his plumbing store, and he can't be expected to carry them all. When you ask for his help give him as much information as you can. When he arrives, tell him everything that has been done to the defective part of the plumbing. It will speed his work and lower your plumbing bill.



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The following list of contractors have indicated a desire to fulfill your plumbing repair, maintenance and/ or replacement needs....All are licensed in St. Louis City/County , other counties listed below

INDEX OF CONTRACTORS

| CONTRACTOR NAME | JEFFERSON COUNTY | ST. CHARLES CITY/COUNTY | ILLINOIS | PAGE # |
|-------------------------------------|-------------------------|--------------------------------|-----------------|---------------|
| 3-D PLUMBING, LLC | | | | 39 |
| AJ PLUMBING | X | X | | 39 |
| ALBERN COMPANY | | X | X | 39 |
| BARRETT PLUMBING COMPANY, INC. | X | X | | 39 |
| BASTIAN PLUMBING COMPANY, INC. | | X | | 40 |
| BECKMANN PLUMBING SERVICES, INC. | X | X | | 40 |
| BEETZ, JOSEPH H. PLUMBING CO., INC. | X | X | | 40 |
| BEILENSON PLUMBING COMPANY, INC. | X | X | | 41 |
| BELLM, ED PLUMBING CO. | X | X | | 41 |
| BEWEN PLUMBING, LLC | | | | 41 |
| BIEG PLUMBING COMPANY, INC. | X | X | X | 41 |
| BOLAND PLUMBING COMPANY, INC. | | X | | 42 |
| BRUOHN, INC. | X | X | | 42 |
| CATANZARO PLUMBING CO. | | | | 42 |
| CERTIFIED BACKFLOW PREVENTION LLC | | | | 42 |
| D.T. CHAMBLISS PLUMBING SERVICES | | | | 42 |

| CONTRACTOR NAME | JEFFERSON COUNTY | ST. CHARLES CITY/COUNTY | ILLINOIS | PAGE # |
|--|-----------------------------|------------------------------------|-----------------|---------------|
| COCOS, WM. G. CO., INC. | X | X | X | 43 |
| CONRATH SERVICES, INC. | | | | 43 |
| CORRIGAN COMPANY | X | X | | 43 |
| COX, ROY PLUMBING CO. | | X | | 44 |
| C.P.C. (CRESTWOOD PLUMBING CO., INC.) | | X | | 44 |
| CROSSROADS PLUMBING, INC. | | | | 44 |
| DELUCA PLUMBING LLC | X | X | | 44 |
| DISTINCTIVE PLUMBING, LLC | | | | 45 |
| DOST PLUMBING, LLC | | X | | 45 |
| EAGLE PLUMBING, INC | X | X | | 45 |
| EARLEY PLUMBING, INC. | X | X | | 45 |
| EISELE PLUMBING COMPANY, INC. | X | | | 46 |
| E & M PLUMBING COMPANY | X | X | | 46 |
| ELITE PLUMBING SERVICES, LLC | | | | 46 |
| FEIT PLUMBING CO., INC. | X | X | | 46 |
| FINCH PLUMBING CO., INC. | X | X | | 47 |
| FRANKLIN MECHANICAL, INC. | | X | X | 47 |
| FREY PLUMBING COMPANY, LLC | X | | | 47 |
| FRUEH SERVICES | X | X | | 47 |

| CONTRACTOR NAME | JEFFERSON COUNTY | ST. CHARLES CITY/COUNTY | ILLINOIS | PAGE # |
|---|-----------------------------|------------------------------------|-----------------|---------------|
| GARDNER, E.F. PLUMBING COMPANY | X | X | | 48 |
| GATEWAY MECHANICAL | | | | 48 |
| GLOBAL PLUMBING SYSTEMS, INC. | | | | 48 |
| GRAHAM, B.O. PLUMBING CO. INC. | X | X | | 48 |
| GRASSE, L & ASSOCIATES, INC. | X | X | | 49 |
| R.A. GUINNER PLUMBING COMPANY | X | X | | 49 |
| GWS CONTRACTORS, INC | | X | | 49 |
| H & A PLUMBING | X | X | | 49 |
| HEGGEMANN, INC. | | | | 50 |
| HIGGINBOTHAM PLUMBING & SEWER, INC. | X | | | 50 |
| HOULIHAN & SONS, INC. | X | X | | 50 |
| J & K SERVICES INC. | | X | | 51 |
| J-MAR PLUMBING INC. | X | X | | 51 |
| KARDELL PLUMBING, INC. | | X | | 51 |
| KENT PLUMBING INC. | X | X | X | 51 |
| KOKESH, JJ AND SON | X | | | 52 |
| KYHL COMPANY LLC | X | X | | 52 |
| LAUGHLIN, O.J. PLUMBING CO. INC. | | | | 52 |
| LEGACY PLUMBING, INC. | X | X | | 53 |
| LEMAY PLUMBING, INC. | | | | 53 |
| LINEK PLUMBING COMPANY, INC. | X | X | | 53 |

| CONTRACTOR NAME | JEFFERSON COUNTY | ST. CHARLES CITY/COUNTY | ILLINOIS | PAGE # |
|--|-----------------------------|------------------------------------|-----------------|---------------|
| L & S PLUMBING COMPANY, INC | X | X | | 53 |
| MICHAEL MALINEE, INC | | X | | 54 |
| MARSHALL CONTRACTING, LLC | | | | 54 |
| MATCO PLUMBING, INC. | | | | 54 |
| MAYO PLUMBING CO., INC. | X | | | 54 |
| MCWILLIAMS SERVICES, INC. | | | | 55 |
| MERLO PLUMBING CO., INC. | X | X | | 55 |
| MEYER, CURT PLUMBING INC. | X | X | | 55 |
| MILLER, PHIL L. PLUMBING & HEATING CO. | | | | 55 |
| MISSOURI PLUMBING SERVICES LLC | X | | | 56 |
| MITCHELL, FRANK C. COMPANY | X | X | | 56 |
| MONCEY PLUMBING CO. | X | X | | 56 |
| MURPHY COMPANY | X | X | X | 57 |
| NOLAN PLUMBING CONTRACTORS, INC | X | X | | 57 |
| OMEGA PLUMBING CO., INC. | X | X | | 57 |
| PARKWAY CONSTRUCTION SERVICES | X | X | | 58 |
| PLUMBING ENGINEERS INC. | | X | | 58 |

| CONTRACTOR NAME | JEFFERSON COUNTY | ST. CHARLES COUNTY | ILLINOIS | PAGE # |
|--|-----------------------------|-----------------------------------|-----------------|---------------|
| PLUMBING PLANNING CORP. | X | X | | 58 |
| PULSIFER PLUMBING, INC. | | | | 58 |
| RAEKER, BOB PLUMBING COMPANY | | X | | 59 |
| RAIDER MECHANICAL, INC. | | | | 59 |
| RED'S PLUMBING, INC. | X | | | 59 |
| ROCK HILL MECHANICAL CORPORATION | X | X | | 59 |
| SAUDER PLUMBING CO. | X | X | | 60 |
| B.E. SCAIFE PLUMBING COMPANY | | | | 60 |
| SCALES PLUMBING CO., LLC | | | | 60 |
| SPASNICK PLUMBING, INC | X | | | 60 |
| STAN-KEY PLUMBING SERVICE, INC. | | | | 61 |
| SUTTER PLUMBING CO., INC. | | X | | 61 |
| TORRISI PLUMBING SERVICES | X | X | | 61 |
| TRIO PLUMBING | X | X | | 62 |
| TROJAHN PLUMBING CO. | X | X | | 62 |
| WACHTER, R.J. PLUMBING CO., INC. | | X | | 62 |

3-D PLUMBING, LLC

P.O. Box 1693
Manchester, MO 63011
(636) 386-8755 Fax (636) 386-8755

- Residential service/repair, new residential construction, remodeling, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning.

AJ PLUMBING COMPANY

290 Indacom Drive
St. Peters, MO 63376
(636) 441-3019 Fax (636) 441-1347
Email/Website: ajplumbing@birch.net

- New residential construction, remodeling, design/build construction, new commercial construction.

ALBERN COMPANY

7379 Pagedale Industrial Court
St. Louis, MO 63133
(314) 725-1110 Fax (314) 725-1108
Email/Website: kpigeneral@attglobal.net

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, HVAC, *licensed in Illinois*.

BARRETT PLUMBING COMPANY, INC.

4317 Del Ridge Drive
High Ridge, MO 63049
(636) 677-9291 Fax (636) 677-9061
Email/Website: bpci@fiomail.com

- Residential repair/service, remodeling, design/build construction, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning.

BASTIAN PLUMBING COMPANY, INC.

P.O. Box 31428

Des Peres, MO 63131-0428

(314) 821-7733 Fax (314) 822-9282

Email/Website: www.bastianplumbing.com

- Residential repair/service, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer cleaning, 24-hour/emergency service.

BECKMANN PLUMBING SERVICES, INC.

500 Little Hills Industrial Blvd.

St. Charles, MO 63301

(314) 925-0800 Fax (636) 925-0811

Email/Website: craigbeckmann@charter.net

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, irrigation systems, septic tanks/onsite wastewater, service/repair of pre-manufactured homes.

BEETZ, JOSEPH H. PLUMBING CO., INC.

2659 Gravois

St. Louis, MO 63118

(314) 771-0868 Fax (314) 771-2778

- Residential service/repair, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning.

BEILENSON PLUMBING COMPANY, INC.

1595 Fairview Avenue
St. Louis, MO 63132
(314) 423-3100 Fax (314) 423-1033

- New residential construction, new commercial construction.

BELLM, ED PLUMBING CO.

5830 Helen Avenue
St. Louis, MO 63136
(314) 383-1436 Fax (314) 383-4582
Email/Website: www.bellmplumbing.com

- Residential service/repair, new residential construction, remodeling, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning, irrigation systems, water heater service agents (A.O. Smith, State, Ruud/Rheem, Lochinvar).

BEWEN PLUMBING, LLC

17466 Manchester Road
Wildwood, MO 63038
(636) 458-9485 Fax (636) 458-9485
Email/Website: bewenplumbing@att.net

BIEG PLUMBING COMPANY, INC.

2015 Lemay Ferry Road
St. Louis, MO 63125
(314) 487-4564 Fax (314) 487-4427
Email/Website: bob@biegplumbing.com

- Residential repair/service, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning, irrigation systems, 24-hour/emergency service, service/repair of premanufactured/mobile homes, water heater service, *licensed in Illinois*.

BOLAND PLUMBING CO., INC.

833 Highway KK
Troy, MO 63379-9614
(636) 528-5422 Fax (636) 528-2306

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation and testing, new commercial construction, commercial service/repair.

BRUOHN, INC.

444 Madrina Court
Ballwin, MO 63021
(636) 227-4858 Fax (636) 230-8627
Email/Website: www.bruohn.com or
bruce@bruohn.com

- Design/build construction, backflow device installation & testing, new commercial construction, commercial service/repair, site work sewer & water main.

CATANZARO PLUMBING COMPANY

11079 Gravois Road, #301
St. Louis, MO 63126
(314) 667-5652 Fax (314) 575-7153
Email/Website: catanzaroplumbingco@usa.com

CERTIFIED BACKFLOW PREVENTION, LLC

8169 Becker Road
Bloomsdale, MO 63627
(573) 701-7091 Fax (573) 483-3330
Email/Website: cwinslow@peoplepc.com

D.T. CHAMBLISS PLUMBING SERVICES

3643 Gwenmill Drive
St. Louis, MO 63129
(314) 487-3752 Fax (314) 487-9286
Email/Website: dtchamblissplbg@yahoo.com

COCOS, WM. G. CO., INC.

738 Lemay Ferry Road

St. Louis, MO 63125

(314) 631-2688 Fax (314) 631-2791

Email/Website: wjcocos@cocosplumbing.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, septic tanks/onsite wastewater, 24-hour/emergency service, *licensed in Illinois*.

CONRATH SERVICES, INC.

6512 Colletta Drive

St. Louis, MO 63139

(314) 482-9261 Fax (314) 644-6662

- Residential service/repair, new residential construction, remodeling, commercial service/repair, sewer cleaning.

CORRIGAN COMPANY

3545 Gratiot

St. Louis, MO 63103

(314) 771-6200 Fax (314) 771-8537

Email/Website: www.corriganco.com or

chris@corriganco.com

- Design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, HVAC, 24-hour emergency service.

COX, ROY PLUMBING CO.

119 South Main Street
St. Charles, MO 63301
(636) 946-6448 Fax (636) 946-0397
Email: jodycox@sbcglobal.net

- Residential service/repair, new residential construction, remodeling, sewer repair/replacement, backflow device installation & testing, industrial piping, new commercial construction, commercial service/repair, sewer installation sanitary and storm.

C.P.C. INC.

(CRESTWOOD PLUMBING CO.)

9131 Watson Industrial Park, Room 208
Crestwood, MO 63126
(314) 968-2840 Fax (314) 968-4590

- New residential construction (*custom homes/subdivisions only*)

CROSSROADS PLUMBING, INC.

P.O. Box 45
Winfield, MO 63389
(636) 299-2290

DELUCA PLUMBING LLC

8465 Delpport Drive
St. Louis, MO 63114
(314) 427-5551 Fax (314) 427-1137
Email/Website: delucaplumbing@swbell.net

- Residential service/repair, design/build construction, backflow device installation and testing, new commercial construction, commercial service/repair, site work sewer and water main, 24-hour/emergency service.

DISTINCTIVE PLUMBING, LLC

P.O. Box 3426

Maplewood, MO 63143

(314) 565-0346 Fax (314) 752-3885

- Residential service/repair, remodeling, sewer repair/replacement, backflow device installation and testing, sewer cleaning, water service repair/replacement.

DOST PLUMBING, LLC

5175 Highway Y

Valles Mines, MO 63087

(573) 330-7665 Fax (573) 358-5657

Email/Website: steve@dostplumbing.com

- New residential construction, design/build construction, new commercial construction.

EAGLE PLUMBING, INC.

8350 B Olive Boulevard

St. Louis, MO 63132

(314) 692-2021 Fax (314) 692-2680

Email/Website: www.eagleplbinc.com

- Design/build construction.

EARLEY PLUMBING, INC.

1926 Matterhorn Drive

Wildwood, MO 63011

(636) 405-2979 Fax (636) 405-2924

- Remodeling, design/build construction, backflow device installation and testing, new commercial construction, commercial service/repair.

EISELE PLUMBING COMPANY, INC.

5720 Wells Road

St. Louis, MO 63128

(314) 843-6300 Fax (314) 843-5925

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, new commercial construction, commercial service/repair.

E & M PLUMBING COMPANY, INC.

101 Dreyer

Eureka, MO 63025

(636) 938-1311 Fax (636) 938-1477

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, service/repair of pre-manufactured/mobile homes.

ELITE PLUMBING SERVICES, LLC

207 Centennial Drive

O'Fallon, MO 63368

(314) 220-1918 Fax (636) 300-4034

Email/Website: dbplumber@aol.com

FEIT PLUMBING CO., INC.

50 Weldon Parkway

St. Louis, MO 63043

(314) 567-1200 Fax (314) 567-3372

- Design/Build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, 24-hour emergency/service, *licensed in Illinois.*

FINCH PLUMBING CO. INC.

727 Spirit of St. Louis Boulevard
Chesterfield, MO 63005

(636) 532-4666 Fax (636) 532-5917

Email/Website: finchmike@earthlink.net

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, new commercial construction, site work sewer & water main, sewer installation sanitary and storm.

FRANKLIN MECHANICAL, INC.

13545 Barrett Parkway Drive
Suite 200

St. Louis, MO 63021

(314) 822-5242 Fax (314) 822-0035

Email/Website: rablanchard@zakcompanies.com

- Design/Build construction, industrial piping, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm.

FREY PLUMBING COMPANY, LLC

336 Leffingwell #100

St. Louis, MO 63122

(314) 822-7500 Fax (314) 822-0700

- Residential service/repair, remodeling, backflow device installation and testing, industrial piping, sewer tracing camera, commercial service/repair, sewer cleaning.

FRUEH SERVICES

9 Progress Parkway

Union, MO 63084

(636) 583-3780 Fax (636) 583-2338

Email/Website: www.fruehservices.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, new commercial construction, commercial service/repair, sewer installation sanitary and storm, HVAC, 24-hour/emergency service.

GARDNER, E.F. PLUMBING COMPANY

1264 Gravois Avenue
St. Louis, MO 63104
(314) 535-4564

- Residential service/repair, remodeling, backflow device installation and testing, industrial piping, commercial service/repair, HVAC, service steam and hot water boilers.

GATEWAY MECHANICAL

1053 Cassens Industrial Court
Fenton, MO 63026
(636) 680-2103 Fax (636) 680-0101

Email/Website: jjml@gatewaymechanical.com

- Remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, HVAC, irrigation systems, 24-hour emergency/service.

GLOBAL PLUMBING SYSTEMS, INC.

1533 Hilltop Lane
St. Louis, MO 63138
(314) 363-3041 Fax (314) 741-7002
Email/Website: global.plbg@att.net

GRAHAM, B.O. PLUMBING CO., INC.

4075 Highway D
Defiance, MO 63341
(636) 398-4450 Fax (636) 398-4452

- Residential service/repair, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning.

GRASSE, L. & ASSOCIATES, INC.

1940 South Kingshighway

St. Louis, MO 63110-3124

(314) 771-3244 Fax (314) 771-3254

- Design/build construction, backflow device installation & testing, industrial piping, new commercial construction, commercial service/repair, site work sewer & water main, fire protection systems.

R.A. GUINNER PLUMBING COMPANY

7244 Gravois Avenue

St. Louis, MO 63116

(314) 752-9850 Fax (314) 752-9852

- Residential service/repair, remodeling, sewer repair/replacement, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning.

GWS CONTRACTORS, INC.

100 Industrial Drive

Bonne Terre, MO 63628

(573) 358-3040 Fax (573) 358-3167

Email/Website: kschmidt@gwsmech.com

- Design/build construction, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, site work sewer & water main, sewer installation sanitary and storm, HVAC, septic tanks/onsite wastewater.

H & A PLUMBING

10625 Trenton Avenue

St. Louis, MO 63132

(314) 426-7150 Fax (314) 426-1188

- New residential construction.

HEGEMANN, INC.

P.O. Box 768
508 West Booneslick
Warrenton, MO 63383
(636) 456-8524 Fax (636) 456-1172
Email/Website: www.heggemanninc.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, septic tanks/onsite wastewater.

HIGGINBOTHAM PLUMBING, INC.

1081 Old Gravois Road
Fenton, MO 63026
(636) 343-9460 Fax (636) 343-3708
Email/Website: higgplumbing1@aol.com

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm.

HOULIHAN & SONS PLUMBING, INC.

9137 North State Highway 94
West Alton, MO 63386
(636) 899-1741 Fax (636) 899-1741

- New residential construction, design/build construction, new commercial construction.

J & K SERVICES, INC.

P.O. Box 2366

Florissant, MO 63032

(314) 355-7171 Fax (314) 355-9133

- Residential service/repair, remodeling, backflow device installation & testing, commercial service/repair, sewer cleaning, HVAC, appliance repair.

J-MAR PLUMBING, INC.

P.O. Box 510628

St. Louis, MO 63151-0628

(314) 293-1255 Fax (314) 293-1277

Email/Website: j-mar55@charter.net

- Residential service/repair, new residential construction, remodeling, backflow device installation & testing.

KARDELL PLUMBING, INC.

5624 South Compton

St. Louis, MO 63111

(314) 352-2202 Fax (314) 352-2638

Email/Website:

kardellplumbing@charterinternet.com

- Residential service/repair, remodeling, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning, 24-hour/emergency service.

KENT PLUMBING INC.

2549 South Big Bend Boulevard

St. Louis, MO 63143

(314) 781-9040 Fax (314) 781-9042

Email/Website: jjk@kentplumbing-inc.com

- Residential service/repair, remodeling, design/build construction, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer cleaning, 24-hour/emergency service, *licensed in Illinois.*

KOKESH, JJ AND SON, INC.

14738 Manchester Road (Lower Level)

Ballwin, MO 63011

(636) 391-1233 Fax (636) 391-1444

Email/Website: Coming Soon

- Residential service/repair, new residential construction, remodeling, sewer repair/replacement, backflow device installation & testing, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, 24-hour/emergency service.

KYHL COMPANY LLC

13160 Taussing Avenue

Bridgeton, MO 63044

(314) 291-4300 Fax (314) 291-5629

Email/Website: George@kyhlco.com

- Design/build construction, backflow device installation & testing, new commercial construction, site work sewer & water main, sewer installation sanitary and storm.

LAUGHLIN, O.J. PLUMBING CO. INC.

306 St. Louis Avenue

Valley Park, MO 63088

(636) 225-0992 Fax (636) 225-0939

Email/Website: www.ojlaughlinplumbing.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, *licensed in Illinois.*

LEGACY PLUMBING, INC.

29 Lone Star Court
O'Fallon, MO 63366
(636) 978-0120 Fax (636) 978-0219
Email/Website: legacyplumbing@centurytel.net

- New residential construction, remodeling, design/build construction, new commercial construction, site work sewer & water main, sewer installation sanitary and storm.

LEMAY PLUMBING, INC.

945 Lemay Ferry Road
St. Louis, MO 63125
(314) 544-1066 Fax (314) 544-1043
Email/Website: www.lemayplumbing.com

- Residential service/repair, new residential construction, design/build construction, backflow device installation and testing, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning, 24-hour emergency service.

LINEK PLUMBING COMPANY, INC.

24 Kirkham Industrial Court
P.O. Box 190408
Webster Groves, MO 63119
(314) 962-0956 Fax (314) 962-3850

- Residential service/repair, new residential construction (custom), design/build construction, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer cleaning.

L & S PLUMBING COMPANY, INC.

P.O. Box 1566

Maryland Heights, MO 63043

(314) 739-3600 Fax: (314) 739-2567

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, new commercial construction, sewer installation sanitary and storm, septic tanks/onsite wastewater.

MICHAEL MALINEE, INC.

131 Hastings Way

St. Charles, MO 63301

(429) 429-0274

Email/Website: malineeinc@yahoo.com

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, new commercial construction, commercial service/repair.

MARSHALL CONTRACTING, LLC

8301 Vulcan Street

St. Louis, MO 63111

(314) 638-1166 Fax (314) 638-6611

MATCO PLUMBING, INC.

374 Fee Fee Road

Maryland Heights, MO 63043

(314) 239-7875 Fax (314) 395-1822

Email/Website: mattvolk@matcoplumbinginc.com

- Design/build construction, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer cleaning..

MAYO PLUMBING CO. INC.

4425 South Fork Road
High Ridge, MO 63049
(636) 677-0608 Fax (636) 677-0672

- Residential service/repair, new residential construction, remodeling, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning.

MCWILLIAMS SERVICE, INC.

2901 Ashby Road
St. Louis, MO 63114
(314) 423-8369 Fax (314) 423-8399
Email/website: mcwilliamssvc@aol.com

- Residential service/repair, new residential construction, remodeling, backflow device installation and testing, new commercial construction, commercial service/repair.

MERLO PLUMBING CO., INC.

11041 Gravois Industrial Court
St. Louis, MO 63128
(314) 843-1000 Fax (314) 843-1800
Email/Website: www.merloplumbing.com

- Residential service/repair, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary & storm, sewer cleaning, irrigation systems, septic tanks/onsite wastewater, 24-hour/emergency service, fountains.

MEYER, CURT PLUMBING INC.

10120 Glenfield Terrace
Crestwood, MO 63126
(314) 842-5550 Fax (314) 729-0331

- Residential service/repair, new residential construction, remodeling, backflow device installation & testing, sewer tracing camera, commercial service/repair, sewer cleaning.

**MILLER, PHIL L. PLUMBING &
HEATING CO.**

3831 Vaile Avenue #40
Florissant, MO 63034
(314) 837-3351 Fax (314) 837-3359

- Residential service/repair, remodeling, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, commercial service/repair, sewer cleaning.

MISSOURI PLUMBING SERVICES, LLC

10031 Crestwood Drive
St. Louis, MO 63126
(314) 393-1484 Fax (314) 835-1254

- Residential service/repair, remodeling, sewer tracing camera, sewer cleaning.

MITCHELL, FRANK C. COMPANY

8220 Brentwood Industrial Drive
St. Louis, MO 63144-2815
(314) 644-1595 Fax (314) 644-3371

- Remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning.

MONCEY PLUMBING COMPANY

5941 Garfield Avenue
St. Louis, MO 63134
(314) 521-8400 Fax (314) 521-8340

Email/Website: www.monceyplumbing.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning.

MURPHY COMPANY

1233 North Price Road

St. Louis, MO 63132

(314) 997-6600 Fax (314) 692-1601

Email/Website: www.murphynet.com

- Design/build construction, sewer repair/replacement, backflow device installation and testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm, sewer cleaning, HVAC, 24-hour/emergency service.

NOLAN PLUMBING CONTRACTORS, INC.

173 Rockaway Drive

O'Fallon, MO 63366-8006

(636) 329-1848 Fax (636) 939-6698

- New residential construction, remodeling, design/build construction, backflow device installation & testing, industrial piping, new commercial construction.

OMEGA PLUMBING CO., INC.

4132 Shoreline Drive, Suite E

Earth City, MO 63045

(314) 291-2003 Fax (314) 291-2033

Email/Website: www.omegaplumbing.com or omegaplumbing@sbcglobal.net

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning, 24-hour/emergency service.

PARKWAY CONSTRUCTION SERVICES, INC.

300 Parkway Industrial Drive, Suite 120
Lake St. Louis, MO 63367
(636) 561-5730 Fax (636) 561-5739

- Design/build construction, sewer repair/replacement, backflow device installation & testing, new commercial construction, site work sewer & water main, sewer installation sanitary and storm.

PLUMBING ENGINEERS INC.

8825 Ivy Avenue
Affton, MO 63123
(314) 631-9721 Fax (314) 631-9735
Email/Website: plumbingengineers@sbcglobal.net

- Residential service/repair, new residential construction, remodeling, sewer repair/replacement, backflow device installation and testing.

PLUMBING PLANNING CORPORATION

16743 Clayton Road
Wildwood, MO 63011
(314) 739-0057 Fax (314) 739-0208
Email/Website: ehill@plumbingplanning.com

- New residential construction, design/build construction, sewer repair/replacement, new commercial construction.

PULSIFER PLUMBING, INC.

835 South Highway 47
Union, MO 63084
(636) 584-8686 Fax (636) 584-8687
Email/Website: ronsrl948@sbcglobal.net

- New residential construction, remodeling, design/build construction, backflow device installation & testing, new commercial construction.

RAEKER, BOB PLUMBING COMPANY, INC.

9651 Lackland Road
Overland, MO 63114
(314) 429-0896 Fax (314) 429-1672

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation and testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning, 24-hour/emergency service.

RAIDER MECHANICAL, INC.

1007 Hawthorne, Suite C
Desloge, MO 63601
(573) 518-1444 Fax (573) 431-9688

RED'S PLUMBING, INC.

201-A East Fifth Street
Washington, MO 63090
(636) 239-2161 Fax (636) 239-3702
Email/Website: redsplumbing11@yahoo.com

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, new commercial construction, commercial service/repair, sewer cleaning.

ROCK HILL MECHANICAL CORPORATION

524 Clark Avenue
St. Louis, MO 63122
(314) 966-0600 Fax (314) 966-3679

- Design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, HVAC, 24-hour/emergency service.

SAUDER PLUMBING COMPANY, INC.

P.O. Box 510407

St. Louis, MO 63151

(314) 894-7030 Fax (314) 487-6798

Email/Website: sauderplumbing@earthlink.net

- Design/build construction, backflow device installation & testing, industrial piping, commercial service/repair, new commercial construction, commercial service/repair.

B.E. SCAIFE PLUMBING COMPANY

P.O. Box 775262

St. Louis, MO 63177

(314) 429-5200 Fax (314) 429-5201

SCALES PLUMBING CO., LLC

4027 Connecticut St., 2W

St. Louis, MO 63116

(314) 771-6464 Fax (314) 771-6467

SPASNICK PLUMBING, INC.

4750 Virginia Avenue

St. Louis, MO 63111

(314) 353-5955 Fax (314) 353-6296

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning, service/repair of pre-manufactured homes.

STAN-KEY PLUMBING SERVICE, INC.

2763 Tiara

Arnold, MO 63010

(636) 296-0064 Fax (636) 296-2281

- Residential service/repair, new residential construction (custom homes), remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, industrial piping, sewer tracing camera, commercial service/repair, sewer cleaning, 24-hour/emergency service.

SUTTER PLUMBING CO., INC.

2436 Woodson Road

Overland, MO 63114

(314) 427-0020 Fax (314) 427-3625

Email/Website: sutterplumbingco@sbcglobal.net

- Residential service/repair, new residential construction, remodeling, design/build construction, sewer repair/replacement, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work sewer & water main, sewer installation sanitary and storm, sewer cleaning, irrigation systems, septic tanks/onsite wastewater.

TORRISI PLUMBING SERVICES, INC.

6985 Chippewa

St. Louis, MO 63109

(314) 776-5866 Fax (314) 645-5151

- Residential service/repair, new residential construction, remodeling, design/build construction, backflow device installation & testing, sewer tracing camera, new commercial construction, commercial service/repair, site work water main, sewer cleaning, temporary non potable water systems.

TRIO PLUMBING

2138 Hunters Way Court
Chesterfield, MO 63017
(636) 537-4938 Fax (636) 537-3150

- New residential construction, remodeling, backflow device installation & testing, site work sewer & water main, sewer installation sanitary and storm.

TROJAHN PLUMBING CO.

1601 Sublette Avenue
St. Louis, MO 63110-1924
(314) 333-3363 Fax (314) 333-3370

Email/Website: www.trojahnplumbing.com

- Design/build construction, backflow device installation & testing, industrial piping, commercial service/repair, new commercial construction, site work-sewer & water main, sewer cleaning.

WACHTER, R.J. PLUMBING CO., INC.

11433 Concord Village Avenue
St. Louis, MO 63123
(314) 729-7777 Fax (314) 729-9969

Email/Website: wachterrj@aol.com

- Residential service/repair, remodeling, design/build construction, backflow device installation & testing, new commercial construction, commercial service/repair, site work sewer and water main, sewer installation sanitary and storm.