

Introduction

This document provides recommendations, examples, and guidelines for how to create a user-friendly website for water heater permitting, with a focus on heat pump water heaters. The focus is on the following 5 subpages or subheadings:

- Permitting Process
- Electrification
- Water Heater
- Express Permitting
- Permitting FAQs

The information is intended to be short, high-level, and easy to understand. Ideally, it will not need to be updated often. Text in *[blue italics]* needs to be customized to your jurisdiction. You may already have some of these subpages set up, in which case this content can be used to consider updates to those existing pages.

You can see an example of how this can look when all put together here:

<https://www.smcsustainability.org/greenhouse-gas-reduction/electrification-and-energy-efficiency/residents/heat-pump-water-heaters/>

Permitting Process Subsection

Having a short, well-formatted webpage on the local jurisdiction permitting process can help applicants understand the importance of a permit and enable them to follow the correct processes. This webpage may be called “About Permits”, “General Permit Information”, “How to Get a Permit”, etc.

Applicants should be able to find the answers to the following questions within 5 minutes:

- What are the steps in the permitting process?
- When do I need a permit?
 - List common projects that require a permit
- Why do I need a permit?
- How do I get a permit?
 - What is the application process?
 - Permit portal link & description
 - What do I need to know to get started on the portal?
 - When should I use the permit portal?
 - PDF form link and description
 - When should I use the application PDF form? Does this form need to be uploaded to the portal ([good explanation from San Carlos](#))
 - What is the cost of the permit and how do I pay for it?
- Who do I contact with questions and how?

Example Resources

- [County of San Mateo - Planning and Building Homepage](#)
- [Burlingame - Building Homepage](#)
- [South San Francisco - Permit Center](#)

General Permit Information

Permits

The [\[City/Town\]](#) of [\[Jurisdiction's\]](#) permitting process:

PERMIT APPLICATION

- **APPLICATION:** Submit your applications electronically through the [\[online permit portal hyperlink\]](#).
- **PAYMENT:** Permit payments may be paid by [\[credit card, debit card or e-check\]](#) on the [\[online permit portal hyperlink\]](#) [\[, or via check delivered by mail or in-person to the building counter. Include the address and remittance note for checks.\]](#) Please note that we charge a credit card processing fee.
- **ISSUANCE:** Permits will be issued electronically from the [\[online permit portal hyperlink\]](#).

WHEN IS A PERMIT REQUIRED?

A permit is required for any construction, repair, improvement, modification, or demolition.

HOW DO I APPLY FOR A PERMIT?

Contractors and Homeowner/Builders will need to register to [\[receive/create\]](#) login credentials to the [\[online permit portal hyperlink\]](#). To [\[receive/create\]](#) a username and password, please complete the online registration form with the following information:

- **HOMEOWNERS**
 - [\[Name\]](#)
 - [\[Address\]](#)
 - [\[Etc.\]](#)
- **CONTRACTORS/CONSULTANTS**
 - [\[Include your current Contractors State License Board \(CSLB\) License #\]](#)
 - [\[Proof of Liability Insurance Information if applying for work in the Right-of-Way, required for Class A contractors\]](#)

SCHEDULE AN INSPECTION

Building inspection requests are available to schedule 24 hours a day at [\[inspection scheduling hyperlink\]](#). You will need your permit number or the address to schedule the inspection.

- [\[Inspection requests should be made at least 24 hours in advance.\]](#)
- [\[Inspections are scheduled for AM or PM; they are not time-specific. Inspections occur Monday through Friday 8 am to 3 pm\].](#)

NEED HELP?

Ensure your permit application is complete on your first submission. Discuss your needs with a member of our Staff to get your questions answered.

Please contact us by calling [(###) ###-####] or send an email to [email@address.gov].
[You can also visit us at the permit counter from 10am to 2pm, Monday through Thursday, where a member of staff will be available to answer questions].

Electrification Subsection

Educate residents by including high-level explanations of building electrification. Some jurisdictions put this information on a sustainability-specific subpage.

The following information is recommended:

- High-level electrification information
 - Why does it matter?
 - Where to start?
- Information on Rebates
 - SwitchIsOn
 - [Can also include links to more local rebate programs]

Local Resources [as appropriate]Example Resources

- The City of San Mateo links its [reach code](#) page to its [sustainability](#) page on the benefits of building electrification.
- The County of San Mateo has links to its [Let's Go Electric](#) page and PG&E's [How to electrify without an electrical panel upgrade](#) page in the drop-down menu for [water heater](#) permits.
 - Provide examples of common appliances to electrify: [example from City of San Mateo](#)'s sustainability department
 - [Good high level overview on Burlingame website FAQ: Why does Burlingame encourage Green Building techniques?](#)
 - [Handout example](#) on all-electric homes from Brisbane that is hosted by the sustainability department. Help residents by using information created by sustainability staff and providing the link to it on the building department page.
 - [Go All Electric](#) page from Colma sustainability department

Electrification

WHY GO ELECTRIC?



Cost Savings: Heat pumps can [save money on utility bills](#). High efficiency electric technologies like heat pumps and induction stoves use energy more effectively.

Forward Thinking: By planning for electrification now, you will be prepared to take advantage of the lowest-cost opportunities to make the swap and reap the rewards. California aims to be carbon neutral by 2045, and the Bay Area Air District [Rule 9-4](#) and [Rule 9-6](#) will limit the sale of gas equipment starting in 2027.



Public Health: Gas appliances release indoor air pollutants that [contribute to asthma, heart disease, and other health issues](#)—particularly for children and older adults. Electrifying homes improves indoor air quality, creates healthier living environments, and reduces neighborhood exposure to harmful emissions.



Climate: Electrification is one of the most effective ways to cut local climate pollution. By replacing fossil fuels with clean electricity, you can significantly reduce greenhouse gas emissions, support state and local climate goals, and protect the Bay Area's communities and ecosystems from the impacts of climate change.

ELECTRIC TECHNOLOGY EXPLAINED:

Heat Pump Water Heaters pull heat from the air and move it into your water, instead of creating heat by burning gas, making it much more energy efficient than traditional gas water heaters.

Heat Pump HVAC Systems also work by pulling heat from the air and provide both heating and cooling in one efficient device. If you are considering installing or replacing an air conditioner, look for a heat pump instead!

Induction Stoves use electricity to heat pots and pans through an electromagnetic field, so cooking is safer, faster, and healthier. They provide great control, safe-to-touch cooktops, and have easy-to-clean surfaces. [Give it a try for free!](#)

Heat Pump Dryers are highly energy-efficient, ventless dryers that reuse heat to dry clothes, using about 40–60% less electricity than conventional electric dryers. They are gentler on fabrics and offer flexible installation. They have slightly longer drying times compared to traditional gas dryers.

Pre-wiring means installing electrical infrastructure such as outlets, dedicated circuits, and panel breakers, that easily allow for future electric appliances. This is a low-cost way to prepare for electrification if you aren't just ready to replace your gas equipment yet.

FINANCIAL ASSISTANCE AND REBATES:

The [Switch is On](#) provides information about rebates, financing and services to support electrification in your area.



[Fill in information about resources in your area here]

Heat Pump Water Heater:

Heat Pump HVAC:

Electric Panel Upgrade:

Loans:

Low-Income:

WHERE TO START:

[Pocket Guide to Home Electrification Retrofits](#)

A simple “how-to” guide to help homeowners, home renters, and utilities and policy makers who want to replace existing gas appliances with efficient electric alternatives.

This booklet has three sections:

1. Explain the costs, benefits and strategies for electrifying a home
2. Lessons learned from case studies of retrofitted homes
3. An extensive product guide to help choose your electrification appliances

Water Heater Subsection

A dedicated section on water heating clearly outlines what is required and how to comply. This transparency supports stronger code compliance and helps educate both contractors and residents about electrification. In light of the Bay Area Air District's forthcoming Rule 9-6 amendments, this information raises awareness and enables residents and contractors to prepare proactively.

The following information is recommended:

- Reference local information on HPWHs, such as the webpages listed above
- Fee Transparency
 - List the permit type for a water heater replacement:
 - Plumbing
 - MEP
 - Heat Pump/HPWH
 - Link to Master Fee schedule
 - Make sure master fee schedule is a searchable PDF so information can easily be located.
 - List the fee structure of the master fee schedule
 - Explain and provide the names of local and Statewide fees
- Include Bay Area Air District Rule 9-6 context
 - [Myths vs Facts](#)
- Application process
 - Include a link to the general permitting instructions
 - List necessary materials for a water heater application
- Installation Requirements
 - This is often provided as a PDF on department handout pages. List them at a high level in plain language, and include a hyperlink to the PDF handout within the description.

Example Resources

- Example Water Heater electrification handout from Menlo Park: [Requirements for residential water heater electrification City of Menlo Park](#)
- Example Water Heater [requirements handout from San Carlos](#)

Recommended Text

Water Heater Permit

Single Family Homes and Duplexes

A permit is required for all new and replacements water heater installations.

Submit a permit application through the [\[online permit portal hyperlink\]](#). The permit application will require information such as:

- Property address
- Contractor name (if applicable)
- Description of the proposed work
- If a new electric water heater, electrical load calculations to confirm existing electrical service is adequate. If an electrical service panel upgrade is required, the minimum service is 200 amps for a single-family home and 125 amps per duplex unit.
- Other details, depending on the project

For simple existing water heater replacements, apply for an [\[express permit hyperlink\]](#). *[This includes like-for-like replacements, and most heat pump water heater projects].*

For new water heater installations, you will be asked to submit additional plans, *[such as three sets of plumbing details, electrical plans, and a floor plan showing the water heater location. If a water heater is to be installed in a new enclosure at the exterior of the structure, a plot plan will be required.]*

PERMIT REQUIRED

A [\[plumbing\]](#) permit [\[or heat pump water heater permit\]](#) is required.

COST

Permit fee: [\[\\$200\]](#)

[Include any additional fee information, such as if there are 2% processing fees, filling fees, etc. For more information on our fees, please see the] [master fee schedule hyperlink].

TIMELINE

Typical Time to Receive Permit:

- **Express Permit:** [\[1 to 2\]](#) business days
- **Other:** [\[up to 10\]](#) business days

REGULATION TO KNOW ABOUT

The [Bay Area Air District \(BAAD\)](#) regulates air pollution across the nine-county Bay Area. They updated [Rules 9-4 and 9-6](#) to phase in zero-NO_x standards for new and

replacement furnaces and water heaters, meaning replacements would be heat pump appliances instead of gas appliances. Doing this will reduce smog-forming pollution and asthma rates over time.

What's covered:

- Newly installed gas furnaces and water heaters, after the effective dates
- Replacement of gas furnaces and water heaters, after the effective dates

What's not covered:

- Currently working equipment
- Repair of current equipment
- Cooking appliances (e.g., gas stoves)

Learn more about [heat pump water heaters](#) and [heat pump HVAC systems](#).

Learn more about the [Air District's Know the Facts: Appliance Rules](#).

INSTALLATION REQUIREMENTS

[If you have not recently installed a water heater, you should be aware of these changes in the requirements:

- *Water heaters must be anchored or strapped to prevent toppling during an earthquake.*
- *To conserve energy, water heaters must be wrapped with an insulation blanket having an R-value of at least 12. Internal and external insulation together must equal R-16. Both hot and cold water pipes must be insulated for the first 5 feet from the water heater.*
- *Temperature/pressure relief valves must be extended to an approved location on the exterior of the structure.*
- *A bonding jumper sized in accordance with the National Electric Code, Article 250-80 must be installed across the hot and cold water piping.*
- *Gas water heaters located in garages must have the source of ignition raised a minimum of 18 inches above the floor.]*

LEARN MORE

- [\[Building Permit Requirements hyperlink\]](#)
- [\[Building Permit Process hyperlink\]](#)
- [VExplore incentives](#) for switching from a gas water heater to electric heat pump water heater.
- [Benefits of electric appliances.](#)
- [How to switch to electric appliances without an electrical panel upgrade.](#)

Express Permitting Subsection

Document the jurisdiction's express permitting practices. The following information is recommended:

- Define the “express” process
 - Explain if the permit is processed automatically online, reviewed by staff within one day, or if building staff will issue instant over the phone permits
- A list of projects that are eligible for express permits
- Where to apply for a permit? This can also link back to the general permitting information page
- Provide details for which projects within the express permitting category qualify:
 - A common example: are express permits available for all water heaters, or are water heater relocations or electrifications ineligible for express permits

Example Resources

- [The City of San Mateo's Express Building Permits](#)
- [The City of Mountain View's Same-Day Building Permits](#)

Recommended Text

Express Permits

Express permits reduce the time from initial application to building permit issuance. Typically, express permits can be offered where the project does not require plan review or construction drawings. Application may also be submitted through the [\[online permit portal hyperlink\]](#). Express permits will typically be processed in [\[1-2\]](#) business days.

Express permitting is currently available for the following projects:

- Heat Pump Water Heaters [\[or Water Heater Replacements\]](#)
- [Reroof](#)
- [Repair/Replacement of Stucco](#)
- [Repair/Replacement of Siding](#)
- [Small Animals & Fowl \(Chicken and Bee Hive Keeping Annual Permits\)](#)
- [Electrical Service Upgrades](#)
- [Temporary Power Pole](#)
- [Furnace Replacement](#)
- [Sewer Line Replacement](#)
- [Waterline Replacement](#)

Permitting FAQs Subsection

A webpage documenting overall frequent permitting questions helps make the process clear and connects people with easy-to-access information. FAQ pages can help harder-to-find information become quicker to find, reducing the workload to comply with local requirements.

In addition to FAQs, some jurisdictions have “Resource Centers” where they list out many different resources and attachments for applicant reference. If doing so, be sure to carefully group resources into similar categories to make them easy to find and access, such as [Redwood City's Building Applications & Handouts](#).

Example Resources

- [San Mateo County FAQs](#)
- [City of San Mateo's FAQs](#)
- [City of Millbrae's FAQs](#)

Frequently Asked Questions

Below you will find information that might help find information or learn about your permit application permits.

When do I need a building permit?

A permit is required for any construction, repair, improvement, modification, or demolition.

Why do I need a building permit?

Obtaining permits helps safeguard everyone, keeping you and others physically safe. Building permits are based on the California Building Codes, adopted to protect health, general welfare, and the investment in property. Evidence of a building permit is often necessary to obtain financing. Many permits also require review by the Planning Division. The Planning Division reviews the height, size, and occupancy type of your project, as well as neighborhood concerns.

Without permits, you create a safety risk for yourself or others. These activities may subject you to enforcement action and paying a fine(s), qualify your activity as a misdemeanor under City or State law, and you may have to demolish any unpermitted construction. Additionally, you also run the risk of potentially voiding, or conflicting with, your property insurance policy, violating a lease or rental agreement, or impacting the sales price of your property.

If you are not sure if your project requires a permit, please [\[contact us hyperlink\]](#)!

When is a building permit not required?

- *One-story detached accessory structures used as tool and storage sheds, playhouses, and similar uses provided the floor area does not exceed 120 square feet.*
- *Residential wood fences not over 7 feet in height.*
- *Retaining walls not over 4 feet in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.*
- *Replacement of existing sidewalks and driveways not more than 30 inches above adjacent grade, not over any basement or story below, and not part of an accessible route.*
- *Painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.*
- *Temporary motion picture, television, and theater stage sets and scenery.*
- *Prefabricated swimming pools that are less than 24 inches deep, do not exceed 5,000 gallons, and are installed entirely above ground.*

- *Swings and other playground equipment accessory to detached one- and two-family dwellings.*
- *Window awnings of Group R-3 and U occupancies supported by an exterior wall, do not project more than 54 inches from the exterior wall, and do not require additional support.*
- *Non-fixed and movable fixtures, cases, racks, counters, and partitions not over 5 feet - 9 inches in height.*

When is an electrical permit not required?

An Electrical Permit shall not be required for the following:

- *Portable motors or other portable appliances energized by means of a cord or cable having an attachment plug end to be connected to an approved receptacle when the Electrical Code permits that cord or cable.*
- *Repair or replacement of motors, transformers, and controls within fixed approved appliances of the same type and rating in the same location.*
- *Temporary decorative lighting.*
- *Repair or replacement of current-carrying parts of any switch, contactor, or control device.*
- *Reinstallation of attachment plug receptacles, but not the outlets, therefore.*
- *Replacement of any overcurrent device less than 1200 amps of the same capacity in the same location.*
- *Repair or replacement of electrodes or transformers of the same size and capacity for signs or gas tube systems.*
- *Taping joints.*
- *Removal of electrical wiring.*
- *Temporary wiring for experimental purposes in suitable experimental laboratories.*
- *The wiring for temporary theater, motion picture or television stage sets.*
- *Electrical wiring, devices, appliances, apparatus, or equipment operating at less than 25 volts and not capable of supplying more than 50 watts of energy.*
- *Low-energy power, control, and signal circuits of class II and III as defined in the Electrical Code.*

When is a mechanical permit not required?

A Mechanical Permit shall not be required for the following except that a permit is required for vertical and structural support and anchoring of permanent equipment and overhead pipes:

- *Any portable heating appliance.*
- *Any portable ventilating equipment.*
- *Any portable cooling unit.*
- *Any portable evaporative cooler.*

- *Any closed system of steam, hot, or chilled water piping within any heating or cooling equipment regulated by the Mechanical Code.*
- *Replacement of any component part of assembly of an appliance, which does not alter its original approval and complies with other applicable requirements of the technical codes.*

When is a plumbing permit not required?

A plumbing permit shall not be required for the following:

- *The stopping of leaks in drains, soil, waste, or vent pipes, provided, however, that should any concealed trap, drainpipe, soil, waste or vent pipe become defective and it becomes necessary to remove and replace the same with new material, the same shall be considered as new work and a permit shall be procured and inspection made as provided in this title.*
- *The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, nor for the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.*

How do I apply for a building permit?

Apply for a building permit with our online permit portal. *Some projects may require you to fill out a PDF application and email your completed form to email@address.gov.* New applicants must first register to use the permit portal before submitting their application. *Applying for a building permit may require a project plan and other construction documents. Project plans must be submitted in PDF format.*

What is a project plan?

A project plan includes an architectural floor plan and an itemized list of work to be completed. Specific projects have different needs, so please contact the *Building Division* at email@address.gov or call (###) ###-#### to find out what specific documentation is needed for your permit application to be approved.

How much does a permit cost?

The *Building Division* requires the payment of fees for building permits based on the scope of work and project valuation. The plan check fee is due at the time of *plan submittal. Building permit fees are due at the time of permit issuance.* The *City* accepts payments with *debit and credit cards or checks.* Typical fees include plan check fees, permit fees, and other fees associated with the permit. In addition, a variety of other related fees may be charged based on project scope, including but not limited to *[Public Works utility capacity facility fees, Construction and Demolition deposits, connection fees, General Plan Maintenance fees, Technology Fees, Documentation Fees, Development Impact Fees, Affordable Housing In-Lieu Fees, Affordable Housing Commercial Linkage*

[Impact Fees](#)], and other fees. For specific fee questions, contact the [Building Division at email@address.gov](#) or call (###) ###-####.

To get an estimate of your project permit cost, please check the [\[Master Fee Schedule hyperlink\]](#).

Development Impact Fees are fees adopted by the [City Council](#) based on the provisions set forth in California Government Code Section 66000-66025 (Mitigation Fee Act as established by Assembly Bill 1600 in 1987). These fees are assessed upon new development projects to fully or partially offset the costs of public capital facilities and infrastructure that is needed to serve new demand created by development projects. Most recently, the [\[City Council adopted Resolution Number 21-50 \(PDF\) on July 13, 2021 establishing Affordable Housing In-Lieu Fees for Residential Development Projects and Commercial Linkage Impact Fees for Commercial Development Projects\]](#).

[\[Fees not collected by the Building Division include school fees \(PDF\), encroachment permit fees and Public Works Utility Capital Facility Impact Fees for water and sewer connections and service\]](#).

All building permits for new buildings or additions over 500 square feet must pay developer's fees to both [\[the San Mateo United High School District AND the Millbrae Elementary School District\]](#) as permitted by the California Education Code section 17620 and California Government Code Section 53080. [\[When a building permit is ready to issue, the permit applicant will be given a copy of the completed application to deliver to the school districts to pay the fees. Then proof of payment must be submitted to the City Building before a permit can be issued. Additional information on these fees including the current amounts can be obtained from the School District at ###-###-####.\]](#)

What is included in the project valuation?

The project valuation is the fair market cost for the project including all labor, fixtures, appliances, flooring, finishes, etc. In total, it is the cost for everything that is part of the project regardless if the owner or the contractor provided it. An itemized list of all costs may be required for the City to verify project construction valuations.

How long does it take to get a permit?

If your project qualifies for an express permit, your permit will typically be issued in 1-2 business days. Such types of permits are: [\[re-roofs, electrical service upgrades, furnace and water heater replacements, and window replacements\]](#).

If your project requires plans to be prepared and submitted, reviews have a [\[15\]-business-day](#) review period. If your plans need corrections, the [\[15-business-day review period still applies once corrected drawings are resubmitted\]](#). Certain smaller projects such as [\[simple bath or kitchen remodels\]](#) are reviewed and issued electronically in [\[2 to 5\]](#) business days, depending upon staff availability.

During the plan check process, [\[Building Division\]](#) staff will route your plans to other City departments for their review and comments. Once the plan check is completed, you will receive an electronic correspondence containing the corrections or additional information that needs to be changed or added to the plans. This will usually take up to [\[15\]](#) business days from submittal.

What do I do after my building permit has been approved?

After your building permit has been approved, please print your permit and keep it for your records. After your work is complete, you will need to call and request a building inspection to ensure your work complies with all applicable California and local building codes. At the time of the inspection, you will need to show the building inspector your building permit, as well as all documents related to the permit. To request a building inspection, please visit our scheduling site, email email@address.gov, or call [\(###\) ###-####](#) during operational hours [\[Monday through Friday from 8:30 am to 4 pm\]](#).

What is the Bay Area Air District requiring?

The [Bay Area Air District \(BAAD\)](#) regulates air pollution across the nine-county Bay Area. They updated [Rules 9-4 and 9-6](#) to phase in zero-NO_x standards for new and replacement furnaces and water heaters, meaning replacements would be heat pump appliances instead of gas appliances. Doing this will reduce smog-forming pollution and asthma rates over time.

What's covered:

- Newly installed gas furnaces and water heaters, after the effective dates
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What's not covered:

- Currently working equipment
- Repair of current equipment
- Cooking appliances (e.g., gas stoves)

Learn more about [heat pump water heaters](#) and [heat pump HVAC systems](#), plus [FAQs](#) and [myths and facts](#) resources.