**BUILT GREEN REMODEL CERTIFICATIONS**

2023 Version

*Last updated: 12/01/2023*

The Built Green Remodel Checklist is designed for single-family remodeling projects that are holistically addressing their home’s systems and functions to improve performance and comfort, but not significantly altering its structure.

The Built Green Remodel and Retrofit Certification and Label checklists can be found on:

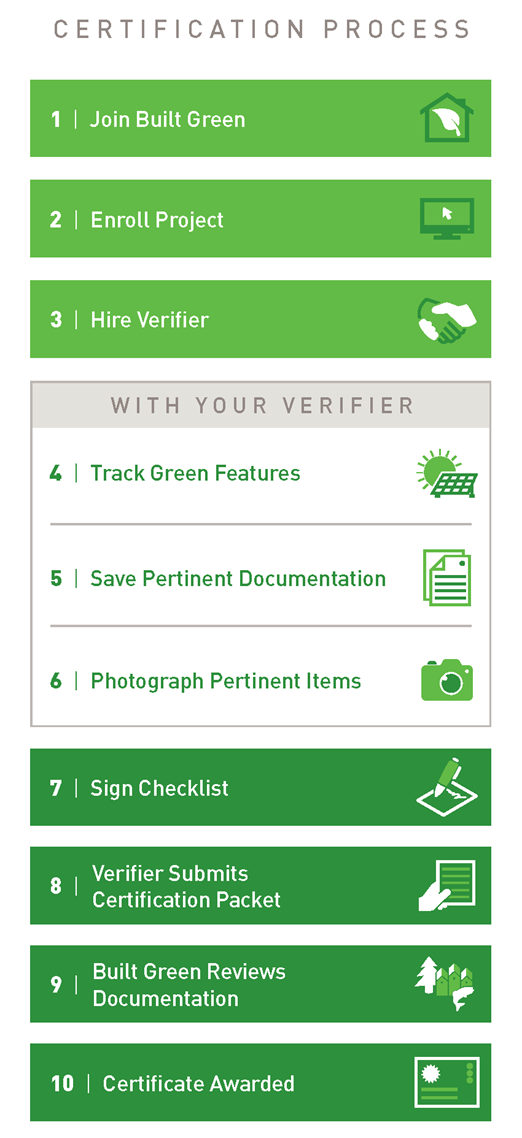
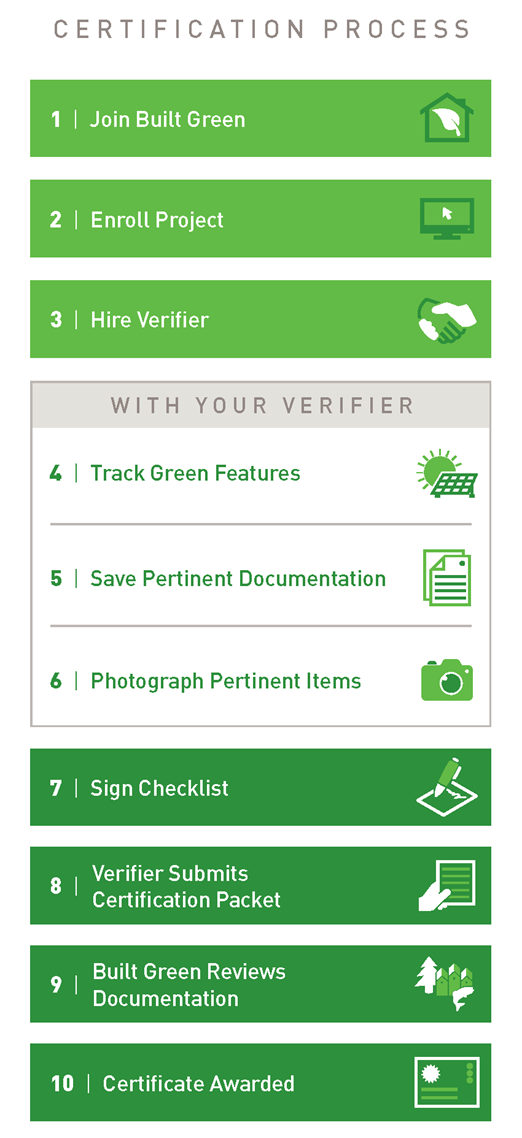
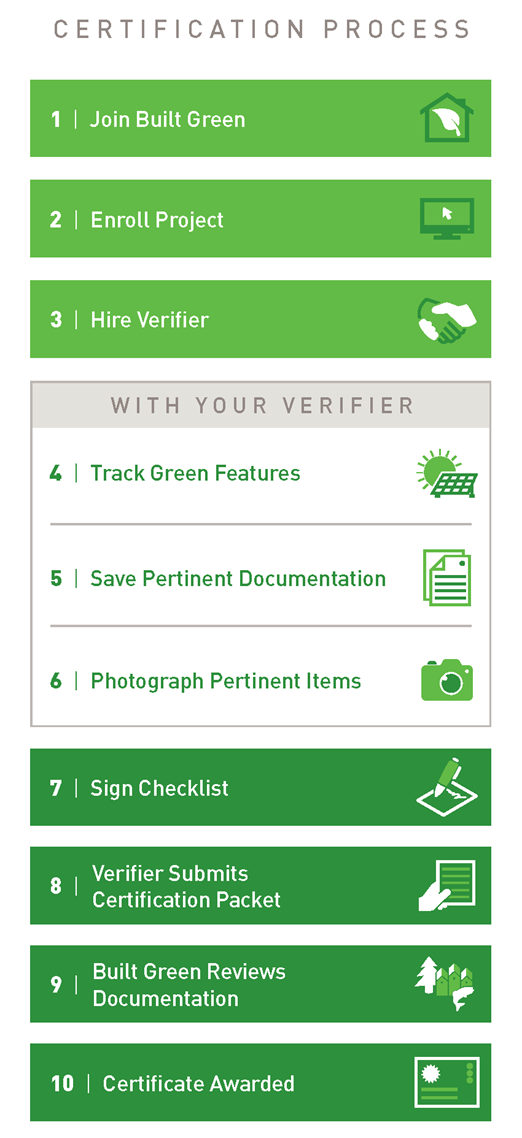
* Built Green Remodel Certification………………………………………………………...Page 7
* Built Green Water Efficiency Retrofit Certification………………………………...Page 14
* Built Green Energy Efficiency Retrofit Certification………………….…..…...….Page 17
* Built Green Energy Labels
  + Net Zero Energy Label…………….………………………………………………..Page 20
  + Zero Emissions Label……….………………………………..…….……………….Page 20

**INTRODUCTION**

**Built Green Process**

All companies or homeowners seeking to certify their project must join Built Green as a member. Additionally, all projects must receive third-party verification. A directory of Built Green member contractors, list of approved Built Green verifiers, and how to join as a member to enroll projects for certification can be found on [builtgreen.net](https://builtgreen.net/certification).

The earlier in the process you have a Built Green verifier involved the more efficient the process and more cost-effective the remodel will be. Being a 3rd party, means verifiers provide invaluable consultation to you with industry leading best practices that are employed on your behalf to make sure your remodel meets your goals.

The following diagram outlines the Built Green certification process:

*All projects must complete the verification process and be submitted to Built Green for certification review within five years of its enrollment date.*

Prior to enrolling a project with Built Green, the company or individual requester must become a [Built Green Member](https://builtgreen.net/builtgreenmembershipapplication__c). Remodelers may select between two levels of memberships for their project needs - Built Green Member or Built Green Remodeler. While both types will allow for companies or homeowners to enroll projects for remodel and retrofit certifications, they do not offer the same level of benefits. See Membership Benefits table below for a comparison.

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| --- | --- | --- |
| Membership Benefits | Built Green Member | Built Green Remodeler |
| Intended for | Builders, Contractors, Architects, Designers | Homeowners, low volume remodel contractor or architect |
| Enroll Projects with Built Green | All Types | Remodels and Retrofits only |
| Discounted membership and enrollment fees | Yes, with MBAKS membership | Yes |
| Must maintain membership until certification is issued | Yes, annually | Required only at enrollment, must certify within 5 years |
| Listed in Built Green Directory | Yes | No |
| Discounts on Built Green events | Yes | No |
| Use Built Green Member logo | Yes | No |
| Eligible for Built Green awards | Yes | No |

Once you’ve established your membership and logged into your online Built Green account, you will be able to submit projects for enrollment through the online Builder portal. Once the project is submitted, ensure that all enrollment fees have been paid, either by reviewing the payment confirmation screen or the emailed payment receipt. Each submitted project is manually enrolled by the Built Green team, which may take 24- 48 hours. Once our team has completed setting up the project’s ID numbers and verified that the enrollment fees have been processed, the project’s enrollment letter will be emailed to the email address associated with the Built Green account that was used to submit the project and the verifier listed on the project. The enrollment letter is what you would provide to the local jurisdiction to comply with applicable green building incentive program or permit requirements.

**Built Green Remodel and Retrofit Certifications**

REMODEL CERTIFICATION

The Built Green Remodel certification requires a holistic and systematic approach to a remodel. While it does not need to be a full-home or major remodel it will require all the functional systems within the home to be addressed to create a high-performance home.

Qualifying projects that can achieve the Remodel Certification will be aiming to improve the function and aesthetics of the home, as well as communicate the high-performance features of the home’s energy and water systems. This means superficial, decorative remodels or additions that do not address energy or water efficiency of the home, will not be eligible for a Built Green Remodel certification. See more information on the partial remodels and additions use cases below.

Alternatively, any remodel project that changes the existing structure or footprint by 75% or more, must certify under the Built Green [Single Family/ Townhome New Construction checklist](https://builtgreen.net/certification/#checklistandhandbook). In practical terms, the scope of this amount of remodeling would include stripping all the interior and exterior finishes of the house including windows, plumbing, heating, wall materials (e.g., drywall, sheathing, insulation, etc.), cabinets, fixtures and more. This would leave just the structural skeleton and foundation of the building. This level of remodel could also be referred to as a “full home gut renovation” or major renovation.

RETROFIT CERTIFICATIONS

The Energy and Water Efficiency Retrofit certifications are available to projects that want to improve the performance, comfort, and resale value of the home, but not significantly alter or disrupt the home. These retrofits target minimally invasive, cost-effective actions that reduce utility bills, increase comfort and resale value, and conserve natural resources.

BUILT GREEN ENERGY LABELS

Built Green offers two energy labels that communicate additional measures, beyond just efficiency, taken to increase the performance of the home and lower its carbon emissions. The Zero Emissions and Net Zero Energy labels are available to all projects that eliminate the use of fossil fuels in the home and are 100% electricity-powered with zero on-site emissions generated from energy use. The Net Zero Energy Label additionally recognizes remodels that have added capability to generate as much energy as it consumes over an annual period.

Energy Labels may not be earned alone, they must be earned alongside a Remodel or Energy Retrofit Certification. Projects can select to upgrade their certifications with an energy label within 5 years of the initial certification being issued.



*Sample certificate of Built Green Remodel Certification with Net Zero Energy Label*

**How to Use the Checklists**

All requirements listed in the checklists must be met to achieve Built Green Remodel and Retrofit certifications or Built Green Energy labels. There are no points or voluntary credits, and no partial completion will be given. Built Green does acknowledge there are unique challenges in remodeling and retrofitting existing housing that are not present in new construction.

Many homeowners have made modifications to their home for form, function, or performance prior to deciding to seek a certification. Additionally, Washington state building and energy codes are significantly increasing performance requirements every 3 years. Some modifications met these higher code requirements at the time of alteration and still provide significant improvement over homes that have not been altered.

Further, homes are remodeled and retrofitted for a variety of reasons and not all projects will address the same performance areas. For the most common use cases some general guidance has been provided to address which certification a project type and scope may be eligible.

**Existing Features Allowances**

This checklist acknowledges the inherent value and resource conservation of utilizing investments that have already been made to improve the home’s performance and function. It is not the intention to require new materials be bought if existing materials, fixtures, appliances, or mechanical equipment are efficient, in good working condition, and have years of serviceable life left to them.

Certification does not explicitly require all new HVAC, appliances, and plumbing fixtures. As long as existing energy efficient HVAC, appliances, and water efficient plumbing fixtures meet the individual performance requirements under the Energy Efficiency and Water Efficiency requirements, they do not require removal or replacement for certification.

Additionally, existing materials installed in the home do not automatically exclude a home from being eligible for certification. To qualify for existing materials exemptions, the materials or products must have been installed (at least one):

1. Prior to the homeowner owning the property
2. Within the last 6 years and met code requirements at the time the work was completed (requires documentation of work)
3. Prior to enrolling for Built Green certification, and have at least 10 years left in its expected service life (based on manufacturing or installation date)

**Step Ladder Approach to Certification**

Remodeling often does not happen all at once. Some homeowners only want to reduce their utility bills and make their home more efficient. Some may decide to tackle smaller project scopes over time, rather than one large one, to limit the amount of disruption it causes in their lives. For those that are not looking to make a lot of changes or want to take it in more manageable phases, the Energy and Water Efficiency Retrofit Certifications can be obtained on their own. They can also be used to qualify towards a Built Green Remodel Certification within 5 years of the first Retrofit certification being issued. The Retrofit certification would take the place of the Energy and Site and Water sections in the Remodel Certifications requirements. Projects can also select to upgrade their certifications with a Built Green Energy label within 5 years of the initial certification being issued.

**Use Cases for Different Types of Remodel Projects**

REMODEL OF ONLY A FEW ROOMS

If only a few rooms are remodeled and the energy and water efficiency of the whole home are included in the project scope, then the project could be eligible for the Remodel Certification. If the remodel does not improve the home’s energy and water efficiency, then the project would not qualify for the Remodel Certification.

ADDITIONS

If the only new or modified portion of the home is an addition, with the existing structure unchanged, the home may still qualify for the Remodel Certification. In addition to complying with the checklist requirements on the addition’s construction, the project scope would also need to address the energy and water efficiency of the whole home. Typically, this would involve HVAC and water heating, weatherization, additional insulation, and low-flow plumbing fixtures.

ATTACHED ACCESSORY DWELLING UNITS (AADU)

1. If the new AADU remains a portion of the primary, existing structure, shares space heating and water heating systems, and is not sellable as a separate unit from the primary dwelling unit, then it would be treated as an addition under this checklist.
2. If a home is converting a portion of the primary, existing structure into a new AADU that will be condoized and sold as a separate unit, and it does not use any of the primary unit’s space heating or water heating systems, then the [Single-Family/Townhome New Construction checklist](https://builtgreen.net/certification/#checklistandhandbook) would be required to certify the unit.

CONDOMINIUM UNITS

Privately-owned, individual condominiums in multi-unit buildings may be eligible for Built Green Remodel and Retrofit Certifications. The eligibility will depend on what features or systems can be modified by the condo-owner as allowed by their HOA. Please contact Built Green for guidance prior to enrolling in the project.

MAJOR RENOVATIONS

Any remodel project that changes the existing structure or footprint by 75% or more, must certify under the Built Green [Single Family/ Townhome New Construction checklist](https://builtgreen.net/certification/#checklistandhandbook). The portions of the existing structure (i.e., framing, foundation, roof, etc) maintained as part of the final structure will be counted under the Deconstruction and Reuse, Salvaged Materials, and Carbon Neutral materials credits. The [Carbon Avoided Retrofit Estimator (CARE)](https://carbonleadershipforum.org/care-estimator/) can be used to qualify for the embodied carbon calculation and reduction credit.

ENERGY OR WATER EFFICIECY IMPROVEMENTS ONLY

These projects will only be eligible for the Energy Efficiency or Water Efficiency Retrofit certifications, respectively. May also earn the Net Zero Energy and Zero Emissions labels if requirements are met. Does not need to meet the requirements of the Remodel certifications. May use the Retrofit certification(s) towards a Remodel certification within 5 years of the first Retrofit certification.

**Remodeling Resources**

There are a lot of ways to improve your home and to achieve Built Green certifications. Below are additional resources to help cut down on information overload and provide you with guidance towards best practices to implement on your remodel project.

[Eco-Cool Remodel Tool](https://builtgreen.net/eco-cool/eco-remodel.asp) - The definitive handbook for Built Green Remodel and Retrofit certification guidance. So many more resources here.

[Built Green Resources](https://builtgreen.net/resources) – Find rebates, incentives, case studies, and leading best practices.

[Built Green Verifiers](https://builtgreen.net/certification/#thirdpartyverifiers) - Required for all Built Green certifications.

[Built Green Member Directory](https://builtgreen.net/bg_builtgreensearch__c) - Find professionals and vendors to facilitate your remodel.

[MBAKS Remodeler Directory](https://www.mbaks.com/newsandblog/publications/homeowner-publications) - Find professionals to facilitate your remodel.

[MBAKS Member Directory](https://www.mbaks.com/memberdirectory?Type=Company) - Find professionals to facilitate your remodel.

[WSU Energy Code Program](https://www.energy.wsu.edu/BuildingEfficiency/EnergyCode.aspx) - Find the Washington State Energy Code here.

[NW EcoBuilding Guild](https://www.ecobuilding.org/building/) – Green building education and community events, based in Seattle and South Sound.

[Sustainable Connections](https://sustainableconnections.org/programs/energy-green-building/) - Green building education and community events, based in Whatcom County.

[NW Building Salvage Network](https://www.nbsnseattle.org/) – Find a salvage professional or salvaged architectural products for you remodel.

[Rewiring America’s Inflation Reduction Act Calculator](https://www.rewiringamerica.org/app/ira-calculator) – See how many tax credits you qualify for.

[Database of State Incentives for Renewables & Efficiency (DSIRE)](https://www.dsireusa.org/) - A comprehensive source of information on incentives and programs that support renewables and energy efficiency, searchable by zip code.

[King County Green Tools](https://kingcounty.gov/depts/dnrp/solid-waste/programs/green-building/home-builders-owners/residential-remodel-guides.aspx) – Downloadable residential remodeling guides.

*All requirements must be met to achieve any of the below certifications or labels.*

**Built Green Remodel Certification**

|  |  |
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| Builder/Homeowner: | Click or tap here to enter text. |
| Project Address: | Click or tap here to enter text. |
| # of bedrooms: | Click or tap here to enter text. |
| Unit Size in Square Feet: | Click or tap here to enter text. |

🟊: Denotes a requirement that applies to all projects, regardless of scope

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| **#** | **Requirements** | **Verification Comments** |
| 1-1🟊 | Project is enrolled with Built Green prior to the start of the majority of alterations. At least one year of membership fees must be paid. *Contact Built Green Program Manager for late enrollment exemption consideration.* | Click or tap here to enter text. |
| 1-2🟊 | 3rd party verification required by program approved [Built Green Verifier](https://builtgreen.net/certification/#thirdpartyverifiers). | Click or tap here to enter text. |
| 1-3🟊 | Meet all applicable codes, permit requirements, regulations, and green building incentive, or rebate program requirements. | Click or tap here to enter text. |
| 1-4🟊 | Hire, contract, or purchase from at least one contractor or vendor that is a woman, minority, immigrant, veteran, LGBTQ+, or cooperatively or employee owned business. | Click or tap here to enter text. |
|  | Energy Efficiency |  |
| 2-1🟊 | Bring up attic and floor or crawl space insulation values to current WSEC-R insulation requirements. As of July 2023, code minimums are R-60 for attic and R-30 for crawl spaces. Existing material exemptions are minimum R-49 for attics and R-30 for crawl spaces. *For special situations (e.g., sealed, small cavity, and inaccessible spaces, or areas that have already maximized the feasible R-value) contact Built Green for guidance.* | Click or tap here to enter text. |
| 2-2🟊 | Conduct an initial blower door test to establish a baseline. At completion, a final blower door test of the home must achieve:  Homes built before 2009, ACH@50 7.0 or less, or document at least 20% improvement over the initial blower door test  Homes built after 2009, ACH@50 5.0 or less  Homes built 2015 or later, ACH@50 3.5 or less | Click or tap here to enter text. |
| 2-3 | Ventilation must provide balanced supply and exhaust air when ACH@50 is 2.0 or less. | Click or tap here to enter text. |

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| 2-4 | All ducts located in unconditioned space must be:  Be PTCS duct leakage tested and sealed to limit leakage to exterior to no more than 4% of floor area, or 0.04CFM25/Sqft.  Insulated to current WSEC-R insulation requirements, minimum R-8, using continuous insulation as much as existing conditions allow. | Click or tap here to enter text. |
| 2-5🟊 | Commission/”tune-up” any existing and remaining HVAC and water heating equipment and systems. | Click or tap here to enter text. |
| 2-6🟊 | Existing natural gas powered, condensing HVAC or water heating equipment must be replaced when:  Equipment is older than its expected service life.  Equipment’s efficiency factor (EF) is less than 0.90.  All atmospheric venting HVAC or water heating equipment must be removed or replaced. | Click or tap here to enter text. |
| 2-7 | If replaced, new HVAC system must:  Apply ACCA Manual J to size the appropriate system in BTU/sq ft.  Be sized for minimum 15% reduction in BTU/sq ft from existing baseline.  Equipment is high efficiency; UEF of 2.0 or higher and on [NEEA cold climate list](https://ashp.neep.org/#!/product_list/).  *Exceptions only allowed per Built Green’s discretion.* | Click or tap here to enter text. |
| 2-9 | If replaced, new water heater(s) must be one of the following:  Solar Hot water  Electric Heat Pump Hybrid (Tier 3 or better)  Electric CO2 Heat Pump  Electric tankless (EF of 0.99 or better)  *Exceptions only allowed per Built Green’s discretion.* | Click or tap here to enter text. |
| 2-10 | No new fossil fuel, combustion powered infrastructure, appliances, fireplaces, or mechanical equipment. Outdoor fire pits and barbecues are exempt. | Click or tap here to enter text. |
| 2-11🟊 | Insulate any existing indoor water supply pipes that are accessible, exposed during construction, or in unconditioned space. Insulate all new water supply pipes added during remodel. Includes any pipes connected to the hot water heater. | Click or tap here to enter text. |
| 2-12 | All new or replaced appliances, exterior doors or windows, major electronics, and central air conditioners, must be [Energy Star certified products](https://www.energystar.gov/productfinder/). | Click or tap here to enter text. |
| 2-13🟊 | 100% LED lighting for all built-in fixtures. | Click or tap here to enter text. |
|  | Site and Water |  |
| 3-1🟊 | Model at least 30% reduction in total water use, utilizing the [Built Green Total Water Use Worksheet](https://builtgreen.net/docs/librariesprovider2/supplemental-guidelines/bg-water-use-worksheet_11-2021.xlsx?sfvrsn=7f94214f_9). Must achieve a minimum of 25% reduction in indoor water use, over a baseline of 53 gallons/per person/day. | Click or tap here to enter text. |
| 3-2 | All new or replaced plumbing fixtures must be low-flow and [WaterSense labeled](https://www.epa.gov/watersense/product-search?Category=). Kitchen Faucets are limited to 1.75 GPM or less. Pot fillers are exempt. | Click or tap here to enter text. |
| 3-3 | Landscaping (applicable on any disturbed or modified areas): |  |
| a | Emphasize retention of mature or established vegetation. If vegetation is removed, healthy, mature shrubs and trees should be donated or sold for reuse by others. Discuss relocation options with your contractor or landscaper; or use online social marketplaces to list the plants for rehoming. | Click or tap here to enter text. |
| b | Prioritize native, drought-tolerant, or native-pollinator vegetation and [Water-Smart best practices](https://www.epa.gov/system/files/documents/2021-12/ws-outdoor-water-smart-landscapes.pdf) for all new landscaping. | Click or tap here to enter text. |
| c | Walkable ground cover vegetation to be used in walkway spaces that do not require pavement for accessibility or function. New paved walkways to use permeable concrete or pavers (when feasible), stepping stones, or non-concrete materials. | Click or tap here to enter text. |
| 3-4🟊 | Limit turf grasses to no more than 50% of landscaped areas, prioritizing functional areas over decorative areas. Convert excess turf grass areas in accordance to requirement 3-3.  Shape any remaining areas of turf grass into water-wise circular or rectangular shapes, not narrow strips or oddly-shaped that are hard to water. | Click or tap here to enter text. |
| 3-5🟊 | No artificial turf or areas of impermeable lining covered by rocks present or installed. | Click or tap here to enter text. |
| 3-6🟊 | Cover unvegetated areas or exposed soils with at least 3” of mulch. | Click or tap here to enter text. |
| 3-7🟊 | Amend disturbed soil with compost or suitable soil amendments to a minimum depth of 10” to restore soil environmental functions. When construction is complete, leave no disturbed areas uncovered or unstabilized. Applies even if landscaping is unchanged. | Click or tap here to enter text. |

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| 3-8 | Irrigation system (if applicable): |  |
| a | If there is existing in-ground irrigation, upgrade the system with an evapotranspiration-based irrigation [controller](https://www.epa.gov/watersense/watersense-labeled-controllers) with a rain sensor and a flow-sensor leak detection system. Program the controller to know the types of vegetation and soil are in each sprinkler zone. | Click or tap here to enter text. |
| b | If new in-ground irrigation is installed, it is to be designed by a professional and installed in accordance with [EPA WaterSense Program](https://www.epa.gov/watersense/irrigation-pro) or equivalent. Also must meet the same system requirements in 3-8a. | Click or tap here to enter text. |
| c | All above ground irrigation (including drip) must be connected to an irrigation controller or hose timers. | Click or tap here to enter text. |
| 3-9 | When impervious surface is increased, control flow, mitigate, or infiltrate at least 60% of the new stormwater runoff on site. Sites that are not allowed to infiltrate on site, per soil conditions, are exempted. | Click or tap here to enter text. |
| 3-10🟊 | No new asphalt paving. | Click or tap here to enter text. |
| 3-11🟊 | No new copper roofing or asphalt shingles that are impregnated with copper or zinc algae-resistant granules. | Click or tap here to enter text. |
|  | Materials and Indoor Air Quality |  |
| 4-1🟊 | Use a moisture meter to identify moisture problem areas and leaks. Use an infrared thermal imaging scanner to identify air sealing and insulative problem areas. Correct all problem areas identified to code-specifications. | Click or tap here to enter text. |
| 4-2🟊 | Take measures to avoid problems due to construction fumes or dust for workers, occupants, and any existing ducting. | Click or tap here to enter text. |
| 4-3🟊 | Use less-toxic cleaners; EPA Safer choice and Green Seal labels are preferred. Review manufacturers’ Material Safety Data Sheets (MSDS) before you buy. Avoid products with health hazards ratings higher than “1.” In addition, avoid as much as possible products with ingredients that the MSDS classifies as toxic (poisonous), flammable, caustic (causes burns), or chemically reactive. | Click or tap here to enter text. |
| 4-4🟊 | Install moisture or leak detectors/alarms under sinks and water heater tanks, or a whole-home system. Water heaters with built-in, automatic leak shut-off valves are a best practice. | Click or tap here to enter text. |
| 4-5 | New kitchen exhaust fans installed are limited to 300 CFM maximum. Fans with higher CFM may be used if a make-up air system is installed per code requirements. | Click or tap here to enter text. |
| 4-6 | New spot fans installed must be [Energy Star certified](https://www.energystar.gov/productfinder/), under 110CFM, and quiet (0.5 or less sones). | Click or tap here to enter text. |
| 4-7 | For ducted HVAC systems, use a high-efficiency pleated filter, MERV 13 or better, or HEPA. | Click or tap here to enter text. |
| 4-8 | If an attached garage is present:  Walls, ceilings, floors, and doors that are shared with the home’s living spaces must be insulated per code and air sealed from the garage as if they were exterior walls and doors. Requires either the air separation of the garage and house to be confirmed with a blower door test or an [Energy Star certified](https://www.energystar.gov/productfinder/) automatic exhaust fan is to be installed in the garage.  If the entire garage is air sealed to the same extent as the home, an Energy Star certified automatic exhaust fan must be installed to prevent fume build up. | Click or tap here to enter text. |
| 4-9 | When existing natural gas equipment remains in service in the home or there is an attached garage:  Combustion Air Conditioning Zone testing is required per equipment.  Carbon monoxide detectors must be present on every floor of the home; including within 10 feet of each bedroom door, kitchens with gas ranges, basements with natural gas appliances, and near or over any attached garage. | Click or tap here to enter text. |
| 4-10🟊 | Engage a salvage professional to conduct a salvage assessment of the areas in the home planned for removal or demolition. This could include a “virtual” assessment through emailed itemized photos or site-walk with a salvage professional. This is especially important for homes built prior to 1949 that may contain higher quantities of valuable architectural details and materials.  Use deconstruction to salvage any materials or products identified from the salvage assessment for reuse. Donate usable furniture or appliances to charities or resellers. | Click or tap here to enter text. |
| 4-11🟊 | Create a jobsite recycling plan, waste tracking spreadsheet and photos, and maintain it through the remodel.  Curbside bins or private recycling haulers are acceptable for use of smaller alteration projects. If a project scale is large enough that large debris bins are needed, maintain at least two bins on site (one for waste, one for recycling). Bins do not have to be the same size. Use municipal composting where available. | Click or tap here to enter text. |
| 4-12🟊 | Using source-separation recycling and commingled recycling, the project must receive an overall recycling rate of 50% or better for at least 85% of demolition and construction waste (by volume or weight. Applies to all demolition waste that is appropriate for recycling. See [Built Green Recycling Guidelines](https://builtgreen.net/docs/librariesprovider2/supplemental-guidelines/recycling-guidelines-2020-06.pdf?sfvrsn=ffdf204f_10) for instructions on using source-separation and commingled recycling facilities and the acceptable forms of documentation. | Click or tap here to enter text. |
| 4-13🟊 | All new insulation, carpet, paints, finished wood and finish materials used in the home must include at least one indoor air quality (IAQ) attribute. IAQ attributes include:  CARB II compliant or [Greenguard Gold](https://www.ul.com/resources/ul-greenguard-certification-program) certified  No-added Urea Formaldehyde-free certified  Low or ultra-low VOC for wet-applied materials  Product has a [Health Product Declaration (HPD)](https://www.hpd-collaborative.org/streamline-green-building-product-selection/) or has an ILFI [Declare label](https://declare.living-future.org/) that is labeled “[Red-List](https://living-future.org/red-list/) Free” | Click or tap here to enter text. |
| 4-14🟊 | New materials or products used for cladding, siding, roofing, insulation, drywall, millwork, flooring, countertops, cabinets, or decking must include at least one environmental attribute.  Environmental attributes include:  Rapidly renewable with a harvest cycle 10 years or less  Carbon-storing, Carbon-neutral, or Climate-positive  Salvaged or reclaimed material or product  Recycled Content or made from industry by-products (highest percentage available for material type)  Product certified by a recognized [3rd-party sustainability certification](https://elemental.green/23-green-certifications-to-look-for-building-remodeling-home/). Wood products must meet [Built Green’s Wood Certification Guidelines](https://builtgreen.net/docs/librariesprovider2/supplemental-guidelines/bg-wood-certification-guidelines_march-2021.pdf?sfvrsn=3994214f_4), Tier 1 or 2. FSC Mix is accepted only for pressboard products.  Product has a minimum life cycle of 50 years  Locally-sourced (Raw materials sourced or product manufactured within 500 miles of the project)  Product has an Environmental Product Declaration (EPD) and is in the bottom 40% of carbon emissions in that product category | Click or tap here to enter text. |
| 4-15🟊 | Use no endangered species or old growth wood, including conflict woods like Ipe, aka “Ironwood.” Excludes existing products in the home and salvaged lumber materials. | Click or tap here to enter text. |
| 4-16🟊 | No new PVC or vinyl products installed on or inside the home for flooring, siding, fencing, and decking. No PVC for indoor water supply and drainage pipes, sink traps excluded. | Click or tap here to enter text. |
| 4-17🟊 | Any foam insulation [rigid or spray] must have a Global Warming Potential (GWP) of less than 6. Excludes miscellaneous use in small spaces for air sealing. | Click or tap here to enter text. |

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|  | Homeowner Education and Operational Maintenance |  |
| 5-1🟊 | Provide a homeowner’s kit that includes: |  |
| a | Maintenance checklist of building and landscaping systems to maintain optimum performance. Checklist items should be categorized by frequency and recommended season for carrying out. Identify any checklist items where it is recommended or required by manufacturer warranty for maintenance by a professional. | Click or tap here to enter text. |
| b | All contractor and manufacturer warranty information for all new components in the home, and list of contacts should a warranty issue arise. | Click or tap here to enter text. |
| c | At completion, provide Home Energy Audit Summary report and Water Efficiency Performance Summary report. | Click or tap here to enter text. |

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| By my signature, I certify that I have performed and met all requirements above. | | | | |
|  | | | | |
|  | X |  | |  |
|  |  | (Homeowner Signature and Date) |  |  |
|  | X |  |  |  |
|  |  | (Contractor/Builder Signature and Date) |  |  |
|  | X |  |  |  |
|  |  | (Built Green Verifier Signature and Date) |  |  |

**Built Green Water Efficiency Retrofit Certification**

|  |  |
| --- | --- |
| Builder/ Homeowner: | Click or tap here to enter text. |
| Project Address: | Click or tap here to enter text. |
| # of bedrooms: | Click or tap here to enter text. |
| Unit Size in Square Feet: | Click or tap here to enter text. |

🟊: Denotes a requirement that applies to all projects, regardless of scope

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| **#** | **Requirements** | **Verification Comments** |
| W-1🟊 | Project is enrolled with Built Green prior to the start of the majority of alterations. At least one year of membership fees must be paid. *Contact Built Green Program Manager for late enrollment exemption consideration.* | Click or tap here to enter text. |
| W-2ê | 3rd party verification required by program approved [Built Green Verifier](https://builtgreen.net/certification/#thirdpartyverifiers). | Click or tap here to enter text. |
| W-3ê | Meet all applicable codes, permit requirements, regulations, and green building incentive, or rebate program requirements. | Click or tap here to enter text. |
| W-4ê | Model at least 30% reduction in total water use, utilizing the [Built Green Total Water Use Worksheet](https://builtgreen.net/docs/librariesprovider2/supplemental-guidelines/bg-water-use-worksheet_11-2021.xlsx?sfvrsn=7f94214f_9). Must achieve a minimum of 25% reduction in indoor water use, over a baseline of 53 gallons/per person/day. | Click or tap here to enter text. |
| W-5 | All newly installed or replaced plumbing fixtures must be low-flow and [WaterSense labeled](https://www.epa.gov/watersense/product-search?Category=). Kitchen Faucets are limited to 1.75 GPM or less. Pot fillers are exempt. | Click or tap here to enter text. |
| W-6ê | Commission/”tune-up” any existing and remaining water heating equipment and systems. | Click or tap here to enter text. |
| W-7ê | Existing natural gas powered, condensing water heating equipment must be replaced when:  Equipment is older than its expected service life.  Equipment’s efficiency factor (EF) is less than 0.90.  All atmospheric venting water heating equipment must be removed or replaced. | Click or tap here to enter text. |
| W-8ê | When existing natural gas equipment remains in service in the home or there is an attached garage:  Carbon monoxide detectors must be present on every floor of the home; including within 10 feet of each bedroom door, kitchens with gas ranges, basements with natural gas appliances, and near or over any attached garage. | Click or tap here to enter text. |

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| W-9 | If replaced, new water heater(s) must be one of the following:  Solar Hot water  Electric Heat Pump Hybrid (Tier 3 or better)  Electric CO2 Heat Pump  Electric tankless (EF of 0.99 or better)  *Exceptions only allowed per Built Green’s discretion.* | Click or tap here to enter text. |
| W-10 | Landscaping (applicable on any disturbed or modified areas): |  |
| a | Emphasize retention of mature or established vegetation. If vegetation is removed, healthy, mature shrubs and trees should be donated or sold for reuse by others. Discuss relocation options with your contractor or landscaper; or use online social marketplaces to list the plants for rehoming. | Click or tap here to enter text. |
| b | Prioritize native, drought-tolerant, or native-pollinator vegetation and [Water-Smart best practices](https://www.epa.gov/system/files/documents/2021-12/ws-outdoor-water-smart-landscapes.pdf) for all new landscaping. | Click or tap here to enter text. |
| c | Walkable ground cover vegetation to be used in walkway spaces that do not require pavement for accessibility or function. New paved walkways to use permeable concrete or pavers (when feasible), stepping stones, or non-concrete materials. | Click or tap here to enter text. |
| W-11ê | Turf grasses are limited to no more than 50% of landscaped areas, prioritizing functional areas over decorative areas. Convert excess turf grass areas in accordance with requirement W-10.  Shape any remaining areas of turf grass into water-wise circular or rectangular shapes, not narrow strips or oddly-shaped that are hard to water. | Click or tap here to enter text. |
| W-12ê | No artificial turf or areas of impermeable lining covered by rocks present or installed. | Click or tap here to enter text. |
| W-13ê | Cover unvegetated areas or exposed soils with at least 3” of mulch. | Click or tap here to enter text. |
| W-14 | Irrigation (if applicable): |  |
| a | If there is existing in-ground irrigation, upgrade the system with an evapotranspiration-based irrigation [controller](https://www.epa.gov/watersense/watersense-labeled-controllers) with a rain sensor and a flow-sensor leak detection system. Program the controller to know the types of vegetation and soil are in each sprinkler zone. | Click or tap here to enter text. |

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| b | If new in-ground irrigation is installed, it is to be designed by a professional and installed in accordance with [EPA WaterSense Program](https://www.epa.gov/watersense/irrigation-pro) or equivalent. Also must meet the same system requirements in W-14a. | Click or tap here to enter text. |
| c | All above ground irrigation (including drip) must be connected to an irrigation controller or hose timers. | Click or tap here to enter text. |
| W-15🟊 | Provide a homeowner’s kit that includes: |  |
| a | Maintenance checklist of water and landscaping systems to maintain optimum performance. Checklist items should be categorized by frequency and recommended season for carrying out. Identify any checklist items where it is recommended or required by manufacturer warranty for maintenance by a professional. | Click or tap here to enter text. |
| b | All contractor and manufacturer warranty information for all new components in the home, and list of contacts should a warranty issue arise. | Click or tap here to enter text. |
| c | At completion, provide Water Efficiency Performance Summary report. | Click or tap here to enter text. |

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| By my signature, I certify that I have performed and met all requirements above. | | | | |
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|  |  | (Homeowner Signature and Date) |  |  |
|  | X | A white square with a blue border  Description automatically generated |  |  |
|  |  | (Contractor/Builder Signature and Date) |  |  |
|  | X | A white square with a blue border  Description automatically generated |  |  |
|  |  | (Built Green Verifier Signature and Date) |  |  |

**Built Green Energy Efficiency Retrofit Certification**

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| Builder/ Homeowner: | Click or tap here to enter text. |
| Project Address: | Click or tap here to enter text. |
| # of bedrooms: | Click or tap here to enter text. |
| Unit Size in Square Feet: | Click or tap here to enter text. |

🟊: Denotes a requirement that applies to all projects, regardless of scope

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| **#** | **Requirements** | **Verification Comments** |
| E-1ê | Project is enrolled with Built Green prior to the start of the majority of alterations. At least one year of membership fees must be paid by the member. *Contact Built Green Program Manager for late enrollment exemption consideration.* | Click or tap here to enter text. |
| E-2ê | 3rd party verification required by program approved [Built Green Verifier](https://builtgreen.net/certification/#thirdpartyverifiers). | Click or tap here to enter text. |
| E-3ê | Meet all applicable codes, permit requirements, regulations, and green building incentive, or rebate program requirements. | Click or tap here to enter text. |
| E-4ê | Bring up attic and floor or crawl space insulation values to current WSEC-R insulation requirements. As of July 2023, code minimums are R-60 for attic and R-30 for crawl spaces. Existing material exemption is minimum R-49 for attics. *For special situations (i.e., sealed, small cavity, and inaccessible spaces, or areas that have already maximized the feasible R-value) contact Built Green for guidance.* | Click or tap here to enter text. |
| E-5ê | Conduct an initial blower door test to establish a baseline. At completion, a final blower door test of the home must achieve:  Homes built before 2009, ACH@50 7.0 or less, or document at least 20% improvement over the initial blower door test  Homes built after 2009, ACH@50 5.0 or less  Homes built 2015 or later, ACH@50 3.5 or less | Click or tap here to enter text. |
| E-6 | Ventilation must provide balanced supply and exhaust air when ACH@50 is 2.0 or less. | Click or tap here to enter text. |
| E-7 | All ducts located in unconditioned space must be:  Be PTCS duct leakage tested and sealed to limit leakage to exterior to no more than 4% of floor area, or 0.04CFM25/Sqft.  Insulated to current WSEC-R insulation requirements, minimum R-8, using continuous insulation as much as existing conditions allow. | Click or tap here to enter text. |
| E-8ê | Commission/”tune-up” any existing and remaining HVAC and water heating equipment and systems. | Click or tap here to enter text. |
| E-9ê | Existing natural gas powered, condensing HVAC or water heating equipment must be replaced when:  Equipment is older than its expected service life.  Equipment’s efficiency factor (EF) is less than 0.90.  All atmospheric venting HVAC or water heating equipment must be removed or replaced. | Click or tap here to enter text. |
| E-10 | When existing natural gas equipment remains in service in the home or there is an attached garage:  Combustion Air Conditioning Zone testing is required per equipment.  Carbon monoxide detectors must be present on every floor of the home; including within 10 feet of each bedroom door, kitchens with gas ranges, basements with natural gas appliances, and near or over any attached garage. | Click or tap here to enter text. |
| E-11 | If replaced, new HVAC system must:  Apply ACCA Manual J to size the appropriate system in BTU/sq ft.  Be sized for minimum 15% reduction in BTU/sq ft from existing baseline.  Equipment is high efficiency; UEF of 2.0 or higher and on [NEEA cold climate list](https://ashp.neep.org/#!/product_list/).  *Exceptions only allowed per Built Green’s discretion.* | Click or tap here to enter text. |
| E-12 | If replaced, new water heater(s) must be one of the following:  Solar Hot water  Electric Heat Pump Hybrid (Tier 3 or better)  Electric CO2 Heat Pump  Electric tankless (EF of 0.99 or better)  *Exceptions only allowed per Built Green’s discretion.* | Click or tap here to enter text. |
| E-13ê | No new fossil fuel, combustion powered infrastructure, appliances, fireplaces, or mechanical equipment. Outdoor fire pits and barbecues are exempt. | Click or tap here to enter text. |
| E-14ê | Insulate any existing indoor water supply pipes that are accessible, exposed during construction, or in accessible unconditioned space. Insulate all new water supply pipes added or replaced. Includes any pipes connected to the hot water heater. | Click or tap here to enter text. |
| E-15 | All new or replaced appliances, exterior doors or windows, major electronics, and central air conditioners must be [Energy Star certified products](https://www.energystar.gov/productfinder/). | Click or tap here to enter text. |
| E-16ê | 100% LED lighting for all built-in fixtures. | Click or tap here to enter text. |

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| E-17🟊 | Provide a homeowner’s kit that includes: |  |
| a | Maintenance checklist of building’s energy systems and thermal envelope to maintain optimum performance. Checklist items should be categorized by frequency and recommended season for carrying out. Identify any checklist items where it is recommended or required by manufacturer warranty for maintenance by a professional. | Click or tap here to enter text. |
| b | All contractor and manufacturer warranty information for all new components in the home, and list of contacts should a warranty issue arise. | Click or tap here to enter text. |
| c | At completion, provide Water Efficiency Performance Summary report. | Click or tap here to enter text. |

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| By my signature, I certify that I have performed and met all requirements above. | | | | |
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|  |  | (Homeowner Signature and Date) |  |  |
|  | X | A white square with a blue border  Description automatically generated |  |  |
|  |  | (Contractor/Builder Signature and Date) |  |  |
|  | X | A white square with a blue border  Description automatically generated |  |  |
|  |  | (Built Green Verifier Signature and Date) |  |  |

**Built Green Energy Labels**

The following Built Green energy Labels must be earned along with a Built Green Certification. Projects may add labels to upgrade their certification within three years of the initial certification being achieved.

Zero Emissions Label

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| **#** | **Requirements** | **Verification Comments** |
| ZC-1 | Meet Built Green Remodel or Energy Efficiency Retrofit Certification requirements. Labels may not be earned as a stand alone. | Click or tap here to enter text. |
| ZC-2 | Home is all-electric; must not include any use of combustible fuels inside the home. | Click or tap here to enter text. |
| ZC-3 | If the home has private off-street parking: pre-wire a dedicated 240V branch and minimum 50 amp circuit for EV supply equipment that is terminated at a junction box (install a junction box cover) in order to allow for future installation of EV charging receptacle. Label reserved breaker spaces and covered junction box “Reserved for EV Charging.” | Click or tap here to enter text. |

Net Zero Energy Label

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| **#** | **Requirements** | **Verification Comments** |
| NZE-1 | Meet Built Green Remodel or Energy Efficiency Retrofit Certification requirements. Labels may not be earned as a stand alone. | Click or tap here to enter text. |
| NZE-2 | Design and remodel to achieve net zero energy using approved modeling protocols; requires an ERI or HERS of 0 or lower. Performance model must be provided by a 3rd party [Built Green Verifier](https://builtgreen.net/certification/#thirdpartyverifiers). | Click or tap here to enter text. |
| NZE-3 | Home is all-electric; must not include any use of combustible fuels inside the home. | Click or tap here to enter text. |

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| By my signature, I certify that this project has performed and met all requirements above. | | | | |
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|  |  | (Built Green Verifier Signature and Date) |  |  |