Checklist Revised 04/2010 TLC

Built Green SICBA Checklist - **Light Commercial**

Basic Requirements:	1. Attend a program orientation (one time only) 2. Build to Green Codes and Regulations 3. Complete Required Action Items from Sections Two through Six of the SICBA Built Green® Checklist		
1-Star Level FALSE	1. Complete Basic Requirements 2. Earn 40 points by completing Action Items from the SICBA Homebuilder Checklist – scoring at least five (5) points from each Section Two through Five. 3. Complete at least one Built Green® approved Technical Workshop in the twelve months prior to project certification	0 0 0 0 0	= SECTION 2 POINTS EARNED = SECTION 3 POINTS EARNED = SECTION 4 POINTS EARNED = SECTION 5 POINTS EARNED = TOTAL POINTS EARNED (INCLUDING SECTION 1)
2-Star Level FALSE	1. Complete Basic Requirements 2. Earn 100 points by completing Action Items from Sections One through Five, scoring at least six (6) points from each Section, Two through Five. 3. Complete at least one Built Green® approved Technical Workshop in the twelve months prior to project certification		
3-Star Level FALSE	1. Complete Basic Requirements 2. Earn 160 points by completing Action Items from Sections One through Five, scoring at least ten (10) points from each Section, Two through Five. 3. Complete at least one Built Green® approved Technical Workshop in the twelve months prior to project certification		
4-Star Level FALSE Only if additional 4-star requirements below are met	1. Complete Basic Requirements 2. Complete additional 4-star requirements on checklist below 3. Earn 250 points by completing Action Items from Sections One through Five, scoring at least fifteen (15) points from each Section, Two through Five. 4. Obtain third-party verification. 5. Complete at least one Built Green® approved Technical Workshop in the twelve months prior to project certification.		
5-Star Level FALSE Only if additional 5-star requirements below are met	1. Complete basic Requirements 2. Complete additional 5-star requirements on checklist below 3. Earn 350 points by completing Action Items from Sections One through Five, scoring at least twenty (20) points from each Section, Two through Five. 4. Obtain Third-Party Verification. 5. Complete at least one Built Green® approved Technical Workshop in the twelve months prior to project certification		
NOTE:	1 through 3-Star Levels may be self-certified by the builder. 4 and 5-Star Levels require Third-Party Verification before certification can be achieved. Verifier checklists must accompany the SICBA Checklist for 4 and 5-Star Certification.		

General Contractor: Project Name:				Date:	
	Item No.	Pts	CREDIT	Enter points taken	Comments
REQUIREMENTS					
		*	Meet Washington State Water Use Efficiency Standards		
		*	Meet Applicable Stormwater/Site Development Standards		
		*	Meet Washington State Energy Code		
		*	Meet Washington State Ventilation/IAQ Code		
				ALL	
4 STAR REQUIREMENTS MINIMUM 250 POINTS					
		required	Meet 3 star requirements	*	
		required	Third Party verification required	*	
2-42	site and water	required	No zinc, galvanized ridge caps, copper flashing or copper wires for moss prevention (2-42)	*	
2-60 2-61	site and water	required	Landscape with plants appropriate for site topography and soil types, emphasizing use of plants with low watering requirements (drought tolerant) (2-60 and 2-61)	*	
3-4	Energy	required	Energy Star Homes or equivalent required	*	program for commercial
4-40	IAQ	required	Use low toxic/low VOC paint on all major surfaces (except PVA primer which is not currently available)	*	
4-18	IAQ	required	Ventilate with box fans in windows blowing out during drywall sanding and new wet finish applications	*	
5-18 TO 5-27	Materials	required	Practice waste prevention and recycling and buy recycled products	*	
Choose one of the following					
4-25	IAQ		Provide built in walk-off mat and shoe storage area in each unit	*	
4-35	IAQ		Use plywood and composites of exterior grade or with no added urea formaldehyde for interior uses	*	
4-51	IAQ		Use high efficiency pleated filter of MERV 12 or better, or HEPA filter in each occupied unit	*	
4-54	IAQ		Install sealed combustion heating and hot water equipment in each unit		
FIVE STAR REQUIREMENTS MINIMUM 350 POINTS					
		required	Meet 4-Star requirements	*	
	Site and Water	required	Minimum of 63 points earned for Site and Water	*	
2-20	Site and Water	required	Amend disturbed soil with compost to a depth of 6 - 12 inches to restore environmental functions (2-20)	*	
2-24	Site and Water	required	Use pervious materials for at least one-third of total area for driveways, walkways and patios (2-24)	*	
2-58	Site and Water	required	Limit use of turf grass to 25% of landscaped area (2-58)	*	
2-5 2-11	Site and Water	required	Avoid soil compaction by limiting heavy equipment use to within 20 feet of building footprint and construction entrance (2-5) (2-11)	*	Exception can be made for specific crane site, or similar equipment requirement
2-12	Site and Water	required	Preserve existing native vegetation as landscaping (2-12)	*	
2-13	Site and Water	required	Retain trees on site (2-13)	*	
3-5 3-6	Energy	required	Minimum R-26 for overall wall insulation	*	
3-5 3-6	Energy	required	Use NFRC certified windows with a U-factor of .30	*	
3-18 3-19	Energy	required	Advanced framing (24 in OC),w/ double top plate or use advanced wall framing w/ Single top plate (3-18, 3-19)	*	
3-26	Energy	required	Pre-wire for future PV installation (3-26)	*	
3-73	Energy	required	Use 100% Energy Star compact flurescent bulbs, ballast or fixtures throughout the building	*	
3-5 3-6	Energy	required	In lieu of above energy requirements demonstrate building energy performance 30% beyond code (3-5)	*	
4-32	IAQ	required	Detached or no garages OR garages air sealed from units with automatic exhaust fan	*	
5-4 TO 5	Materials	required	Achieve a minimum recycling rate of 70% of waste by weight	*	Requires less than 1.2 lbs/sf non-recycled waste
	Materials	required	Use a minimum of 10 materials with recycled content	*	
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SECTION 1: Built Green Team					
	1.1	1 - 10	Use sub-contractors, vendors and service providers who are Built Green Participants in good standing. (One point for each, max 10)		Built Green participation requires a level of knowledge and ongoing education about green building practice. Using BG providers helps ensure the quality of your BG project.
			SECTION 1: Built Green Team Subtotal:	0	
SECTION 2: SITE AND WATER					

Item No.	Pts	CREDIT	Enter points taken	Comments
SITE PROTECTION				
Requirements				
2-1	*	Preserve and protect wetlands, shorelines, bluffs, during construction		
2-2	*	Preserve and protect critical areas during construction		
2-3	*	Install temporary erosion control devices and optimally maintain them		
2-4	*	Protect stockpiled topsoil with mulch or plastic		
2-5	*	Take extra care to establish and maintain a single stabilized construction entrance (quarry spall, crushed rock or concrete)		
2-6	*	Take extra precautions to install and maintain sediment traps		
2-7	*	Prohibit burying construction waste		
Overall				
2-8	5	Build a mixed-use building or development (including residential units and commercial units on same property)		
2-9	3	Build on an infill lot to take advantage of existing infrastructure and reduce development of virgin sites		
2-10	10	Build in a Low Impact development		
Protect Site's Natural Features				
2-11	3	Limit heavy equipment use zone to limit soil compaction		
2-12	3	Preserve existing native vegetation as landscaping		
2-13	3	Take additional precautions to protect trees during construction		
2-14	3 to 6	Set aside a percentage of site to be left undisturbed		
Protect Natural Processes On-Site				
2-15	1	Use compost to stabilize disturbed slopes		
2-16	3	Balance cut and fill, while maintaining original topography		
2-17	3	Limit grading to 20 ft outside building footprint		
2-18	3	Preserve topsoil in place		
2-19	3	Grind landclearing wood and stumps for reuse on site		
2-20	5	Amend disturbed soil to a depth of 6 to 12 inches to restore soil environmental functions		
2-21	3	Replant or donate removed vegetation for immediate reuse		
2-22	5	Use a water management system that allows groundwater to recharge		
2-23	5	Design to minimize stormwater impacts. Effective impervious surface (see Handbook for definition): 5 acres and above = 0%; < 5 acres = 10% max		
2-24	5	Use pervious materials for at least one third of total area for driveways, walkways, and patios		
2-25	5	Use an alternate foundation system (e.g. Pin system) to minimize disturbance to soil and/or to water flow		
2-26	10	Install vegetated roof system (e.g. eco-roof) to reduce impervious surface		
2-27	10	Construct no additional impervious surfaces outside dripline of structures		
Eliminate Water Pollutants				
2-28	1	Take extra precautions to not dispose of topsoil in lowlands or wetlands		
2-29	1	Wash out concrete trucks in slab or impervious pavement subbase areas		
2-30	1	When construction is complete, leave no part of the disturbed site uncovered or unstabilized		
2-31	1	Recycle antifreeze, oil, and oil filters at appropriate outlets		
2-32	1	Dispose of non-recyclable hazardous waste at legally permitted facilities		
2-33	1	Establish and post clean up procedures for spills to prevent illegal discharges		
2-34	2	Reduce hazardous waste through good jobsite housekeeping		
2-35	3	Provide an infiltration trench and/or raingarden for rooftop runoff		
2-36	2	Establish and post clean up protocol for tire wash and construct wash facility on-site if necessary		
2-37	2	Use slow-release organic fertilizers to establish vegetation		
2-38	2	Use less toxic form releasers or no temporary forms or releasers		
2-39	2	Use non-toxic or low-toxic outdoor lumber for landscaping (e.g. plastic, least-toxic treated wood)		
2-40	2	Do not use CCA-treated wood shake roofing		
2-41	3	Follow *Seasonal Land-clearing Checklist* (see User Guide) prior to any landclearing between October 1 and April 30		
2-42	2	No zinc galvanized ridge caps, copper flashing, copper wires, or copper/zinc impregnated shingles for algae prevention (Item 2-73 also required)		
DESIGN ALTERNATIVES				
2-43/53		UNDER DEVELOPMENT		
WATER PROTECTION				
Outdoor Conservation				
2-54	1	Mulch landscape beds with 2 inches organic mulch		
2-55	2	Use only bark-free mulches		
2-56	1	Use grass type requiring less irrigation and minimal maintenance		
2-57	3	Use compost soil amendments to establish turf and other vegetation with less irrigation		
2-58	3	Limit use of turf grass to 25% of landscaped area		

Item No.	Pts	CREDIT	Enter points taken	Comments
2-59	10	No turf grass		
2-60	1	Landscape with plants appropriate for site topography and soil types, emphasizing use of plants with low watering requirements; OR		
2-61	2	Landscape with NATIVE plants appropriate for site topography and soil types, emphasizing use of plants with low watering requirements		
2-62	2	Landscape fire buffer around building using native species that are fire resistant		
2-63	1	Work with WSU Master Gardener Volunteer to develop landscape design and implementation plan (for Action Items 2-60, 2-61 and 2-62)		
2-64	4	Rough-in plumbing to capture greywater for reuse/irrigation		
2-65	2	Install rain barrels to store rainwater for reuse		
2-66	5	Install rainwater collection system (cistern) for reuse		
2-67	10	Install irrigation system using recycled water		
Indoor Conservation				
2-68	1	For bathroom faucets, select fixtures with GPM less than code		
2-69	1	For kitchen faucets, select fixtures with GPM less than code		
2-70	1	Select toilets fixtures that meet code, and work with the first flush		
2-71	2	Install Dual flush toilets		
2-72	2	Install instant (tankless) hot water systems (where appropriate)		
Eliminate Water Pollutants				
2-73	1	Educate building owners about fish-friendly moss control		
2-74		Reserved		
INNOVATION				
2-75	4 to 10	Include innovative design, equipment and operation solutions to protect the site's natural features, conserve water and reduce impact on water resources		
		SECTION 2: SITE AND WATER Subtotal:	0	
SECTION 3: ENERGY EFFICIENCY				
3-1	*	Install programmable thermostats with nighttime setback and switch for furnace fan for all units		
3-1A	*	Complete Life Cycle Analysis for Heating System Selection, use system most efficient over lifespan, compare at least two system types		Add Language in Homebuilder Guide
OVERALL				
3-2	5	Provide 3rd party verification of energy performance of design		
3-3	5	Orient buildings on site to make best use of solar energy		
3-4	10	Building is ENERGY STAR® Homes Northwest certiified or EQ.		Find equivalent standard
ENVELOPE				
Thermal Performance				
3-5	1 pt/ %impr.	Document envelope improvements beyond code for commercial buildings (component performance approach)		
3-6	1 to 31	Document envelope improvements beyond code for commercial buildings (prescriptive scoring approach)		
Air Sealing				
3-7	3	Use Airtight Drywall Approach for framed structures		
3-8	3	Use airtight building method, such as Structural Insulated Panels or Insulated Concrete Forms, for building envelope		
3-8A	3	Use an Air Barrier on the exterior wall assembly Installed per Manufacturers Guidelines		
3-9	3	Use Blower door test to identify and correct air infiltration problems - achieve 0.3 ACH - 0.25 ACH (7.0 @50 pascals)		Review in relation to new WA St. energy code
Reduce Thermal Bridging				
3-10	3	Use blown-in insulation in exterior walls and ceiling		
3-11	1	Use insulated headers		
3-12	1	Fully insulate corners (requires 2-stud or 3-stud "U" corners)		
3-13	1	Fully insulate at interior/exterior wall intersection		
3-14	1	Specify and use energy heels of 6 in. or more on trusses to allow added insulation over top plate		
3-15	2	Use insulated exterior sheathing		
3-16	3	Add wall, ceiling, and/or floor insulation beyond Code requirements		
3-17	7	Use structural insulated panels (SIPs) or Insulated Concrete Forms (ICFs) with insulation over cross ties for building envelope		
3-18	3	Use advanced wall framing—24-in OC, w/double top plate OR		
3-19	4	Use advanced wall framing—24-in OC, with SINGLE top plate		
3-20	3	Use NFRC certified windows with a U-factor of 0.30 or better (0.45 or better for skylights)		
Solar Design Features				
3-21	2	Install properly sized overhangs on south facing glazing		
3-22	2	Size and orient windows, and provide appropriate thermal mass to make the best use of passive solar		

Item No.	Pts	CREDIT	Enter points taken	Comments
3-23	2	On west-facing windows, use glazing with solar heat gain coefficient less than 0.35		
3-24	2	Use building and landscaping plans that reduce heating/cooling loads naturally		
3-25	1 to 5	Demonstrate an overall reduction in space conditioning energy using approved energy modeling software		
3-26	3	Install infrastucture for future photovoltaic installation		
3-27	10	Install a photovoltaic system of at least 1.0 kW capacity per 1,000 sf of building.		
HEATING/ COOLING				
Distribution				
3-28	1	Centrally locate heating / cooling system to reduce the size of the distribution system		
3-28A	3	Install HVAC systems with separate zones for each occupancy		
3-29	2	Install one or more properly supported ENERGY STAR® ceiling fans in each unit		
3-30	2	Install ENERGY STAR® heating equipment		
3-31	2	Install ENERGY STAR® cooling equipment		
3-32	2	Insulate any ducts located in unconditioned space to R-11		
3-33	2	Use direct vent gas or propane hearth product (AFUE rating)		
3-34		Reserved		
3-35	3	Design for all passive cooling, no air conditioner. (Fans OK)		
3-36	3	Seal ducts using low toxic mastic or aerosolized sealing system		
3-37	*	Performance test duct for air leakage - meets third-party review and certification		
3-38	3	Locate HVAC distribution system inside the conditioned space		
3-39	4	Locate HVAC equipment AND distribution system inside the conditioned space		
3-40	5	Where appropriate, install furnace fan with an electrically commutated motor (ECM)		
3-41	8	Use ductless distribution system (e.g. Hydronic)		
Controls				
3-42	1	Install 60-minute timers, motion sensors, or humidistat for bathroom and laundry room fans		
Heat Recovery				
3-43	2	Install a heat recovery ventilator		
WATER HEATING				
Heating and Distribution				
3-44	2	Use a heat pump or indirect water heater for domestic hot water (DHW)		
3-45	1	Locate water heater within 20 pipe feet of highest use		
3-46	1	Insulate hot and cold water pipes within 3 feet of the hot water heater		
3-47	2	Install “home run” hot plumbing at farthest location from water heater		
3-48	2	Install on-demand or small, local hot water delivery system at farthest location from water heater		
3-49	3	Install electric water heater efficiency to Energy Factor (EF) of .93 or higher (or use 3-52 below)		
3-50	3	Install gas or propane water heater efficiency to EF of .62 (or use 3-53 below)		
3-51	2	Install the water heater inside the heated space (electric, direct vent, or sealed venting only)		
3-52	4	Install exhaust air heat pump water heater or de-superheater: EF 1.9 (alternate to 3-49 above)		
3-53	4	Install gas or propane water heater to EF of .83 (alternate to 3-50 above)		
3-53A	5	Install central ultra-high efficiency water heating system (3-52 or 3-55 or sim.)		
3-54	3	Rough-in plumbing and provide suitable, south-facing roof area for solar water heating collector		
3-55	5	Install a solar water heating system		
Drainwater Heat Recovery				
3-56	3	Install drainwater heat recovery system (DHR)		
APPLIANCES				
3-57		Reserved		
3-58	1	Install gas clothes dryer in units or common area		
3-59	1 or 2	Install ENERGY STAR® washing machines in units or common area		
3-60	1	Install an ENERGY STAR® dishwasher in all units with dishwashers		
3-61	1	Install an ENERGY STAR® refrigerator in all units		
3-62	5	Install an ENERGY STAR® appliance suite (front-loading clothes washer, dishwasher, and refrigerator) in all units		
LIGHTING				
Natural Light				
3-63	1	Use light-colored interior finishes		
3-64	2	Use clerestory or roof monitor for natural lighting		
3-65	2	Use light tubes for natural lighting and to reduce electric lighting		
Solar Powered Lighting				
3-66	1	Use solar-powered walkway or outdoor area lighting		

Item No.	Pts	CREDIT	Enter points taken	Comments
Efficient Lighting				
3-67	Req or 1	Install four ENERGY STAR® compact fluorescent light bulbs in each unit (req'd if installing screw-in compacts, See Action Item 3-68)		
3-68	1	Substitute Halogen lighting for incandescent down-lights		
3-69	1	Install motion detector and photocell controls on all exterior lights		
3-70	2	Install lighting dimmer, timers, and/or motion detectors on interior lights		
3-71	2	Use ENERGY STAR® compact fluorescent bulbs, ballast, or fixtures in three high-use locations (kitchen, porch/outdoors, and one other location) in each residential unit if mixed-use		
3-72	5	one back-up lamp) in three high-use locations (kitchen, porch/outdoors, and one other location) in each residential unit if mixed-use building		
3-73	2	Install at least one LED light in a high-use location in each unit		
3-74	2	Minimize Exterior Light to meet safety needs		
INNOVATION				
3-75	4 to 50	Include innovative design, equipment and operation solutions to enhance the energy efficiency of the home		
		SECTION 3: ENERGY EFFICIENCY Subtotal:	0	
SECTION 4: HEALTH AND INDOOR AIR QUALITY				
4-1	*	Direct stormwater at least 5 ft away from building using grading and approved drain system as appropriate		
4-2	*	Seal at doors, windows, plumbing, and electrical penetrations against moisture and air leaks		
4-3	*	If slab is used, install poly barrier properly; if no slab, bottom of floor is sufficient height above backfilled dirt with vapor barrier properly installed		
4-4	*	Ensure proper drainage of crawl space		
4-5	*	Ensure attic space is sealed from occupied spaces to prevent moisture build-up		
4-6	*	Use roof gutters to drain out onto splash blocks or approved system to drain water away from building		
4-7	*	Pitch and flash roofs properly		
4-8	*	Install spot ventilation equipment in all appropriate locations as per Ventilation and Indoor Air Quality code		
4-9	*	Install spot ventilation fans to same standard as whole-building fan (Fan noise at 1.5 sones or less, etc.)		
4-10	*	Ensure heating and/or cooling equipment is correctly sized to meet design heating and cooling loads of home (do not oversize)		
OVERALL				
4-11	10	Implement and certify Indoor airPLUS checklist to EPA standards (requires 3rd-Party verification)		
JOB-SITE OPERATIONS				
4-12	1	Use less-toxic cleaners		
4-13	1	Require workers to use VOC-safe masks when applying VOC containing wet products, and N-95 dust masks when generating dust		
4-14	2	Take measures during construction operations to avoid moisture problems later		
4-15	2	Take measures to avoid problems due to construction dust		
4-16	2	Protect exterior building components from future water or moisture damage		
4-17	2	Use moisture meter to ensure moisture levels are 19% or less in walls, 12% or less in floors before closing up, installing drywall, and finish floors		
4-18	3	Ventilate with fans after each new finish is applied		
4-19	3	Use dehumidifiers or electric heaters during construction (No combustion heaters)		
4-20	3	Clean duct and furnace thoroughly at job completion		
4-21	3	Prepare an Indoor Environmental Quality Protection Plan for the project		
4-21A	1	Implement a No-Smoking Policy for the jobsite		
4-21B	1 or 2	Implement a "No Smoking" policy for common areas. Consider designating smoking and non-smoking units, floors, or buildings.		
4-22	4	Involve subs in implementing the IEQ plan for the project		
LAYOUT AND MATERIAL SELECTION				
4-23	1	If using carpet, specify low VOC carpets with the Carpet and Rug Institute (CRI) Indoor Air Quality (IAQ) label		
4-24	1	Install low pile or less allergen-attracting carpet and pad		
4-25	1	Provide cleanable doormat and/or shoe racks at entry(ies) to the building and units		
4-25A	3	Create a shoe removal vestibule at main entrances to residential units in mixed-use developments		
4-26	1	Build a lockable storage unit for hazardous cleaning and maintenance products, detached from occupied space, or sealed from occupied spaces and mechanically ventillated		
4-27	1	If installing water filter at sink, select one with biodegradable carbon filter		
4-28	1	Install showerhead filter		
4-29	3	Limit carpet to one-third of building's square footage (Or see Item 4-41)		

Item No.	Pts	CREDIT	Enter points taken	Comments
4-30	3	Optimize air quality in sleeping areas of residential units through source reduction and ventilation, including both supply and return air		
4-31	3	If using carpet, install by tacking, or use zero-VOC adhesives		
4-32	3	If garages are attached, air-seal them from occupied units		
4-33	3	Use formaldehyde-free Fiberglass insulation		
4-33A	4	Do not use Fiberglass insulation (rigid foam, spray foam, ICF, SIPS)		
4-34	3	sealers, grouts, mortars, caulks, and adhesives inside the building		
4-35	3	Use only plywood and composites of exterior grade or formaldehyde-free (for interior use)		
4-36	3	Use cabinets made with formaldehyde-free board or exterior grade plywood and low toxic finish		
4-37	1 - 5	Use glass, ceramic, or porcelain tile for flooring in bathrooms, laundry and kitchen		
4-38	3	Use polyethylene (PEX) piping for plumbing (no PVC)		
4-39	3	Install natural fiber carpet (e.g. jute, sisal, wool)		
4-40	5	Use low-VOC /low-toxic interior paints and finishes for large surface areas		
4-41	10	No carpet in units		
MOISTURE CONTROL				
4-42	2	Fully insulate garage to minimize condensation-based mold growth		
4-42A	1	Install floor drain or catch basin with drain under washing machine		
4-42B	3	Install moisture alarms under sinks and dishwashers		
4-43	2	Vent attic over code requirements to prevent moisture build-up		
4-44	3	Use an unvented or mechanically-exhausted, conditioned crawl space (Not appropriate where flood venting is required)		
4-44A	2	Slab on grade, upgrade under slab moisture barrier beyond code to 10mil minimum; minimum of 10mil poly in crawl spaces with sealed seams and sealed perimeter		
4-44B	1	Ensure proper drainage of crawl space		
4-45	5	Design exterior wall system to allow water to drain out in the event of possible water penetration (e.g. vented rainscreen wall)		
4-45A	1	Install a Drainable House Wrap under exterior siding to promote wall drainage.		
4-45B		Reserved		
4-45C	3	Roof overhangs are at least 24”		
4-45D	2	Protect windows and doors on tall walls with additional overhang protection		
4-45E	4	Envelope inspection at HVAC rough in by qualified professional		
4-45F	7	Install a sloped sill pan with end dams and back dam for all windows & exterior doors exposed to the weather		
4-45G	3	Install back dams or sloped sill at all window subsills		
4-45H	1	Install metal flashings at all window and door heads		
4-45I	3	Show on plans & build moisture management details for below grade walls beyond code, such as dimple drainage mat at exterior face, and capillary breaks.		
4-45J	3	Perform moisture test on wood, and concrete floors prior to installing any finish.		
4-45K	3	Have crawl space, attic and garage building performance tested for disconnection to the occupied spaces of the building.		
AIR DISTRIBUTION AND FILTRATION				
4-46	1	Install return-air ducts to each separate room		
4-47	2	Install CO detector(s)		
4-48	2	Install an operable skylight, clerestory or roof monitor (manual or automated) high up in the structure to aid natural ventilation. Use U-factor of 0.45 or below and solar gain co-efficient of 0.35 or below		
4-49	3	Verify performance of ventilation systems; measuring supply and exhaust airflow, checking control activation and damper operation		
4-50	1-5	Install medium-efficiency pleated filter (MERV 10) or high efficiency MERV 12 or better, HEPA OR install furnace or duct-mounted air cleaner in each unit		
4-51	5	Install whole unit or building air purification system		
4-51A	3	Provide cross-ventilation to all units using operable windows		
4-51B	1	Make sure make-up air intakes are located to avoid polution sources		
4-51C	1	No parking within 40' of building air intakes		
4-51D	2	Do not use fiberglass or fibrous materials in airstream		
4-52	3	Install central vacuum, exhausted to outside		
HVAC EQUIPMENT				
4-53	2	Install exhaust fans in rooms where office equipment is used		
4-53A	1	Install all kitchen range hoods, bath, laundry or ceiling exhaust fans vented to the outside to remove excess moisture and odors OR install multi-port attic fans to exhaust kitchen, laundry and bathrooms.		
4-54	2	Install sealed combustion heating and hot water equipment		

Item No.	Pts	CREDIT	Enter points taken	Comments
4-55	3	Use 100% rigid, insulated sheet metal ducts for HVAC distribution system		
4-56	3	Install 60 minute crank or electronic timers, or humidistat controls for bath exhaust fans		
4-57	5	Provide balanced indoor pressure using controlled ventilation		
4-58	2	Ensure heating and/or cooling equipment is correctly sized to meet design heating and cooling loads of building (do not oversize)		
4-58A	10	Install a ductless heating system		
4-58B	1	Design HVAC system to ensure accessibility of all system components		
4-58C	1	Design to prevent condensation build-up or standing water in HVAC system or components		
4-58D	1	Flow test all spot ventilation fans in building		
4-58E	1	Use heating system controls that are free of mercury		
4-58F	1	Limit kitchen exhaust fan to 300 cfm maximum, supply make-up air		
4-58G	1	Reduced or zero use of ozone-depleting compounds in refrigeration and fire suppression systems		
4-58H	3	Do not install a wood-burning fireplace inside unit or building		
4-58I	1	Do not install gas-burning appliances inside unit or building		
WATER QUALITY				
4-59	1	Provide basic whole building water filtration system, or separate system for each unit		
4-60	1	Separate outdoor water supply prior to filtration		
4-61	1 - 3	comparable media filtration in kitchen and bathrooms. 1 point per fixture (faucet, showerhead, etc.) - max 3 points, must be in all units		
INNOVATION				
4-62	4 to 10	Include innovative design, equipment and operation solutions to protect human health and enhance indoor air quality during construction and/or occupation		
		SECTION 4: HEALTH AND IAQ Subtotal:	0	
SECTION 5: MATERIALS EFFICIENCY				
5-1	*	Provide waste reduction resource sheet to on-site personnel and subcontractors	Req.	
5-2	*	Prepare jobsite recycling plan and post on site	Req.	
OVERALL				
5-3	5 to 25	Create functional, multi-purpose buildings, while minimizing footprint		
5-3A	5 to 9	Design and build for deconstruction concept (describe in brief)		
JOBSITE OPERATIONS				
Reduce				
5-4	1	Use suppliers who offer reusable or recyclable packaging		
5-5	1	Provide weather protection for stored materials		
5-6	2	Create detailed take-off and provide as cut list to framer		
5-7	2	Use central cutting area or cut packs		
5-8	3	Contractually require subcontractors to participate in waste reduction efforts		
Reuse				
5-9	1	Reuse scrap dimensional lumber; must be regraded for structural use		
5-10	1	Reuse supplies for operations, such as construction fences, tarps, refillable propane tanks		
5-11	1	Move leftover materials to next job or provide to owner		
5-12	1	Reuse spent solvent for cleaning		
5-13	1	Sell or give away wood scraps		
5-14	2	Sell or donate reusable items (e.g. pallets)		
5-15	2	Use reusable forms, including wood if it is well maintained		
5-16	3	Purchase salvaged building materials for your job		
5-17	3	Save and reuse site topsoil		
Recycle				
5-18	3	Contractually require subcontractors to participate in recycling efforts		
5-19	1	Recycle cardboard		
5-20	1	Recycle metal scraps		
5-21	1	Recycle wood scrap and broken pallets		
5-22	1	Recycle packaging		
5-23	1	Recycle drywall		
5-24	1	Recycle concrete/asphalt rubble, rock, and brick		
5-25	3	Recycle paint		
5-26	4	Recycle asphalt roofing		
5-27	5	Recycle land clearing and yard waste, on- or offsite		
5-27A	5 or 10	Send less than 1.2 lbs per square foot of gross construction waste to land fill, or less than 0.6 lbs per square foot to land fill (does not include deconstruction)		
5-27B	4	Commingle recycle at least 50% of (remaining) jobsite debris, and send to a facility with a minimum recycling rate of 50%.		
Hazardous Waste				
	*	See Action Items 2-29, Recycle Antifreeze, Oil, and Oil Filters at Appropriate Outlets and 2-30, Dispose of Non-recyclable Hazardous Waste at Legally Permitted Facilities.		
DESIGN AND MATERIAL SELECTION				

Item No.	Pts	CREDIT	Enter points taken	Comments
Overall				
5-28	1	Use standard dimensions in design of structure		
5-29	1	Install materials with longer life cycles		
5-30	2	Install locally produced materials from within the Pacific NorthWest – 500 miles radius		
5-31	3	Use re-milled salvaged lumber		
5-32	1 to 3	Use wood products certified as “sustainably produced” by a recognized third party		
Framing				
5-33	1	Use stacked floor plans to reduce building footprint		
5-34	1	Use engineered structural products		
5-35	2	Use structural insulated panels		
5-36	2	Use (R-21) 2x6 intermediate framing		
5-36A	3	Use factory framed wall panels (panelized wall construction)		
5-36B	1	For interior walls, use steel studs with minimum 50% recycled content		
5-37	3	Use Insulated Concrete Form (ICF) walls with flyash and/or blast furnace slag cement in concrete		
5-38	3	Use finger-jointed framing material (e.g. risers and studs) longitudinal compression loads only		
5-39	3 to 6	Use at least 50% of dimensional lumber certified as “sustainably produced” by a recognized third party		
5-40	5 to 10	Use at least 90% of dimensional lumber and 50% of sheathing certified as “sustainably produced” by a recognized third party		
Foundation				
5-41	1	Use regionally produced block for foundation		
5-42	6	Use flyash or blast furnace slag for 25% by weight of cementitious materials for all concrete (20% for flat work)		
5-43	2	Use recycled concrete, asphalt, or glass cullet for base or fill for foundation		
5-44	2	Use insulated concrete forms (ICFs) for foundation		
5-45	2	Use alternative foundation system that minimizes volume of foundation material (e.g Pin foundation system)		
Sub-Floor				
5-46	1	Use recycled-content underlayment for sub-floor		
Doors				
5-47	2	If using wood interior doors, select products from wood grown in North America		
5-48	2	Use recycled-content interior door package		
5-49	3	Use salvaged door package		
Finish Floor				
5-50	1	If installing vinyl flooring, use product with recycled content		
5-50A	2	Use no vinyl flooring		
5-50B	1	Use replaceable carpet tile on all common area carpeted surfaces		
5-50C	1	Use spot-repairable floor finishes		
5-51	1	If installing carpet, use recycled-content carpet pad		
5-52	3	If installing carpet, use recycled-content or renewed carpet		
5-53	3	Use wood flooring that is certified as “sustainably produced” by a recognized third party		
5-54	5	Use recycled-content glass, ceramic or porcelain tile		
5-55	5	Use linoleum, cork, salvaged wood, or bamboo flooring		
Interior Walls				
5-56	1	Specify and use drywall with recycled-content gypsum		
5-57	1	Specify and use recycled or “reworked” paint and finishes		
5-57A	2	Reduce interior walls, through use of open plans.		
5-57B	2	Install toilet/shower partitions with recycled content		
Other Interior - Recycling				
5-58	2	Provide appropriate sorting bins for recyclable materials		
5-59	4	Provide built-in kitchen or utility room recycling center		
Exterior Walls				
5-60	1	Use recycled-content sheathing		
5-61	3	Use siding with reclaimed or recycled material for at least 50% of wall surface area		
5-62	2	Use 50-year siding product		
5-63	2	Use salvaged masonry brick or block for exterior		
5-64	2	Use locally produced stone or brick for exterior		
Windows				
5-65	1	Use wood/composite windows		
5-66	1	Use finger-jointed wood windows		
5-66A	3	Use wood windows that are third party certified sustainably harvested wood with a chain of custody		
Cabinetry and Trim				
5-67	2	If using hardwood trim, use North American products for cabinetry and trim		
5-68	2	Use finger-jointed trim for cabinetry and trim		
5-69	1 to 3	For cabinetry/trim, use North American hardwood trim that is certified as “sustainably produced” by a recognized third party		
5-70	3 to 5	For cabinetry/trim, use tropical hardwood trim or cabinets ONLY if certified as “sustainably produced” by a recognized third party		
Roof				
5-71	2	Use recycled-content roofing material		
5-72	2	Use 40-year roofing material		

Item No.	Pts	CREDIT	Enter points taken	Comments
5-73	3	Use 50-year roof material		
5-73A	2	Use solar shingles for roof, minimum 1KW per dwelling unit		
5-74	4	Use lifetime warranty		
Insulation				
5-75	1	Use recycled-content insulation		
5-76	3	Use environmentally friendly foam building products (formaldehyde-free, CFC-free, HCFC-free)		
Other Exterior				
5-77	2	Use reclaimed or salvaged material for landscaping walls and decks/patios		
5-78	3	Use recycled-content plastic or wood polymer lumber for decks and porches		
5-79	3	Use non-toxic or low-toxic pressure-treated wood		
5-80	5	Use only light colored or pervious pavement to mitigate heat island		
INNOVATION				
5-81	4 to 10	Include innovative design, equipment and operation solutions to conserve natural resources and minimize waste produced on the project		
		SECTION 5: MATERIALS EFFICIENCY Subtotal:	0	
SECTION 6: PROMOTE ENVIRONMENTALLY FRIENDLY HOME OWNER OPERATIONS AND MAINTENANCE				
HOME-OWNER'S KIT				
6-1	*	Provide owner with Homeowner's Information Kit	Req.	Required
6-2	1	Develop a tenant manual to provide guidance on living in a residence or building that incorporates green or sustainable features.		
6-3	*	Prepare a plan for annual scheduled maintenance of all aspects of the building and site, including but not limited to, building envelope, roof, vents, filters, plumbing, combustion equipment and landscaping.		
6-4	1	Prepare a sustainable landscape O&M plan.		
6-5	*	Incorporate a garbage disposal plan in the building/site design.		
6-6	*	Conduct owner orientation/operation walk-through.		
6-7	1	Provide training for O&M staff.		
6-8	3	Provide separate manuals for Building Owners, rental tenants and building managers		
		SECTION 6: O&M Subtotal:	0	
			0	

BUILDER SELF-CERTIFICATION

Project Address / Location _____

Total Points for Project _____

Star Rating Obtained (circle one) 1-Star 2-Star 3-Star 4-Star 5-Star

By my signature, I certify that I have performed all Action Items as indicated in this checklist:

_____ (Signature)

_____ (Name) _____ (Date)

Verified by: _____ Date _____

Verifier Contact: _____ (Phone)

(3rd PARTY VERIFICATION REQUIRED FOR 4 & 5-STAR CERTIFICATION)