City of Aspen /

Pitkin County

Efficient Building Program

OWNER:	
PROJECT ADDRESS:	
PARCEL ID #:	
CONTACT NAME:	
CONTACT NUMBER:	
CONTACT E-MAIL ADDRESS:	
PERMIT #:	

(circle all that apply)

TYPE OF PROJECT: *NEW* *SCRAPE-OFF* *REMODEL* *ADDITION*

New construction square footage:	***Points required:***
Interior remodel square footage:	***Points required:***
Addition square footage:	***Points required:***
Detached garage square footage:	***Points required:***

	TOTAL POINTS REQUIRED		**TOTAL POINTS ACHIEVED**

City of Aspen/Pitkin County Efficient Building Program Checklist

Please read the EB Guidelines prior to completing the Checklist. The EB Guidelines serve as the official code document for this program.

CERT.	SCORE	POINTS	LEGEND	INSPECTION SIGN-OFF DATE
		21	= **Shaded box indicates mandatory compliance for all projects (14 for new houses / 21 for additions/remodels)**	
		70	= Dark outline indicates mandatory measures for publicly-funded affordable housing projects (PFAH)	
S			= Self-certified *(Applicant's signature on this checklist serves as certification.)*	
1-5			= Inspected (**PC**: Plan Check; **1**: Foundation; **2**: Framing; **3**: Insulation; **4**: Rough-in; **5**: Final)	
		P	= Prerequisite *(These measures must be achieved for the subsequent points to be earned.)*	
Quantity Levels			= **QL 1** = 10% - 25%; **QL 2** = 26% - 50%; **QL 3** = 51% - 75%; **QL 4** = 76% - 100%	

			2.0	**DECONSTRUCTION / DEMOLITION & CONSTRUCTION DEBRIS RECYCLING**		
PC		**3**	2.1	Deconstruction Plan submitted with permit application (remodels and/or scrape-offs only)		
		4-37	2.2	Demolition debris reduced (4 points required of remodels and/or scrape-offs; select from 2.2.1 - 2.2.6)		
1		**3**		2.2.1	Wood recycled / composted (≥ 75% of all wood)	
1		**3**		2.2.2	Metal recycled (≥ 90% of all metals)	
1		**3**		2.2.3	Concrete recycled (≥ 75% of all concrete)	
1		**2**		2.2.4	Carpet pad recycled (90% of all carpet pad)	
1		**2**		2.2.5	Compaction (grinding, shredding, crushing, etc.)	
1		**6-24**		2.2.6	Material salvaged for reuse (6 points per level)	
S		**3**	2.3	Deconstruction materials donated to a non-profit organization		
		4-10	2.4	Construction debris recycled (4 points required of all new construction & PFAH projects; select from 2.4.1 - 2.4.3)		
S		**1-4**		2.4.1	Wood scrap recycled / composted (1 point per Quantity Level)	
S		**2**		2.4.2	Metal scrap recycled (≥ 90% of all unused metals)	
S		**1-4**		2.4.3	Cardboard recycled (1 point per Quantity Level)	

				USE OF RESOURCE EFFICIENT MATERIALS ***(Part II of section 2.0)***	
S		5-20	2.5	Reclaimed lumber (5 points per Quantity Level)	
S		5-20	2.6	Reclaimed exterior trim / siding / interior trim / flooring (5 points per Quantity Level)	
S		1-4	2.7	Recycled-content carpet (1 point per Quantity Level)	
S		1-4	2.8	Recycled-content in decking materials (1 point per Quantity Level)	
S		1-4	2.9	Recycled-content sheathing (1 point per Quantity Level)	
S		1-4	2.1	Recycled-content or fiber cement siding (1 point per Quantity Level)	
S		1-4	2.11	Recycled-content ceramic tile (1 point per Quantity Level)	
S		1-4	2.12	Recycled-content roofing (1 point per Quantity Level)	
S		2-8	2.13	Rapidly renewable content flooring used (2 points per Quantity Level)	
S		2	2.14	Built-in kitchen recycling center to include two or more bins	
			Sub Total		
			3.0	**LAND USE AND WATER CONSERVATION**	
		1-3	3.1	Simple Footprint	
1		3		3.1.1 ≤ 4 exterior corners (no points for 3.1.2 or 3.1.3)	
1		2		3.1.2 ≤ 6 exterior corners (no points for 3.1.1 or 3.1.3)	
1		1		3.1.3 ≤ 8 exterior corners (no points for 3.1.1 or 3.1.2)	
		1-5	3.2	Xeriscape Landscaping (2 points required of all PFAH projects; select from 3.2.1 - 3.2.5))	
S		1		3.2.1 Addition of organic material to and aeration of soil	
S		1		3.2.2 Reduction of turf areas (≤ 25% of landscaped area or 3000 sq. ft. whichever is smaller)	
S		1		3.2.3 All planting beds mulched with wood chips at least 2" deep	
S		1		3.2.4 Appropriate use of low-water-demand plants	
S		1		3.2.5 Zoned irrigation system	
		1-13	3.3	Water conservation by performance (2 points required of all PFAH projects; select from 3.31 - 3.34)	
5		1		3.3.1 One point for each gallon per minute savings over code requirements	
5		1-4		3.3.2 Dual-flush toilet (1 point for each toilet, no credit for toilet under 3.3.1)	
5		2-8		3.3.3 Composting toilet (2 points for each toilet, no credit for toilet under 3.3.1)	
5		1		3.3.4 Only one showerhead in all showers	
5		5	3.4	Drip Irrigation or no irrigation	
5		1-4	3.5	Engineered/vegetated swales to filter stormwater runoff (1 point per Quantity Level of filtered run-off)	
5		1-10	3.6	Planting trees beyond required trees (1 point for every tree over requirement)	
		3-8	3.7	Save and reuse all topsoil and/or excavated fill on site	
1		3		3.7.1 Topsoil reused on site (Indicate storage location on site plan.)	
1		5		3.7.2 100% of excavated fill reused on site (Indicate storage location on site plan.)	
S		2-8	3.8	Site-rock reclaimed on site (2 points for per level; Indicate storage location on site plan.)	
S		4	3.9	Non-potable water used for irrigation	
S		2-8	3.1	Pervious materials in "hardscape" areas (2 points per Quantity Level)	
			Sub Total		
			4.0	**FRAMING & MATERIALS**	
		2-42	4.1	Incorporate optimal value engineering (OVE) framing techniques (6 points required of all PFAH projects)	
2		3-12		4.1.1 24" O.C. studs (3 points per Quantity Level for all framing)	
2		2-8		4.1.2 Two-stud corners (2 points per Quantity Level for all framing)	
2		2-8		4.1.3 Efficient headers (2 points per Quantity Level for all framing)	
2		2-8		4.1.4 Stacking joists/studs - eliminating double top plate (2 points per Quantity Level)	
2		3		4.1.5 Building with 2' increments (≥ 75% of footprint)	
PC		3		4.1.6 All framing members shown on drawings in plan and elevation	
2		1-4	4.2	Oriented Strand Board in subfloors (1 point per Quantity Level)	
2		1-4	4.3	Oriented Strand Board in wall sheathing (1 point per Quantity Level)	
2		2-8	4.4	Low-toxic Oriented Strand Board (OSB) (2 points per Quantity Level)	
2		2-8	4.5	Finger-jointed studs or engineered studs for wall framing (1 point per Quantity Level)	
S		1-4	4.6	Finger-jointed interior trim (1 point per Quantity Level)	
		2-88	4.7	FSC certified material	
2		4-16		4.7.1 FSC certified sustainably harvested lumber (4 points per Quantity Level)	
5		4-16		4.7.2 FSC certified cedar shakes and/or shingles (4 points per Quantity Level)	
5		4-16		4.7.3 FSC certified trim and flooring (4 points per Quantity Level)	
				FRAMING & MATERIALS continued on next page	

			4.0	**FRAMING & MATERIALS continued**		
5		4-16		4.7.4	FSC certified cabinets (4 points per Quantity Level)	
5		4-16		4.7.5	FSC certified windows and/or doors (4 points per Quantity Level)	
5		2-8		4.7.6	FSC certified outdoor structures, decking and landscaping forms (2 points per Quantity Level)	
		2-68	4.8	SFI certified material		
2		3-12		4.8.1	SFI certified sustainably harvested lumber (3 points per Quantity Level)	
5		3-12		4.8.2	SFI certified cedar shakes and/or shingles (3 points per Quantity Level)	
5		3-12		4.8.3	SFI certified trim and flooring (3 points per Quantity Level)	
5		3-12		4.8.4	SFI certified cabinets (3 points per Quantity Level)	
5		3-12		4.8.5	SFI certified windows and/or doors (3 points per Quantity Level)	
5		2-8		4.8.6	SFI certified outdoor structures, decking and landscaping forms (2 points per Quantity Level)	
2		1-4	4.9	Engineered Lumber used in floors and roofs (1 point per Quantity Level) (3 points required of all PFAH projects)		
2		2	4.1	Engineered lumber used to replace 2x10s or 2x12s for structural applications (≥ 75% structural material)		
2		5-20	4.11	Structural alternatives to wood-frame construction (5 points per Quantity Level)		
2		2-8	4.12	Structural Insulated Panels (SIP's) used for exterior walls and/or roof (2 points per Quantity Level)		
2		1-4	4.13	Factory-built or panelized construction (1 point per Quantity Level)		
1		2	4.14	Recycled-content Insulated Concrete Forms (ICF's) used (≥ 75% of all insulated concrete forms)		
1		1-4	4.15	Insulated Concrete Forms (ICF's) (1 point per Quantity Level)		
S		2	4.16	Non-solvent based foundation waterproofing (100% of foundation wall)		
1		3-12	4.17	Frost-protected shallow foundation (3 points per Quantity Level)		
1		1-4	4.18	20% or more flyash content (1 point per Quantity Level)		
			Sub Total			
			5.0	**ENERGY MEASURES**		
PC		1-10	5.1	Performance exceeding the Model Energy Code 98.2 standard for APECC (1 pt for every 5% better) (4 pts for PFAH)		
S		1	5.2	Window quilts or insulated window shades installed (≥ 75% of all exterior windows)		
PC		1	5.3	Mechanical equipment centrally located		
5		5	5.4	Energy Star® house (5 star rating on an E-Star™)		
PC		3	5.5	Energy 10 analysis		
3		1	5.6	All ductwork sealed with mastic		
3		1	5.7	Insulate all hot water pipes to all locations to R-2.5		
3		3	5.8	Unvented crawlspace (conditioned, insulated walls, continuous vapor barrier, no vents, etc.)		
5		2	5.9	Side-arm hot water heater		
		5-10	5.1	Energy-efficient boiler or furnace		
5		5		5.10.1	87% (min.) efficient boiler or 94% (min.) efficient furnace	
5		5		5.10.2	Modulating or sequentially staged boilers	
5		3	5.11	Outdoor reset thermostat control		
5		4	5.12	High-efficiency gas hot water heater (stand alone units only)		
PC		3	5.13	Manual J calculations used for sizing mechanical equipment		
			Sub Total			
			6.0	**PLUMBING**		
5		2	6.1	Tankless water heater		
5		3	6.2	"On-demand" hot water system		
			Sub Total			
			7.0	**ELECTRICAL**		
5		1-10	7.1	Energy Star® appliances (1 point for each appliance) (2 points required of all PFAH projects)		
S		1	7.2	Clothesline (indoor or outdoor)		
5		3	7.3	Energy-efficient clothes washer (selected from list on www.cee1.org - Tier 2 or higher)		
5		1-10	7.4	Compact fluorescent bulbs (1 point for every 4 bulbs) (1 point required of all PFAH projects)		
5		2	7.5	Efficient light controls (≥ 2 interior spaces controlled)		
			Sub Total			

			8.0	**INSULATION**	
3		2	8.1	Wall insulation is 70% recycled material (≥ 75% of all wall insulation)	
3		2	8.2	Roof insulation is 70% recycled material (≥ 75% of all roof insulation)	
3		4	8.3	Blown / sprayed insulation (≥ 50% of all insulation)	
3		2	8.4	Formaldehyde-free or low-toxic insulation (≥ 50% of all insulation)	
		1-10	8.5	Single-pane windows upgraded (additions and remodels only)	
5		0.5		8.5.1 Double-glazed (no points for 8.5.2 or 8.5.3)	
5		1		8.5.2 Double-glazed with low-e coating (no points for 8.5.1 or 8.5.3)	
5		0.5		8.5.3 Spectrally-selective film applied to historic windows (no points for 8.5.1 or 8.5.2)	
3		7	8.6	Existing ceiling insulated to R-38 or to capacity (additions & remodels only)	
3		5	8.7	Existing walls insulated to capacity or rigid insulation added to exterior (additions & remodels only)	
			Sub Total		
			9.0	**HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)**	
5		1	9.1	Air destratification system	
		1-5	9.2	Natural cooling (1 point required of all PFAH projects)	
5		1		9.2.1 Vertical shading devices for east and west-facing glass	
5		1		9.2.2 Reflective films on east and west-facing glass or use windows with a SHGC of less than 0.45	
3		1		9.2.3 Radiant heat-reflective barriers installed on roof applications	
S		1		9.2.4 Landscaping that shades east and west facing glazing during the summer season (June-August)	
5		1		9.2.5 Properly sized overhangs for south facing glazing area	
5		5	9.3	No mechanical air conditioning	
5		1	9.4	Evaporative cooling (no points for 9.3 or 9.6)	
		4-14	9.5	Air infiltration rate below specified levels (Blower Door Test required) (4 points required of all PFAH projects)	
5		4		9.5.1 0.40 NACH (Natural Air Changes per Hour)	
5		6-14		9.5.2 ≤ 0.35 NACH (2 additional points for every .05 NACH reduction)	
5		2	9.6	Whole-House Fan cooling (no points for 9.3 or 9.4)	
5		10	9.7	Convert electric resistance heat to gas (additions & remodels only)	
5		4	9.8	Replace electric water heater with a gas water heater (additions & remodels only)	
5		3	9.9	Hydronic heat (≥ 50% of heating system; no points for 9.7)	
5		8	9.1	Air to air heat exchanger	
			Sub Total		
			10.0	**SOLAR**	
		10-20	10.1	Passive solar space heating	
PC		P		10.1.1 South facing glazing is oriented within 30 degrees of east or west of true south.	
PC		P		10.1.2 Properly sized overhangs (see Section 9.25 for sizing calculation).	
PC		P		10.1.3 Solar access is unimpeded under easements, covenants, or other private agreements	
PC		10		10.1.4 Suntempered design	
PC		20		10.1.5 Passive solar design	
5		10	10.2	Solar heating system for domestic hot water (no points for 10.3 or 10.4)	
5		2	10.3	Active solar pre-plumbing (no points for 10.2 or 10.4)	
5		15	10.4	Active solar space heating combined with solar domestic hot water system (no points for 10.2 or 10.3)	
		10-80	10.5	Solar-generated electricity	
5		10		10.5.1 System size of 1 kW	
5		15-80		10.5.2 System size of ≥ 1.5 kW (5 additional points for every .5 kW supplied, with a 8 kW maximum)	
			Sub Total		
			11.0	**INDOOR AIR QUALITY**	
S		1-4	11.1	Low VOC and/or low-toxic interior paint (1 point per Quantity Level) (2 points required of all PFAH projects)	
S		1	11.2	Solvent-free and/or low-toxic construction adhesives	
		2-5	11.3	High efficiency air filter	
5		2		11.3.1 High efficiency pleated (electrostatically-charged) air filter	
5		5		11.3.2 High Efficiency Particulate Air (HEPA) filter	
5		3	11.4	Rough-in for radon mitigation (no points for 11.5)	
5		5	11.5	Radon mitigation system completed (no points for 11.4)	
S		1-4	11.6	Solvent-free and/or low-toxic wood finishes (1 point per Quantity Level)	
				INDOOR AIR QUALITY continued on next page	

			11.0 INDOOR AIR QUALITY continued		
S		1-4	11.7 Low toxic floor coverings (1 point per Quantity Level)		
5		3	11.8 Carbon monoxide detector		
5		5-10	11.9 Non-atmospherically vented (sealed combustion) gas furnace, boiler, or water heater (5 pts required for PFAH)		
3		2	11.1 Sealed mechanical room		
5		5	11.1 Exhaust fan in attached garage or no attached garage		
S		5	11.12 Elimination of all particleboard inside envelope of house		
S		3	11.13 Elimination of all mdf made with urea-formaldehyde used inside envelope of house		
S		2	11.14 All exposed particleboard sealed.		
5		5	11.15 Americal Lung Association "Health House"		
5		4	11.16 Mechanical Ventilation		
			Sub Total		
			12.0 INNOVATION POINTS		
PC		1-20	12.1 Innovative product or design points		
5		5	12.2 Alternative fuel infrastructure for vehicle use		
PC		3	12.3 Location-efficient project		
5		15	12.4 Ground source heat pump - wind power fee _____		
			Sub Total		
			TOTAL POINTS		

APPLICANT'S SIGNATURE:	
PRINT NAME:	
TITLE:	

NOTE: Signature indicates the applicant will comply with stated requirements.

« « « FOR OFFICIAL USE ONLY » » »

PC			Plan Check approval by:	Date:
1			Foundation Inspection Approval by:	Date:
2			Framing Inspection Approval by:	Date:
3			Insulation Inspection Approval by:	Date:
4			Rough-in Inspection Approval by:	Date:
5			Final Inspection Approval by:	Date:

Efficient Building Program

Deconstruction Plan

2.1 Required for additions, remodels, or scrape-offs only.

Project Address:	**Submittal Date:**
Contractor:	**Phone:**
Property Owner:	**Date of Demo:**
Project Description:	**Project Size (sq ft)**
Deconstruction Contact:	**Phone:**

DECONSTRUCTION PLAN continued on next page

1. Is the project a partial or complete demolition/deconstruction?

Partial _____ Complete _____

2. How much of the structure will be demolished/deconstructed?

≤ 1000 sq ft _____ ≤ 2000 sq ft _____ ≤ 3000 sq ft _____ ≥ 3000 sq ft _____

3. Lumber, metal, doors, windows, concrete, cabinets and some appliances can be recycled or donated for re-use. Do you intend to deconstruct project for materials recovery?

Yes _____ No _____ (If No, go to question 5)

Refer to the Efficient Building Program Resource Guide for a list of local deconstruction resources or for a list of deconstruction materials accepted locally.

4. If you intend to deconstruct, who will be performing the work?

Contractor Name & Phone Number: _____

Method of disposition:_____ Donatation? _____ Recipient: _____

5. Will demolition waste be recycled?

Yes _____ No _____

6. What types and amounts of reusable or recyclable materials will this project generate? (Please complete table.)

Deconstruction Material Table

Material	Estimated volume (sq yd)	Reuse by contractor	Available to others	Recycled	Landfill* (compacted)	Other (Explain)
Dirt Debis						
Lumber						
Structural Members						
Wood Trim						
Misc. Wood						
Metal						
Drywall						
Concrete						
Asphalt						
Brick						
Other Masonry						
Cabinets						
Appliances						
Tile						
Windows						
Doors						
Carpet						
Carpet Pad						

* If you choose not to deconstruct or recycle your demolition debris, it must be compacted prior to leaving the site.

The city of Aspen and Pitkin County are interested in increasing reuse of deconstruction waste and reducing the amount of all construction and demolition waste sent to the landfill. By completing this form you provide useful information and qualify for this program.