SCOTTSDALE GREEN BUILDING

MANDATORY REQUIREMENTS FOR RESIDENTIAL GREEN BUILDING RATING

NOTE: ALL ITEMS REQUIRE MIN. 50% THRESHOLD UNLESS OTHERWISE NOTED.

CATEGORY	MANDATORY REQUIREMENTS	SUBMITTAL REQUIRED
SITE USE CATEGORY	1. PROTECTED BUILDING ENTRANCES (E.G. – RECESSED OR COVERED, PROTECTED FROM DIRECT SUMMER SUN EXPOSURE).	
STRUCTURAL ELEMENTS	2. ALL TREATED WOOD BASE PLATES TO BE LEAST TOXIC (E.G. – BORATE).	PS
BUILDING ENVELOPE	3. EXTERIOR WALLS INSULATED TO MIN. R–19 (U– FACTOR OF 0.051).	PS
	4. CEILINGS INSULATED TO MIN. R–30.	PS
	5. CONTINUOUS AIR/THERMAL BARRIER INDICATED ON DRAWINGS (BLDG. SECTIONS).	
	6. WINDOWS HAVE TOTAL UNIT U–FACTOR OF 0.65 OR LESS.	
	7. WINDOWS HAVE SOLAR HEAT GAIN COEFFICIENT (SHGC) OF 0.55 OR LESS.	
HEATING, COOING, & VENTILATION	8. A/C UNIT COOLING EFFICIENCY: • ELECTRIC – MIN. 12.0 SEER (MAINTAIN AT LEAST A SEER 10 RATING AT 120° F). • GAS – MIN. 0.6 COP (COEFFICIENT OF PERFORMANCE).	
	9. ALL DUCTWORK JOINTS SHALL BE SEALED WITH WATER–BASED MASTIC. NO USE OF BUILDING CAVITIES AS A DUCT UNLESS SEALED.	
	10. ALL AIR SUPPLY AND RETURN DUCTS SHALL BE INSULATED AS FOLLOWS: • WHERE LOCATED WITHIN CONDITIONED BUILDING SPACES, DUCTS SHALL BE MIN. R–4. • WHERE LOCATED IN UNCONDITIONED SPACES, DUCTS SHALL BE MIN. R–6	
	11. RETURN AIR PATH AND PRESSURE BALANCING: • RETURN AIR DUCTS OR TRANSFER GRILLS (MINIMUM .75 SQ. INCHES PER CFM OF AIR SUPPLIED TO ROOM) IN EVERY ENCLOSED LIVABLE ROOM. • OR, TEST FOR NO PRESSURES WITH A MAGNITUDE GREATER THAN 3.0 PASCAL'S, WITH REFERENCE TO OUTSIDE, EXISTING IN A ZONE OF THE HOUSE.	
	12. PROGRAMMABLE/SET–BACK THERMOSTAT INSTALLED.	
	13. MINIMUM OF THREE OUTLET BOXES INSTALLED (STRUCTURALLY MOUNTED & WIRED) REVERSIBLE, MULTI–SPEED CEILING FANS.	
INDOOR AIR QUALITY	14. CARBON MONOXIDE (CO) DETECTOR INSTALLED AT HOUSE/GARAGE ENTRY DOOR AND WITHIN EACH ROOM WHERE COMBUSTION APPLIANCES ARE USED (SEALED COMBUSTION APPLIANCES ARE EXEMPT).	PS
	15. HVAC SYSTEM HAS CONTINUOUS FRESH (MAKE–UP) AIR VENTILATION (AT LEAST 10 CFM'S TIMES THE NUMBER OF BEDROOMS PLUS 1).	
	16. HVAC SYSTEM HAS REPLACEABLE, pleated (non–FIBERGLASS) FILTER OR EQUIVALENT WITH MIN. MERV RATING OF 8.	
	17. MECHANICAL ROOM(S) WITH COMBUSTION APPLIANCES NEED TO BE AIR SEALED OR ISOLATED FROM CONDITIONED SPACE (ROOMS WITH SEALED COMBUSTION APPLIANCES ARE EXEMPT).	
LIGHTING AND APPLIANCES	18. LIGHT COLORS ON MIN 50 % OF INTERIOR WALLS WITH LIGHT REFLECTANCE VALUE (LRV) OF MIN. 40% AND LIGHT COLORS ON MIN. 50 % OF INTERIOR CEILINGS AND SOFFITS WITH LRV OF MIN. 70% (E.G. – OFF WHITE FINISH HAS A 70% LRV).	
	19. ALL RECESSED LIGHTS PENETRATING AIR/THERMAL BARRIER ARE AIR TIGHT AND I.C. RATED.	
	20. BUILT–IN AND INDIVIDUALLY SWITCHED TASK LIGHTING IN AT LEAST 3 SEPARATE AREAS (E.G.–BATHROOM VANITY, KITCHEN COUNTER, DESK).	
PLUMBING SYS.	21. HOT WATER LINES INSULATED TO MIN R–3 THROUGHOUT ENTIRE HOUSE.	
	22. WATER HEATER TIMER INSTALLED ON ELECTRIC WATER HEATERS.	
	23. WATER HEATER(S) WITH ENERGY FACTOR (EF) AS FOLLOWS: • GAS: MIN. 0.58 ENERGY FACTOR FOR 40 TO 60 GALLON TANK • GAS: MIN. 0.53 ENERGY FACTOR FOR 70 TO 80 GALLON TANK • ELECTRIC: MIN. 0.95 ENERGY FACTOR	
INT. FINISHES	24. FLAT AND NON–FLAT PAINTS WITH MAXIMUM 250 GRAMS/LITER VOC (VOLATILE ORGANIC COMPOUND) CONTENT. VARNISHES W/MAX. 275 GRAMS/LITER AND LACQUERS W/MAX. 550 GRAMS/LITER.	
FINISH FLOOR	25. CERAMIC TILE ADHESIVES AND GROUT INSTALLED W/MAX. 250 GRAMS/LITER VOC CONTENT.	
SOLID WASTE	26. BUILT–IN RECYCLING CENTER WITH TWO OR MORE 5 GAL. BINS IN OR NEAR KITCHEN.	PS

GREEN BUILDING SELECTED OPTIONS FOR RESIDENTIAL RATING

NOTE: ALL ITEMS REQUIRE MIN. 50% THRESHOLD UNLESS OTHERWISE NOTED.

1. SITE USE

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
1.1 BUILDING DESIGNED WITH MINIMUM IMPACT ON SITE TOPOGRAPHY AND NATURAL DRAINAGE WAYS.	2	
1.2 DESERT PLANTS AND NATURAL FEATURES BEYOND 10' OF BUILDING FOOTPRINT AND PAVED AREAS PROTECTED DURING CONSTRUCTION (IN ADDITION TO ANY ESLO OR NAGS REQUIREMENTS).	1	
1.3 NON PERMEABLE WALKWAYS, UNCOVERED PATIOS, APRONS AND DRIVEWAYS COVER NO MORE THAN 40 % OF THE NET BUILDABLE SITE AREA.	2	
1.4 ALL DRIVEWAYS CONSTRUCTED OF PERMEABLE MATERIALS.	1	
1.5 HOME IS ORIENTED ON LOT SO THE LONGEST AXIAL DIMENSION FACES WITHIN 20 DEGREES OF SOUTH.	3	
1.6 HOME IS DESIGNED WITH PROTECTED OUTDOOR LIVING AREA ON EAST AND/OR SOUTH SIDE (I.E. – SHADE STRUCTURES, VEGETATION, WATER FEATURES, ETC.).	1	
1.7 HOME IS DESIGNED WITH PROTECTED OUTDOOR LIVING AREA ON NORTH SIDE.	1	
1.8 PROTECTED OUTDOOR LIVING AREA(S) IS EQUAL IN AREA TO AT LEAST 25% OF TOTAL CONDITIONED SPACE.	2	
1.9 OUTDOOR STRUCTURES, DECKING, AND LANDSCAPING MATERIALS MADE FROM RECYCLED CONTENT MATERIALS (I.E. PLASTIC LUMBER) OR NON–TOXIC LUMBER.	1	
1.10 XERISCAPE IS AT LEAST 90% OF LANDSCAPED AREAS (DOES NOT INCLUDE NATIVE DESERT).	2	
1.11 NON–SPRINKLER, ZONED IRRIGATION SYSTEM WITH SEPARATE VALVING (I.E. GROUND COVER, SHRUBS AND TREES ON SEPARATE VALVES).	1	
1.12 IRRIGATION CONTROLLER WITH A RAIN SENSOR SHUT OFF.	1	
1.13 NO LAWN.	2	
1.14 RAINWATER COLLECTION SYSTEM WITH ON–SITE DISTRIBUTION TO VEGETATION (GUTTERS, SCUPPERS, DOWNSPOUTS, RETENTION AREAS).	2	
1.15 RAINWATER COLLECTION AND STORAGE SYSTEM FOR FUTURE USE ON SITE.	1	
1.16 NO CHEMICAL HERBICIDES USED ON SITE.	1	
1.17 NO CHEMICAL PESTICIDES (INCLUDES TERMITE PRETREATMENT) USED ON SITE WITHIN THE BUILDING FOOTPRINT. (i.e. TERMITE BLOCK/SHIELD SYSTEM).	1	
1.18 UTILITY SUPPLIED ELECTRIC POWER ON SITE AT START OF CONSTRUCTION.	1	
TOTAL POINTS SELECTED:		

2. STRUCTURAL ELEMENTS

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
2.1 NON–ASPHALT BASED DAMP PROOFING INSTALLED AT BASEMENT AND/OR RETAINING WALLS (E.G. – ZERO VOC/WATER BASED, 1 PLY MEMBRANE, LIQUID ACRYLIC, BENTONITE CLAY).	1	
2.2. WESTERN COAL FLY ASH CONCRETE W/MIN. 18% SUBSTITUTED VOLUME.	1	PS
2.3 FLOOR STRUCTURE: AT LEAST 75'/O IS NON–SOLID SAWN LUMBER UNLESS FROM CERTIFIED SUSTAINABLE SOURCE (E.G. –ENGINEERED LUMBER, RECYCLED CONTENT MATERIALS), OR CERTIFIED BY THE FSC OR SFI.	2	
2.4 ROOF STRUCTURE: AT LEAST 75% IS NON–SOLID SAWN LUMBER UNLESS FROM CERTIFIED SUSTAINABLE SOURCE (E.G. ENGINEERED LUMBER, RECYCLED CONTENT MATERIALS) , OR CERTIFIED BY THE FSC OR SFI.	2	
2.5 BEAMS AND HEADERS 4 FEET OR MORE IN LENGTH): AT LEAST 75% IS NON–SOLID SAWN LUMBER UNLESS FROM CERTIFIED SUSTAINABLE SOURCE (E.G.–ENGINEERED LUMBER, RECYCLED CONTENT MATERIALS).	2	
2.6 INTERIOR FRAMING: AT LEAST 75 % IS NON–SOLID SAWN LUMBER UNLESS FROM CERTIFIED SUSTAINABLE SOURCE (E.G. –ENGINEERED LUMBER, RECYCLED CONTENT MATERIALS) , OR CERTIFIED BY THE FSC OR SFI.	2	
2.7 INTERIOR BORATE TREATED LUMBER: MIN. 50% OF WOOD STRUCTURE, EXCLUDING TRUSSES.	2	
2.8 LOW–TOXIC (NO UREA–FORMALDEHYDE RESIN) SUB–FLOOR AND/OR SHEATHING.	2	FS
2.9 INTEGRAL WALL SYSTEM (MULTI–FUNCTIONAL SYSTEM WHICH COMBINES STRUCTURAL, THERMAL PROPERTIES, AND/OR FINISH) E.G. – INTEGRAL INSULATED MASONRY, STRUCTURAL INSULATED PANELS (SIP), INSULATED CONCRETE FORMS (ICF), AUTOCLAVED AERATED CONCRETE (AAC), INSULATED SANDWICH PANEL (ISP), SOLID FOAM PANELS	4	
2.10 MATERIALS FROM REGIONALLY (WITHIN 500 MILES) EXTRACTED RESOURCES (E.G. – MASONRY, ADOBE, RAMMED EARTH, CAST EARTH, STRAWBALE).	4	
2.11 STRUCTURAL PRODUCTS FROM REGIONAL (WITHIN 500 MILES) MANUFACTURERS. DOES NOT INCLUDE CONCRETE.	1	
TOTAL POINTS SELECTED:		

PS = PLAN SUBMITTAL
FS = FIELD SUBMITTAL
SFI = SUSTAINABLE FOREST INITIVE
FSC = FOREST STEWARDSHIP COUNCIL

3. BUILDING ENVELOPE

NOTE: ALL INSULATION SHALL BE INSTALLED SUCH THAT THE FULL R–VALUE IS ACHIEVED IN EVERY LOCATION. NO VOIDS, PARTIALLY FILLED GAPS OR COMPRESSION SHALL BE PERMITTED IN WALL, FLOOR, CEILING, OR ROOF INSULATION. AIR AND THERMAL BARRIER MUST ALIGN AND BE CONTIGUOUS.

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
3.1 STEM OR FOUNDATION INSULATED WITH MIN. R–7 FROM GRADE DOWN TO TOP OF FOOTING.	1	
3.2 WALL ASSEMBLY RATED WITH A MIN. U– FACTOR OF 0.040 (R–25).	2	
3.3 WALL ASSEMBLY RATED WITH A MIN. U– FACTOR OF 0.033 (R–30).	3	
3.4 CEILINGS INSULATED TO MIN. R–38.	3	
3.5 RADIANT BARRIER INSTALLED AT ROOF OR CEILING ASSEMBLY.	1	
3.6 HOUSE IS WRAPPED WITH AN EXTERIOR AIR INFILTRATION BARRIER OR BUILDING SYSTEM PROVIDES AN INTEGRAL AIR INFILTRATION BARRIER.	1	
3.7 ADVANCED AIR SEALING PACKAGE IN FRAMED CONSTRUCTION (I.E. ADDS SEALING AT TOP AND BOTTOM PLATES, CORNERS, AND PENETRATIONS).	2	
3.8 DIAGNOSTIC BLOWER DOOR TEST WITH 0.35 ACH OR LESS (0.35 CFM AT 50 PASCAL'S PRESSURE PER SQ. FT. OR LESS).	4	FS
3.9 ALL EXTERIOR OPAQUE DOORS INSULATED WITH MIN. R–2 (MUST INCLUDE PATIO/SLIDING DOORS. ALSO REFER TO 3.11 & 3.12.	2	
3.10 GARAGE DOOR INSULATED TO MIN. R–2.	1	
3.11 GLAZING HAS NATIONAL FENESTRATION RATING COUNCIL (NFRC) TOTAL UNIT U–FACTOR OF: • .50–.39: 3 PTS. • .38 OR LESS: 4 PTS.	3 4	
3.12 GLAZING HAS NFRC SOLAR HEAT GAIN COEFFICIENT (SHGC) OF .40 OR LESS: 3 PTS.	3	
3.13 WOOD USED IN WOOD CLAD WINDOWS IS CERTIFIED TO THE SFI OR FSC.	2	FS
3.14 WOOD WINDOWS WITH EXTERIOR FINISH MEETING ASTM 2604 (METAL CLAD).	1	FS
3.15 EXTERIOR SHADING DEVICES / SCREENS WITH A SHADING COEFFICIENT OF 0.45 OR LOWER INSTALLED ON WINDOWS.	2	FS
3.16 INTERIOR WINDOW TREATMENTS WITH LIGHT COLOR AND REFLECTIVE PROPERTIES, INSULATION VALUE, OR SHADING COEFFICIENT.	1	
3.17 SKYLIGHTS WITH A U–FACTOR RATING OF U–0.5 OR LOWER AND SOLAR HEAT GAIN COEFFICIENT OF 0.40 OR LOWER. SKYLIGHT SIZE LIMITED TO 10% OF FLOOR AREA OF SPACE UNLESS PROTECTED FROM DIRECT SUNLIGHT WITH EXTERIOR SHADING DEVICES.	1	FS
3.18 LIGHT TUBES WITH A U–FACTOR RATING OF U–0.5 OR LOWER AND SOLAR HEAT GAIN COEFFICIENT OF 0.40 OR LOWER.	1	FS
3.19 SOUTH GLASS HAS FULL EXTERIOR SHADING IN MAY, JUNE, AND JULY AT NOON.	2	
3.20 NO MORE THAN 25% OF TOTAL GLASS AREA IS LOCATED ON EAST AND WEST WALLS COMBINED.	2	
3.21 TOTAL GLAZED AREA IS LESS THAN 20% OF THE TOTAL CONDITIONED SPACE.	3	PS
3.22 STRUCTURES AND/OR LANDSCAPING PROVIDE SUMMER SUN CONTROL/SHADING ON MIN. 50% OF EAST AND WEST WALL SURFACES.	2	
3.23 INSULATION HAS MINIMUM 25% RECYCLED CONTENT.	1	FS
3.24 CELLULOSE INSULATION WITH NON–TOXIC INSECT TREATMENT (E.G. – BORATE).	2	
3.25 BLOWN–IN INSULATION (I.E. CELLULOSE, FIBERGLASS) USED AT: • WALLS – 2 PTS. • CEILINGS – 2 PTS.	2 2	
3.26 CFC AND HCFC FREE FOAM INSULATION USED AT: • FDN./SLAB – 1 PT. • BASEMENT – 1 PT. • WALLS – 2 PTS. • CEILING/ROOF – 2 PTS.	1 1 2 2	
3.27 CEMENTITIOUS FOAM INSULATION USED AT: • WALLS – 1 PT. • CEILING/ROOF – 1 PT.	1 1	
3.28 NATURAL INSULATION (STRAW, CORK, COTTON) USED.	2	FS
3.29 FORMALDAHYDE–FREE FIBERGLASS INSULATION.	2	
TOTAL POINTS SELECTED:		

4. HEATING, COOLING, AND VENTILATION

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
4.1 NATURAL GAS COOLING UNIT WITH MIN. 0.6 COP (COEFFICIENT OF PERFORMANCE) RATING – OR – ELECTRIC HEAT PUMP W/ MULTISPEED COMPRESSORS AND VARIABLE SPEED AIR HANDLERS. SIZE HVAC UNITS PER MANUAL J.	3	
4.2 ZONED HVAC SYSTEM WITH INDIVIDUAL TEMPERATURE CONTROL FOR ALL ENCLOSED HABITABLE SPACES. SIZE PER MANUAL J.	4	
4.3 DUCTWORK INSULATION GREATER THAN R–4 IN CONDITIONED SPACE AND GREATER THAN R–6 IN UNCONDITIONED SPACE.	4	
4.4 TOTAL DUCT LEAKAGE MEASURED IN CFM AT 25 PASCAL'S PRESSURE SHALL BE EQUAL TO OR LESS THAN 3% OF THE FLOOR AREA SERVED BY EACH UNIT, OR EQUAL TO OR LESS THAN 5% OF THE FAN FLOW AT HIGH SPEED FOR EACH SYSTEM INSTALLED.	3	FS
4.5 EVAPORATIVE COOLING SYSTEM WITH INDEPENDENT AIR DISTRIBUTION SYSTEM.	4	
4.6 COOL TOWER OR OTHER PASSIVE COOLING DEVICES.	3	
4.7 MINIMUM OF THREE REVERSIBLE, MULTI–SPEED CEILING FANS INSTALLED. (TO BE EFFECTIVE DURING SUMMER MONTHS, THERMOSTAT MUST BE SET HIGHER).	2	
4.8 VENTED ROOF CAVITY WITH–CONTINUOUS RIDGE AND EAVES VENTING, OR INSULATION ON UNDERSIDE OF ROOF DECK.	3	
4.9 WHOLEHOUSE FAN	1	
4.10 STACK AND/OR CROSS VENTILATION FOR SEASONAL COOLING (PATHS NO GREATER THAN 40 FT.).	2	
4.11 HOME IS DESIGNED FOR PASSIVE SOLAR WINTER HEATING (REQUIRES SOLAR HEAT GAIN ANALYSIS): • GREATER THAN 50% OF TOTAL HEATING DEMAND: 2 PT. • GREATER THAN 75% OF TOTAL HEATING DEMAND: 3 PTS. • DESIGN MEETS 100% OF TOTAL HEATING DEMAND: 4 PTS.	2 3 4	PS
4.12 VENTILATION SYSTEM INSTALLED PER ASHRAE STANDARDS (STD. #62–2001): KITCHEN – MIN. 100 CFM; BATHROOM – MIN. 20 CFM (CONTINUOUS) OR 50 CFM (SPOT); MASTER BEDROOM – MIN. 20 CFM; OTHER BEDROOMS – MIN. 10 CFM.	3	PS
4.13 SEALED–COMBUSTION OR POWER VENTED FURNACE.	1	
4.14 SEALED–COMBUSTION OR POWER VENTED WATER HEATER.	1	
4.15 SEALED–COMBUSTION FIREPLACE.	1	
4.16 HEAT RECOVERY VENTILATOR OR AIR–TO–AIR HEAT EXCHANGER.	3	
4.17 WHOLE HOUSE FILTRATION SYSTEM • ELECTRONIC • PLEATED MEDIA (MIN. 2 INCH FILTER) • ULTRAVIOLET	2 2 2	
4.18 CENTRAL VACUUM SYSTEM WITH OUTSIDE EXHAUST.	2	
4.19 EXHAUST FAN IN GARAGE ON TIMER OR WIRED TO DOOR OPENER (BALANCE EXHAUST / INTAKE AIR WITH TRANSFER GRILL TO OUTSIDE).	1	
4.20 DETACHED GARAGE TO SEPARATE NOXIOUS FUMES FROM HOUSE.	1	
4.21 ALL EXHAUST FANS RATED FOR 1.5 SONE (NOISE RATING) OR LESS.	1	
4.22 PASSIVE RADON VENTILATION SYSTEM INSTALLED PER EPA GUIDELINES.	3	
TOTAL POINTS SELECTED:		

5. ELECTRICAL POWER, LIGHTING, AND APPLIANCES

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
5.1 LIGHT COLORED INTERIOR FLOOR COVERING WITH LRV OF MIN. 25%.	1	FS
5.2 DAYLIGHTING ALLOWS NATURAL LIGHT TO ENTER THE HOUSE FROM TWO SIDES OF ROOMS IN AT LEAST 50% OF TOTAL LIVABLE FLOOR AREA (EXCLUDING SKYLIGHTS).	2	
5.3 NO RECESSED LIGHTS IN INSULATED CEILINGS.	2	
5.4 AT LEAST 50% OF TOTAL NUMBER OF FIXTURES ARE NON–INCANDESCENT. (COMPACT OR TUBULAR FLUORESCENT, LOW VOLTAGE HALOGEN, NEON).	2	
5.5 MAXIMUM INTERIOR LIGHTING WATTAGE NOT TO EXCEED 0.5 WATTS PER SQ. FT.	3	PS
5.6 ENERGY USAGE GUARANTEE BY BUILDER OR ENERGY EFFICIENCY PROVIDER.	4	FS
5.7 SMART WIRING SYSTEM FOR LIGHTING CONTROL & COMMUNICATIONS.	2	
5.8 ENERGY STAR RATED APPLIANCES (WWW.ENERGYSTAR.GOV/PRODUCTS).	1 EA.	
5.9 GAS DRYER STUB–OUT.	1	
5.10 PASSIVE CLOTHES DRYING SYSTEM INSTALLED.	2	
5.11 SUBSCRIBER OF UTILITY COMPANY SOLAR POWER GENERATION PROGRAM.	1	FS
5.12 SOLAR ELECTRIC (PHOTOVOLTAIC) LIGHTING FOR AT LEAST 50% OF SITE LIGHTING.	2	
5.13 PROVIDE SOUTH ROOF AREA FOR FUTURE SOLAR PANELS (MIN. 400 SQ. FT. WITHIN 20'OF SOUTH) AND ELECTRICAL ROUGH–IN FOR SOLAR ELECTRIC (PHOTOVOLTAIC) POWER SYSTEM (SEPARATE ELEC. METER AND DISCONNECT LOCATED NEXT TO ELEC. SERVICE ENTRANCE).	4	
5.14 SOLAR ELECTRIC (PHOTOVOLTAIC) POWER SYSTEM INSTALLED (8 PTS. PER 1 KW CAPACITY).		PS
5.15 FUEL CELLS POWERED BY SOLAR POWER (8 PTS. PER 1 KW CAPACITY).		PS
5.16 FUEL CELLS POWERED BY GAS (6 PTS. PER 1 KW CAPACITY).		PS
TOTAL POINTS SELECTED:		

6. PLUMBING SYSTEM

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
6.1 WATER HEATER WITHIN 20–PIPE FEET LENGTH OF BATHROOM FIXTURES.	2	
6.2 INSULATED HOT WATER RECIRCULATION SYSTEM AS FOLLOWS: • POINT OF USE RECIRCULATION SYSTEM (1 PT. EA.) • POINT OF USE TANKLESS SYSTEM (1 PT. EA.) • WHOLE HOUSE RECIRCULATION (TIMER–BASED) • WHOLE HOUSE TANKLESS SYSTEM	 3 5	
6.3 ELECTRIC HEAT PUMP WATER HEATER.	3	
6.4 PROVIDE SOUTH ROOF AREA FOR FUTURE SOLAR PANELS (MIN. 400 SQ. FT. WITHIN 20'OF SOUTH) AND PLUMBING ROUGH–IN FOR SOLAR WATER HEATING SYSTEM.	4	
6.5 SOLAR WATER HEATING SYSTEM (MIN. 80% OF ANNUAL HOT WATER NEEDS AND CERTIFIED BY THE SOLAR RATING CERTIFICATION COUNCIL – SRCC).	8	PS
6.6 ULTRA LOW–FLOW TOILET (LESS THAN 1.6 GAL./FLUSH) OR TOILET WITH DUAL FLUSH CONTROL (1 PT. PER FIXTURE).		
6.7 CENTRALLY LOCATED MANIFOLD (HOME–RUN) WATER DISTRIBUTION SYSTEM.	2	
6.8 TWO PIPE DRAIN SYSTEM FOR–FUTURE GRAY WATER RECOVERY SYSTEM.	2	
6.9 APPROVED GRAYWATER IRRIGATION SYSTEM.	3	
6.10 POINT OF USE WATER PURIFICATION SYSTEM THAT MEETS ANSI/NSF STANDARDS (DOES NOT INCLUDE STANDARD REVERSE OSMOSIS SYSTEMS).	2	
6.11 POINT OF ENTRY WATER PURIFICATION SYSTEM THAT MEETS ANSI/NSF STANDARDS.	4	
TOTAL POINTS SELECTED:		

7. ROOFING

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
7.1 MIN. 25% RECYCLED CONTENT ROOF MATERIAL (E.G. METAL, RUBBER).	1	FS
7.2 HIGH DURABILITY/LOW MAINTENANCE ROOF MATERIAL (I.E., CONCRETE, SLATE, CLAY, METAL, FIBER–CEMENT).	1	
7.3 WHERE PERMITTED, REFLECTIVE ROOF SURFACE WITH MIN. 75% LRV TO REDUCE HEAT GAIN.	2	FS
7.4 ROOF MATERIAL WEIGHS LESS THAN 350 IBS/100 SQ. FT. TO REDUCE ROOF MASS.	1	
7.5 REUSABLE/RECYCLABLE ROOFING MATERIALS (E.G.– METAL, CONCRETE).	2	
7.6 ROOF SYSTEM INCORPORATES ORGANIC MATERIALS (EARTH/VEGETATION). 1 PT. FOR EACH 25% OF ROOF AREA	1–4	
7.7 ROOF SYSTEM HAS MIN. 25–YEAR MANUFACTURER WARRANTY.	2	FS
TOTAL POINTS SELECTED:		

8. EXTERIOR FINISHES

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
8.1 REGIONALLY(WITHIN 500 MILES) DERIVED MATERIALS, i.e. bricks, stones.	1	
8.2 REGIONALLY QUARRIED AND PROCESSED OR CULTURED STONE.	1	
8.3 RECONSTITUTED OR RECYCLED–CONTENT SIDING (MINIMUM 50% PRE–OR POST–CONSUMER).	1	FS
8.4 RECONSTITUTED OR RECYCLED–CONTENT FASCIA, SOFFIT OR TRIM, (MINIMUM 50% PRE– OR POST–CONSUMER), OSB, OR W.P. GYPSUM BOARD.	1	FS
8.5 ENGINEERED WOOD SUB–FASCIA, SOFFIT OR TRIM (I.E.–FIBERBOARD OR LAMINATED STRAND LUMBER) OR OSB.	1	
8.6 INTEGRALLY COLORED STUCCO.	1	
8.7 STUCCO APPLIED DIRECTLY TO WALL SYSTEM WITHOUT LATH (E.G. – MASONRY, ICF).	2	
8.8 FIBER CEMENT SIDING MATERIAL.	1	
8.9 MATERIALS LEFT IN NATURAL STATE. (I.E.– EXPOSED CMU).	2	
8.10 WALL COLORS HAVE A LIGHT REFLECTANCE VALUE (LRV) OF 40% OR LESS FOR REDUCED DESERT GLARE.	1	FS
TOTAL POINTS SELECTED:		

9. INTERIOR FINISHES

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
9.1 WALLBOARD MADE WITH MIN. 25% RECYCLED MATERIAL (E.G. – WHEAT BOARD, DRYWALL WITH FLUE–GAS OR INDUSTRIAL BY–PRODUCT GYPSUM).	1	FS
9.2 ZERO VOC PAINT PRODUCT OR MEET GREEN SEAL (STD. GS–11) LIMITS OF 150 GRAMS/LITER FOR NON–FLAT PAINTS AND 50 GRAMS/LITER FOR FLAT PAINTS.	2	FS
9.3 ETHYLENE GLYCOL (EG) FREE PAINT.	2	FS
9.4 PAINTS/FINISHES WITH MINIMUM 20% RECYCLED CONTENT.	1	FS
9.5 ADHESIVES USED FOR THE INSTALLATION MATERIALS (I.E – DRYWALL, PANELING, CARPET PAD, WOOD FLOORING, CERAMIC OR VCT TILE, COVE BASE, ETC.) WITH MAX. VOC CONTENT OF 150 GRAMS/LITER.	4	FS
9.6 FINISHES (SEALANTS AND SEALANT PRIMERS) ON FLOORS W/ MAX. VOC CONTENT OF 250 GRAMS/LITER.	1	FS
9.7 FINISHES (SEALANTS AND SEALANT PRIMERS) ON ALL WOODWORK OTHER THAN CABINETRY W/ MAX. VOC CONTENT OF 250 GRAMS/LITER.	1	FS
TOTAL POINTS SELECTED:		

10. INTERIOR DOORS, CABINETRY, AND TRIM

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
10.1 ALL SOLID WOOD DOORS ARE DOMESTIC HARDWOODS OR WOOD FROM CERTIFIED SUSTAINABLE SOURCE (FSC OR SFI).	2	FS
10.2 ALL COMPOSITE DOORS MADE FROM NON–TOXIC BINDERS (NO UREA–FORMALDEHYDE).	2	FS
10.3 ALL EXPOSED SUBSTRATE MATERIALS CONTAINING FORMALDEHYDE ARE SEALED WITH WATER–BASED FORMALDEHYDE BLOCKING FINISH (INSIDE CABINETS, UNDERSIDE OF COUNTERTOPS, EDGES).	2	FS
10.4 FORMALDEHYDE FREE CASEWORK (BASE/UPPER CABINETS; COUNTERS; BUILT–INS).	2	FS
10.5 RECYCLED CONTENT COUNTERTOPS.	1	FS
10.6 CONCRETE OR REGIONALLY QUARRIED AND PROCESSED STONE COUNTERTOPS.	1	FS
10.7 CASEWORK IS DOMESTIC HARDWOOD OR FROM CERTIFIED SUSTAINABLE SOURCE. (FSC OR SFI)	2	
10.8 INTERIOR TRIM (100%) IS FINGER–JOINTED/ENGINEERED WOOD, DOMESTIC HARDWOOD OR FROM CERTIFIED SUSTAINABLE SOURCE.(FSC OR SFI).	1	
10.9 NO TROPICAL WOODS USED.	1	
10.10 CABINETS PRE–FINISHED OR ON–SITE APPLICATION OF CABINET FINISHES WITH MAX. 350 GRAMS/LITER.	1	
10.11 NO WOOD BASE, COVE, DOOR/WINDOW TRIM USED (1 PT. PER CATEGORY – MAX 3 POINTS).		
TOTAL POINTS SELECTED:		

11. FINISH FLOOR

NOTE: IN ORDER TO RECEIVE POINTS IN THIS CATEGORY, THE TOTAL AREA OF THE SELECTED FINISH FLOOR MATERIAL MUST BE AT LEAST 35% OF TOTAL CONDITIONED FLOOR AREA.

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
11.1 ALL WALL TO WALL CARPETING AND PADDING TACKED AND/OR TAPED IN LIEU OF GLUE THROUGHOUT THE HOME.	1	FS
11.2 NATURAL LINOLEUM WITH LOW TOXIC ADHESIVE OR BACKING.	1	FS
11.3 RECYCLED OR SALVAGED CONTENT FLOORING (CARPET, TILE, RECLAIMED WOOD, ETC.).	1	FS
11.4 NATURAL FIBER CARPET OR RUGS (DOMESTIC COTTON, WOOL, JUTE, SISAL).	1	FS
11.5 REGIONALLY QUARRIED AND PROCESSED STONE (I. E. – FLAGSTONE).	1	
11.6 FINISHED CONCRETE (POLISHED, COLORED/STAINED, TEXTURED/SCORED).	1	
11.7 RAPIDLY RENEWABLE RESOURCE (CORK/BAMBOO) FLOORING.	1	FS
11.8 LOW–FIRE TEMPERATURE TILE (I.E. – SALTILLO).	1	
11.9 HARD FLOORING (OTHER THAN CARPET) IS 75% OF CONDITIONED FLOOR AREA.	2	
11.10 COMBINED HARD FLOORING IS 100% OF CONDITIONED FLOOR AREA.	3	
TOTAL POINTS SELECTED:		

12. POOLS AND SPAS

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
12.1 NO SWIMMING POOL OR SPA.	2	
12.2 SPA ONLY (CAPACITY LESS THAN 300 GAL.).	1	
12.3 POOL AND SPA ARE PHYSICALLY SEPARATE.	1	
12.4 SOLAR ASSISTED HEATING/COOLING SYSTEM: • POOL: 8 PTS. • SPA: 4 PTS.	8 4	
12.5 GAS SPA HEATER WITH MIN. 0.8 ENERGY FACTOR (EF).	1	
12.6 RETRACTABLE COVER: • POOL: 4 PTS. • SPA: 2 PTS.	4 2	
12.7 LOW–CHLORINE POOL FILTRATION SYSTEM.	2	
12.8 POOL FILTRATION HAS ZERO WATER LOSS BACKWASH SYSTEM.	1	
TOTAL POINTS SELECTED:		

13. SOLID WASTE

NOTE: IN ORDER TO RECEIVE POINTS IN THIS CATEGORY, THE TOTAL AREA OF THE SELECTED FINISH FLOOR MATERIAL MUST BE AT LEAST 35% OF TOTAL CONDITIONED FLOOR AREA.

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
13.1 CONSTRUCTION WASTE REDUCTION / REUSE PLAN WRITTEN AND FOLLOWED (E.G.–RECYCLE BINS FOR WOOD, CARDBOARD, DRYWALL, FOAM, METAL, CONCRETE, MASONRY, ASPHALT). –1 PT. FOR EACH ITEM RECYCLING BY BUILDER OR WASTE HAULER	1 EA.	PS
13.2 DONATE EXCESS MATERIALS TO A NON–PROFIT BUILDING ORGANIZATION.	1	FS
13.3 ALLOCATED AREA FOR CITY RECYCLING CONTAINERS DIRECTLY ACCESSIBLE TO PICK–UP POINT.	1	
13.4 COMPOSTING SYSTEM INSTALLED IN YARD (MANUFACTURED OR MADE AT SITE).	4	
TOTAL POINTS SELECTED:		

14. SPECIAL OPTIONS

ITEM	CIRCLE POINTS	SUBMITTAL REQUIRED
14.1 PARTICIPANT IN ENERGY CERTIFICATION PROGRAM (E.G. – EPA ENERGY STAR HOME, ENGINEERED FOR LIFE, CERTIFIED PLUS, BUILD AMERICA, UTILITY COMPANY PROGRAMS). * LIST NAME OF PROGRAM –	6	
14.2 ENERGY PERFORMANCE ANALYSIS (E.G. – REM DESIGN, ENERGY 10, ENERGY SCHEMING, ENERGY PLUS, HERS)	6	
14.3 HOUSE UNDER 3000 SQ .FT. OF TOTAL LIVABLE/CONDITIONED SPACE (DOES NOT INCLUDE GUESTHOUSE AND OTHER ANCILLARY STRUCTURES)	6	
14.4 CUMULATIVE CREDIT FOR A HOUSE UNDER 2000 sq.ft. OF TOTAL AIRCONDITIONED LIVABLE SPACE (DOES NOT INCLUDE GUESTHOUSE AND OTHER ANCILLARY STRUCTURES)	4	
14.5 LIFE CYCLE ANALYSIS OF BUILDING COMPONENT(S)		
14.6 LIFE CYCLE ANALYSIS OF WHOLE BUILDING		
14.7 LIGHTING DESIGN MODELING		
14.8		
14.9		
14.10		
14.11		
TOTAL POINTS SELECTED:		

TOTAL POINTS FOR ALL CATEGORIES

TOTAL POINTS FOR ALL CATEGORIES (AS SUBMITTED):		
TOTAL POINTS FOR ALL CATEGORIES (AS APPROVED):		

Building Inspection Request Codes and Descriptions

MANDATORY REQUIREMENTS				OPTIONAL REQUIREMENTS	
121	Protected Building Entrances	166	Continuous Fresh Air	205	Site Use Options
124	Interior treated Lumber	169	Replaceable Filter	225	Structuial Element Options
127	Exterior Wall Insulation	172	Sealed Mechanical Rooms	240	Building Envelop Options
130	Ceiling Insulation	175	LRV Interior Walls	265	Insulation Options
133	Air/Thermal Barrier	178	Airtight Recessed Lights	275	Heating, Cooling & Ventilation Options
136	NFRC Rated Windows	181	Task Lighting	290	Indoor Air Quality Options
139	SHGC Rated Windows	184	Insulated Hot Water Piping	305	Electrical Options
142	Electric AC	187	Water Heater Timer	325	Plumbing Options
145	Gas AC	190	Energy Efficient Water Heater	340	Roofing Options
148	Sealed Ductwork	193	Interior Finishes with Low VOC	350	Exterior Finish Options
151	Insulated Ductwork	196	Ceramic Tile Finished Floor	365	Interior Finish Options
154	Pressure Balancing	199	Recycle Center	375	Interior Door, Cabinetry and Trim Options
157	Programable Thermostat			390	Finished Floor Options
160	Ceiling Fan Outlets			405	Pool & Spa Options
163	Carbon Monoxide Detector			415	Solid Waste & Recycling Options
				425	Special Options

GREEN BUILDING RATING LEVELS

MEET ALL 26 MANDATORY REQUIREMENTS

ENTRY LEVEL	ADVANCED LEVEL
ACCUMULATE A MINUMUM OF: 26 MANDATORY ITEMS PLUS 26 SELECTED OPTIONAL POINTS	ACCUMULATE A MINUMUM OF: 26 MANDATORY ITEMS PLUS 56 SELECTED OPTIONAL POINTS

THE GREEN BUILDING PROGRAM – WITHDRAWAL

THE GREEN BUILDING PROGRAM IS DESIGNED TO ENCOURAGE SUSTAINABLE AND HEALTHY BUILDING PRACTICES AND PRODUCTS IN NEW HOMES, THEREBY GIVING BUYERS A BETTER CHOICE FOR ENVIRONMENTALLY RESPONSIBLE HOUSING. THE PROGRAM REFLECTS A CONCERN FOR NATURAL RESOURCES AND ENVIRONMENTAL QUALITY IN OUR LOCAL AND MUTUALLY DEPENDENT GLOBAL ENVIRONMENT.

THE GREEN BUILDING PROGRAM IS VOLUNTARY AND APPLICABLE TO ALL HOMES BUILT IN SCOTTSDALE. THE GREEN BUILDING CHECKLIST AND RATING SYSTEM IS USED TO QUALIFY HOMES INTO THE PROGRAM. DESIGN FLEXIBILITY IS ACHIEVED BY OFFERING OVER 150 GREEN BUILDING OPTIONS.

PROMOTIONAL INCENTIVES, BUILDING STRATEGIES AND EXPEDITED PLAN REVIEWS ARE PROVIDED TO HELP QUALIFY HOMES UNDER SCOTTSDALE'S GREEN BUILDING PROGRAM.

WHEN PLANS ARE APPROVED UNDER THE GREEN BUILDING PROGRAM, THE SELECTED REQUIREMENTS OF THE PROGRAM BECOME A PART OF THE PROJECT JUST AS ANY OTHER WORK DESIGNATED IN THE CONSTRUCTION DOCUMENTS. IF A BUILDER WISHES TO WITHDRAW FROM THE PROGRAM, THE AFFECTED CHANGES TO THE PROJECT MUST BE SUBMITTED TO THE CITY OF SCOTTSDALE FOR REVIEW AND APPROVAL. THIS SUBMITTAL MAY BE REVISED PLANS, OR IF SUFFICIENT, A WRITTEN LIST OF THE AFFECTED CHANGES THAT EXPLAINS HOW THE PROJECT WILL STILL COMPLY WITH THE BUILDING CODE.

IF CONSTRUCTION DOES NOT COMPLY WITH GREEN BUILDING REQUIREMENTS, THE PERMITS WILL BE PLACED ON HOLD, AND WORK ON THE PROJECT MAY NOT PROCEED UNTIL THE CHANGES ARE APPROVED.

IT IS THE GOAL OF THE CITY OF SCOTTSDALE TO ENCOURAGE CONTINUED PARTICIPATION IN THIS ENVIRONMENTALLY FRIENDLY PROGRAM, AND TO THAT END OUR BUILDING INSPECTORS HAVE SOME FLEXIBILITY IN SUBSTITUTING QUALIFYING OPTIONS.

GREEN BUILDING

CITY OF SCOTTSDALE

REVISIONS	BY
LAST UPDATE 02*19*04	DGM
LAST UPDATE 08*05*2004	DGM
LAST UPDATE 09*20*2004	PVT

DATE: 01*22*2003
SCALE:
DRAWN: DGM
JOB: GREEN
SHEET:

LAST REVISED 09*20*2004 36X24 (D)