

Documentation Guide

To the NC HealthyBuilt Homes Statewide Checklist



Version 2.0 May 1, 2005

Sponsored By

- The State Energy Office, North Carolina Department of Administration
- NC Solar Center
- Available on the web at www.ncsc.ncsu.edu

Documentation Guide, Version 2.0

Table of Contents

Documentation Submission Policy.....	3
Prerequisites.....	4
Site Opportunities.....	6
Water Opportunities.....	8
Building Envelope.....	10
Comfort Systems.....	18
Appliances, Lighting, Renewables.....	24
Indoor Air Quality Opportunities.....	30
Materials Opportunities.....	36
Bonus Opportunities.....	48



Documentation Submission Policy

MINIMUM REQUIREMENTS FOR EACH CATEGORY:

Site Opportunities:	7
Water Opportunities:	9
Building Envelope:	15
Comfort Systems:	20
Appliances and Renewables:	10
Indoor Air Quality Opportunities:	20
Materials Opportunities:	22
Bonus Opportunities:	2
Community Checklist (where available):	5

RATING SCALE

125-150	points:	Certified
151-200	points:	Bronze Certified
201-250	points:	Silver Certified
251+	points:	Gold Certified

1. To receive credit for an item, all “**Expected Documentation**” should be submitted to the NC HBH State Partner unless otherwise noted.
2. Some items have time sensitive required documentation, read carefully! Documentation submitted late will be accepted at the discretion of the NC HBH program.
3. **Expected Documentation** for each item has 3 components: **Plans** (what is required to appear on the plans you submit), **Field** (what field verification is required for this item) and **Other** (any additional documentation required to receive credit for an item).
4. For items with **Plan** documentation required, please provide a clear drawing, to a noted scale, for required plans and details. However, notes, system locators and other descriptions may be provided in legible handwriting.
5. In the **Field** section, the builder is required to have a representative approved by the statewide HBH program present for a **Final Walkthrough**.
6. **Photo documentation must clearly illustrate that it is related to and taken of the specific house** working to achieve NC HBH certification, or it will not be accepted.
7. If in doubt, always ask for clarification, we are here to help you achieve a **HealthyBuilt Home!**

Prerequisites



	Date Completed
<p><i>Prerequisite 1: Must comply with all federal, state and local government erosion control and tree protection measures.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: On Site Plan, indicate trees to be protected and erosion control methods to be applied.</p> <p>Field : NONE</p> <p>Other: Document signed by local code official indicating compliance.</p>	
<p><i>Prerequisite 2: All plumbing fixtures must meet National Energy Policy Act standards for low flow.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Document signed by builder and/or responsible party indicating compliance for ALL plumbing fixtures with National Energy Policy Act.</p>	
<p><i>Prerequisite 3: Home must be certified by EPA Energy Star program</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: Complete set of House Plans, at <u>minimum</u> include site and floor plans, elevations as well as plumbing, mechanical and electrical system type and descriptions.</p> <p>Field: NONE</p> <p>Other: Copy of form verifying home has qualified for the ENERGY STAR Label.</p>	
<p><i>Prerequisite 4: Must perform a blower door test and meet minimum standard of 0.35 CFM₅₀/sf or 3.5 ach₅₀.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of blower door test results signed by certified Home Energy Rater who performed the test.</p>	
<p><i>Prerequisite 5: All forced-air, ducted systems must seal all ductwork joints and penetrations with low toxic mastic or aerosolized sealant. Duct leakage must be tested and must not exceed 5% of the home's heated square footage when measured in CFM₂₅ of leakage.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of duct leakage test results indicating all joints and penetrations were sealed as required by prerequisite, signed by certified Home Energy Rater who performed the test.</p>	
<p><i>Prerequisite 6: All building space heating and cooling equipment must be sized according to heating and cooling load calculations using ANSI/ACCA Manual J 8th Edition.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of Manual J calculations.</p>	

Prerequisites continued...



Date Completed

Prerequisite 7: Combustion equipment including (but not limited to) furnaces and water heaters, must be located outside the conditioned space unless the equipment is sealed combustion or power vented. Unvented fireplaces are not permitted. Gas logs having a fan that blows any portion of the combustion gases into the living space are not permitted. One hard-wired carbon monoxide (CO) detector shall be installed per 1,000 sq. feet of living space (minimum 1 per floor) in all houses with an attached garage or with any combustion appliance.

EXPECTED DOCUMENTATION

Plans: NONE

Field: Final walkthrough

Other: NONE

Prerequisite 8: A ventilation system is required that provides makeup air from a clean source that is equal to 7.5 cfm per bedroom plus an additional 7.5 cfm plus .01 cfm per sq.ft.

EXPECTED DOCUMENTATION

Plans: NONE

Field: Final Walkthrough

Other: Duct blaster test results by certified Home Energy Rater who performed the test, indicating total cfm's of makeup air provided.

Prerequisite 9: Must be enrolled in the statewide NC HealthyBuilt Homes program at minimum to become a "Certified (or better) HealthyBuilt Home".

EXPECTED DOCUMENTATION

Plans: NONE

Field: NONE

Other: Completed enrollment form and receipt for payment of enrollment fees.

Site Opportunities



Soil/Amendments		Pt	Date Completed
1	<p><i>Provide an erosion control site plan.</i> EXPECTED DOCUMENTATION: Plans: Provide photo documentation of site demonstrating adherence to plan <u>or</u> inspection by approved NC HBH inspector. Field: NONE Other: Letter signed by responsible party indicating site plan is in compliance as stated above.</p>	2	
2	<p><i>Use of redundant mulch, compost, or straw bales for erosion control.</i> EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of erosion control methods employed <u>or</u> inspection by approved NC HBH inspector.</p>	3	
3	<p><i>Save, protect and reuse 75% or more of all valuable site topsoil.</i> EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: 1. Copy of soil analysis results indicating valuable topsoil 2. Electronically dated photographic log of topsoil storage and reuse, ie, photographs demonstrating topsoil properly protected and stored as well as later pictures demonstrating correct topsoil redistribution <u>or</u> inspection by approved NC HBH inspector.</p>	4	
Vegetation			
4	<p><i>Trees and natural features on site protected during construction (min 25% of development or lot).</i> EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Submission of photographs, taken bimonthly, documenting adherence to protection methods <u>or</u> inspection by approved NC HBH inspector.</p>	3	
5	<p><i>Tree planting (min. 12 trees per acre of developed land)</i> EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	4	
6	<p><i>Provide tree preservation plan..</i> EXPECTED DOCUMENTATION: Plans: Tree Preservation Plan (developed by builder) visibly posted on job site. Field: Final Walkthrough Other: Copy of Tree Preservation Plan.</p>	3	
7	<p><i>Individual trees fenced at drip line (1 point per tree, max. 5 trees)</i> EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of each tree <u>or</u> inspection by approved NC HBH inspector.</p>	1-5	

Site Opportunities continued...



Vegetation continued		Pt	Date Completed
8	<p><i>Grind stumps and limbs for mulch.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Photo documentation of tree clearing, mulching, mulch storage area (if kept on site), and later redistribution of mulch (if kept onsite) or inspection by approved NC HBH inspector. If mulch is moved offsite, builder must provide a sales receipt.</p>	2	
9	<p><i>Mill cleared logs.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Submission of receipt or other documentation from sawmill.</p>	2	
Development			
10	<p><i>Sidewalk connects house to business district (max 2 miles)</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: NONE</p>	5	
11	<p><i>Use B20 blend bio-diesel for 90% of all diesel fueled construction equipment.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Provide documentation for the all B20 fuel used, including fuel provider and Item Compliance Signature Sheet signed by the responsible party.</p>	5	

Water Opportunities



Outdoor		Pt	Date Completed
1	<p><i>Drought resistant guidebook given to homeowner.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by Owner for guidebook.</p>	1	
2	<p><i>Provide a drought resistant planting plan to homeowner.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide copy of planting plan and Item Compliance Signature Sheet signed by Owner.</p>	3	
3	<p><i>Permeable materials comprise 40% of areas for all walkways, patios and driveways.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough-indicate site boundary location Other: NONE</p>	3	
4	<p><i>Installed landscape is drought resistant for at least 50% of non-paved area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: In lieu of “Other” category: During final walkthrough, provide stakes at each plant bed indicating name of plant. (extra point for doing it this way) Other: Responsible party provides letter indicating species of drought resistant plants used.</p>	7	
5	<p><i>Rainwater harvested and directed toward landscaping needs.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Photo documentation of installation of system portions which are not visible <u>or</u> inspection by approved NC HBH inspector.</p>	4	
6	<p><i>Installed irrigation system is zoned separately for turf and bedding areas.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough—demonstrate controller/settings for irrigation system. Other: NONE</p>	2	
7	<p><i>Installed irrigation system includes a soil moisture or rain sensor, or other irrigation efficiency device.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough—demonstrate efficiency device Other: Item Compliance Signature Sheet signed by Owner.</p>	2	

Water Opportunities continued...



		Pt	Date Completed
8	<p><i>Greywater irrigation system is installed where allowed by code.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, indicate location of system and include construction detail and/or description. Field: Final Walkthrough—note dedicated plumbing fixtures and drains. Other: Letter signed by local code official indicating that installed system has been approved.</p>	7	
Indoor			
9	<p><i>Kitchen faucet fitted with aerator restricting flow to 2.0 gpm.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough spot check Other: NONE.</p>	1	
10	<p><i>Bathroom faucet fitted with aerator restricting flow to 1.8 gpm.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough spot check Other: NONE</p>	1	
11	<p><i>All toilets are high efficiency toilets (max 1.45 gpf) or dual flush (1.6/0.8 gpf).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
12	<p><i>High efficiency showerheads (max 2.25 gal/min).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
13	<p><i>Install whole house water filter system (NSF certified).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
14	<p><i>Clothes washer is an Energy Star labeled product.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	5	

Building Envelope



		Pt	Date Completed
1	<p>Builder must certify house as ENERGY STAR.</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: Complete set of House Plans, at <u>minimum</u> include site and floor plans, elevations, plumbing, mechanical and electrical system type and descriptions.</p> <p>Field: NONE</p> <p>Other: Copy of form verifying home has qualified for the ENERGY STAR Label.</p>	P	
2	<p>Exceeds Energy Star (1 point for each 1%) max 5 points.</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Dated report documenting analysis results based on actual finished conditions provided by the certified HERS rater who performed the test.</p>	1-5	
3	<p>Energy Bill Guarantee program. Examples include, but are not limited to System Vision and Environments for Living.</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Form provided by Energy Bill Guarantee Program identifying that the house is enrolled in the program.</p>	5	
4	<p>Provide Insulation/ HVAC inspection</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Item Compliance Signature Sheet signed by the NC HBH approved inspector identifying that insulation/HVAC system has been correctly installed in accordance with manufacturer's requirements, house plans and/or ACCA Manual J requirements.</p>	5	
Air Infiltration			
5	<p>Must perform a blower door test and meet minimum standard of 0.25 cfm₅₀/sf or 2.5 ach₅₀</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Dated report documenting analysis results based on actual finished construction conditions provided by the certified HERS rater who performed the test.</p>	5	
6	<p>Must perform a blower door test and meet minimum standard of 0.15 cfm₅₀/sf or 1.5 ach₅₀</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Dated report documenting analysis results based on actual finished construction conditions provided by the certified HERS rater who performed the test.</p>	10	

Building Envelope continued...



Insulation		Pt	Date Completed
7	<p>Slab insulation (min R5).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of slab insulation installation, insulation thickness must be visible in photo to receive points <u>or</u> inspection by approved NC HBH inspector.</p>	2	
8	<p>Slab insulation (min R8)</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of slab insulation installation, insulation thickness must be visible in photo to receive points <u>or</u> inspection by approved NC HBH inspector.</p>	3	
9	<p>Insulated concrete or masonry basement walls (continuous floor to ceiling R13)</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation demonstrating continuous floor to ceiling insulation of all basement walls w/ insulation thickness visible in photos <u>or</u> inspection by approved NC HBH inspector.</p>	2	
10	<p>Insulated foundation walls with rigid R-10 foam insulation from footer to top of wall.</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of installation showing insulation from footer to top of wall <u>or</u> inspection by approved NC HBH inspector.</p>	3	
11	<p>Sealed, insulated crawl space walls (R10).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough Other: Photo documentation illustrating all elements of construction detail and Item Compliance Signature Sheet signed by responsible party indicating compliance with accepted sealed crawlspace recommendations (www.crawlspace.org) <u>or</u> inspection by approved NC HBH inspector.</p>	5	
12	<p>Cantilevered floor insulated. (R30).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of sealing process and completed insulation installation <u>or</u> inspection by approved NC HBH inspector.</p>	2	

Building Envelope continued...



		Pt	Date Completed
13	<p><i>Band joist insulated (R19).</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Photo documentation of insulated band joist(s) <u>or</u> inspection by approved NC HBH inspector.</p>	2	
14	<p><i>Insulate framed floor over unconditioned space (insulation in continuous contact with subfloor; R21 Zones 6-7; R25 Zones 8-9, 11).</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Photo documentation of completed insulation installation illustrating entire framed floor area insulated and Item Compliance Signature sheet signed by responsible party indicating R-value installed is the same as indicated on plans <u>or</u> inspection by approved NC HBH inspector.</p>	2	
15	<p><i>Framing Efficiency Package for wood stud construction with at least 5 of the following components (requires a framing inspection by a third party).</i></p> <ol style="list-style-type: none"> 1. Insulated headers, minimum R-10. 2. Insulated framing corners 3. Insulated T-walls (exterior/interior wall intersection) 4. Window rough openings eliminate jack stud. 5. Non-structural headers in exterior non-load bearing walls. 6. 2-stud corner with drywall clips or alternate framing detail. 7. T-walls with drywall clips or alternative framing detail. 8. Non-load bearing wall studs @ 24-in. centers. 9. Single top plate with stacked (in-line) framing. 10. Reduced framing, interior partitions (24. O.C. studs at interior non-bearing walls). <p>EXPECTED DOCUMENTATION</p> <p>Plans: On plans provide detail / description of the framing efficiency components applied.</p> <p>Field: NONE</p> <p>Other: Photo documentation of framing details <u>or</u> inspection by approved HBH inspector.</p>	5	
16	<p><i>R-2.5 to 4.9 insulated exterior wall sheathing on 75% or more exterior walls</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Photo documentation of installed insulation clearly demonstrating the 75% required coverage, with insulation thickness visible in photo <u>or</u> inspection by approved HBH inspector</p>	3	
17	<p><i>R-5 or better insulated exterior wall sheathing on 75% or more exterior walls</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Photo documentation of exterior wall sheathing illustrating insulation thickness <u>or</u> inspection by approved NC HBH inspector.</p>	4	

Building Envelope continued...



		Pt	Date Completed
18	<p><i>Chases air sealed and insulated in addition to any required insulation value. (R5)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation <u>or</u> inspection by approved NC HBH inspector.</p>	2	
19	<p><i>Insulate fireplace chase. (R5)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of insulated fireplace chase illustrating appropriate code requirements and insulation thickness <u>or</u> inspection by approved NC HBH inspector.</p>	1	
20	<p><i>Exterior wall stud cavities insulated (R19 Zones 6-7; R21 Zones 8-9, 11).</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of completed insulation installation with R-value visible <u>or</u> inspection by approved NC HBH inspector.</p>	3	
21	<p><i>Pre-cast Autoclaved Aerated Concrete used as exterior wall material. (R10, min./use 10" thickness)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walk Through Other: Appropriate photos documenting installation <u>or</u> inspection by approved HBH inspector.</p>	5	
22	<p><i>Insulated Concrete Form wall system. (R20, min.)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough Other: Appropriate photos documenting installation <u>or</u> inspection by approved HBH inspector.</p>	5	
23	<p><i>Structural Insulated Panels (exterior walls) (R14, min.)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Appropriate photos documenting installation <u>or</u> inspection by approved HBH inspector.</p>	2	
24	<p><i>Structural Insulated Panels (exterior walls) (R20, min.)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Appropriate photos documenting installation <u>or</u> inspection by approved HBH inspector.</p>	5	

Building Envelope continued...



		Pt	Date Completed
25	<p>Energy (raised) heels of 6" or more on trusses to provide for proper insulation installation over top plates.</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of energy heel truss resting on top plate with ruler or measuring tape for scale <u>or</u> inspection by approved NC HBH inspector.</p>	2	
26	<p>Structural Insulated Panels (roof) (R30, min.)</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Appropriate photos documenting installation <u>or</u> inspection by approved NC HBH inspector.</p>	3	
27	<p>Flat ceilings (R38-Zones 6-7 where R-30 required; R42 Zones 7-8 where R-38 required; R48 Zones 9,11).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party(s), indicating installed insulation thickness <u>or</u> inspection by approved NC HBH inspector.</p>	2	
28	<p>Vaulted and tray ceilings (R38-Zones 6-7 where R-30 required; R42 Zones 7-8 where R-38 required; R48 Zones 9,11).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party(s), indicating installed insulation thickness <u>or</u> inspection by approved NC HBH inspector.</p>	2	
29	<p>Attic pull-down or scuttle hole (R10).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough (if visible) Other: Photo documentation of insulation (showing thickness) installed on scuttle hole (if not visible).</p>	1	
30	<p>Attic pull-down or scuttle hole (R19).</p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough (if visible) Other: Photo documentation of insulation (showing thickness) installed on scuttle hole (if not visible).</p>	2	

Building Envelope continued...



		Pt	Date Completed
31	<p><i>Attic kneewall stud cavities insulated with either R19 (2x6 studs) with air barrier toward attic or R13 with R2.5 sheathing towards attic.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of completed installation illustrating insulation thickness or inspection by approved NC HBH inspector.</p>	3	
32	<p><i>Attic kneewall stud cavities insulated with R13 w/ R5 sheathing towards attic.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Photo documentation of completed installation illustrating insulation thickness or inspection by approved NC HBH inspector.</p>	4	
33	<p><i>Attic kneewall doors insulated (R10).</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough Other: Photo documentation of insulated door, illustrating R-value or inspection by approved NC HBH inspector (if not visible in final walk-through).</p>	1	
34	<p><i>Attic kneewall doors insulated (R19).</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough Other: Photo documentation of insulated door, illustrating R-value or inspection by approved NC HBH inspector (if not visible in final walk-through).</p>	2	
35	<p><i>Install ceiling radiant heat barrier facing air space.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final Walkthrough if visible Other: Adequate photo documentation of completed installation or inspection by approved NC HBH inspector (if not visible in final walk-through).</p>	2	
36	<p><i>Insulate hot water pipes to R-6 in unconditioned spaces.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final walkthrough, where visible. Other: Photo documentation of insulated pipes, especially buried insulated lines or inspection by approved NC HBH inspector.</p>	2	
37	<p><i>Loose-fill attic insulation card and rulers facing main attic access.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: Final walkthrough all cards and rulers must be visible and legible. Other: Copy of attic card.</p>	1	

Building Envelope continued...



		Pt	Date Completed
38	<p><i>Water heater with insulating blanket installed to manufacturer's specifications.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation specifications.</p>	3	
39	<p><i>House Insulation Package exceeds code by 20% (using RESCheck software)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of RESCheck analysis report results, signed by a certified HERS rater or approved NC HBH party who performed the analysis.</p>	8	
40	<p><i>House Insulation Package exceeds code by 40% (using RESCheck software)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of RESCheck analysis report results, signed by a certified HERS rater or approved NC HBH party who performed the analysis.</p>	16	
41	<p><i>House Insulation Package exceeds code by 60% (using RESCheck software)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of RESCheck analysis report results, signed by a certified HERS rater or approved NC HBH party who performed the analysis.</p>	24	
Window and Doors			
42	<p><i>Low-e windows NFRC rated as appropriate for design. (equal to or lower than the following values: Zone 6, u=0.46; Zone 7, u=0.45; Zone 8, u=0.41; Zone 9, u=0.37; Zone 11, u=0.29)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough; NFRC Energy Performance sticker MUST REMAIN INTACT on window for inspection in order to receive points.</p> <p>Other: NONE</p>	3	
43	<p><i>No metal-frame windows in house, including basements</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: NONE</p>	1	

Building Envelope continued...



		Pt	Date Completed
44	<p><i>Inert gas-filled double glazed units. (e.g. argon gas filled)</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Specification cut-sheet or product data or other method of documentation.</p>	1	
45	<p><i>Exterior doors (includes door to garage) insulated to R5, or greater.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plans: NONE Field: NONE Other: Specification sheet, product data, or manufacturer's name and model number.</p>	3	
46	<p><i>10 year warranty on all insulated glazing.</i></p> <p>EXPECTED DOCUMENTATION</p> <p>Plan: NONE Field: NONE Other: Copy of Warranty for all insulated glazing signed by responsible party.</p>	1	

Comfort Systems



Passive Solar Heating and Cooling Strategies		Pt	Date Completed
1	<p><i>Ceiling fans (minimum of 3 fans).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
2	<p><i>Provide overhang, between one and two feet above south windows as follows below (may include gutter as part of overhang).</i></p> <p>34-34.75 degrees is 2'-4" 34.75-35.5degrees is 2'-0" 35.5-36.25 degrees is 1'-8"</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	3	
3	<p><i>Strategies to reduce heat gain and/or heat loss, such as exterior-mounted sunscreens, operable insulated window coverings, or operable awnings.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	5	
4	<p><i>Home orientation allows solar heating (long dimension is w/in 15 degrees East or West of solar south) and reduces overheating potential of west-facing glass.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	7	
5	<p><i>East facing glazing less than 3% of floor area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations (heated square footage/east window glass square footage).</p>	2	
6	<p><i>West facing glazing less than 2% of floor area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations (heated square footage/west window glass square footage).</p>	2	
7	<p><i>South glass area is between 6-7% of total finished floor area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations (heated square footage/south window glass square footage).</p>	5	

Comfort Systems continued...



		Pt	Date Completed
8	<p><i>Home designed for passive solar heating (>20% per standards provided).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations/summary analysis showing a passive solar design, using qualified means and methods.</p>	10	
9	<p><i>Home designed for passive solar heating (>35% per standards provided).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations/summary analysis showing a passive solar design, using qualified means and methods.</p>	20	
10	<p><i>Home designed for passive solar heating (>50% per standards provided).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of calculations/summary analysis showing a passive solar design, using qualified means and methods.</p>	30	
Mechanical Comfort Systems			
11	<p><i>All ductwork joints and penetrations sealed with low toxic mastic or aerosolized sealant system. Must meet a duct blaster test indicating a leakage rate of 3% or lower of the conditioned floor area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Results from “duct blaster” or equivalent test administered by certified energy rater or HVAC engineer.</p>	6	
12	<p><i>Ducts located within conditioned space (min. 95%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector</p>	5	
13	<p><i>Ducts sized and installed in accordance with room-by-room load calculations for sizing ductwork using manual D.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Copy of Manual D Calculations (preferred location is on plans). Photo documentation of duct sizes for areas that will not be visible in final walkthrough <u>or</u> inspection by approved NC HBH inspector.</p>	3	

Comfort Systems continued...



		Pt	Date Completed
14	<p><i>No panned joist space or unsealed cavities used as return air.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide photo documentation <u>or</u> inspection by approved NC HBH inspector.</p>	2	
15	<p><i>Airflow for each duct run measured and balanced 10% of manufacturer's specifications.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Manufacturer's specifications indicating air flow for each duct run and copy of results of airflow measurement test performed by NC HBH approved inspector.</p>	3	
16	<p><i>No ducts in exterior walls or vaulted ceilings.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide photo documentation <u>or</u> inspection by approved NC HBH inspector.</p>	3	
17	<p><i>Any ducts outside conditioned space must be sealed with mastic and insulated to a minimum of R-8 (supply) or R-4 (return).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Photo documentation for areas that will not be visible in final walkthrough <u>or</u> inspection by approved NC HBH inspector.</p>	2	
18	<p><i>Transfer air grills or insulated jump-ducts or return-air ducts are provided in every bedroom.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Photo documentation for portions of ducts that will not be visible in final walkthrough <u>or</u> inspection by approved NC HBH inspector.</p>	2	
19	<p><i>Rigid supply trunk.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Photo documentation for portions of ducts that will not be visible in final walkthrough <u>or</u> inspection by approved NC HBH inspector.</p>	2	

Comfort Systems continued...



		Pt	Date Completed
20	<p><i>Design Heating/Cooling system to function without ductwork.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On mechanical plans, provide ductless system design and construction details and a description illustrating system components Field: Final Walkthrough (note existence and operation of visible components) Other: Item Compliance Signature Sheet signed by responsible party indicating ductless system has been installed as designed and that the building envelope has not been compromised, copy of operation and maintenance instructions provided by builder to homeowner and Item Compliance Signature sheet signed by the homeowner.</p>	5	
Controls			
21	<p><i>Programmable thermostat with “fan-only” switch.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by the owner indicating that the owner has received written instructions and a demonstration.</p>	1	
22	<p><i>Zoning utilizing two or more thermostats controlling separate heating and/or cooling zones from a single system, or zoning using two or more separate systems.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Copy of recommended thermostat settings for expected conditions of the rooms (occupancy, appropriate comfort levels, etc.) and Item Compliance Signature Sheet signed by homeowner.</p>	5	
Equipment			
23	<p><i>90% or higher energy efficiency furnace with sealed combustion air and modulating gas valve.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Specification cut sheet or product data, manufacturer’s name and model number.</p>	9	
24	<p><i>90% or higher energy efficiency furnace with sealed combustion air.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Specification cut sheet or product data, manufacturer’s name and model number.</p>	8	
25	<p><i>87% or higher efficiency boiler with sealed combustion air.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Specification cut sheet or product data, manufacturer’s name and model number.</p>	6	

Comfort Systems continued...



		Pt	Date Completed
26	<p>SEER 12 cooling equipment (75% total capacity).</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number.</p>	4	
27	<p>SEER 14 cooling equipment (75% total capacity)</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number.</p>	6	
28	<p>HSPF 8.0 heat pump (75% total capacity). Provide outdoor thermostat for heat pump.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number.</p>	6	
29	<p>HSPF 7.5 heat pump (75% total capacity) Provide outdoor thermostat for heat pump.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number.</p>	4	
30	<p>Air handler located within conditioned space (all units).</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number.</p>	5	
31	<p>Cooling equipment has non-CFC and non-HCFC refrigerant.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Specification cut sheet or product data, manufacturer's name and model number and Item Compliance Signature sheet signed by responsible party.</p>	3	
32	<p>Enthalpy recovery ventilator (ERV) or air-to-air heat exchanger</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Item Compliance Signature Sheet signed by responsible party indicating system is correctly installed and Photo documentation of installation <u>or</u> inspection by approved NC HBH inspector.</p>	9	

Comfort Systems continued...



		Pt	Date Completed
33	<p><i>Cooling equipment sized within 6000 btu/h of Manual J.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Copy of Manual J calculations (preferred on plans) by HVAC installer and Item Compliance Signature Sheet signed by responsible party.</p>	5	
34	<p><i>Drain waste heat recovery system installed (AIR HANDLER)</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Item Compliance Signature Sheet signed by responsible party indicating system has been correctly installed in compliance with manufacturer's recommendations.</p>	3	
35	<p><i>Heating equipment output sized within 18,000 btu/h of Manual J (all units)</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Copy of Manual J calculations (preferred on plans) by HVAC installer and Item Compliance Signature Sheet signed by responsible party.</p>	2	
36	<p><i>Geothermal (ground source) heating and cooling system installed.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Item Compliance Signature Sheet signed by responsible party indicating system has been correctly installed in compliance with manufacturer's recommendations.</p>	15	
37	<p><i>In-floor heating system installed per requirements listed in Guide.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final walkthrough, controls/equipment.</p> <p>Other: Photo documentation of all installed underfloor portions of system or inspection by approved NC HBH inspector.</p>	10	

Appliances, Lighting, Renewables



Appliances		Pt	Date Completed
1	<p><i>Refrigerator is an Energy Star labeled product or meets or exceeds Energy Star criteria.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough, Model Number should be accessible. Other: NONE</p>	2	
2	<p><i>Refrigerator is a super energy efficient product, rated to use < 360 kWh.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough, Model Number should be accessible. Other: NONE</p>	4	
3	<p><i>Dishwasher is an Energy Star labeled product or meets or exceeds Energy Star criteria.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough, Model Number should be accessible. Other: NONE</p>	1	
4	<p><i>Gas clothes dryer with electronic ignition.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough, Model Number should be accessible, including location of carbon monoxide monitoring unit/system. Other: NONE</p>	2	
5	<p><i>Gas cook top with electronic ignition.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough, Model Number should be accessible, including location of carbon monoxide monitoring unit/system. Other: NONE</p>	3	
6	<p><i>If appliances are not included, a list of energy efficient appliances is provided to homebuyer.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide copy of list, signed and dated by homeowner on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	2	
7	<p><i>High efficiency or tankless water heater (min Energy Factor: gas 0.62 ; electric 0.92).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	

Appliances, Lighting, Renewables continued...



		Pt	Date Completed
8	<p><i>Geothermal or waste heat recovery water heating.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating system has been correctly installed in compliance with manufacturer's recommendations.</p>	3	
9	<p><i>Shower drain heat recovery device.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough if visible Other: Item Compliance Signature Sheet signed by responsible party indicating system has been correctly installed in compliance with manufacturer's recommendations.</p>	1	
10	<p><i>Heat pump water heater installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough if visible Other: Item Compliance Signature Sheet signed by responsible party indicating system has been correctly installed in compliance with manufacturer's recommendations.</p>	5	
Lighting			
11	<p><i>Recessed light fixtures are compact fluorescents (1 per light, max. 3).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1-3	
12	<p><i>50 % of light fixtures are fluorescent or have compact fluorescent light bulbs installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Calculations indicating total light fixtures/fixtures with fluorescent light bulbs. May be located on plans.</p>	2	
13	<p><i>75 % of light fixtures are fluorescent or have CFL bulbs installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Calculations indicating total light fixtures/fixtures with fluorescent light bulbs. May be located on plans.</p>	3	
14	<p><i>100 % of light fixtures are fluorescent or have CFL bulbs installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Calculations indicating total light fixtures/fixtures with fluorescent light bulbs. May be located on plans.</p>	4	

Appliances, Lighting, Renewables continued...



		Pt	Date Completed
15	<p><i>Switchable automatic outdoor lighting controls. (e.g. motion/photo sensor).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
16	<p><i>High efficiency exterior lighting (metal halide or high pressure sodium with and on/off switch accessible to owner so that the lights are not on every night).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	1	
Renewables			
17	<p><i>Solar water heating system.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party.</p>	10	
18	<p><i>Rough-in for future solar hot water heating. Pipes must be insulated and provide appropriate wiring for controls.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, indicate location of rough-in pipes and appropriate wiring. Field: NONE Other: Photo documentation of rough-in and Item Compliance Signature Sheet signed by responsible party indicating that pipes and wiring are appropriate for future solar hot water heating needs <u>or</u> inspection by approved NC HBH inspector.</p>	3	
19	<p><i>Provide solar electric (photovoltaic) panel for powering pump for a solar hot water system.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE. Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	3	
20	<p><i>Solar electric (photovoltaic) system provides 25% or more of the home's electricity.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	30	

Appliances, Lighting, Renewables continued...



		Pt	Date Completed
21	<p>Solar electric (photovoltaic) system provides 50% or more of the home's electricity.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	50	
22	<p>Solar electric (photovoltaic) system provides 75% or more of the home's electricity.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	75	
23	<p>Solar electric (photovoltaic) system provides 100% of the home's electricity.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	100	
24	<p>Provide battery back-up system for solar electric (photovoltaic) system.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the back-up system (kW). Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	10	
25	<p>Provide solar electric (photovoltaic) powered well water pumping system.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed indicating installation complies with manufacturer's requirements provided by NC HBH).</p>	8	
26	<p>Active Solar thermal heating system provides 40% or more of the home's heating needs.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party and calculations indicating contribution of system to heating load requirements.</p>	12	

Appliances, Lighting, Renewables continued...



		Pt	Date Completed
27	<p>Active Solar thermal heating system provides 70% or more of the home's heating needs.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party and calculations indicating contribution of system to heating load requirements.</p>	24	
28	<p>Active Solar thermal heating system provides 100% or more of the home's heating needs.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party and calculations indicating contribution of system to heating load requirements.</p>	36	
29	<p>Provide south roof area designed for future solar hot water or photovoltaic collectors within 30 degrees East or West of solar South</p> <p>EXPECTED DOCUMENTATION: Plans: On plans, include description indicating number of degrees roof area is oriented within true south Field: Final walkthrough Other: NONE</p>	2	
30	<p>Provide at least 25% of the power for a home using wind turbine technology.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and provide copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	30	
31	<p>Provide at least 50% of the power for a home using wind turbine technology.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and provide copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	50	
32	<p>Provide at least 20% of the electricity for the home using micro-hydro power generation.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate size of the system (kW) and provide copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	20	

Appliances, Lighting, Renewables continued...



		Pt	Date Completed
33	<p><i>Provide at least 40% of the electricity for the home using micro-hydro power generation.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: Indicate size of the system (kW) and provide copy of electrical load calculations signed by the appropriate professional. Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	40	
34	<p><i>Buyer enrolls for one year in the GreenPower program for estimated energy use. Buyer purchases amounts based on the number of bedrooms in the home. (note: houses less than 1500 sf may use the 1 bedroom enrollment figure).</i></p> <p><i>1 bedroom 100 kWh (1 block per month at \$4 each)</i></p> <p><i>2 bedroom 200 kWh</i></p> <p><i>3 bedroom 400 kWh</i></p> <p><i>4 bedrooms 600 kWh</i></p> <p><i>5 bedrooms or more 800 kWh</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE.</p> <p>Field: NONE</p> <p>Other: Copy of NC GreenPower enrollment form and homeowner signature on Owner Item Compliance Signature Sheet (provided by NC HBH).</p>	5	

Indoor Air Quality Opportunities



		Pt	Date Completed
1	<p><i>House meets American Lung Association Health House standards.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Copy of documentation approved by American Lung Association Health House® Program indicating the home meets Health House standards.</p>	8	
Structural Air Quality			
2	<p><i>Attached garage is isolated from house by extensive air-sealing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation illustrating garage is isolated from house as indicated on plans and Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by approved NC HBH inspector.</p>	3	
3	<p><i>Detached garage in lieu of attached garage.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	5	
4	<p><i>Capillary break between foundation and framing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of capillary break completed installation <u>or</u> inspection by approved NC HBH inspector.</p>	1	
5	<p><i>Drainage board for below grade walls.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of drainage board completed installation before and after covering <u>or</u> inspection by approved NC HBH inspector.</p>	4	
6	<p><i>Continuous foundation drain at outside perimeter edge of footing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Photo documentation of foundation drain completed installation prior to covering <u>or</u> inspection by approved NC HBH inspector.</p>	2	
7	<p><i>Vapor barrier placed in crawl space and/or beneath slab, placed above drainable substrate such as sand, gravel or other acknowledged pervious surface.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where easily accessible and visible Other: Photo documentation of area not easily accessible or materials not visible <u>or</u> inspection by approved NC HBH inspector.</p>	2	

Indoor Air Quality continued...



Appliance Air Quality		Pt	Date Completed
8	<p><i>Sealed-combustion solid fuel (pellets of ground bio-mass) burning stove with outside combustion air.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	3	
9	<p><i>Sealed-combustion gas fireplace or sealed wood-burning fireplace or stove with outside combustion air.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance with manufacturer's installation requirements.</p>	2	
10	<p><i>Provide filters rated MERV 9 or greater on all forced air systems.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough (must be accessible) Other: NONE</p>	2	
11	<p><i>Install 1 hardwired carbon monoxide detector in mechanical equipment area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating CO detector is hardwired to electrical system.</p>	1	
12	<p><i>Bath exhaust fan with a low sone (1.5 or less) rating and capable of exhausting 50 cfm, minimum to the outside (all units). Energy Star rated fans that meet this criteria may be used</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	3	
13	<p><i>Ducts protected from dirt and debris until construction is completed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough (look at filter, spot check ducts) Other: At least one photo illustrating protection method or inspection by approved NC HBH inspector and Item Compliance Signature Sheet signed by responsible party .</p>	2	
14	<p><i>Automatic tub/shower room fan controls (e.g. timer/humidistat).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Homeowner signature on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	1	

Indoor Air Quality continued...



		Pt	Date Completed
15	<p><i>Attached garage - exhaust fan controlled by motion sensor or timer.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	2	
16	<p><i>Radon/soil gas vent system.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field : Final Walkthrough Other: Photo documentation of complete system <u>or</u> inspection by approved NC HBH inspector.</p>	3	
17	<p><i>Whole house fan installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Copy of homeowner instruction sheet and Homeowner signature on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	2	
18	<p><i>Dehumidification system installed.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party .</p>	3	
19	<p><i>Outside air intake with dampers.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party.</p>	3	
20	<p><i>Radon test of home prior to occupancy.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Copy of test results provided by qualified radon testing organization or individual.</p>	2	
21	<p><i>Kitchen range hood or downdraft vented to exterior (max. 200 cfm).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Provide photo of ducting to exterior if not otherwise easily accessible or visible <u>or</u> inspection by approved NC HBH inspector.</p>	3	
22	<p><i>Install a whole house HEPA filter.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Provide owner operation manual and filter change schedule, and Item Compliance Signature Sheet signed by owner.</p>	6	

Indoor Air Quality continued...



IAQ Material Use	Pt	Date Completed
<p>23 <i>Zero formaldehyde OSB (PMDI binder only) used in subfloor.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating installed subfloor is zero formaldehyde <u>or</u> inspection by approved NC HBH inspector.</p>	2	
<p>24 <i>Formaldehyde-free particle board/MDF used for cabinets.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating installed cabinets are zero formaldehyde <u>or</u> inspection by approved NC HBH inspector.</p>	2	
<p>25 <i>Formaldehyde-free particle board/MDF used for shelving/countertops.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating installed shelving/countertops are zero formaldehyde <u>or</u> inspection by approved NC HBH inspector.</p>	2	
<p>26 <i>All surfaces of any particle board product are painted with water-based sealer (Reference Manual will specify inside cabinets, underside of countertops, shelving, top and bottom of stair treads).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating all surfaces sealed <u>or</u> inspection by approved NC HBH inspector.</p>	1	
<p>27 <i>Use paints and finishes that have minimal VOC content. Standard is less than 150 grams/liter of VOCs for light colors (LRV of 60% or higher) and 250 grams/liter of VOCs for other colors.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	2	
<p>28 <i>Use non-toxic paints and allow VOC's to dissipate prior to occupation of dwelling.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection</p>	4	

Indoor Air Quality continued...



		Pt	Date Completed
29	<p><i>Only low toxicity, solvent free adhesives used throughout. Standard is less than 150 grams/liter of VOCs.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	2	
30	<p><i>Use low VOC stains and finishes on wood floors and wood work.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	2	
31	<p><i>Use water-based urethane finishes on wood floors.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	3	
32	<p><i>Use low VOC carpet certified by the Carpet & Rug Institute.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating carpet installed is certified by CRI.</p>	1	
33	<p><i>Ceramic tile installed with low toxic adhesives and plasticizer-free grout.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	1	
34	<p><i>100% Formaldehyde-free insulation throughout house.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by NC HBH approved inspector.</p>	1	

Indoor Air Quality continued...



		Pt	Date Completed
35	<p><i>Certified environmentally safe spray foam cavity insulation or other formaldehyde free, low VOC, low toxic insulation.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	3	
36	<p><i>Zero formaldehyde OSB (PMDI binder only) sheathing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	3	
37	<p><i>Alternative termite treatment such as physical barrier system or borate treatment that is approved by the North Carolina Department of Agriculture.</i> See http://www.agr.state.nc.us/str-pest/Termiticide_List.html.</p> <p>EXPECTED DOCUMENTATION: Plans: Indicate termite treatment to be used on plans. Field: NONE Other: Item Compliance Signature Sheet signed by responsible party.</p>	2	

Materials Opportunities



	Pt	Date Completed
<p>1 <i>House does not exceed 2500 square feet of conditioned area (excluding crawl space)</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, note heated and unheated square footages. Field: Final walkthrough Other: NONE</p>	10	
<p>2 <i>House does not exceed 2000 square feet of conditioned area (excluding crawl space)</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, note heated and unheated square footages. Field: Final walkthrough Other: NONE</p>	20	
<p>3 <i>House does not exceed 1500 square feet of conditioned area (excluding crawl space)</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, note heated and unheated square footages. Field: Final walkthrough Other: NONE</p>	30	
Construction Material Waste		
<p>4 <i>Minimize construction site waste by using materials wisely and prohibit burying construction waste; recycle job site waste (>25%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by builder. Photo of the construction site waste recycling area including posted construction waste management plan.</p>	3	
<p>5 <i>Minimize construction site waste by using materials wisely and prohibit burying construction waste; recycle job site waste (>50%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by builder. Photo of the construction site waste recycling area including posted construction waste management plan.</p>	5	
<p>6 <i>Minimize construction site waste by using materials wisely and prohibit burying construction waste; recycle job site waste (>75%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by builder. Photo of the construction site waste recycling area including posted construction waste management plan.</p>	7	

Materials Opportunities continued.



		Pt	Date Completed
7	<p>Central, organized cutting area for project site.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of centralized cutting area illustrating use and organization of wood remnants and Item Compliance Signature Sheet signed by responsible party or inspection by approved NC HBH inspector.</p>	2	
8	<p>Donation of excess materials or re-use of materials (min \$500/job).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Copy of Receipt with name of Donation/ Reuse Center illustrating the value in dollars of total materials donated.</p>	3	
9	<p>Job site framing plan with locations of studs, joists, and roof structure with cut list.</p> <p>EXPECTED DOCUMENTATION: Plans: On plans, include framing plan and a complete framing plan cut list. Field: NONE Other: Item Compliance Signature Sheet signed by responsible party.</p>	3	
10	<p>Drywall (recycle or grind and spread on site) (100%).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by recycling facility indicating receipt of material waste and photo documentation of onsite recycling collection area or photo documentation of spreading ground drywall on site and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	1	
11	<p>Recycle wood waste (or grind and spread on site) (100%).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of onsite recycling collection area and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	3	
12	<p>Recycle metal waste (100%).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of onsite recycling collection area and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	1	
13	<p>Recycle cardboard waste (100%).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of onsite recycling collection area and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	1	

Materials Opportunities continued...



		Pt	Date Completed
14	<p><i>Recycle plastic(s) waste (100%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of onsite recycling collection area and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	1	
15	<p><i>Recycle shingle waste (100%).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of onsite recycling collection area and Item Compliance Signature Sheet signed by responsible party indicating 100% compliance.</p>	1	
Exterior/Structural System Materials			
16	<p><i>Concrete with fly ash (min 25% fly ash) for slab/floor.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Indicate percentage of fly ash, copy of trip tickets indicating concrete type and Item Compliance Signature Sheet signed by responsible party indicating compliance.</p>	3	
17	<p><i>Recycled concrete or glass cullet used for aggregate in concrete.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Indicate concrete composition with aggregate, copy of trip tickets indicating concrete type and Item Compliance Signature Sheet signed by responsible party indicating compliance.</p>	2	
18	<p><i>Dimensional or engineered lumber from third-party certified sustainably harvested sources used for floor framing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Certificate indicating lumber is from third-party certified sustainably harvested sources and letter signed by lumber supplier indicating amount of lumber that was purchased.</p>	4	
19	<p><i>Engineered alternative replaces large dimension solid lumber (2x10 or greater) in 90% or more of floor area (i.e. trusses, joists).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Provide photo documentation of non-exposed engineered lumber or inspection by approved NC HBH inspector.</p>	3	

Materials Opportunities continued...



		Pt	Date Completed
20	<p><i>Oriented strand board (OSB) made from fast growth material.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Receipt of purchase for OSB citing project name <u>or</u> inspection by approved NC HBH inspector.</p>	1	
21	<p><i>Continuous foundation termite flashing.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final walkthrough, where visible</p> <p>Other: Photo documentation of termite flashing illustrating that all seams and penetrations are sealed <u>or</u> inspection by approved NC HBH inspector.</p>	1	
22	<p><i>Use non-solvent based damp proofing</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Photo documentation of damp proofing installation <u>or</u> inspection by approved NC HBH inspector.</p>	1	
23	<p><i>Dimensional or engineered lumber from third-party certified sustainably harvested sources used for wall framing.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Certificate indicating lumber is from third-party certified sustainably harvested sources and letter signed by lumber supplier indicating amount of lumber purchased.</p>	3	
24	<p><i>Engineered alternatives to wood framing for 80% of structure.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by NC HBH approved inspector.</p>	4	
25	<p><i>Engineered wall framing (25% of studs).</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Provide photo documentation of finger-jointed studs <u>or</u> inspection by NC HBH approved inspector.</p>	1	
26	<p><i>Finger-jointed studs for 100% of stud wall framing.</i></p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final walkthrough, where visible.</p> <p>Other: Provide photo documentation of finger-jointed studs <u>or</u> inspection by HBH inspector.</p>	2	

Materials Opportunities continued...



	Pt	Date Completed
<p>27 <i>All headers are steel (with thermal break) or engineered wood.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide photo documentation of non-exposed engineered lumber/steel headers <u>or</u> inspection by approved NC HBH inspector.</p>	1	
<p>28 <i>Install window and door flashing per diagrams in the Reference Manual.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by NC HBH approved inspector.</p>	2	
<p>29 <i>Natural stucco, with drainage plane, on 50% or more of exterior wall area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Photo documentation of installation illustrating drainage plane appropriately installed <u>or</u> inspection by approved NC HBH inspector.</p>	3	
<p>30 <i>Exterior cladding (min 3 sides with 40-year warranty or masonry).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Copy of manufacturer's warranty (as required)</p>	1	
<p>31 <i>Back and edge-primed siding and trim.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by NC HBH approved inspector.</p>	2	
<p>32 <i>Indigenous stone on 50% or more of exterior wall area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating stone origin.</p>	4	
<p>33 <i>Wood siding is 100% from third-party certified sustainably harvested sources, 50% or more of exterior wall area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Certificate indicating lumber is from third-party certified sustainably harvested sources <u>and</u> Item Compliance Signature Sheet signed by responsible party indicating compliance.</p>	2	

Materials Opportunities continued...



	Pt	Date Completed
<p>34 <i>Fiber cement siding on 50% or more of exterior wall area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	2	
<p>35 <i>Recycled and/or recovered-content siding (minimum 50% pre- or post-consumer) on 50% or more of exterior wall area.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance.</p>	1	
<p>36 <i>Dimensional or engineered lumber from third-party certified sustainably harvested sources used for roof framing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Certificate indicating lumber is from third-party certified sustainably harvested sources and letter or receipt signed by lumber supplier indicating amount of framing that was purchased.</p>	3	
<p>37 <i>Engineered alternative replaces large dimension solid lumber (2x10 or greater) in 90% or more of roof structure area (i.e. trusses, joists).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible. Other: Provide photo documentation of non-exposed engineered lumber or inspection by approved NC HBH inspector.</p>	2	
<p>38 <i>All beams are steel, engineered wood, or trusses.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide photo documentation of non-exposed engineered lumber or inspection by approved NC HBH inspector.</p>	1	
<p>39 <i>Fiber cement fascia and soffit.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	2	
<p>40 <i>Use OSB roof decking.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party or inspection by approved NC HBH inspector.</p>	1	

Materials Opportunities continued...



		Pt	Date Completed
41	<p>Engineered exterior trim including soffit, fascia, and trim.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by approved NC HBH inspector.</p>	1	
42	<p>Recycled-content roofing material.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating product specified was the product installed.</p>	3	
43	<p>Light roof color (tile or metal).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Indicate reflectance of material and Item Compliance Signature Sheet signed by responsible party indicating product specified was the product installed.</p>	2	
44	<p>Provide roof drip edge.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	1	
45	<p>Roof gutters/ downspouts that discharge water 5 feet away from foundation.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	1	
46	<p>Covered entry ways (all doors; min. 2'-0" deep, max. 2'-0" above door).</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	2	
47	<p>Recycled-content (minimum 25%) insulation.</p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of completed installation <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	1	

Materials Opportunities continued...



	Pt	Date Completed
<p>48 <i>Recycled-content (minimum 75%) insulation.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of completed installation <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	2	
<p>49 <i>HCFC-free rigid foam insulation.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	1	
<p>50 <i>Outdoor structures, decking and landscaping materials made from recycled materials. (min. 40%)</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	2	
<p>51 <i>Outdoor structures, decking and landscaping materials made from third-party certified sustainably harvested lumber.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Certificate indicating lumber is from third-party certified sustainably harvested sources and letter signed by lumber supplier indicating amount of lumber that was purchased.</p>	3	
<p>52 <i>Floor plan adheres to 2-ft dimensions.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, provide drawings and notes indicating dimensional layout on 2' dimensions Field: Final Walkthrough Other: NONE</p>	2	
<p>53 <i>Use of any appropriate engineered wood products that reduce wood use in addition to those specifically indicated in the guidelines.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough if visible Other: Indicate product used. Photo documentation of installed engineered wood products indicated on plan <u>or</u> inspection by approved NC HBH inspector.</p>	3	

Materials Opportunities continued...



		Pt	Date Completed
54	<p><i>Specify salvaged, reclaimed or refurbished materials for 10% of structural materials</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party and a list indicating each type of material salvaged or reclaimed, where it was obtained, and where in the house it was installed.</p>	5	
55	<p><i>Finger-jointed plate materials used.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance or inspection by approved NC HBH inspector.</p>	2	
56	<p><i>Engineered plate materials used.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance or inspection by approved NC HBH inspector.</p>	2	
57	<p><i>Recycled-content sheathing used. (minimum 50% pre or post-consumer)</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance or inspection by approved NC HBH inspector at time of installation.</p>	1	
58	<p><i>Provide 34" wide doors to all habitable rooms and all hallways shall be at least 42" clear, finished.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: NONE</p>	2	
59	<p><i>Provide one accessible bathroom on the main floor with 1/2" sheet good blocking for future accessory installations. See Reference Manual.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Photo documentation of blocking prior to drywall with blocking location(s) provided to homeowner and Item Compliance Signature Sheet signed by responsible party indicating blocking is appropriately placed or inspection by approved NC HBH inspector.</p>	2	

Materials Opportunities continued...



Interior Materials		Pt	Date Completed
60	<p><i>Install min. 25% regionally obtained salvaged or reclaimed materials for 25% of floors and interior trim</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough where visible. Other: Describe flooring and trim obtained from regionally salvaged or reclaimed materials. Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by qualified NC HBH inspector at time of installation.</p>	4	
61	<p><i>Natural cork / 100% recycled or recovered content underlayment used-no Luan</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of underlayment <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	3	
62	<p><i>Soft or hard flooring/padding containing 50-100% recycled-content.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Photo documentation of underlayment <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	2	
63	<p><i>No use of permanently installed carpeting in the home.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: NONE</p>	3	
64	<p><i>Natural fiber carpet made with natural latex rather than SB latex backing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Photo documentation of backing <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	2	
65	<p><i>Natural linoleum in place of any vinyl sheet flooring or vinyl composition tile, with low toxic adhesives or backing.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	3	

Materials Opportunities continued...



		Pt	Date Completed
66	<p><i>Install min. 25% of flooring manufactured from rapidly renewable resource material (engineered product is acceptable).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party indicating compliance <u>or</u> inspection by approved NC HBH inspector at time of installation.</p>	2	
67	<p><i>Install min. 25% regionally obtained 3rd party certified sustainably harvested wood flooring and interior trim</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Certificate indicating wood flooring is from third-party certified sustainably harvested sources and letter signed by lumber supplier indicating amount of wood flooring purchased.</p>	3	
68	<p><i>Interior paints or finishes with recycled-content.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party.</p>	1	
69	<p><i>Engineered interior trim--Finger-jointed and/or MDF trim.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	1	
70	<p><i>Recycled and/or recovered content gypsum wallboard.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party <u>or</u> inspection by approved NC HBH inspector.</p>	2	
71	<p><i>No Luan doors (tropical hardwood).</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Item Compliance Signature Sheet signed by responsible party.</p>	2	
72	<p><i>Doors made from third-party certified sustainably harvested wood.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, describe doors. Field: Final walkthrough Other: Manufacturer's specifications or product data indicating wood used in doors has been</p>	2	

Materials Opportunities continued...



		Pt	Date Completed
73	<p><i>Recycled and/or recovered content doors.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough Other: Item Compliance Signature Sheet signed by responsible party.</p>	2	
74	<p><i>100% agricultural waste or 100% recycled wood particleboard/MDF for shelving/countertops.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final walkthrough, where visible Other: Item Compliance Signature Sheet signed by responsible party</p>	3	
75	<p><i>Interior living space adheres to 2-ft dimensions.</i></p> <p>EXPECTED DOCUMENTATION: Plans: On plans, Include construction notes or details describing layout dimensions. Field: Final Walkthrough Other: NONE</p>	3	

Bonus Opportunities



		Pt	Date Completed
1	<p><i>Built-in kitchen recycling center with two or more bins.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: Final Walkthrough Other: Provide description of built-in kitchen recycling center</p>	3	
2	<p><i>Provide local recycling contact.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide copy of list, signed and dated by homeowner on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	1	
3	<p><i>Provide household hazardous waste resources.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide copy of list, signed and dated by homeowner on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	1	
4	<p><i>Environmental checklist provided to the following subcontractors, as applicable to the project: Mechanical (and associated subs), Electrical (and associated subs), Plumbing, Controls, Solar/renewables, Landscaping, Site/waterproofing, Concrete/Floor System, Framing/Wall System, Siding, Masonry, Insulation, Roofing/Roof System, Drywall, Paint/Sealants, Casework, Flooring.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Copy of document and Item Compliance Signature Sheet signed by owner.</p>	4	
5	<p><i>Markets NC HealthyBuilt Homes program.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Detailed description of marketing activities, presentations, etc. - each to include organization, location, date, description of activity and number/names of attendees if possible.</p>	2	
6	<p><i>Provides environmental features checklist for walk through to owner.</i></p> <p>EXPECTED DOCUMENTATION: Plans: NONE Field: NONE Other: Provide copy of environmental features checklist, signed and dated by homeowner on Owner Certification of Checklist Item Compliance Signature Sheet (provided by NC HBH).</p>	3	

Bonus Opportunities continued...



		Pt	Date Completed
7	<p>Home safety certification.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final walkthrough</p> <p>Other: Copy of Home Safety Certification and letter signed by a member of the Home Safety Council Expert Network or fire or life safety professional indicating that the project design has been reviewed and approved for home safety features.</p>	1	
8	<p>Accessibility certification. (provided by the Center for Universal Design @ NCSU)</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final walkthrough</p> <p>Other: Copy of accessibility certification provided by the CUD @ NCSU.</p>	5	
9	<p>Include back up generator using Fuel Cell technology of 1 kW or larger size.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: Final Walkthrough</p> <p>Other: NONE</p>	6	
10	<p>Innovation points - Builder submits specifications for innovative products or design.</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: DEPENDENT UPON INNOVATION</p> <p>Field: DEPENDENT UPON INNOVATION</p> <p>Other: DEPENDENT UPON INNOVATION</p>	1-10	
11	<p>Builder is enrolled in Community HealthyBuilt Homes Program</p> <p>EXPECTED DOCUMENTATION:</p> <p>Plans: NONE</p> <p>Field: NONE</p> <p>Other: Copy of completed Enrollment Form indicating Community HBH Program.</p>	2	

PROCESS FOR EXISTING CHECKLIST ITEM REVISIONS OR NEW CHECKLIST ITEM INCLUSION
IN THE
NC HEALTHYBUILT HOMES PROGRAM STATEWIDE CHECKLIST

New or revised items for inclusion in the Statewide NC HealthyBuilt Homes Program Guidelines must be submitted for consideration:

1. *Submit 3 copies of the written item(s) to the following address:*

Attention: Ms. Dona Stankus

IES-NC Solar Center

NCSU

Campus Box 7902

Raleigh, NC 27695-7902

RE: NC HealthyBuilt Homes Program Guidelines

2. *Provide a written explanation for the change request or addition and any backup information required to fully explain the need for this item(s) in the program. Provide contact information for further discussion or the item will not be considered.*
3. *The item(s) will be forwarded to the Advisory Committee and a final decision about inclusion will be made by this committee.*
4. *The contact for the submitter of the item will be notified within three months of the postmark date concerning the status of the item.*

