

# Green Program Point Verification

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The following information is intended to provide support for Excel Homes' green claims referenced throughout the Green Building Scoring Tool. Excel's Green Program and Green Building Scoring Tool are based on the National Association of Home Builders' Green Home Building Standards, ICC 700-2009.

## 601.2

- 24" oc roof: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 pages 13 and 17, "Roof and Ceiling," and the attached image, [Standard Roof System](#), for an example. Note: this can be optioned to 12" or 16" oc by the customer or code; so it must be verified.
- Proper Sized Headers: This is an unpublished engineering standard. See the construction documents of the specified home for verification. See the attached the image, [Proper sized Headers](#), for an example.
- No Headers in Non-Bearing Walls: This is an unpublished engineering standard. See construction documents of specified home for verification and the attached image, [Non-Structural Wall](#), for an example.
- Double Rim Joists: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Floor Systems," and the attached image, [Typical floor framing](#), for an example.
- Ladder Blocking at Wall Connections: This is an unpublished engineering standard. See the construction documents of the specified home for verification and the attached image, [Ladder framing](#), for an example.

## 601.3

- Building dimensions and layout have been designed to reduce material costs and waste: It is the standard practice of Excel Homes to design and build with standard material sizes. Floors are 12", 13'-9" or 15'-9", wall heights are standardized and lengths are kept to 2" increments when possible. Modularization is the practice but not a mandate.

## 601.4

- Structural and framing details are provided: Excel makes use of AutoCAD and HSB to provide detailed structural drawings of the floor, individual walls and roof system. See the attached image, [Sample floor framing](#), for an example.

## 601.5

- Entire system is modular construction: Excel Homes builds only modular type construction. The builder may choose to stick-build other components on site, however.

#### 601.7

- Trim does not require additional paint or stain: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 14, "Interior," and the attached image, [Prefinished Trim and Painted Walls](#), for an example. Please note that trims are often custom-ordered to our customers' specifications and may not meet the stated standard, so verification is required.
- Window and door assemblies not requiring paint or stain: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 14, "Interior," and the attached images, [Prefinished Interior Door and Trim](#) and [Typical Window Install](#), for examples. Please note that windows and doors are often custom ordered to our customers' specifications and may not meet the stated standard, so verification is required.
- Wall systems or coverings not requiring paint or stain: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Interior Walls," and the attached image, [Prefinished Trim and Painted Walls](#), for an example. This is "primer paint"; additional coats are not required, but recommended.

#### 602.4

- Drip edge installed at eaves and gable roof edge: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Roof and Ceiling." See the attached image, [Drip Edge](#), for an example.

#### 602.9

- Tyvek or equal: This is not an Excel standard but required by the ICC-700. This is a forced option for this program. (House wrap will be standard with the 2010 APS update.) See the attached image, [Typical Home with House Wrap](#), for an example.

#### 602.10

- Ice barrier installed at 24" minimum: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Roof and Ceiling," and the attached image, [Standard ice and water shield](#). The Excel standard is 3'.

#### 602.12

- Flashing is installed around exterior doors and windows as standard: see method "A1" from the Fortifiber Building Systems installation instructions. See the attached image, [Typical Window install, Exterior](#), for an example.
- Flashing is installed at roof valleys: see the [Excel Set-up manual](#), pages 22-28, 47 and 50.

#### 603.3

- Excel minimizes scrap as part of its Standard Operating Procedure (SOP): Excel has an extensive initiative to hit zero landfill. This includes scrape reduction, recycling and repurposing. See the attached document, [Recycling Efforts](#), for additional detail.

#### 604.1

- Three major components with at least 25% recycled content:
  1. Blown cellulose attic insulation of recycled paper is standard with our ENERGY STAR Premium offering. Per Sheet 2 under MR Credit, the Applegate blown insulation is made from 85% recycled newspaper by weight. See the attached document, [Applegate Blown Insulation.pdf](#) for more information.
  2. Fiberglass batt insulation in the walls is greater than 30% recycled glass per the manufacturer. See page two of the attached [Knauf Insulation Greenguard pdf](#) for more information and the image, [Insulation, 6 sided contact](#), for an example.
  3. Merillat cabinets uses MDF / particle board sub structure made of 100% recycled and or scrap wood in the construction of cabinets. See [Merillat recycled PB in cabinets](#) to confirm manufacturer claim. Note, Merillat cabinets are the standard cabinet, but they may be omitted or changed to another manufacturer, so verification is required.

#### 605.1

- Waste management is SOP: Excel has an extensive initiative to hit zero landfill. This includes scrape reduction, recycling and repurposing. See the attached document, [Recycling Efforts](#), for additional detail.

#### 605.3

- Recycling is SOP: Excel has an extensive initiative to hit zero landfill. This includes scrape reduction, recycling and repurposing. See the attached document, [Recycling Efforts](#), for additional detail.

#### 606.1

- Bio-based products used:
  1. OSB subfloor: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Floor Systems." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  2. OSB exterior wall sheathing: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Exterior Walls." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  3. OSB roof sheathing: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Roof and Ceiling." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  4. LVL beams are commonly used when required for the span; see the specific floor plan for details. See the image, [typical LVL application at mate wall](#), for basic application.
  5. Open Web 2000 floor joists are commonly used in wet areas or specified by the customer; see the specific floor plan for details and image, [Typical wet area floor joist application](#), for an example.

6. MDF / PB are commonly used as the substrate for our base cabinetry and countertops. Merillat cabinets uses a particle board substructure made of 100% recycled and or scrap wood in the construction of cabinets. See [Merillat recycled PB in cabinets](#) to confirm manufacturer claim. Note, Merillat cabinets are the standard cabinet, but they may be omitted or changed to another manufacturer, so verification is required.
7. Our standard ENERGY STAR home has cellulose attic insulation. Blown cellulose attic insulation of recycled paper is standard with our ENERGY STAR Premium offering. Per Sheet 2 under MR Credit, the Applegate blown insulation is made from 85% recycled newspaper by weight. See the attached document, [Applegate Blown Insulation.pdf](#) for more information.
8. Other bio-based products exist. If one is substituted or does not apply, contact Excel for additional items based on your specific home.

#### 606.2

- Three plus major certified wood products:
  1. OSB subfloor: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Floor Systems." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  2. OSB exterior wall sheathing: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Exterior Walls." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  3. OSB roof sheathing: See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13, "Roof and Ceiling." Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).

#### 607.1

- Resource-efficient materials:
  1. Engineered trusses: Excel uses engineered wood trusses as standard. See construction documents for specific trusses used; also see the picture, [Standard Roof System](#).
  2. OSB: OSB floor and sheathing is standard. See the [Excel Homes Builder Home Price Estimator](#), Sec. 1 page 13. Also see the [Green Approved Products Certification #00001 from NAHB Research Center](#).
  3. LVLs: LVLs or engineered structural members are typical at the mate-line or large exterior wall openings of most products; see the specific plans for verification of points and the picture, [Typical LVL application at mate wall](#), for an example of product use.

#### 608.1

- Indigenous materials manufactured or produced within 500 miles of the plants. (All listed are within 300 miles of Liverpool, PA, and all current outlying plants are within 200 miles of Liverpool, PA.)
  1. Asphalt shingles are manufactured in PA with indigenous materials. See the attached email from the manufacturer, [Indigenous materials – Shingles](#), for verification.
  2. Accuvent roof baffles are made in Reading, PA. See the attached email from the manufacturer, [Indigenous materials – Roof Baffles](#), for verification.
  3. Crane siding is made in Columbus, OH. See the companies web site, [www.exteriorportfolio.com](http://www.exteriorportfolio.com).
  4. Fiberglass tubs and shower units are manufactured in PA. See the attached email from the manufacturer, [Indigenous materials – Tubs and Showers](#), for verification.
  5. Roofs trussed from UFP are produced in Gordon, PA. See the attached email from the manufacturer, [Indigenous materials –Truss and Lumber](#), for verification.
  6. Our cultured marble vanity tops are manufactured in Selinsgrove, PA. See the company's website, [www.kerricocorp.com](http://www.kerricocorp.com), for verification.
  7. Open web joist for our wet areas are from PA. See the attached email from the manufacturer, [Indigenous materials –Truss and Lumber](#), for verification.

#### 701.1

- At a minimum, all homes participating in the Excel Homes Green Starts Program must first meet the minimum ENERGY STAR requirements. However, this is a base minimum. See the attached [ENERGY STAR brochure](#).

#### 701.4

- At a minimum, all homes participating in the Excel Homes Green Starts Program must first meet the minimum ENERGY STAR requirements and the items listed here are requirements of the basic ENERGY STAR program. See the attached [ENERGY STAR brochure](#).

#### 901.4

- A minimum of 85% of the structural plywood used for floors and/or roof sheathing is compliant with DOC PS 1 and or DOC PS 2. See the [Green Approved Products Certification #00001 from NAHB Research Center](#).

#### 901.8

- Site-applied interior products are in accordance with section 4, for VOC limits. See the attached [Lo VOC Paints Standard](#) and/or [Optional paints](#) for more detail.

#### 902.1.1

- Spot vents from the bath and kitchen are vented to the exterior; optional Excel or builder- installed clothes dryer vents are to be vented to the exterior. This is an unpublished engineering standard. See construction documents of specified home for verification.

#### 902.1.2

- The standard Excel ENERGY STAR package includes an ES bath fan with automatic shut off timer in one bath. See the attached [ENERGY STAR brochure](#). Additional fans with timers must be optioned. See the ES specification for details and the Panasonic website for specific information on the FV-11VFL2 fan.

#### 902.1.3

- Kitchen fans are verified to 120 CFM and bath fans are verified to 70 CFM, Broan. See the Broan website for specific information on the 679F fan.

#### 902.1.4

- The standard ENERGY STAR package includes an ES bath fan with automatic shut off timer in one bath. See the attached [ENERGY STAR brochure](#). Additional fans with timers must be optioned. See the ES specification for details and the Panasonic website for specific information on the FV-11VFL2 fan.

#### 902.2.1

- The standard ENERGY STAR package includes an ES bath fan with automatic shut off timer in one bath. See the attached [ENERGY STAR brochure](#). Additional fans with timers must be optioned. See the ES specification for details and the Panasonic website for specific information on the FV-11VFL2 fan.

#### 902.6

- The standard ENERGY STAR package includes full caulking of the thermal envelope as standard. See the attached [ENERGY STAR brochure](#). See the ES specification for details.

#### 903.1

- It is mandatory and SOP for all tile areas to have tile backer when installed by Excel. This is an unpublished engineering standard. See construction documents of specified home for verification. It is the responsibility of the builder to ensure tile backer is properly installed for all field installed tile installed on-site.

#### 903.4

- It is SOP for Excel not to use any material with visible mold high moisture content in enclosed areas.

#### 903.4.2

- Excel's third party requires all materials to be installed as per the written instructions of the manufacturer. This includes moisture content of the substrate. See [SOP ESI-62-50-0001](#) for more details.

#### 903.5.1

- It is not standard practice for Excel to install any supply lines in exterior walls. Verify to specific plan.

#### Additional Support Information

- [Green Approved Certificate 2 Weyehaeuser Lumber](#)
- [Green Approved Certificate 4 Weyehaeuser Engineered Beams](#)
- [NFRC window sticker](#)
- [No voids in insulation](#)
- [Typical penetration of thermal envelope](#)