

EC3 Implementation Plan: CLF 2023 Baselines

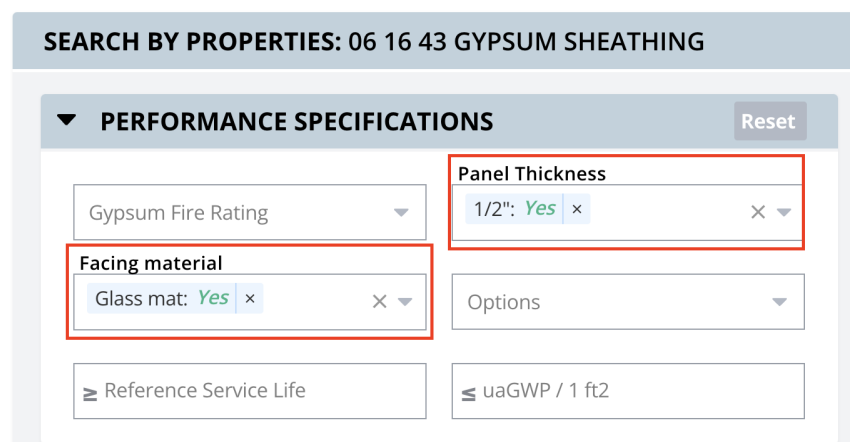
The following summarizes Building Transparency’s plan for implementing the [2023 CLF North American Material Baselines](#) in the EC3 tool. There are significant changes in the methodology of the 2023 baselines compared to prior versions, some of which are outlined below and which are detailed within the 2023 Baseline report itself. CLF has communicated that the 2023 Baselines should be treated as a resource, adaptable to a policy’s, program’s or tool’s particular needs. Due to the changes in methodology, Building Transparency has had to modify its approach to implementation from previous years.

I. Changes in CLF Methodology and **EC3 Implementation Approach**

A. 2023 CLF Baselines have more granular specificity within material categories.

1. For example, there are 3 different baseline values for polyiso insulation, and 4 different baseline values for polyurethane foam insulation. Some of the specific performance filters related to these values do not yet exist in EC3.
2. **EC3 will not be implementing all of the values in the 2023 CLF Baseline report due to expected usability issues. Reference the phased implementation plan table in section II of this document for details. Additionally, EC3 will be creating a public template of the materials included in the CLF 2023 baseline report with collections mapped so users have a guide for selecting the appropriate specification filters. For example, to view the 2023 CLF baseline for Glass-mat gypsum board: 1/2" (12.7 mm), users will need to select the filters according to the screenshot below.**

🏠 AllMaterials / Sheathing / Gypsum Sheathing



SEARCH BY PROPERTIES: 06 16 43 GYPSUM SHEATHING

▼ PERFORMANCE SPECIFICATIONS Reset

Gypsum Fire Rating	Panel Thickness 1/2": Yes ×
Facing material Glass mat: Yes ×	Options
≥ Reference Service Life	≤ uaGWP / 1 ft2

- B. 2023 CLF Baseline values are lower than previous years.
1. 2019 and 2021 CLF Baselines were based on the 80th percentile (or “high value”), whereas 2023 CLF Baseline values are based on Industry-Wide EPD values, which are averages.
 2. **EC3 will implement some of the CLF 2023 Baseline values rather than the CLF’s 80th percentile of the category (found in the appendices). EC3 will highlight the fact that the 2023 CLF baseline values are lower by referring to them as industry averages. Project teams using the 2023 baseline values can expect to achieve lower percentage reductions on projects in EC3 due to the significant change in methodology.**
- C. 2023 CLF Baselines do not include uncertainty.
1. Uncertainty is not included in the new baselines and are not comparable to previous CLF baseline values/methodology per CLF 2023 Baselines Appendices, section “A2: Changes Between 2023 and 2023 CLF Baselines”.
 2. **EC3 will implement certain CLF 2023 Baseline values as reported without uncertainty.**
- D. Scope of materials covered in 2023 baselines has changed.
1. There are several material categories that had baseline values in the 2019 and/or 2021 CLF baselines that are not included in the 2023 baseline report. CLF 2023 baseline report does not include:
 - a) Flowable fill, shotcrete, cement grout
 - b) CMU for North America
 - c) Cross Laminated Timber (CLT), Nail Laminated Timber (NLT), Dowel Laminated Timber (DLT)
 - d) Wood I-Joists
 - e) Fiberglass Blanket Insulation
 - f) Loose-fill fiberglass
 - g) Acoustical Ceiling Tiles (ACT)
 - h) Carpet
 - i) Fiber Data Cabling and Twisted Pair Data Cabling
 2. **EC3 will create a new option to generate a CLF 2023 excel report. This report will be treated the same as the LEED reports, in that if a material is included in the EC3 model but does not have a CLF baseline value, that material will be excluded from the report. EC3 will modify the existing elements report and the baseline percentage reduction will be compared against the conservative value rather than the CLF 2021**

baseline value. For users that wish to continue using the CLF 2021 or 2019 baseline values, reporting options will be available.

E. Regional Specificity

1. The CLF 2023 Baselines include several values with regional specificity including the NRMCA Regional Benchmarks for ready-mix concrete, Canadian regional benchmarks for ready-mix concrete, and Canadian regional benchmarks for CMU.
2. **This is straightforward for users in EC3 who are creating a specific project in Plan & Compare Buildings where the location of the project is known. In the case where a user is browsing EPDs in Find & Compare materials, the user would need to know the state or province that corresponds to the defined region of the Industry-Wide EPD or benchmark report. EC3 is working on implementing new features to assist users with identifying the appropriate baseline for these categories. Note these categories are included in Phase 2 of our implementation plan.**

F. Naming

1. **Given the changes in methodology from previous years, EC3 will be calling the CLF 2023 baselines “2023 Industry Averages [CLF] in the tool.**

II. Phased EC3 Implementation Plan

Phase 1 - Date TBD

- USA Ready-Mixed Concrete National Benchmarks (all strength classes)
- Rebar - unfabricated
- Rebar - fabricated
- Hot-rolled sections - unfabricated
- Hot-rolled sections - fabricated
- Plate steel - unfabricated
- Plate steel - fabricated
- Hollow structural sections (HSS) - unfabricated
- Hollow structural sections (HSS) - fabricated
- Cold-formed steel framing
- Open-web steel joists
- Steel decking
- Aluminum extrusions - mill finish
- Aluminum extrusions - painted
- Aluminum extrusions - anodized
- Thermally-improved aluminum extrusions - painted

- Thermally-improved aluminum extrusions - anodized
- Wood framing
- Laminated Veneer Lumber (LVL)
- Laminated Strand Lumber (LSL)
- Glue laminated timber (GLT)
- Softwood plywood
- Oriented Strand Board (OSB)
- Glass-mat gypsum board: 1/2" (12.7 mm)
- Glass-mat gypsum board: 5/8" (15.9 mm)
- Roll-formed metal panel - steel
- Roll-formed metal panel - aluminum
- Metal composite material (MCM) panel
- Single ply membrane roofing - PVC (40 mils)
- Single ply membrane roofing - PVC (48 mils)
- Single ply membrane roofing - PVC (60 mils)
- Single ply membrane roofing - PVC (80 mils)
- Flat glass panes
- Gypsum board: 1/2" Lightweight
- Gypsum board: 5/8" Type X
- Homogeneous Vinyl Flooring
- Heterogeneous Vinyl Flooring
- Rubber Flooring
- Vinyl Composition Tile (VCT)
- Vinyl Tile
- Rigid Core Flooring

Phase 2 - Date TBD

- USA Ready-Mixed Concrete Regional Benchmarks (all strength classes, all regions)
- Canada Ready-Mixed Concrete Regional Benchmarks (all strength classes, all regions)
- CMU - Eastern Canada, Lightweight
- CMU - Eastern Canada, normal weight
- CMU - Western Canada, lightweight
- CMU - Western Canada, normal weight
- Portland Cement
- Expanded polystyrene (EPS)
- Extruded polystyrene (XPS)
- Heavy density mineral wool board
- Mineral wool blanket
- Loose-fill cellulose
- Loose-fill mineral wool

Not planning to implement in EC3 at this time

- Blended hydraulic cement
- Portland-limestone cement
- Masonry cement

- Closed-cell spray polyurethane foam - 2K-LP
- Closed-cell spray polyurethane foam - medium density
- Closed-cell spray polyurethane foam - roofing
- Polyiso - wall
- Polyiso - roof - GRF facer
- Polyiso - roof - CFG facer