

Issue	Comment
<p>Use of Credit Numbers</p>	<p>In LEED v4, credit numbers have been removed. Only full credit names are used to designate credit category prerequisites and credits.</p> <p>This seemingly removed the ability to use the abbreviated credit number for referencing requirements within the specifications.</p> <p>Recognizing that the use of credit names may increase the uptake of LEED concepts in greater margin than generic credit numbers, our team decided a hybrid approach: We created both credit numbers for our scorecards and inserted them into the specifications for ease of reference, as well as used the credit names in the specifications to assist with dissemination of LEED concepts and to remove any possible ambiguity of the credit in discussion. E.g. IEQc2, Low-Emitting Materials</p>
<p>Approaches for Targeting MR Credits: Cost-Based vs. Number of Products</p>	<p>The usual approach for LEED v3 projects to achieve points with materials credits was to target the cost-based credits for recycled content and regional materials. A cost-based recycled content credit still exists in LEED v4, and its new version allows for the inclusion of FSC wood and other material attributes to count towards credit compliance.</p> <p>However, there is a 30% cap to the cost value that structure and enclosure materials can contribute toward credit compliance for cost-based MR credits. As such, the easiest path to meeting the new LEED v4 MR credits to be finding the 20 products needed for EPDs and HPDs, as opposed to the cost-based credits. And, once have enough universally applicable EPD and HPD products you can earn those credits on any project.</p>
<p>Problem with Credit “Options”</p>	<p>While multiple credit options for credit compliance existed in previous versions of LEED, LEED v4 contains credit options in several critical material credits that are written into specifications, including all of the BPDO credits. This presents the challenge of ensuring credit “options” written into the specifications are not interpreted as “optional”.</p> <p>One suggestion was to include the definition of LEED Credit Options in the Definitions section of the 01 81 13. Ultimately, our team decided that by including the Options paired to their full credit name it would be understood that these were not “optional” though confusion may still exist, and the project team may choose to write in the performance requirements of the credit, while removing the term option altogether.</p> <p>Care will also be needed when in reviewing substitution requests when multiple BPDO options are being pursued simultaneously.</p>
<p>Definitions</p>	<p>In local market survey of preliminary LEED v4 Specifications, we found projects using anywhere from as few as 10 definitions to as many as 30 definitions. Our team ultimately settled on 17 of what we thought are the most critical to be understood for LEED v4 projects, though any and all definitions may be deleted (or any may be added) per specifier’s preference.</p>

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<p>Lack of Flexibility in Offering Multiple Compliance Paths to General Contractor</p>	<p>Although LEED is a flexible system that offers multiple credit options for pursuing credit compliance, specifications do not offer the same flexibility. In the most technical sense, specifications are a legally binding set of directives that indicate the general contractor’s scope of work. That is to say, what is written in the specifications is expected to be followed and executed by the general contractor, so what is expected of them must be clear, and it must be attainable.</p> <p>This presented a challenge in at least two instances. One was whether or not - in practice - our individual project specifications (not the Master Spec we created) could or should include credit options that are not presently attainable given current market conditions at the time, e.g. EPD or HPD credits on public bid projects that require three equal products when three equals don’t exist in sufficient quantities for credit achievement. Here, with rapid market progression, most of us decided we would include the EPD and HPD credit targets and obtain as much documentation toward achievement in the Construction Administration process, even if we didn’t ultimately earn the credit.</p> <p>The other instance where this posed an issue was in the desire to add a statement that would put the greater onus on the contractor to achieve credits, but allowing them more flexibility in determining their approach. Something similar to the following was suggested: “The Contractor is responsible to maximize procurement of products, materials, and procedures that obtain these prerequisites and credits, even if the section does not specifically reference LEED”. This was determined to be not enforceable and not compatible with the standards for specification language structure, and was removed in favor of more concrete directives.</p>
<p>Generally Acceptable Specifications Language</p>	<p>If attempting to edit and/or write your own specifications and you are not a spec writer, it is important to be aware that there are formatting and language formalities that make specifications the enforceable documents that they are. As such, sections should be written in a directive manner to the contractor, repetition should be avoided, and ambiguous words such as the following should be avoided: should, could, would, may, etc. When in doubt follow the 4 C’s of specs: (Clear, Concise, Correct, and Complete).</p>
<p>Creation of a Specification Master and Working from MasterSpec® What to Include?</p>	<p>AIA/ARCOM MasterSpec® is an editable master guide specification, based on CSI MasterFormat®, which allows users to edit each section for their specific project. Our team reviewed this document and edited it to reflect the new requirements of LEED v4.</p> <p>We attempted to include relevant current information for LEED v4 projects. The result is that you will see more items included in our specifications than you may need for your specific project, so you will edit mostly by deletion. We did not include credits where we see no clear path to credit achievement at this time.</p>

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<p>Whether to Keep Regional Materials (Location Valuation Factor in LEED v4) in Contractor Submittal Form</p>	<p>With the reduction of the regional materials compliance distance reduced from 500 miles to 100 miles for materials extracted and manufactured within that radius, and new requirement the whole product has to be 100% regional because parts of assemblies no longer qualify, and that the product must also possess some other qualifying underlying BPDO attribute, we know that many project teams may not be able to obtain any regional products.</p> <p>However, we included it in our contractor submittal form nonetheless, as we know the importance of and support regional product purchasing and want to encourage its consideration whenever possible.</p>
<p>Inclusion of M/E/P Passive Equipment</p>	<p>For the first time, passive mechanical, electrical, and plumbing equipment is eligible for materials credits. In our early experience, there are items in these categories that will qualify for BPDO credits, and project teams will need to take additional effort in working with engineering teams to ensure inclusion of BPDO-compliant products and standards. The earlier that you can work with your engineers to have the conversation about updating their specifications and process of product submittal review, the easier it will be on the project team.</p>
<p>Whether or not to keep existing achievable thresholds for FSC Wood and Recycled Materials</p>	<p>In our general LEED v3 01 81 13 specs and in the AIA/ARCOM MasterSpec® there are thresholds for certain materials credits that prompt the project teams to select their target percentages (by cost) for how much of a given material they want the contractor to target and take ownership of, e.g. 50% of the wood to be FSC certified.</p> <p>Now that the traditional LEED v3 materials credits have been rolled into one single BPDO credit (Sourcing of Raw Materials), we discussed whether or not the past thresholds for things such as FSC wood that we know are reasonably attainable should still be included. The group decided for our master spec we would not include those thresholds, though individual project teams may still choose to do so.</p>
<p>General Emissions Evaluations – Availability and Compliance</p>	<p>In our initial LEED v4 project work, it was found to be the case that even if manufacturers had a general emissions evaluation (GEE) for a product, many product reps may not be aware of that fact. Dealing directly with a manufacturer’s sustainability coordinator proved to be the most productive way of verifying this information. We also found that certain general emissions evaluations may exist for a product that are not compliant with the LEED reference standard (CDPH SM v1.1 - 2010).</p> <p>Most of these preliminary issues should become less significant as more manufacturers increase compliance, and the recently published USBGC chart of compliant third party standards that use CDPH SM v1.1 as the test protocol is a great tool for project teams to take the guess-work out of whether or not a product meets the GEE testing standard.</p>

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<p>Environmental Product Declaration (EPD): Use Types and Declaration Types</p>	<p>Not all EPDs are created equally, and some EPDs allow for multiple uses of the same product within a project.</p> <p>Industry-wide (generic) EPDs used in different functional ways on a project may be counted separately for each different functional use up to 10 different times on a project, provided that each time it is used there are separately reported impacts within the EPD. For example, if ready-mix concrete has an industry-wide EPD for member organizations (it does), and the mixture percentages are adjusted slightly for different uses on a project (but is still using the same ingredients), e.g. structural columns versus slabs versus sidewalks, each different use can theoretically be counted separately each time toward EPD credit compliance.</p> <p>Also, there are three types of EPDs, and project teams should take care when writing specifications and selecting products to ensure that they are aware which EPD type they are working with in each instance, and how much it is weighted by LEED.</p>
<p>Health Product Declaration (HPD) Types</p>	<p>It is important to note for both specifications and material tracking that simply because a product has an HPD, that does not make it compliant for LEED v4. It is possible for a product to have an HPD that hasn't disclosed its material ingredients down to the required 1000 ppm (and probably more products with HPDs have this issue than those that don't), so ensure that when dealing with HPDs you are verifying they are LEED v4 compliant.</p>
<p>Shop labor and material costs</p>	<p>Though not a new aspect of LEED v4, the often overlooked and not fully known eligibility of shop labor to be included in a product's cost for LEED material tracking in LEED v4 is of increased significance. With structure and enclosure materials being capped at 30% of the value of compliant products for BPDO credits, capturing the shop labor for other compliant items – which can be substantial – will be of even more value to the project team.</p>
<p>How to best ensure credit compliance – the non-finish materials approach</p>	<p>With BPDO credits for EPDs and HPDs only needing 20 products from 5 different manufacturers, our strategy – inspired by our peers – has been to target non-finish materials (drywall, suspended ceiling grids, etc.) that don't have an aesthetic impact for EPD and HPD compliance, as their ability to stay on a project and stay in the specs in perpetuity is significantly higher than a carpet tile, for example.</p> <p>Once you have achieved a sufficient number of EPDs and HPDs that are aesthetic-independent and are used on all projects, you can earn the EPD and HPD credits for all projects moving forward. (This is the idea of the google spreadsheet we are sharing with the audience).</p>

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<p>Inclusion of Furniture as a Low-Emitting Material</p>	<p>As of publication of this tip sheet, there are no apparent existing credit interpretations or reference guide corrections that amend current LEED reference guide language indicating that furniture must be included in the low-emitting credit tracking if it is included in the project scope of work (i.e. installed prior to occupancy), regardless of whether or not it is included as part of the architect’s direct design scope. This would lead a project administrator to think that furniture had to be tracked and included if the low-emitting credit was going to be pursued.</p> <p>However, our team has received different feedback from the USGBC via the “Contact Us”, which indicates the opposite to be true: “regardless of whether furniture is within or outside of scope, teams do not have to attempt compliance with the furniture category, if they do not want to.”</p> <p>“The definition of scope provided in the Step-by-Step Guidance is to clarify for teams that want to attempt this category, that all furniture must be included if it is installed at the time of occupancy, regardless of who specified or provided it. This is to ensure that no furniture is excluded.”</p> <p>Project teams should use whatever approach they feel is most appropriate, and reference LEEDuser and credit interpretations for the most up to date conversation on the topic.</p>
<p>Other Low-Emitting Materials Items</p>	<p>New low-emitting categories such as ceilings, walls, and insulation have been added into consideration which should be taken into account by project teams if they want to pursue those new categories.</p> <p>For wet applied products, if the product category is not 100% compliant across all products, then a volume tracking method must be employed, which has traditionally been familiar to project teams as the VOC budget methodology. This is an additional dimension of paperwork and documentation that should be considered when creating a strategy for low-emitting materials.</p>