

Leadership in Energy and Environmental Design (LEED) Guidelines

1. What is LEED and what are its credits?

It is a system to measure 'green buildings' by the USGBC (United States Green Building Coalition, a non-profit organization dedicated towards building a greener environment.)

According to the LEED 2009 Green Building Rating System for New Construction and Major Renovations performance standards (or LEED 2009, as it is commonly known), a building can get certified, Silver certified, Gold certified or Platinum certified. Certification is awarded based on the number of points obtained. The higher the points obtained, the higher the certification. These points are obtained based on the building satisfying certain credits charted out by the LEED 2009 performance standards.

When the credits are achieved and enough points are accumulated, projects may achieve one of four different certifications as mentioned above. To be LEED certified the building needs to obtain 40-49 points, Silver certification requires 50-59 points, Gold certification requires 60-79 points and Platinum certification requires more than 80.

Credits are divided into 7 categories:

- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy and Atmosphere (EA)
- Materials and Resources (MR)
- Indoor Environmental Quality (IEQ)
- Innovation in Design (ID)
- Regional Priority (RP)

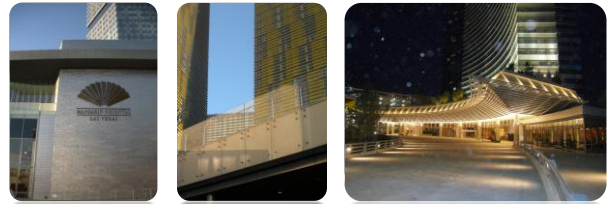
2. How can Sierra Metals inc. help you? [Contact us](#) for more information.

Sierra Metals inc. can boost your new construction project's LEED points total - UPTO **12 POINTS** can be earned:

- MR Credit 4.1 – RECYCLED CONTENT (10%- BASED ON MATERIALS COST) **3**
- MR Credit 4.2 – RECYCLED CONTENT (20%- BASED ON MATERIALS COST) **3**
- MR Credit 5.1 – REGIONAL MATERIALS (10%- BASED ON MATERIALS COST – WITHIN 500 MILES) **3**
- MR Credit 5.2 – REGIONAL MATERIALS (20%- BASED ON MATERIALS COST – WITHIN 500 MILES) **3**
- IEQ Credit 4.1– LOW EMITTING MATERIALS **1**
- ID Credits – INNOVATION IN DESIGN **5**

Visit the USGBC website for complete summary of credits and methods to earn them.





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3. Sierra Metals' products contribution towards LEED points:

MR CREDIT 4 – RECYCLED CONTENT

Intent –

Reduce environmental impact resulting from processing *new* material.

How to achieve? –

Use recycled material such that **post-consumer content** + $\frac{1}{2}$ **pre-consumer content** = at least 10% of total material value.

Breakdown –

4.1 – 10%

4.2 – 20%

Exemplary – 30%

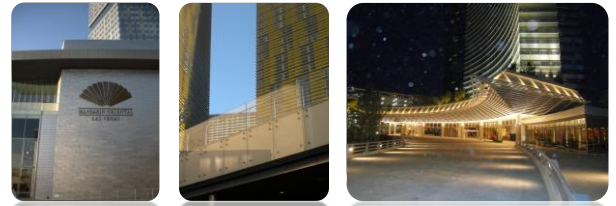
As an example of how Sierra metals Products can earn LEED points, let us consider a typical Aluminum Composite panel (ACM Panel). ACM panels used as an example here is only a part of the entire wall cladding. The total recycled content of the panels should be combined with the other components of the cladding system to determine the contribution of the wall cladding to the overall project point qualification.

A typical Sierra ACM Panel is composed of the aluminum skins, sealant and extrusions. Various vendors provide Sierra Metals Inc. with these fragments, and upon requesting a desire to gain LEED points, Sierra Metals ensures that these vendors provide us with material using recycled content to meet the LEED requirements. We then provide our design-assist service by filling out the LEED PRODUCT INFORMATION FORM provided by the general contractor and calculate the percentages of virgin content, post consumer recycled content and pre-consumer recycled content.

The recycled content value of material assembly is determined by weight. The recycled fraction of the material assembly is then multiplied by the cost of the assembly to determine the recycled content value.

(<http://www.usgbc.org/ShowFile.aspx?DocumentID=5546>) page 52.

Up to 3 LEED points can be earned.



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MR CREDIT 5 - REGIONAL MATERIALS

Intent –

Reduce environmental impact resulting from transportation.

How to achieve? –

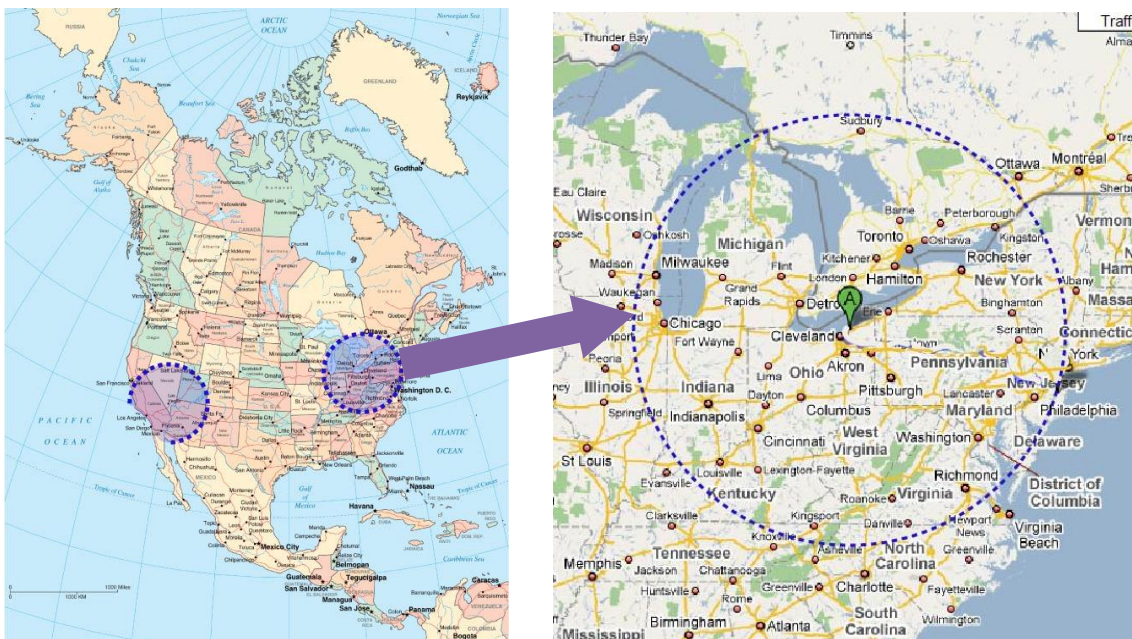
Use material/products that have been manufactured within **500 miles** of the project site for at least 10% of total material value.

Breakdown –

- 4.1 – 10%
- 4.2 – 20%
- Exemplary – 40%

Sierra metals inc. would fill out another LEED PRODUCT INFORMATION FORM provided by the general contractor and would calculate the distance between the project site and our facilities. The map below shows that we can cover more than 12 states within a 500 mile radius from the Mentor facility, including Pennsylvania, Illinois, Indiana, New York etc. and 4 states from our Las Vegas Facility.

Up to 3 LEED points can be earned.





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IEQ CREDIT 4.2 - LOW-EMITTING MATERIALS

Intent –

Reduce indoor air contaminants resulting from *interior materials*.

How to achieve? –

low VOC paints and coatings.

1 point can be gained by using metals in the interior of the building that are coated with low volatile organic compounds (VOC). Also, by factory applied coatings, the need for field painting and resulting VOCs are eliminated, if any is present.

ID- INNOVATION IN DESIGN

Intent –

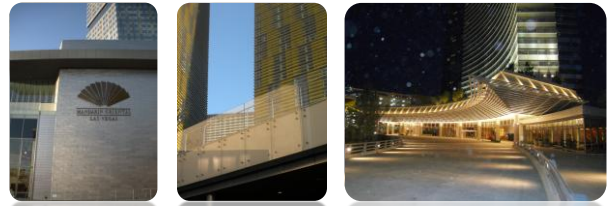
To provide design teams an opportunity to achieve exceptional/innovative performance.

How to achieve? –

innovation in design or exemplary performance.

With some innovation and collaboration between the design team and Sierra Metals Inc., and by achieving significant, measurable environmental performance using a strategy not already addressed in the LEED 2009 Rating system, up to 5 points can be earned in this category.





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4. Our LEED projects:

The city center project in Las Vegas has aimed to achieve a LEED Gold rating and Sierra Metals Inc. has had a considerable contribution towards the same by working on projects such as:

- THE VEER TOWERS
- THE VDARA HOTEL
- THE MANDARIN ORIENTAL HOTEL
- THE PEDESTRIAN BRIDGE

The VDARA Hotel



The PEDESTRIAN Bridge



The VEER Towers