

■ Archatrak LEED | Prime & NM Adjustable Paver Supports

The data below is based on information provided by our manufacturer, Eterno Ivica. Archatrak believes that a number of our products can be used to generate LEED points. However, we understand that only the U.S. Green Building Council (USGBC) or GBCI (Green Building Certification Institute) is qualified to award points and grant LEED certification based on their current Green Building Rating System. As such, Archatrak Inc. does not guarantee that any of its products will earn LEED points but is willing to share the summarized information below from our manufacturer to help you through the ever-changing process. Please consult with a sales representative for further details.

SS Credit 6.1 & 6.2

(1 point & 1 point)

Stormwater Design – Quantity & Quality Control

Intent: This credit is to limit disruption and pollution of natural water flows by managing stormwater runoff.

The building design requires the implementation of a stormwater management plan that reduces impervious cover, promotes infiltration and captures and treats the stormwater runoff from 90% of the average annual rainfall¹ using acceptable best management practices (BMPs).

BMPs used to treat runoff must be capable of removing 80% of the average annual post development total suspended solids (TSS) load based on existing monitoring reports.

Alternative surfaces such as pervious pavement are capable of reducing imperviousness and promote infiltration and thereby reduce pollutant loadings.

‘Prime’ and NM paver supports are designed to support and complement a pervious flooring system, regardless of the flooring material used (wood, tiles, etc.).

This feature will positively support any Stormwater Management Plan, therefore supporting the credit.

WE Credit 1.1

(2 to 4 points)

Water Efficient Landscaping

Intent: This credit is to limit or eliminate the use of potable water or other natural surface or subsurface water resources available on or near the project site for landscape irrigation.

To obtain this credit It is required to reduce potable water consumption for irrigation by 50% from a calculated midsummer baseline case or using the month with the highest irrigation demand.

One possible strategy is the use of captured rainwater.

Considering the technical features of ‘Prime’ and NM paver supports previously described, these can be part of an efficient rainwater capturing system, therefore supporting this credit.

EA Prerequisite 2 & EA C1

(Prerequisite 1–19 points)

Energy Performance

Intent: This Prerequisite and this credit is to establish the minimum level of energy efficiency for the proposed building and systems to reduce environmental and economic impacts associated with excessive energy use.

The implementation requires the building envelope and systems to be designed to meet baseline requirements, using a simulation model to assess the energy performance and identify the most cost-effective energy efficiency measures. The final step is to quantify energy performance compared with a baseline building.

A pedestal system, as the main component of a “chambered” structure, can be part of a ventilated roof.

Ventilated roofs are characterized by a ventilated air space between the insulation coating and the underside of the surface. Ventilated roofs differ from unventilated roofs in their different types of insulation. In a ventilated roof, any moisture is evaporated into the ventilated air space and passed to the outside, and the building will also have advantages as far as thermal performance, due to significant improvement in the thermal transmittance coefficient of the roof (Uw-value).

Moreover, 'Prime' and NM paver supports are made of polypropylene with certified transmittance performance, within limits defined by Italian law (D.L. 26/01/2010)

In conclusion, evaluating them as "static" components not fitting directly into energy modelling figures, it is expected that the use of 'Prime' and NM paver supports in a ventilated and chambered roof would significantly reduce the building HVAC cost, therefore supporting this credit.

MR C4

(1–2 points)

Recycled Content

Intent: This credit is to increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

'Prime' and NM paver supports are mainly made of recycled polypropylene, mostly originated by the fragmentation of waste molds and other previously used material subject to be delivered to the appropriate collection facilities.

Considering that some small parts are made with virgin rubber, the assumption is made that the products, regardless of specific size, are made with 99% of post-consumer recycled content.

To support this credit, Archatrak can issue a specific declaration from the manufacturer in accordance with ISO Standard 14021, providing specific details on the percentage of weight of recycled materials on specific product delivery.

EQ P3 & C9

(Prerequisite 1–2 points)

Acoustical Performance (LEED for Schools)

Intent: This credit is to provide classrooms that are quiet and in which teachers can speak to the class without straining their voices and students can effectively communicate with each other and the teacher.

Classrooms and other core learning spaces are required to be designed to meet the Reverberation Time (RT) requirements of ANSI Standard S12.60-2002, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools. Also, classrooms and other core learning spaces should be designed to meet the Sound Transmission Class (STC) requirements, except windows, which must meet an STC rating of at least 35.

OPTION 1 requires using the methodology described in annexes B through D of ANSI Standard S12.60-2002, to achieve a maximum background noise level in classrooms and other primary learning spaces of 45 dBA.

45dB or higher = Prerequisite not met. The building cannot be certified

40dB to 35dB = 1 point

35dB or lower = 2 points

Due to the bi-component head, 'Prime' and NM paver supports can provide up to 25dB noise reduction compared to other plastic paver support systems. Closed cell high density insulation foam, 3mm thickness, can also be installed under the base of the paver supports to provide additional noise reduction.

Exterior decks installed with 'Prime' and NM paver supports have been tested for acoustical performance and contribute to achieving low background noise inside the building, therefore supporting this credit.

Summary

LEED CREDIT	POINTS	Title	FEATURES
SS C6.1 & 6.2	1 & 1	Stormwater Design - Quality & Quantity Control	Pervious flooring system
WE C1.1	2	Water Efficient Landscaping	Supports water capturing systems
EA P2 EA C1	Prerequisite 1 to 19	Energy Performance	Possible contribution for ventilated roofing system
MR C4	1 to 2	Recycled Content	Postconsumer content
EQ P3 & C9 (LEED for Schools)	Prerequisite 1 to 2	Acoustical Performance	Design & components contribute towards ANSI & STC Standards