

Environmental & LEED Attributes of Precast Concrete Lift Stations

The use of precast concrete lift stations is a sensible choice for sustainable development. Precast plants reuse formwork, in itself a conservationist move, and in doing so reduce construction waste that would otherwise be generated at a job site. Because precast concrete lift stations are standardized they are installed in a quicker fashion and result in reduced construction times and energy usage, noise and emissions from on-site equipment and in reduced site impact.

The cement used in concrete is made of natural materials such as limestone and clay. Most cement plants rely on nearby limestone quarries. The cement industry has made significant progress in reducing carbon dioxide emissions and energy usage in the last 30 years and is continually striving to make further reductions.

In addition, cementitious material used in concrete often contains manufacturing byproducts such as fly ash and blast furnace slag that would otherwise find their way to a landfill. Waste water can be recycled for use in manufacturing. Steel used for concrete reinforcement is typically composed of 95 percent post-consumer recycled content. Aggregates used in the manufacturing of precast concrete lift stations are generally extracted and manufactured regionally.

Concrete is a very strong and durable material, which is a significant sustainable attribute. It will not rust, rot or burn and has a service life of up to 100 years.

Precast concrete lift stations are a smart choice for projects applying for LEED certification. Most of the credits shown also have additional innovation in Design points that are tied to exemplary performance of the credit listed.

LEED for Neighborhood Development Pilot Scorecard

Credit	Description	Credits Available	Comments
SLL Prerequisite 2	Smart Location & Linkage: Proximity to Water and Wastewater Infrastructure	Required	Precast concrete lift stations allow a project to utilize existing utilities.
GIB Credit 6	Green Infrastructure & Buildings: Minimize Site Disturbance In Design and Construction	1	Precast concrete lift stations install in a small footprint and can utilize existing utilities, minimizing site disturbance.
GIB Credit 14	Green Infrastructure & Buildings: Recycled Content in Infrastructure	1	Precast concrete lift stations may contain supplementary cementitious materials such as fly ash and blast

			furnace slag which will add to the project's recycled content goals.
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