

Proposed Hillman Marsh Nature Centre

Essex Regional Conservation Authority, Essex County, Ontario, Canada

Envisioned as an eco-friendly and environmentally pro-active space for education, the mixed-use Hillman Marsh Nature Centre was conceived as a shelter that allows visitors to experience the wetlands with minimal impact on the natural aspects of the marsh by employing an engaging envelope and raised platform methodology. Possessing the necessary amenities to host an array of user events within the multi-use internal and external spaces the building exposes its structural elements to highlight a relationship that embraces the environment. Key to it's development is the shelter's purpose as a **sustainable-plus** enclosure designed to be a net zero facility to return more resources than it will consume. To accomplish this the Hillman Marsh Centre's orientation allows passive use of cool breezes, solar power, and daylighting in a highly efficient building encapsulation ensuring minimal operating and maintenance costs. Embedding a segment of the building visually into the ground to connect grade level landscaping to green walls and then to a green roof while raising another area over the marsh allows the structure to capture summer winds as they cool along Lake Erie with the planted areas filtering, providing evaporative cooling, and breaking predominant winter winds by natural means. Photovoltaic systems lining a sloping roof allows day lighting at the entry while the harvested 'grid' energy illuminates the interior with high performance fixtures at night. Movable display containing educational features are located above glass areas in the floor that provide views to the thriving marsh below. Fitted with various multi-media capabilities alongside the inspiring outward views also make the facility a highly desirable location to host special events for the communities it serves.

