

CASE STUDY



**ELZINGA
VOLKERS**

CONSTRUCTION PROFESSIONALS

Valley Health Center – Greenhouse® Homes

Grand Rapids, MI

Project Team

Owner: Porter Hills Retirement Communities and Services

Design Team: Dorsky Hodgson Parrish Yue Architects

Project Awards and Recognition

Associated Builders and Contractors of West Michigan 2009 Winner for Green Building – Medical – Under \$5 million

United States Green Building Council – LEED® Silver Certification

Project Details

Skilled Nursing Facilities – Greenhouse® Care Model

Two 4,500 SF Buildings

Completed in Fall of 2009



Unique Challenges

Solutions

State Regulation

Detailed planning and review of building components. Knowledge of State Regulation and regular consultation with State Agencies.

LEED® Certification

Geothermal Heating and Cooling System, Construction Waste Diversion, and Enhanced Building Commissioning

Residential Feel in Regulated Building

Custom door and hardware integration, Unique Toilet Room Design with Integrate Patient Lift System. Craftsmen Style Woodwork, Unique Appliances, and a Residential Style Kitchen

Project Overview

The goal of the Greenhouse® Model is to de-institutionalize long-term care by eliminating large nursing facilities and creating warm, home-like, social settings. Porter Hills embraced this nationwide movement toward a new way of caring for our seniors. Not only that, they wanted to build the projects in an environmentally responsible way, Porter Hills decided early on to follow the LEED® guide lines as well.

Overlooking the beautiful wetlands of Porter Hills' Cook Valley Estates, the Greenhouse® Homes used earth tone colors, natural materials, and native plantings so the buildings fit into the surroundings. The footprint of the developed area was kept to a minimum to preserve open space. The Geothermal wells that provide the heating and cooling were deepened to 400' so they all could fit under the parking lot.

Constructed simultaneously, the homes share a common secure courtyard and garden area. Designed and built to be as homelike as possible, the homes include a large, open kitchen and gathering area with an adjacent living room. A private library and enclosed front porch provides quiet respite areas for the homes 10 residents.

As a State licensed skilled nursing facility, the Valley Health Center Homes were required to meet all the regulations of a traditional nursing home. Integrating home like features such as a residential style kitchen and custom wood doors was a challenge to the design and construction team. Traditional residential door hardware had to be integrated with a sophisticated fire alarm and security system. A commercial style hood and special appliances were used in the kitchen to ensure patient safety.

One of the most unique design features is the integrated resident lift system in the homes 10 private rooms. Hidden discreetly in the rooms ceiling, the lift can take a patient from their bed to the toilet room with ease. The toilet room walls and doors are not constructed to the ceiling to allow the lift to pass.

Porter Hills set the goal of LEED® certification early on in the planning process. In addition to the challenges of combining residential style construction and Skilled Nursing Regulations, the project team was successful in earning LEED® Silver certification from the US Green Building Council. LEED® aspects of the project include; enhanced commissioning, 10% recycled content, local sourcing of materials, low emitting materials and all possible credits for occupant comfort and day lighting. Elzinga & Volkers and a great team of subcontractors were able to divert more than 85% of the construction waste away from the landfills.

As the country's first LEED® certified Greenhouse® Homes, the Valley Health Center at Porter Hills is a place of care, comfort and environmentally responsible living.



86 East Sixth Street
Holland, MI 49423
Office: 616.392.2383
Fax: 616.392.3752
www.elzinga-volkers.com