The project involved the construction of a brand new educational and community centre to be used as a case study that will give a better understanding of energy consumption and the use of environmentally friendly construction materials.

The main community building is a modern passive construction incorporating a central steel frame structure using JJI-Joists to span between roof purlins. The external timber frame walls are built using JJI-Joists wall studs incorporating wood fibre insulation within & wood fibre performance boards on the inner & outer face of the wall frame. The project is supported by the European Union, the Flemish government and the province of East Flanders.

In design terms the Kollebloem follows the three pillars of passive buildings: airtightness, source energy limits and ventilation. JJI-Joists are ideal to help meet these design targets as it is relatively simple to achieve an airtight structure which has high levels of insulation, as well as easily being able to incorporate MVHR service ducts.

The finished building has an energy demand for heating of just 13kW/m² a year. The use of timber within the structure helps reduce the building’s carbon footprint, with the JJI-Joists providing 9427kg CO2E negative units.

The attractive external timber cladding allows the building to naturally sit and blend into the surrounding woodland environment.

---

**Case Study**

**De Kollebloem-Heusden**

Curtain wall of deep section JJI-Joist wall studs

Flat roof joists used within main hall

-9427kg CO₂ saved using JJI-Joists. Find out more at: www.jamesjones.co.uk/pas-2050

---

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>GEMEENTE HEUSDEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISTRIBUTOR</td>
<td>VC WOOD</td>
</tr>
<tr>
<td>PROJECT VALUE</td>
<td>€2M</td>
</tr>
<tr>
<td>JJI-JOISTS</td>
<td>2700LM</td>
</tr>
<tr>
<td>CONTRACTOR</td>
<td>KAPCONSTRUCT</td>
</tr>
<tr>
<td>ARCHITECT</td>
<td>MARK BERNAERT ARCHITECENATELIER BVBA</td>
</tr>
</tbody>
</table>

Greshop Industrial Estate, Forres, Moray. IV36 2GW
Tel: 01309 671111
www.jamesjones.co.uk/ewp

June 2015
The JJI-Joist system relies on a unique combination of engineered products designed to complement each other and deliver outstanding performance.

JJI-Joists are the UK’s market-leading I-Joist and the brand most specified by architects. JJI-Joists are the only UK manufactured I-Joist with FSC Certification and a carbon negative impact figure to PAS:2050 standards.

JJI-Joists are capable of large spans. They are light-weight, long and strong. Suitable for floors, walls and roof projects.

Greshop Industrial Estate, Forres, Moray. IV36 2GW
Tel: 01309 671111
www.jamesjones.co.uk/ewp

June 2015