

Red Deer Greenhouse

Study with SAIT

2,204
BUILDING
SQ FT

4.5
ENVELOPE
BUILD TIME (DAYS)

50%
ESTIMATED
ENERGY SAVINGS

0
DISPOSAL BINS
REQUIRED

4
TECHPANEL
INSTALL CREW

1
TECHPANEL
TRANSPORT
TRUCKS



ZS2 partnered with SAIT to build a passive solar greenhouse for an elementary school in Red Deer, Alberta. The greenhouse serves as a year-round place for the school to grow various plants, despite the relatively cold climate in Alberta, while using virtually no energy. The TechPanel walls and roof ensure that the building will be energy-efficient and create a safe, non-toxic, and mold-free environment for the students and plants. During the building process, sensors were added to the panels, allowing SAIT to monitor the efficiency of the panels during the rapid weather fluctuations throughout the year. The greenhouse was also finished with special clear polycarbonate sheets that work with the TechPanels to trap in as much heat as possible while still allowing abundant natural light for the plants to thrive.