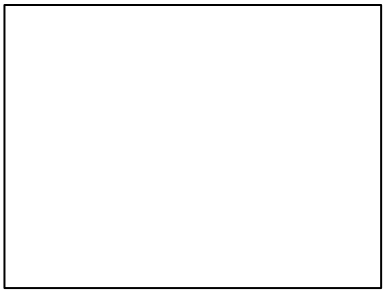
Barrel Roof Solution

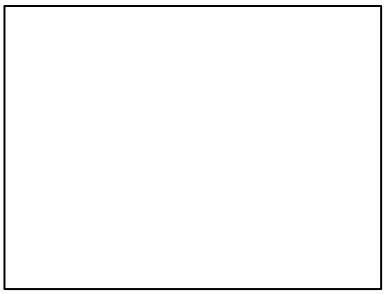
The Challenge

A school board in Ontario, Canada had a portfolio of elementary schools that wanted to install solar. The schools had many different roof sections and roof types, which required varying designs. Several of the schools had a domed roof sections which required solar and was critical to be utilized to meet the desired photovoltaic capacity. Many of the domed roofs were over gymnasiums, so it was important to minimize the quantity of mechanical attachments.



The Solution

TerraGen was able to offer a custom solution which not only maximized the number of panels that could be installed on the dome section of the roof but also significantly reduced the number of roof penetrations. The design involved utilizing a custom zero degree ballasted flat roof system which. With the base rails sitting on the roof and the system fully ballasted for uplift, a minimal number of anchors was required only to resist sliding. TerraGen strategically designed roof contact points through the base rails and custom designed splices to absorb the angular changes between rows while maintaining the rigid structure. A TerraGen representative was on site during the installation to provide training and direction to the crew which resulted in a faster and more efficient installation.



The Result

TerraGen's ability to custom design to suit individual project needs helped overcome the site-specific challenge that was faced on this portfolio which would have otherwise required thousands of roof penetrations. The school board was able to achieve their solar production requirements and foster a positive environment in the community.