



## Rooftop Solar PV CASE STUDY

# Manheim Darlington Phase I

The Manheim Darlington complex is located adjacent to the Darlington Speedway where Nascar's Darlington 500 is held each year on Labor Day weekend. Because there are no high rises or tall trees on or around the site, our engineers were faced with designing a ballasted racking system suitable for high wind loads of up to 120 MPH. This challenge was overcome by a specially designed ballast layout.

In addition, we had to keep in mind an appropriately sized system which requires accurate utility data from the facility over the course of a year. Luckily our PowerEnfo meter had already been in place for well over 12 months which allowed us access to accurate real-time energy analytics – giving us insight into the facility's demand and usage patterns. This data gave our engineers the tools they needed to make an appropriate system recommendation to maximize performance and ROI for this project.

## Project Goals

- Under a 3 year payback
- Receive Duke solar rebate
- Offset 50% of electric bill



System Size

175KW



ROI Payback Period

1.8 Years



Energy Savings

57%