



"I've always found that Tom and his team are professional and knowledgeable, add value to our conversations, and bring a lot to the table."

**-Halsey L., Project Manager
EcoPlexus**

Milpitas Pump Station

YEARS OF EXPERIENCE

Business Needs

The Milpitas Sewage Pump Project was commissioned to reduce and off set the cost of energy for the City of Milpitas. This former sewage treatment facility was the ideal location for solar power generation with the use of carport structures and ground mounts. While the site offered an open lot for elevated structures and ground mounts, pipes, conduits, unstable foundation, and other underground obstacles remained from the former sewage treatment facility. In order to maximize the land usage for solar PV structures, McCalmont Engineering had to navigate the submerged obstacles and avoid the new sewage piping at the facility.

Solution

Our experienced solar designers mapped the multiple layers of plumbing and foundation to assure that the carport structure columns would not hit any major gas or electrical lines. Where our solar designers mapped shallow foundations, we designed the system around these obstructions or adapted the foundations to them. Where our solar designers mapped deeper obstacles, we designed the system to be safely installed over these obstructions. McCalmont Engineering coordinated with the City of Milpitas to salvage the usable underground piping and run new conduits and lines to facilitate the new PV system.

Since the sewage treatment facility is rarely used, the site doubles as a storage facility where city trucks can pick up and drop off items. To accommodate the larger trucks, McCalmont Engineering designed the carport structures to a vehicle clearance height of 16 feet.

Benefits

McCalmont Engineering solar designers and engineers designed a ground mount and carport solution that retained the integrity of existing underground plumbing while making optimal use of the mostly unused site. Our years of experience in the solar industry prepared us for complex design and project coordination that transformed this inactive pump facility into a valuable distributed solar energy generation facility for the City of Milpitas.

Project Specifications

Location:	Milpitas, CA
Size:	397 kW
Completed:	October 2012
Type:	Carport & Ground Mount
Scope:	Full engineering & design
Inverter:	Advanced Energy
Modules:	PV Powered & Power-One
Racking:	Canadian Solar
	M-Bar-C & Schletter