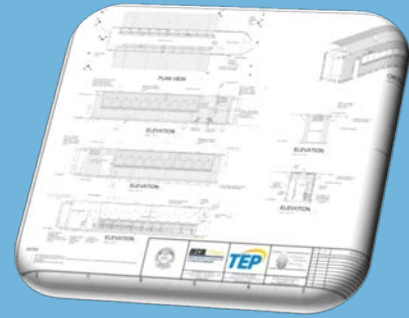
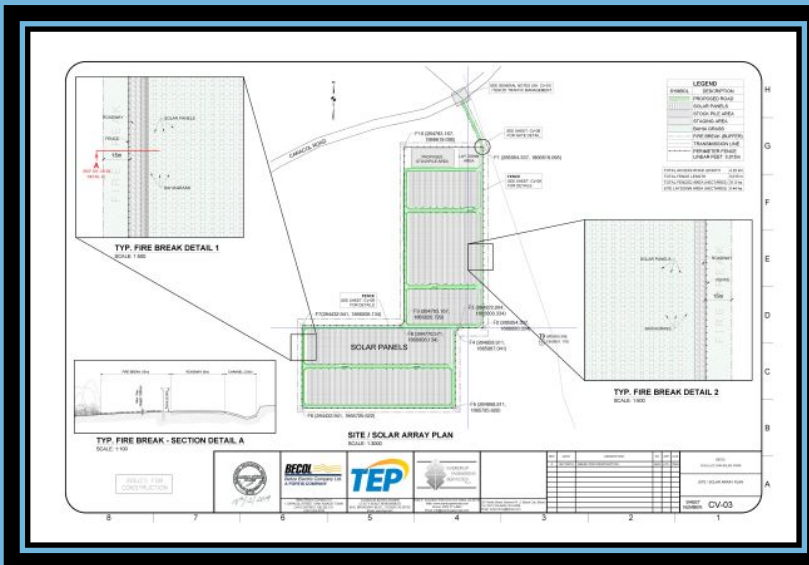


# SVERDRUP ENGINEERING SERVICES

## PROJECT EXPERIENCE



### Chalillo 10MWAC SAT Solar Facility

San Ignacio, BZ

Full Civil, Electrical, and Structural system design for 10MWAC Single Axis Tracking Facility near Chalillo Dam in Belize Central America.

**Owner:** Belize Electric Company Limited

**Design:** June 2019

Civil design included survey, drainage report, storm water evaluation, road design, site grading and drainage, fencing, and permitting. Structural design included specifying and reviewing geotechnical report, transformer/inverter foundation design, review of rack support/foundation design from rack manufacturer, DC combiner/disconnect support/foundation, and weather station support/foundation design.

**Inservice:** TBD

Electrical design included 30-year energy production estimate using PVsyst, DC field layout, rack/post layout, modules, string sizing, AC one-line, DC wiring diagrams, cable/conduit schedule, cable/conduit routing, weather station, grounding, and detail sheets. A full material list was provided with manufacturers part numbers to ensure cost control and that contractor purchased and installed quality components that would last 30 years. Calculations include; string sizing, voltage drop, row to row spacing (shading), conduit fill, cable ampacity, cable/conduit pull, grounding, short circuit, protection device coordination, and arc flash calculations. Major system components were SMA Peak3 125KW inverters, Canadian Solar 410-415-watt modules, Single Axis Trackers, SolarBOS combiner boxes, and Eaton DC disconnects. Performed QA/QC over construction, completed commissioning and start up.